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Comments Solicited

Reaching for the Brass Ring: How the U.S. News & World Report Rankings Shape the Competitive Environment in U.S Higher Education

by

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I. Introduction

In a relatively short period of time the *U.S News & World Report* (henceforth *USNWR*) annual ranking of the nation’s colleges and universities as undergraduate institutions has become the “gold standard” of the ranking business. Perhaps this occurred because the *USNWR* ranking has the appearance of scientific objectivity (institutions are ranked along various dimensions with explicit weights being assigned to each dimension). Perhaps this occurred because institutions at the top of each category, for example the top 50 national universities, are ranked numerically within their categories and the American public wants to know which institution is number one.

Because of year to year changes in their rankings on the various dimensions that *USNWR* considers, or year to year changes in the weight that each dimension is given in computing the overall ranking, an institution’s ranking within its group may change from year to year. It is the change in the numerical rankings of institutions near the top of each institutional category, as well as the changes in the quartile rankings of some lower ranked institution from year to year that sells lots of copies of magazines. After all, if the ranking of institutions did not vary over time, there would be no need for families to have the most recent year’s issues.

College and university presidents repeatedly publicly pronounce that the *USNWR* rankings are not a measure of the quality of their institutions, that an institution’s quality cannot be measured by a single number, that changes in an institution’s rank are often due to *USNWR* periodically changing the way the rankings are calculated and that they do not pay any attention to the rankings. Increasingly sensitive to the criticism that its
rankings have received, *USNWR* has appointed a college advisory board that annually suggests changes in its methodology. While such changes invariably lead to changes in the rankings of institutions and to the sales of more magazines, in its most recent rankings *USNWR* also explicitly advised readers that “...since we may change our methodology from year to year, we do not invite readers to track colleges annual moves in the rankings.”

However despite the pronouncements of the presidents and the recent advice of *USNWR*, the rankings of institutions do matter and the institutions are very concerned about what the rankings show. And well they should be! A recent study by James Monk and myself that focused on top national universities and liberal arts colleges found, other factors held constant, that when an institution improves in the rankings the next year it receives more applicants, can accept fewer of them, a greater proportion of its accepted applicants enroll at the institution, its enrolled admitted applicants average SAT scores improve and it can reduce the amount of institutional grant aid that it needs to spend to attract its class. In contrast, when its rankings worsen just the opposite occurs; other factors held constant the next year the institution receives a smaller number of applicants, must admit a greater fraction of them, a smaller fraction of its admitted applicants enroll, the average test score of its enrolled admitted applicants falls, and it must increase the amount of institutional grant aid that it needs to spend to attract its class. In short, changes in an institution’s *USNWR* rankings affect both measures of its academic quality

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and its financial aid bill. A change in an institution’s ranking greatly complicates the life of its administrators in charge of enrollment management.

Some observers have argued that it is only applicants to the most selective of our nations colleges and universities that pay attention to the USNWR rankings. However, anecdotal evidence from several institutions suggests that this view is incorrect. For example, Hobart and William Smith Colleges had long been ranked in the second tier (quartile) of national liberal arts colleges. When the 2001 USNWR rankings were published in the fall of 2000 the institution found itself ranked in the third tier (quartile), because a senior administrator at the institution failed to report current year data to USNWR. USNWR was forced to compute the institution’s ranking using year old data, which understated the institution’s current performance on a number of dimensions. This fall in the rankings occurred despite the fact that Hobart and William Smith College was ranked higher by academic leaders than 18 of the 29 national liberal arts colleges placed in the second tier in the 2001 rankings on a critical component of the ranking methodology, its academic reputation.³

The administrator was fired and the new president took vigorous steps to repair the damage. After several discussions with the institution, USNWR sent Hobart and William Smith a letter saying that if the correct data had been reported to it, Hobart and William Smith likely would have been ranked in the Tier II that year. This letter and the reason for the institution’s erroneous fall in the rankings was shared with guidance counselors at high schools that were regular “feeder schools” to the institution. Concerned that morale of current students (which might affect retention), of faculty and
of alumni might also fall, the President and the Trustees also vigorously conveyed this message to all of the college’s constituents. A new president had to spend a good part of his first months in office on damage control.\footnote{Conversation with President Mark Gearan of Hobart and William Smith College on October 20, 2000.}

