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Method or Madness? Inside the
USNWR College Rankings

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“Method or Madness? Inside the *USNWR* College Rankings”

by

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I. Introduction

College guides have been providing information about the characteristics of different undergraduate institutions to help high school students decide to which institutions to apply for longer than most people can remember. *Barron's Profile of American Colleges 2003* (which is updated every other year), *The Fiske Guide to Colleges 2004*, *Peterson's Four Year Colleges 2004* and the *Insider's Guide to Colleges 2003* represent the 25th, 20th, 34th and 29th editions, respectively, of these venerable publications. In addition to providing detailed data and narratives about each college, many of the long-standing guides group institutions into broad categories. *Barron's*, for example, ranks each institution by the selectivity of its entering freshman class (measured by entrance test scores), grouping institutions into broad categories such as highly selective, selective, nonselective and open enrollment. No attempt is made, however, to differentiate between institutions within each group. Similarly, *The Fiske Guide* awards up to 5 stars to each institution on three dimensions thought to be important to potential students; academics, social life and quality of life.

U.S. News & World Report (USNWR) shook up the college guide industry when it began publishing its annual rankings of colleges in 1983. The summary of its annual rankings of colleges as undergraduate institutions that appear in a fall issue each year is by far the best selling issue of *USNWR* each year and, together with its more comprehensive annual *America's Best Colleges* publication, it has become the "gold standard" of the college ranking business.

USNWR's rapid rise to the top derives from its rankings' appearance of scientific objectivity (institutions are rated along various dimensions with explicit weights being

assigned to each dimension), along with the fact that *USNWR* then ranks the top 50 institutions in each category (for example national universities and liberal arts colleges).¹ Each year immediately before and after the *USNWR* college rankings issue hits the newsstand, stories about the *USNWR* rankings appear in virtually every major newspaper in the United States.

I begin my remarks by discussing why Americans have become so preoccupied with the *USNWR* rankings and why higher education institutions have become equally obsessed with them. Next I discuss how the rankings methodology allows colleges and universities to take actions to manipulate their rankings and the effects that such actions have on higher education. I then ask if the rankings are flawed, why do colleges and universities continue to participate in them and I discuss some of the major problems with the ratings. Finally, I offer some brief concluding thoughts about how *USNWR* could alter its rating formula in ways that I believe would be socially desirable.

II. Why American's Have Become Obsessed with College Rankings

As Caroline Hoxby (1999) has pointed out, American higher education has experienced a dramatic change in its market structure during the last 60 years. In 1949 about 93% of all undergraduate college students attended college in the state in which they went to high school, this figure fell to about 85% in the early 1960s, 77% in the early 1980s, and 75% by the mid 1990s.² Accompanying this increased mobility of students across state lines has become an increased stratification of students and colleges by students' academic backgrounds. For example average SAT scores of entering

¹ This number increased to 126 for the top national universities and 110 for the top national liberal arts colleges in the 2004 *USNWR* rankings.

² Caroline Hoxby (1998a), table 1a. The changes have been even more dramatic for private higher education- falling from about 85% to 56% during the period.

students now vary much more across colleges than they did in the past and within each college the range of SAT scores of entering students has declined.³ These changes have been attributed to a number of factors including reductions in transportation and communication costs, the establishment of federal financial aid programs and a shift to need blind admissions at many institutions in the 1970s, the growing use of standardized admissions tests in admission decisions and the growth of tuition reciprocity agreements by public institutions, which allow students from one state to attend another state's public colleges and universities (if they qualify for admission) at less than the second state's normal out-of-state tuition.⁴ As a result of these changes, colleges and universities have increasingly found themselves competing for students in a national market.

During the 1980s and 1990s, the distribution of earnings in the United States became more unequal on a number of dimensions.⁵ The earnings of college graduates grew relative to the earnings of high school graduates. For example, the ratio of the mean earnings of male college graduates ages 35-44 to the mean earnings of male high school graduates in the same age range rose from 1.41 to 1.76 between 1980 and 1999 and the comparable ratio for females rose from 1.36 to 1.79.⁶ Perhaps more important, the dispersion of earnings among college graduates also grew. For example, in 1980 male college graduates ages 25-34 at the 80th percentile of the earning distribution of their group earned about 2.27 times the earnings of similar male college graduates at the 20th percentile of the earnings distribution. By 1997, this ratio had increased to 2.54.⁷ Not only is obtaining a college degree increasingly important for an individual's economic

³ Hoxby (1998a), tables 3 and 5

⁴ Hoxby (1998a) and Michael Rizzo and Ronald Ehrenberg (forthcoming)

⁵ Ronald G. Ehrenberg and Robert S. Smith (2003), chapter 14

⁶ Ehrenberg and Smith (2003), table 14.3

⁷ Ehrenberg and Smith (2003), table 14.5

well-being but taking actions to increase the chances that he or she will wind up in the upper, rather than the lower, tail of college graduates' earnings distributions is also increasingly important.

