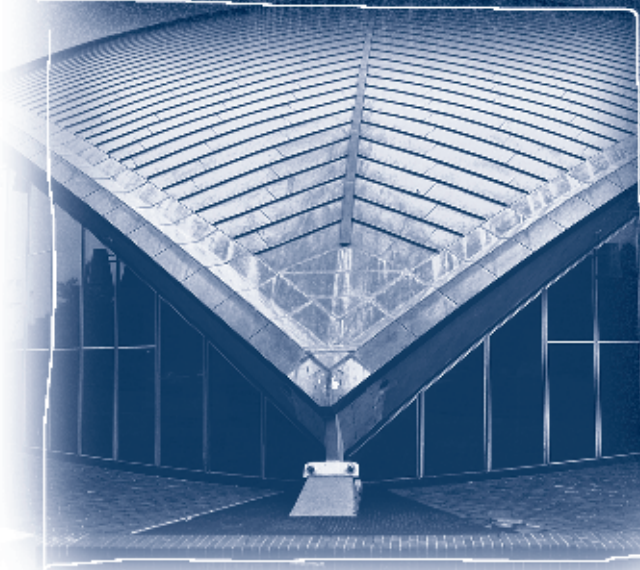


Are Arms Races in Higher Education a Problem?



Although hierarchy in higher education is nothing new, it has become far more important than in the past. Why this change? The short answer is that the economic reward for elite educational credentials has jumped sharply in recent decades. According to Robert Frank, the H. J. Louis Professor of Economics at Cornell's Johnson Graduate School of Management, this shift has been driven in part by the spread of "winner-take-all" markets. Long familiar in sports and entertainment, these are markets in which differences in reward depend more on differences in rank than on absolute differences in performance. Frank argues that the growing importance of rank in higher education has spawned a variety of positional arms races that have increased costs sharply and threatened the continued viability of need-based financial aid. He concludes with thoughts on how we might limit the waste associated with costly positional arms races.

Robert Frank Cornell University

Winner-Take-All Markets

The market for higher education is fundamentally different from the typical market portrayed in economics textbooks. When excess demand arises in the market for an ordinary good, it is almost always fleeting: producers rush to fill the void, or prices rise sufficiently that the market quickly clears. Not so in the upper reaches of the academic market. Despite the persistence of excess demand, selective colleges and universities continue to turn away thousands of well-qualified applicants, while charging those they admit only about one-third of what it costs to serve them.

Why don't these universities simply raise their prices? Because a university's status depends heavily on the average intellectual ability of its students, selective universities need top students every bit as much as top students feel the need to attend such institutions. This codependence creates multiple positive-feedback loops that amplify the rewards for a university that succeeds in its efforts to recruit top students and faculty. Small, initial differences in performance (or even small differences in the credentials used to predict performance) often translate into extremely large differences in reward. In higher education, as in other winner-takes-all markets, success breeds success, and failure breeds failure.

Increasing Importance of Educational Credentials

One result of the movement toward winner-take-all markets has been an explosion in the salaries paid to the handful of key players who are most responsible for an organization's success. Top American CEOs, for example, earned more than 500 times as much as the average worker in 2000, up from only 42 times as much in 1980. The top 1 percent of U.S. earners saw their real incomes rise by 157 percent between 1979 and 1997, a period during which the median income rose by only 10 percent.

The increase in financial stakes in the business community has spawned an extremely lucrative market for high-end services such as business consulting, investment banking, and corporate law—three fields of particular interest in understanding the increased demand for elite educational credentials. Each field is one in which a firm's rank is of paramount importance, and where elite firms are able to set extremely high prices and still attract more business than they can handle. As employers, such firms also have their pick of the most able college and professional school graduates—attracted by annual salaries of many hundreds of thousands of dollars.

Why don't these firms just offer less money and attract only the number of qualified applicants they need? As in the case of elite universities, hiring decisions in organizations whose fates hinge on rank are governed by a logic very different from the logic that governs hiring in ordinary markets. To sustain their elite reputations, top law and consulting firms need the graduates of elite universities just as much as those graduates need them.

After all, the firms are selling advice, perhaps the most difficult of all services to evaluate. Consulting firms, for example, send recruits barely out of school to advise seasoned professionals about what they should do with their businesses. Under the circumstances, establishing credibility is a tall order—perhaps an impossibly tall order for graduates of institutions with less than elite status. When the client knows that he is dealing with a graduate of an elite school, however, things are different. The client him-

The fact that highly selective colleges and universities are increasingly the gateway to professional positions offering six-figure starting salaries has fueled explosive growth in demand for elite educational credentials.

self may have gone to Stanford in the 1950s, but he knows that if he had applied to Stanford in the last decade, he probably would have been rejected. Although this knowledge may operate completely below the level of conscious awareness, it nonetheless confers an unmistakable gloss on the advice given by the elite-school graduate.