A second example comes from a best-unnamed small liberal arts college located in a Middle Atlantic state. Ranked in Tier 4 (the bottom quartile) of national liberal arts colleges, as part of a strategic planning process the college was examining ways to improve its \textit{USNWR} rankings. As we shall shortly see, an institution’s average faculty salary has significant weight in the formula that \textit{USNWR} uses to compute an institution’s ranking. An early draft of a strategic planning document for the college that I saw called for an increase in average faculty salaries to improve the institution’s ranking. The document did not discuss whether doing so would improve the quality of faculty members that the institution could attract, improve retention of existing faculty members, or improve faculty members’ performance. Similarly, the document did not discuss whether the funds that would be spent on increasing faculty salaries could be better used in other ways to actually improve the educational experience of its students. The college was going to spend more simply to try to raise its \textit{USNWR} ranking. I mentioned how strange this seemed to me to a member of the college’s board and I am happy to report that the final version of the college’s strategic plan made no mention of spending more to improve rankings.

So institutions at all places in the selectivity game are thinking about their \textit{USNWR} rankings. In the next section of the paper I will discuss the formula that \textit{USNWR}
used to compute its rankings in its *America's Best Colleges: 2001* issue and show how the elements that constitute it have altered how colleges and universities behave. Sometimes an action taken to improve an institution’s rankings may also make educational sense. However, sometimes it may not and it may also not be in the best interest of our educational system as a whole.

In the final section of the paper, I ask whether the methodology that *USNWR* uses to calculate its rankings prevents institutions from collaborating in ways that make sense both educationally and economically. My answer is to a large extent no. Hence, while the *USNWR* rankings may have caused institutions to worry more about the peers with which they compete, the ranking should not prevent the institutions from working productively towards common goals. Put another way, institutions should not blame *USNWR* for their failure to collaborate more.

II. The 2001 *USNWR* Methodology

*USNWR* divides the set of academic institutions into categories based upon the 1994 Carnegie classification of colleges and universities. Carnegie Research I, Research II, Doctoral I and Doctoral II institutions are all included in the *USNWR* National University category. Carnegie Liberal Arts I institutions are included in the *USNWR* National Liberal Arts College category. The Carnegie Comprehensive I and Comprehensive II institutions are all included in the *USNWR* Regional University category and quartile rankings of these institutions are reported for 4 regions of the country. Finally, the Carnegie Liberal Arts II institutions are all classified as *USNWR* regional colleges and again quartile rankings are reported for 4 regions of the country.

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The *USNWR* methodology involves consideration of seven broad categories of measures that relate to college quality. These are academic reputation, student selectivity, faculty resources, graduation and retention rates, financial resources, alumni giving and graduation rate performance. The weights assigned to each of these broad areas vary across *USNWR* categories, as does the number of factors included in each category and the weight assigned to each factor. The formulae for national universities and national colleges are identical and differ from the formulae for regional universities and regional colleges (which are also identical). For ease of exposition, I will focus on the national college and university formula below. Table 1 summarizes the ranking criteria and weights used in *America's Best Colleges: 2001*

The first criterion that *USNWR* uses is the academic reputation of the institution and this factor gets a weight of 25%. *USNWR* gives this criterion the heavy weight because it recognizes the role that an institution’s academic reputation plays in gaining its graduates high paying jobs and admission to top graduate and professional schools.\(^6\) Presidents, provosts and deans of admission of schools in each category are surveyed to obtain information on academic reputation. They are asked to rank each institution in their category on a scale of 1 (marginal) to 5 (distinguished), or to indicate that they are unfamiliar with the institution. *USNWR* reports a response rate of 67% for their last survey. Many presidents and provosts at major institution refuse to fill out this survey because they do not like participating in a “beauty contest”. Others may realize that it is

in their best interest to rank institutions close to them in selectivity very poorly, although this clearly would not be an ethical way for senior academic administrators to respond.