With one exception, virtually all studies by economists suggest that attending higher quality colleges, as measured by the average SAT scores of entering students at the institution, is associated with higher post-college earnings and higher probabilities of enrolling in top graduate programs.⁸ As such, parents, especially those with top test score students, have become increasingly preoccupied with, in my colleague Robert Frank's terminology, "buying the best" and the competition for slots at top schools has heated up.⁹ Put simply, American high school graduates are increasingly seeking to go to the "best" college" that they can.

The average SAT score of the entering class is but one characteristic of the many characteristics of a college or university and the finding that average SAT scores influence post college success does not imply that this is the only characteristic of an academic institution that matters. By providing an ordinal ranking based upon a more comprehensive set of characteristics, *USNWR* helps to fuel the competition for slots at the top institutions. However, it is important to stress that it is only exacerbating the pressures that already exist; it is not the major cause of these pressures.

While academic institutions regularly claim that they pay no attention to their *USNWR* rankings, they of course do. And well they should; an econometric study by

⁸ See for example, Dominic Brewer, Eric Eide and Ronald Ehrenberg (1999), Eric Eide, Dominick Brewer and Ronald Ehrenberg (1998), Caroline Hoxby (1998b) and Caroline Hoxby and Bridget Terry (1999). The one exception is Stacy Dale and Alan Krueger (2002). However, Dale and Krueger did find that attendance at colleges that had higher expenditures per student was associated with higher earnings – a point that I will return to below.

⁹ Robert Frank (2001)

James Monks and myself of the experiences of 31 selective private colleges and universities found that when an institution improved in the rankings, other factors held constant, the next year it received more applications, could accept a smaller fraction of these applications (which made it look more selective), would have a greater fraction of its applicants accept its offers of admission (which further made it look more selective), would find that its entering students had higher SAT scores (which again would make it look more selective) and would be able to accomplish all these things by offering somewhat less generous financial aid packages.¹⁰ Conversely, if it fell in the rankings, then the reverse of all of these things would occur. Lest one think that the *USNWR* rankings are of concern only to selective private colleges and universities, in my *Reaching for the Brass Ring* article, I document that lesser privates and public institutions also are concerned about the rankings.¹¹

III. How Higher Education Institutions Try to Manipulate the *USNWR* Rankings

Table 1 displays the seven categories (academic reputation, student selectivity, faculty resources, graduation and retention rate, financial resources, alumni giving and graduation rate performance) that *USNWR* uses to rank national universities and liberal arts colleges in its 2003 and 2004 rankings, the weight it assigns to each category, the sub-factors (if any) within each category and the sub-factor weights within each category. The only changes in *USNWR*'s methodology between the two years was the elimination of an institution's yield on admitted applicants from its student selectivity ranking and changes in the sub-factor weights for the remaining sub-factors included in this category.

¹⁰ James Monks and Ronald G. Ehrenberg (1999)

¹¹ Ronald G. Ehrenberg (2003)

The most important category, worth 25%, is an institution's *academic reputation*, as measured by a survey of presidents, provosts and deans of admission at peer institutions. While institutions always like to publicize all of the wonderful things that are happening on their campuses to prospective students, recently some institutions have resorted to sending expensive publicity materials to key administrators at their competitor institutions as a way of influencing the rankings.¹² Hard data on the cost of such PR actions does not exist, but one must wonder whether the resources involved in such activities could have been more profitably devoted to further improving what is going on at the institutions. Informing competitors of all of the wonderful things that an institution is doing also puts pressure on competitors to emulate some of these things (or find more good things of their own to do) and thus this fuels the expenditure race that already exists in higher education and puts upward pressure on tuition.