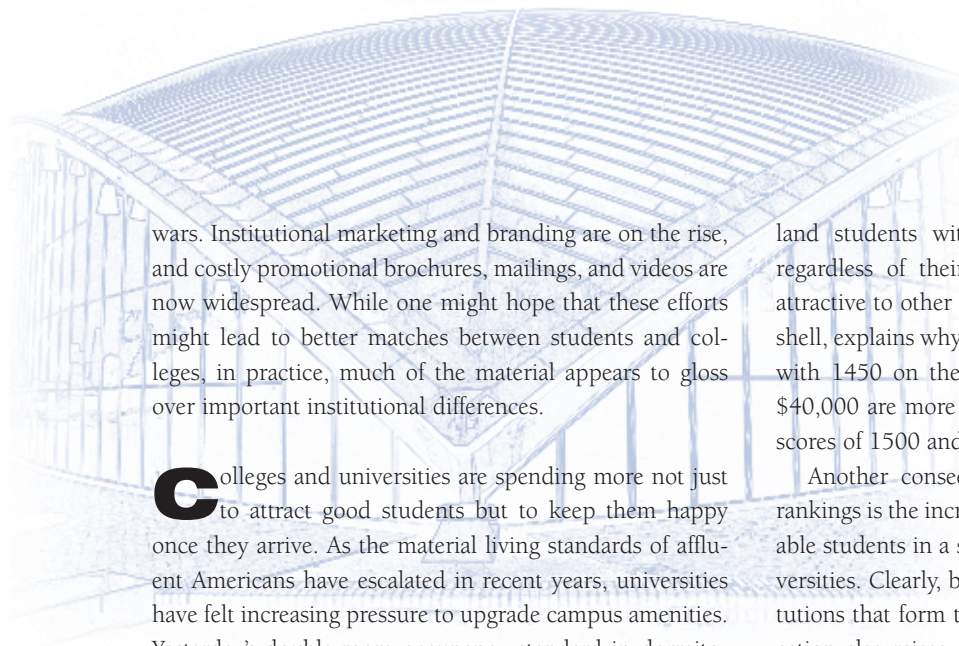
The fact that highly selective colleges and universities are increasingly the gateway to professional positions offering six-figure starting salaries has fueled explosive growth in demand for elite educational credentials. And it is this escalation in demand that explains the growing importance of academic rankings. The market for higher education, always a winner-take-all market, has become perhaps the quintessential example of such a market.

Consequences of Positional Arms Races in Academia

The growing importance of rank in the educational marketplace brings increasing pressure to bear on universities to bid for the various resources that affect their rankings. These pressures have spawned numerous positional arms races that have already proven extremely costly and promise to become much more so.

Many institutions are pursuing strategies of “selective excellence,” in which they focus on making their mark in a limited number of areas. Distinguished, highly visible faculty are one of the key ingredients in building targeted departments. Well-publicized bidding wars in recent years for so-called star faculty have led to ever-higher salaries, lower teaching loads, and more elaborate and costly support. The effects of this strategy reverberate throughout the academy: salary differentials among the faculty widen; staffing within and across departments becomes unbalanced; the conflict between institutions' reputational and teaching missions grows; and reliance on adjunct instructors increases. Bidding wars for the resources that confer high rank have placed enormous pressure on university budgets and have led to sharp tuition hikes.

Students too have become targets of these bidding



wars. Institutional marketing and branding are on the rise, and costly promotional brochures, mailings, and videos are now widespread. While one might hope that these efforts might lead to better matches between students and colleges, in practice, much of the material appears to gloss over important institutional differences.

Colleges and universities are spending more not just to attract good students but to keep them happy once they arrive. As the material living standards of affluent Americans have escalated in recent years, universities have felt increasing pressure to upgrade campus amenities. Yesterday's double-room occupancy standard in dormitories is being replaced by apartment-like suites that house one student per bedroom. Centralized athletic complexes are giving way to in-dorm training facilities that resemble expensive private health clubs. Dining halls are being supplanted by facilities modeled after the food courts in upmarket shopping malls. Multimillion-dollar, state-of-the-art classroom facilities are increasingly part of the mix. Universities that do not offer such facilities often fail in their efforts to attract the disproportionate share of high-achievement students who come from affluent families. But these same facilities also create new financial hurdles for middle- and low-income parents.