The second criterion that USNWR uses is student selectivity and this factor gets a weight of 15%. Student selectivity is assumed to have four components. The smaller the fraction of freshman applicants that a school accepts, the more selective it is assumed to be. Similarly, the higher the fraction of accepted applicants that enroll at the institution (the institution’s yield rate) the more selective it is assumed to be. Student selectivity also is assumed to be positively related to the proportion of its freshman class that were ranked in the top 10% of their high school classes and the average SAT (or ACT) scores of its entering students.

There are numerous ways that an institution can influence its acceptance rate and yield rate. The president of one flagship public university told me that his institution currently discourages applicants who have little chance of being accepted at the institution from applying. However, repeatedly expressed concerns from trustees about the institution’s USNWR ranking may force his admission’s office to actively solicit more applications from lesser-qualified students. The result will be added expenses for the admission process and more unhappy rejected applicants.

A private college president told me recently about an applicant to his institution who was the son of an influential alumnus of the institution. The applicant had also applied to a large northeastern public university that was aggressively trying to improve its USNWR ranking. Although the applicant’s credentials (test scores, rank in class, grade point average) were far above the typical applicants credentials at the public institution, the applicant was rejected. However, the alumnus reported to the private college president
that his son also received a letter from an admissions officer at the public institution that
indicated that if the applicant would declare that he would attend the public institution if
admitted, that it would reconsider and admit him. One might wonder how ethical this
type of behavior, which is designed to lower the institution’s acceptance rate and improve
it yield, really is.

A simple way to improve an institution’s yield and lower its acceptance rate,
which many selective institutions have aggressively pursued, is to increase the proportion
of an institution’s class that is admitted via an early decision process. Under an early
decision process an applicant applies to one institution by early November of the
applicant’s senior year in high school. At most institutions, the applicant is required to
sign a statement to the effect that he or she will enroll if admitted and will withdraw any
other college applicants that have been submitted. The institution typically gives the
applicant a decision by mid December, which takes the form of an acceptance, a
rejection, or a deferral of the applicant to the regular decision process. If admitted, the
applicant has a brief period of time to notify the institution that the offer of admission has
been accepted and that the applications pending at other institutions have been
withdrawn.

Expanding the fraction of an institution’s class admitted by the early decision
route lowers the institution’s acceptance rate and increases its yield because early
decision applicants accept offers of admission with probability close to one. Thus to
attain any given size class, the institutions can admit fewer students overall. So
expanding early admissions relative to ones competitors will improve one’s USNWR rankings.\textsuperscript{7}

Enrolling students through an early decision process provides benefits to both institutions and applicants. The benefit most often talked about by institutions is that an institution gains from having its freshman class composed of students for whom the institution was their first choice. Some students who enroll through the regular admission process may have been rejected from their first choice schools and these students do not come to the institution with as much enthusiasm\textsuperscript{8}. This may affect their overall attitude towards the institution and also their likelihood of persisting at the institution until graduation. Even if they do graduate, they are less likely to be attached alumni who devote time and money to helping the institution to prosper. Put simply, an institution benefits greatly from enrolling students who really want to attend it. Students who are sure about which their first choice school is also clearly benefit from the early decision process. Being admitted by the early decision route allows them to avoid all of the tensions associated with having to wait until the spring of their senior years in high school to learn about whether they will be admitted to their first choice school.

\textsuperscript{7} Consider the following numerical example. Suppose that an institution initially has 10,000 applicants, it admits 4,000 of them and enrolls 2,000 of its admitted applicants. Hence its acceptance rate is 40\% \((4,000/10,000)\) and its yield is 50\% \((2,000/4,000)\). Now suppose that it offers and early decision option, that 2,000 of its applicants choose this route and that it accepts 1,000 of them, all of whom enroll. If the yield rate on its regular applicants remains at 50\% to attain a class of 2,000, it only need to admit 2,000 students from its pool or 8,000 regular applicants and the early decision applicants that it has deferred. Hence its acceptance rate will fall to 30\% \((3,000/10,000)\) and its yield will rise to 67\% \((2,000/3,000)\).