Student selectivity has a weight of 15% in the USNWR rankings. The institution's acceptance rate, the proportion of its freshman applicants to whom it offers admission, counts for 10% of this category's weight in 2004, down from 15% in 2003. Inclusion of the acceptance rate encourages institutions to reject otherwise outstanding applicants, who it believes are unlikely to enroll, encourages institutions to generate large pools of applicants who have little chance of being admitted to the institution and encourages institutions to admit students early decision because, other things equal, the higher the proportion of students admitted early admission, the fewer the number of students that need to be admitted to generate any given class. The first practice increases potential students' uncertainty, since they can't be sure that their "safety schools" will admit them, the second puts extra workloads on the institutions' admissions officers and leads to many

¹² Amy Argetsinger (2002)

more students' hopes being dashed and the third increases the pressure to apply early admissions that many students face. Indeed, in response to concerns by the academic community that *USNWR* was further contributing to this pressure by including an institution's yield (fraction of admitted students that accept an offer of admission), *USNWR* did eliminate yield from its rankings methodology in 2004.

The final two sub-factors in the student selectivity category are the proportion of the institution's entering first year class that is ranked in the top 10% of their high school classes and the average SAT (or ACT) score of all enrolled freshman who took the test. Increasingly high schools are not reporting the class rank of their students, for example 45% of Cornell's enrolled freshman in the class of 2006 did not have their class ranks reported to the university, so the usefulness of this measure is unclear.¹³ Just as there has been concern expressed that top 10% admission rules, such as those used by public higher education institutions in Texas prior to the recent Supreme Court ruling, may discourage students from attending challenging high schools with lots of top students, *USNWR*'s use of the top 10% criteria may influence who institutions admit at the margin and, via this route, where high school students go to school.¹⁴

Use of the average SAT score for all enrolled freshman (who report such scores) affects institutional behavior in two ways. First, it provides an incentive for them to make the reporting of test scores optional. Doing so should lead more applicants to apply to a school (making the institution look more selective) because low test score students with otherwise acceptable records will now be more likely to apply. It should also increase the average test scores of students who report their scores, because it will be students with

¹³ *Cornell University Profile of the Class of 2006*, available at <http://dpb.cornell.edu/irp/factbook/admissions/undergraduate/profite.htm>

¹⁴ Edward Blum and Roger Clegg (2003)

lower test scores who will be the non-reporters. Whether on balance students admitted without submitting their test scores will do as well at the institution as students who failed to submit test scores is an open question.¹⁵

Second, the use of average test scores provides an incentive for institutions to use merit aid to improve the average test scores of its entering class. To the extent that this leads to an institution's having less resource available for need-base aid, this may limit access to higher education for individuals from lower-income families. Academic institutions, especially public ones that have a special obligation to provide access to all qualified applicants, need to seriously rethink if the focus on improving their students' average test scores is really in the public interest.

The third category, with a weight of 20% in the *USNWR* rankings is *faculty resources*. The largest sub-factor in this category, with a weight of 35%, is faculty compensation, which is defined as the average pay and benefits of full-time assistant, associate and full professors, adjusted for regional cost-of-living. An institution that hired full-time lecturers, at lower salaries, to do more of its undergraduate teaching and devoted the resources that it saved from doing so to increasing the average salaries of its tenure- track faculty would, other factors held constant, go up in the rankings and would suffer no penalty for this substitution.¹⁶ Its full-time faculty would be better paid and happier but would its students be worse off from having a smaller share of their classes taught by tenure and tenure track faculty?

¹⁵Michael Robinson and James Monks (2002) study the early experiences at Mount Holyoke College after the college made submission of SAT scores optional for freshman applicants. They found that students who "under-performed" on the SAT relative to their high school GPA's were more likely not to submit their scores, that admissions officers rated these students higher than they otherwise would have ranked them and that students who withheld their SAT scores had lower GPAs at Mount Holyoke than students who submitted their scores.

¹⁶ It would suffer a penalty if it increased its usage of part-time faculty, but this sub-factor only has a weight of 5% in this category

An academic's inclination is to say yes, but there are surprisingly few studies that have addressed this question. This is a fundamental question facing public higher education which has seen this type of substitution, as well as increased substitution of part-time for full-time faculty occurring in recent years. For example, between the fall of 1992 and the fall of 2001, the percentage of undergraduate credit hours generated by tenured and tenure track faculty fell from 81.0 to 58.4 percent at the four SUNY university centers (Albany, Binghamton, Buffalo and Stony Brook).¹⁷ Unless the higher education community can demonstrate the negative impacts that such changes have on students, state policymakers are unlikely to consider taking actions to reduce these trends.