Vice presidents for enrollment management increasingly make admissions and financial aid decisions on the basis of regression models that predict the likelihood of each applicant's matriculation. For example, in an effort to boost their scores on the important yield measure in the *U.S. News & World Report* rankings formula, institutions often employ these models to identify and reject students who are unlikely to enroll. Students who are identified by the same models as being highly likely to enroll (such as those who indicate strong interest by making a campus visit) are often offered less financial aid than others with similar qualifications and need, but who did not make a campus visit.

Perhaps the most insidious effect of the positional arms race in higher education stems from the fact that the average SAT scores of the entering class now play such a prominent role in a university's ranking. In today's climate, failure to bid for and

land students with the highest possible test scores—regardless of their need—makes a university look less attractive to other top students and faculty. This, in a nutshell, explains why scholarships that once went to students with 1450 on their SATs and annual family incomes of \$40,000 are more and more likely to go to students with scores of 1500 and family incomes of \$400,000.

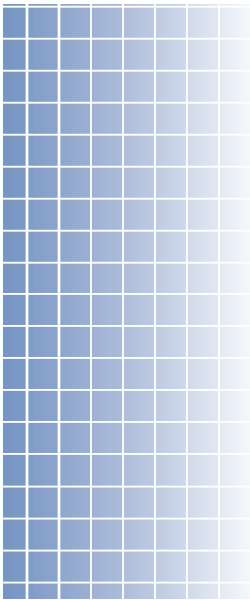
Another consequence of the growing importance of rankings is the increased concentration of the nation's most able students in a small number of our most selective universities. Clearly, benefits accrue to the students and institutions that form this small cadre at the top. Yet this allocation also raises equity concerns. Several studies report, for example, that family income is an important predictor of who applies to and attends a selective college, even after controlling for high school grades, test scores, parents' education, and other personal characteristics. Increased academic tracking probably makes sense pedagogically, but only up to a point. Whether we have passed that point remains an open question. But even if not, there are still grounds for concern about the implications of current trends for social mobility and fairness.

In sum, universities face increased pressure to pay higher salaries to star faculty; to spend more on marketing, student services, and amenities; and to offer ever-more generous financial aid to top-ranked students from high-income families. It is little wonder, then, that their financial situations have grown more precarious.

What Can Be Done?

Contestants in virtually every winner-take-all market face strong incentives to invest in steps that will help them edge out their rivals. But when reward depends on rank, behavior that looks attractive to each individual often looks profoundly unattractive from the perspective of the group. As in the classic military arms race, many such investments prove mutually offsetting in the end: when each nation spends more on bombs, the balance of power is no different than if none had spent more. Similarly, when each institution gives more aid to high-scoring students from

Contestants in virtually every winner-take-all market face strong incentives to invest in steps that will help them edge out their rivals. But when reward depends on rank, behavior that looks attractive to each individual often looks profoundly unattractive from the perspective of the group.



wealthy families, the distribution of these students across institutions remains largely the same as before.

Collusive agreements to restrain positional arms races can create gains for everyone. Antitrust authorities, therefore, should consider a retreat from their uncritical belief that unfettered competition leads to the greatest good in every instance. Manifestly, it does not. Collective agreements should be scrutinized according to the practical test of whether they limit wasteful effects of competition without compromising its many benign effects. In my view, the collective agreement among several selective universities to target their limited financial aid to students with the greatest need was a positional arms control agreement that clearly met this test—yet it was struck down by the U.S. Justice Department in an attempt to promote more open competition for top students. In markets in which reward depends on rank, there is simply no presumption that the markets’ “invisible hand” will guide resources toward the greatest good for all. On the contrary, more open competition for top students spells eventual doom for need-based financial aid, an outcome that is profoundly unattractive from a social standpoint.

Conclusion

No university, acting alone, can escape the powerful logic of the positional arms race. Yet there are compelling ethical reasons both for limiting the escalation in the cost of acquiring higher education and for basing financial aid more heavily on need than on merit. Indeed, the recent growth in income and wealth inequality makes the case for cost containment and need-based aid more compelling than ever. But such goals can be met only through collective action. Positional arms control agreements may be the only practical way to keep higher education within reach for the average American family.

Robert Frank is the H. J. Louis Professor of Economics at Cornell’s Johnson Graduate School of Management. His book, *The Winner-Take-All Society*, co-authored with Philip Cook, received a Critic’s Choice Award, was named a Notable Book of the Year by *The New York Times*, and was included in *Business Week*’s list of the ten best books of 1995.