\textsuperscript{8} An example from my own university illustrates this point. Cornell’s Arts and Science and Engineering colleges’ entering freshman have the highest average test scores in the university. They also have among its lowest yield rates because there are many high quality engineering and arts and science colleges in the nation. For many of the students enrolled in these colleges, Cornell was not their first choice. In contrast, the yield rates at Cornell’s School of Industrial and Labor Relations and its Hotel School are among the highest in the university because these schools are the preeminent places in the nation to study their subject matters and most of the students enrolled in them are attending their first choice institution. Students from the latter two schools always rate their Cornell experience better than students from the former two colleges.
A second reason that institutions like early decision applicants, although this is rarely mentioned publicly, is that early decision applicants are more likely to come from upper or middle-income families and thus will require less institutional grant aid than typical applicants.\(^9\) Intuitively, the explanation for this is that applicants who are very concerned about the financial aid package they will receive will want to apply to several institutions to see which one gives them the “best offer”. By applying early decision, an applicant deprives him or herself of this possibility. Hence increasing the proportion of the class that is enrolled via early decision is a strategy that institutions can use to try to moderate the rate of growth of their financial aid budgets.

Of course, to the extent that financial need is correlated with race and ethnicity, early admission applicants and acceptances are likely to be more heavily white and Asian American, than the institution’s total applicant pool. To the extent that an institution values socioeconomic and racial/ethnic diversity, it will have to give extra attention in its regular admission process to finding underrepresented minority and lower-income candidates to admit. This may lead the probability of being admitted for upper and middle-income white and Asian American applicants to be higher in the early decision pool than it is in the regular decision pool. As more and more high school students, parents, and guidance counselors realize this, this will put more pressure on more students to apply early decision. Some institutions now explicitly tell applicants that they give preference to early decision candidates and this will exacerbate this tendency.

do, Of course one must caution that the student body is larger in the former two colleges and this is known to affect student satisfaction.

\(^9\) Christopher Avery, Andrew Fairbanks and Richard Zeckhauser, “What Worms for the Early Bird: Early Admissions at Elite Colleges” (mimeo, JFK School of Public Policy, August 2000) provide evidence that supports this claim based upon the experiences at 14 selective private colleges and universities during a 5 year period.
USNWR is thus contributing to the pressures that institutions and students face to expand the early decision application process and it is not clear that this is in either the institutions’ or the applicants’ interest. More high school students will be making decisions on where to apply earlier in their high school career and these decisions may not be as informed by as much information on the characteristics of the institutions as the students should have. They will be forced to worry about higher education options earlier in their high school career before many of their interests are fully formed and this will put unnecessary extra pressure on them.

All students contemplating applying early decision to a selective private college or university will face very difficult decisions. Does one apply early admission to the institution that one really aspires to attend or does one apply early admission to a slightly less selective institution? Knowledge that it will be more difficult for an applicant to get admitted to the slightly less selective institution during the regular admissions process than during the early decision process may discourage some students from applying to the highly selective institution that they really aspire to attend. These students will not be “happy campers” when they enroll at the slightly less selective institutions. Neither will the students who stretched and applied early decision to the highly selective institutions, were turned down by them, and then found that they could not be admitted to the slightly less selective institutions during the regular admissions process. They will be forced to enroll at even less selective institutions. As a result, it is likely that as the proportion of students admitted through the early decision process expands, we will see more and more freshman students seeking to transfer after their first or second semesters in college.
The third criterion included in student selectivity rating is the proportion of the students in an institution’s entering class that are ranked in the top 10% of their high school classes. Using rank in class as an admission criterion, as is currently the fashion in public institutions in a number of states, including Florida, Texas, and California, penalizes students who attend tough schools with highly competitive student bodies. In addition many schools now fail to report their students class rate. For example, in a recent year 80% of the freshman students whose high school class rank was reported to Cornell were ranked in the top 10% of their classes but 35% of Cornell’s entering freshman had no rank reported.