USNWR's next category, with a weight of 20 percent in the rankings, is the institution's graduation and retention rate averaged over a number of years. The most important sub-factor in this category is the institution's 6-year graduation rate for entering freshman (with a weight of 80%) and its freshman retention rate (with a weight of 20%). Given the characteristics of admitted students, an institution can improve both rates by improving its instructional program and providing more support services to students or by relaxing its standards. Hopefully, institutions will not choose the latter course, but the rankings cannot distinguish between these two methods of improvement.

As I discuss in *Tuition Rising*, transfer students compose a large share of all new students at many academic institutions. For example, of the 3622 new undergraduate students enrolling at Cornell University in the fall of 2002, 558 (or 15.4%) were transfer students.¹⁸ At the SUNY 4-year campuses, the percentages are typically much higher,

¹⁷ Ronald G. Ehrenberg and Daniel B. Klaff (2003), table 2

¹⁸ *Cornell University Fact Book*, available at <http://dpb.cornell.edu/irp/factbook.html>

ranging from 20.1 to 53.3 across the campuses in the fall of 1999.¹⁹ While academic institutions have an educational interest, as well as a financial interest, in seeing their transfer students succeed through to graduation, *USNWR*'s preoccupation with the success of full-time freshman, provides an incentive for academic institutions to worry more about these students than their transfer student classmates.

A related problem associated with the retention and graduation rate variables is that *USNWR* cannot distinguish between people leaving the institution because of academic, personal, or financial problems and people leaving because of the opportunity to attend a better institution. My alma mater Harpur College (now Binghamton University) has a 6-year graduation rate that hovers around 80% which always places it at or near the top of the campuses in the SUNY system on this measure, but well below the 6-year graduation rates of over 90% at Ivy League colleges. Part of the reason for Binghamton's not doing better on this measure is that a number of its top students transfer to Ivy League institutions, such as Cornell, at the end of their first semester or first year. Indeed, at Cornell we make it easy for many of these students to do this by guaranteeing them the ability to do so when they initially apply to us. Should Binghamton be penalized in the rankings because some of its students leave to go to higher rated institutions? If it enrolled fewer top students, it might actually have a higher 6-year graduation rate

Financial Resources is the fifth *USNWR* category and it has a weight of 10% in the overall ranking. Financial resources are measured by the amount that the institutions spend per student on instruction, research, public service, academic support, student services, institutional support and operations and maintenance. Inclusion of expenditures

¹⁹ Ronald G. Ehrenberg and Christopher L. Smith (forthcoming), table 2

per student in the ranking penalizes institutions that attempt to hold down their expenditures and thus puts upward pressure on tuitions. Inclusion of research expenditures in this measure provides institutions with extra incentives to push their faculty to generate more external research funding, even if this diverts their faculty members' attention away from undergraduate teaching.

Alumni giving, as measured by the percentage of undergraduate alumni who donated money to an institution, with a weight of 5% in the index, is included as a proxy for how satisfied students are with the institution. The proportion of annual giving that institutions receive from alumni, as opposed to from other individuals, corporations and foundations varies widely across institutions for reasons that have little to do with alumni satisfaction and thus the incentive that institutions have to devote resources to soliciting alumni funding vary widely across institutions.²⁰ For example, institutions with large medical colleges and large biomedical research programs often find it easier to raise funds from corporations and other individuals (former hospital patients) than from alumni. The *USNWR* ratings methodology provides an incentive for these institutions to devote more resources to alumni fund raising than otherwise might be optimal for them. Similarly, many institutions have learned that the marginal cost of raising funds from a few major donors is much lower than the marginal cost of raising an equivalent amount of money from many small donors. The *USNWR* rating methodology penalizes them for concentrating on large donors and provides an incentive for them to devote more resources to fundraising (to attract more small donors) than is otherwise optimal.

The final category *USNWR* includes is *graduation rate performance* and its weight is also 5% in the ratings methodology. Graduation rate performance is computed

²⁰Ronald G. Ehrenberg and Christopher L. Smith (2002)

by comparing an institution's actual 6-year graduation rate to its predicted 6-year graduation rate, the latter is obtained from a model that specifies that graduation rates are a function of student characteristics (such as entering test scores) and institutional characteristics (such as expenditures per student). As I have already noted above, an institution's predicted graduation rate may be higher than its actual graduation rate because it is doing a poor job educating its students or because it has the misfortune of having its better students attracted to more selective institutions as transfer students.