Perhaps more disturbing, the class rank variable used by USNWR is only for new freshman who enroll in the fall of the year. Neither freshman students who first enroll in the spring or transfer students’ rank in class are included. Thus institutions that are interested in expanding enrollments have an incentive to do so by admitting more January freshman or transfer students rather than by expanding fall freshman enrollments. Such a strategy may make sense financial sense for institutions that have limited on-campus housing or face constraints on the number of sections of widely required courses that they can offer. However, it makes less sense to the admitted January freshman and transfer students who would benefit from being integrated into the institution’s community at an earlier stage of their college careers.

A similar argument can be made about the use of average SAT or ACT test scores as the last criterion in the student selectivity category. A number of selective private institutions – including Sarah Lawrence, Mount Holyoke, Bowdoin, Dickinson, Franklin and Marshall and Connecticut College – have made the reporting of SAT scores optional
for their applicants. Several institutions made this change in the early 1990s before the USNWR rankings had achieved the prominence that they now have. However, several made the change much more recently at times that they were known to be unhappy about their USNWR rankings. In each case, the institution explained the change in terms of its concerns about the possible unfairness of the test to low-income and underrepresented minority applicants, its wanting to judge applicants on a much wider dimension of their accomplishments, and its wanting high schools students to devote their time to things other than test-taking preparation.

One does not have to be a space scientist to realize that if the test is optional, only students who score well on the test will report it to these institutions. This will cause the average test scores for admitted applicants that are reported to USNWR to rise and these institutions will see an improvement in their USNWR rankings. In addition, because SAT scores are no longer required, weaker students (as measured by SAT scores) who previously would not have applied to these institutions may apply. As a result, these institutions will likely see increased applicants, which will permit them to reduce their acceptance rate, which in turn will further improve their USNWR rankings. The magnitude of the rise in the rankings experienced by many of these institutions in the years after they made submission of SAT scores by applicants optional has already been documented and these rankings increases are not restricted to institutions that started off in the top selectivity tier.  

This is not to say that the institutions that made the test optional were wrong to do so. However, it is worth noting that a recent meta evaluation concluded that SAT test scores are highly correlated with a wide range of educational outcomes at many
institutions (grade point average, rank in class, persistence to graduation) so one wonders why institutions would not want to have the information on all applicants’ test scores and at least be able to consider them in their admissions process. A recent proposal by Richard Atkinson, President of the University of California system to eliminate the use of SAT scores in admissions decisions is not subject to the same criticism because Atkinson proposes replacing the SAT by a set of criteria, including the SAT2 tests or tests similar to them, that measure subject matter achievement. How USNWR would alter its rankings methodology if large highly selective institutions, such as Berkeley, did not consider SAT scores in their admissions processes is not known.

The third criterion that USNWR uses in its methodology is faculty resources and this criterion is giving a weight of 20% in the ranking scheme. The factors included in it are faculty salaries (deflated by a regional cost of living index), the percent of faculty with terminal degrees, the percent of full-time faculty, the student faculty ratio and the percentage of classes that have less than 20 students (good) and more than 50 students (bad). While no professor in his right mind (including me) will argue against having more full-time faculty, more small classes, lower student faculty ratios, more faculty with terminal degrees and higher paid faculty, the heavy weight that faculty salaries get in this criterion (35%) provides an incentive to institutions to continue to increase their faculty members’ salaries even if market condition do not warrant such increases.

11 Jennifer Jacobson, “A Study Financed by the College Board, Bolsters the Reliability of the SAT”, Chronicle of Higher Education, April 27, 2001 online daily edition (available to subscribers at http://chronicle.com). Some observers, who object to its being financed by the College Board, have challenged the results of this study.
The fourth criterion used by *USNWR* is the 6-year graduation rate and freshman retention rate of the institution and this criterion is given a weight of 20%. All academic leaders should be in favor of improving their students’ retention and graduation performance. However, these can be done either by improving the educational experiences that students have and the financial support provided to them or by watering down requirements for academic progress. *USNWR* focuses on these outcomes, not on the methods by which they are achieved.

The fifth criterion used by *USNWR* is financial resources per student, as measured by the average educational expenditures per student, and this criterion is given a weight of 10%. Considerable attention has been given by *USNWR* to improving the measurement of this variable in recent years, including giving less weight to expenditures on research and adjusting for the fraction of an institution’s students that is enrolled in graduate programs. Changes in the measurement of the expenditure per student variable have been responsible for much of the variation in rankings that my own institution experienced during the late 1990s.¹³

Use of the average expenditure per student measure places academic institutions in a very difficult position. On the one hand, they would like to hold their expenditures down to reduce their rate of growth of undergraduate tuition. On the other hand, if any institution unilaterally reduces its rate of growth of expenditures per student, let alone cuts the level, its *USNWR* ranking would fall because of the weight placed on expenditures per student in the ranking methodology. You can imagine the reaction of the Cornell Board of Trustees’ Finance Committee, who were berating the Cornell

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administration to behave more like a business and hold the university’s costs down, when I explained to them one year that the university could not unilaterally do so because of what it would do to our USNWR ranking and, in turn, to our ability to attract high-quality students. Put simply, USNWR encourages institutions to spend more, not to spend less.

The final two criteria used by USNWR, the fraction of alumni who make annual contributions to the university and an estimate of graduation rate performance that controls for the quality of an institution’s entering class and the generosity of its financial aid policies are minor ones, which are given a combined value of only 10% in the ranking scheme. I have discussed elsewhere the actions that Cornell took to try to improve its performance on the alumni giving measure. Some of these actions were “improvements” in the quality of the underlying data that made the institution look better.

Virtually every academic institution engages each year in a process of examining all of the data it is planning to submit to USNWR to see if there are legitimate adjustments that it can make to the data that will improve its position in the ranking. Of course it is a rare institution that carefully examines whether it unintentionally erroneously reported something that overstates its position. One may well wonder if the resources that each institution devotes to preparing, checking and adjusting its data could more productively be either saved or used to educate students.

III. Is USNWR the Evil Empire?

There is a tendency among some academic leaders to blame USNWR for many of the ills that their institutions suffer. However, the USNWR rankings are probably more symptomatic of the increasingly highly competitive environment in which academic institutions find themselves operating than the underlying cause of this environment.
While I have indicated that the *USNWR* ranking methodology provides incentives for institutions to take actions that are not always socially desirable, the methodology does not penalize institutions for cooperating in ways that improve the education they are providing for their students or for increasing the efficiency of their operations. Some concrete examples, illustrate this point.

A consortium of 15 institutions associated with the Associated Colleges of the South has created a virtual department of classics. Prior to this development, the department at each member institution had at most 3 or 4 faculty members, which was not large enough to provide a rich range of undergraduate classics’ courses to each institution’s students. Most classics faculty members at the institutions devoted the majority of their time to teaching a few basic courses and enrollments were not large enough in these courses to justify offering a large number of elective courses. Now a faculty member can offer a course simultaneously to students at his or her own institution and also to students at one or more other consortium institutions via distance learning technologies. As a result, teaching time of other faculty members are freed up, enabling them to offer a wider range of elective courses in the same manner. The classics courses had small enrollments to start with and it is likely that combined enrollments across institutions in any one course still are less than 20. So unless *USNWR* gets in the business of counting courses taught by faculty from other institutions via distance learning technologies as courses taught by part-time faculty, no consortium member’s *USNWR* ranking will be hurt by this change. The education of students at all of the institutions will be substantially improved.

\[^{14}\text{Ehrenberg, } \textit{Tuition Rising}, \text{ chapter 4.}\]

Professor Sarah Turner of the University of Virginia and I will be jointly teaching a course on the economics of higher education simultaneously to Cornell and Virginia students in the fall of 2001. Students will enroll under the course number listed at their home institution with the faculty member from that institution listed as the instructor. Class sizes at each institution will not change and no revenue will pass between the institutions. However, students from each institution will now benefit from interacting with two faculty members who have somewhat different perspectives on a number of issues.