IV. What's Wrong with the Ratings

One may reasonably ask, if the *USNWR* rankings are flawed, why do academic institutions participate in it? The answer, quite simply, is that it is in their best interest to do so. Institutions that do well in the rankings trumpet their success on their web pages and in published materials. Institutions that do not do as well as they had hoped in the rankings ignore the rankings and publicize other things that make the institutions look good. Indeed, what is included on the institutional web page and what the institutions brag about vary from year to year. If an institution's graduates win several prestigious awards, such as Rhodes and Marshall Scholarships in a year, you can bet that this will be widely publicized. However, if the institution's graduates fail to win any of these awards the next year, this fact will never be mentioned. Academic institutions always put a good spin on things and never mention their shortcomings.

The real problem with the *USNWR* rankings does not lie with the categories and the subcategory factors that it uses. Each of these provides information that some students and their parents feel is very useful in deciding to which colleges to apply. Indeed, many institutions actually provide all of the information that they submit to *USNWR* and other

college guides directly on their own web sites in the form of their submissions to the *Common Data Set (CDS)*.²¹ The CDS was developed via a collaborative process that involved many publishers of college guides, the academic community, high school counselors and the National Center for Education Statistics. The goal was to ease institutions' reporting burdens by asking questions across a wide number of surveys in a standard way so that one response would satisfy the needs of all users of the data.

Rather, the real problem is *USNWR*'s arbitrary assignment of weights to each category and to each subcategory factor within a category. For a given student, how one institution compares to another will depend upon a whole set of factors that are not included in the ranking scheme including, but not limited to, the match of a student's interests with the curriculum offered by the institution, the costs of attendance and the availability of financial aid, the region of the country from which the student is coming and in which the institution is located, the rural/urban nature of the campus, whether the student's parents are alumni of the institution, the religious orientation of the student and the institution, the interests of the student in participating in intercollegiate athletics, intramural athletics and the whole range of other student activities, the athletic programs and other activities that the institution offers and the availability of support services for students with special needs. No set of weights, regardless of whether they are determined by *USNWR* or any group of "experts", will accurately rank which of two schools a given student should attend.

²¹ For example, Cornell currently has all of its data for the 1999-2000 to 2002-2003 academic years on line at <http://dpb.cornell.edu/irp/cds.html>

USNWR understands this and repeatedly counsels readers of its publications not to choose which schools to apply to based solely upon its rankings.²² Indeed, its 2004 ratings issues also talked about eight types of programs that are thought to be associated with student success; these include the nature of first year experiences, the presence of learning communities, study-abroad options, opportunities for undergraduate research and service learning. *USNWR* asked presidents, provosts and deans to list 10 institutions with outstanding programs in each area and then it listed alphabetically the institutions that appeared frequently on these lists.²³ However, as the Monks/Ehrenberg study indicated, prospective students don't always take *USNWR* advice seriously. The ratings do matter to students and their families and therefore they do matter to the institutions.

To say that the data elements that *USNWR* collects information on are not the real problem with the ratings is not to say that they are necessarily the only data elements, or even the best data elements, upon which higher education institutions should be judged. Most of them relate to the resources that the institution has available to educated students, measures of the academic quality of the entering first-year class, and the academic reputation of the institution, which is presumably highly correlated with the quality of the entering students and the wealth of the institution.²⁴ Only one of the data elements, the comparison of actual and predicted graduation rates, is at all related to the value added that an institution provides its students and this variable only has a weight of 5% in the rating formula. Unfortunately, one can always quibble with the methodology used to obtain such comparisons and argue that a different methodology might have yielded

²² See for example, Robert J. Morse and Samuel M. Flanagan (2003)

²³ Morse and Flanagan (2003)

²⁴ No study that I know of has looked at determinants of academic reputation of undergraduate programs, although Ronald G. Ehrenberg and Peter J. Hurst (1998), among others, have done this for graduate programs.

different results. So the use of value added measures in these types of ratings formulae will always be open to question.

It is not an accident that none of the top 20 national universities in the 2004 *USNWR* ranking was a public institution. Over the last several decades, the restricted financing of public higher education has led the publics to increasingly lag behind the privates in expenditures per student and in average faculty salaries. The implication of the *USNWR* rankings methodology is that the high quality publics, such as Berkeley, Michigan, North Carolina and Wisconsin appear to be increasingly less attractive places to study – the focus on resource levels, rather than on the nature of the undergraduate curriculum and how it is delivered to students surely overstates the changes that have occurred.

Similarly, the heavy weight that student selectivity has in the ratings and the quest by all institutions to become “more selective” may lead public higher education away from one of its most fundamental historic goals, namely to provide access to all qualified students. Nowhere in the rankings methodology (save in the comparison of actual and predicted graduation rates) is there any mention of the income distribution of an institution’s students’ families, the education levels of the institution’s students’ parents, nor the fraction of its students for whom English is a second language. Institutions that recruit students from underrepresented and disadvantaged populations – students that tend to have lower scores on entrance exams – and that do a wonderful job educating these students through to graduation should be more highly valued than the *USNWR* methodology currently permits.

V. Concluding Remarks

USNWR is not the evil empire. It has repeatedly modified the way it computes its rankings of institutions over time in response to requests from an academic advisory panel and the more general academic community.²⁵ While some (including myself) have pointed out that the repeated change in its formula invariably leads to changes in the rankings of institutions, which provides a larger market for each fall's new rankings issue, I take at face value *USNWR*'s efforts to improve the information that it is providing its readers.

The problem with the *USNWR* rankings lies not in its presentation of the information on individual data elements, but in its effort to aggregate these elements into a single index. If it stopped doing this, many of the objections that people have about its ratings would go away. Of course, so too would the rankings; the annual *USNWR* college issue would begin to look more and more like other college guides.

The rankings exacerbate, but are not the major cause of the increased competition in American higher education that has taken place over the last few decades. The real shame is that this competition has focused institutions on improving the selectivity of their entering first-year classes. Institutions appear to be increasingly valued for the test scores of the students they attract, not for their value added to their students and to society.

This problem appears to be particularly acute for our public higher education institutions at which the vast majority of American college students are educated. Cut backs in state appropriations have led to tuitions to rise at many of these institutions. At

²⁵ As far back as 1986, I expressed the concern that the use of average faculty salaries in the faculty resource category penalized institutions located in low cost-of-living areas that did not have to offer high salaries to attract high quality faculty. *USNWR* quickly responded to my concern by deflating an institution's average faculty salaries by an area cost-of-living index and using this measure in its ratings formula.

the same time, the institutions are increasingly pouring money into merit scholarships to attract high test-score students, leaving fewer funds available for institutional need-based financial aid. More and more students from low-income families find that attendance at two-year public institutions is the only way that they can begin their higher education careers.

The public 4-year institutions need to remember their responsibilities to provide access to a broad range of citizens of their states. They and their private counterparts also need to do a better job of facilitating the transfer of students from 2-year institutions and of improving the academic success rates of students who do transfer to them.

USNWR could contribute to helping these things occur by incorporating additional data elements into its rankings methodology. Public institutions (at the least) should be given “credit” for enrolling (and graduating) students from lower-income and disadvantaged backgrounds. Given the large and growing importance of transfer student enrollments at most institutions, institutions should be required to provide information on transfer student success that is analogous to the 6-year graduation rate data for freshman and the two success rates weighted by the proportions of new students that enroll in each category to help judge how well an institution is performing on this dimension.

References

Amy Argetsinger, “Colleges Lobbying to Move up in the Polls: Schools Politicking Each Other to Advance in the Annual Rankings”, *Washington Post*, September 14, 2002, pA1.

Edward Blum and Roger Clegg, “Percent Plans: Admission of Failure”, *Chronicle of Higher Education* 49 (March 21, 2003): B10

Dominic J. Brewer, Eric R. Eide and Ronald G. Ehrenberg, “Does it Pay to Attend an Elite Private College? Cross-Cohort Effects of College Type on Earnings”, *Journal of Human Resources* 34 (Winter 1999): 104 –123

Stacy B Dale and Alan B. Krueger, “Estimating the Payoff to Attending a More Selective College: An Application of Selection on Observables and Unobservables”, *Quarterly Journal of Economics* 117 (November 2002): 1491 - 1527

Ronald G. Ehrenberg, *Tuition Rising: Why College Costs So Much* (Cambridge MA, Harvard University Press, 2000)

Ronald G. Ehrenberg, “Reaching for the Brass Ring: The *U.S. News & World Report* Rankings and Competition”, *The Review of Higher Education* 26 (Winter 2002): 145-162