Two or more institutions located close to each other can, and do often, collaborate in making courses taught at one institution available to students from other institutions. While class-size limits may be necessary not to spoil an institution’s *USNWR* ranking on the proportion of classes it teaches that enroll twenty or fewer students, such student exchanges clearly are of benefit to students and allow institutions to diversify their curriculum by drawing on neighboring institutions.

As distance learning technologies improve, such exchanges will increasingly not be limited by geographic location. For example, a Cornell law professor regularly teaches a course on a very specialized legal topic to law students enrolled at Cornell and three other law schools. Interest in the subject is not sufficient at any one institution to warrant regularly offering the course and the other three law schools do not have a professor capable of teaching it. By sharing the cost of providing the course at Cornell, all four institutions are able to benefit from it. This course is taught by a combination of real-time two-way compressed video classes and Web-based lectures, readings and discussion groups and each student receives course credit at his or her own institution.
Columbia, Yale and the New York Public Library are in the process of building a single off-campus storage facility that will house rarely used books from the three libraries. Delivery of a needed book will be guaranteed to users at any location within twenty-four hours. By pooling their collections in one place, the three institutions can deacquisition duplicate copies and thereby achieve considerable costs savings in terms of preservation and storage costs. The cost savings can be redirected towards other educational uses at each institution and deacquisitioned books can be donated to other libraries. In addition, the joint collection effectively becomes the “property” of each library, so each can claim to have more books in its collection than it did before the project began.\footnote{A simple numerical example illustrates this point. Suppose that each of the 3 institutions had 2,000 rare books, that 1,500 of these were unique (held only by a single library) and that 500 were triplicates (held by all three libraries). The collection of the combined storage facility would 5,000 books and 1,000 books (2 copies of each of 500 books) would be deacquisitioned and available to donate to other libraries.} While library collection size does not enter into the \textit{USNWR} rankings, it is a standard used by libraries in their national comparisons.

Academic institutions can share resources in many other ways. Administrative savings can be achieved if institutions combine some of their “back office” operations. For example, if multiple institutions develop a common purchasing department, it is likely that they will be able to achieve economies of scale and negotiate better prices for suppliers. The savings that they achieve can be redirected towards improving the education that they provide to their students.

The bottom line is that the \textit{USNWR} ranking methodology does not discourage academic institutions from collaborating with their competitors to improve the educations they are offering undergraduate and graduate students. Neither should it be seen as discouraging institutions from collaborating to achieve financial savings. While its
methodology values increasing spending, it does not penalize institutions for reallocating financial savings to improve students’ educational experiences and outcomes. Academic institutions should always keep these goals in mind, as they seek to maximize their utility subject to the constraints that the USNWR ranking methodology does place on their behavior.
Table 1
Criteria and Weights Used in USNWR 2001
Ranking of Undergraduate Institutions

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<tr>
<th>Ranking Category</th>
<th>Category Weight</th>
<th>Subfactor</th>
<th>Subfactor Weight</th>
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<td>Academic Reputation</td>
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<td>Academic reputation survey</td>
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<td>Student Selectivity (Fall '99 entering class)</td>
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<td>Acceptance Rate</td>
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<td>Yield</td>
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<td>High school class standing-top 10%</td>
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<td>High school class standing-top 25%</td>
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<td>SAT/ACT scores</td>
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<td>Faculty resources ('99)</td>
<td>20%</td>
<td>Faculty compensation</td>
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<td>Percent faculty with top terminal degree</td>
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<td>Percent full-time faculty</td>
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<td>Student/faculty ratio</td>
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<td>Class size, 1-19 students</td>
<td>30%</td>
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<td>Class size, 50+ students</td>
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<td>Graduation and retention rate</td>
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<td>Average graduation rate</td>
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<td>Average freshman retention rate</td>
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<td>Financial resources</td>
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<td>Graduation rate performance</td>
<td>5%</td>
<td>Graduation rate performance</td>
<td>100%</td>
</tr>
</tbody>
</table>