Ronald G. Ehrenberg and Peter J. Hurst, “The 1995 Ratings of Doctoral Programs: A Hedonic Model”, *Economics of Education Review* 17 (April 1998): 137 -148

Ronald G. Ehrenberg and Daniel B. Klaff, “Changes in Faculty Composition within the State University of New York System: 1985 – 2001”, *Cornell Higher Education Research Institute Working Paper* 38 (August 2003), available at

www.ilr.cornell.edu/cheri

Ronald G. Ehrenberg and Christopher L. Smith, “The Sources and Uses of Annual Giving at Selective Private Research Universities and Liberal Arts Colleges”, *Economics of Education Review* 22 (June 2003): 223-235

Ronald G. Ehrenberg and Christopher L. Smith, “Analyzing the Success of Student Transitions from 2-Year to 4-Year Public Institutions within a State”, *Economics of Education Review* (forthcoming), table 2

Ronald G. Ehrenberg and Robert S. Smith, *Modern Labor Economics: Theory and Public Policy* 8th edition (Boston MA: Addison Wesley, 2003)

Eric R. Eide, Dominic J. Brewer and Ronald G. Ehrenberg, “Does it Pay to Attend an Elite Private College: Evidence on the Effects of Undergraduate College Quality on Graduate School Attendance”, *Economics of Education Review* 17 (Winter 1998): 371-376

Robert J. Frank, “Higher Education: The Ultimate Winner-Take-All Market” in Maureen Devlin and Joel Meyerson eds. *Forum Futures- Exploring the Future of Higher Education* (San Francisco CA: Jossey- Bass, 2001)

Caroline M. Hoxby, “The Effects of Geographic Integration and Increasing Competition in the Market for College Education” (Harvard Economics Department Working Paper, 1998a)

Caroline Hoxby, “The Return to Attending a More Selective College: 1960 to the Present” (Harvard Economics Department Working Paper, 1998b)

Caroline M. Hoxby and Bridget Terry (Long), “Explaining Rising Income and Wage Inequality Among the College Educated”, *National Bureau of Economic Research Working Paper W6873* (Cambridge MA: January 1999)

James Monks and Ronald G. Ehrenberg, “U.S. News & World Report Rankings: Why They Do Matter”, *Change* 31 (November/December 1999): 43-51

Robert J. Morse and Samuel M. Flanagan, “Using the Rankings”, available on the web at http://www.usnews.com/usnews/edu/college/rankings/about/04rank_brief.php

Michael J. Rizzo and Ronald G. Ehrenberg, “Resident and Nonresident Tuition and Enrollment at Flagship State Universities” in Caroline Hoxby ed., *College Choices: The Economics of Which Colleges, When College and How to Pay for It* (Chicago IL: University of Chicago Press, forthcoming)

Michael Robinson and James Monks, “Making SAT Scores Optional in Selective College Admissions: A Case Study”, paper presented at the November 2002 meeting of the National Bureau of Economic Research higher education working group meeting.

Available at www.mtholyoke.edu/~mrobins/monks.pdf

Table 1

Criteria and Weights Used in USNWR 2003 and 2004*
 Ranking of National Universities and Liberal Arts Colleges as Undergraduate Institutions

Ranking Category	Category Weight	Subfactor	Subfactor Weight
Academic Reputation	25%	Academic reputation survey	100%
Student Selectivity	15%	Acceptance Rate	15% (10%)
		Yield	10%
		High school class standing-top 10%	35% (40%)
		SAT/ACT scores	40% (50%)
Faculty Resources	20%	Faculty compensation	35%
		Percent faculty with top terminal degree	15%
		Percent full-time faculty	5%
		Student/faculty ratio	5%
		Class size, 1-19 students	30%
		Class size, 50+ students	10%
Graduation and Retention Rate	20%	Average 6 Year Graduation rate	80%
		Average freshman retention rate	20%
Financial Resources	10%	Average educational expenditures per student	100%
Alumni Giving	5%	Average alumni giving rate	100%
Graduation Rate Performance	5%	Graduation rate performance	100%

Source: *America's Best Colleges*, 2003 Edition (Washington, DC: *U.S. News & World Report*, 2002), p79-81 and *America's Best Colleges*, 2004 edition (available at www.news.com/usnews/edu/college/rankings/about/weight_brief.php)

* Numbers in parentheses indicate 2004 weights that are different than the 2003 weights