Rankings EXPOSED
10 shocking ways colleges game the rankings! Number 7 will blow your mind!

William Searle
Institutional Research & Planning
Takeaways

• Ranking universities is difficult
• Some universities game the rankings
• IRP takes great care to report accurate information
You won’t believe how long rankings have been around

Where we get our best men: some statistics showing their nationalities, counties, towns, schools, universities, and other antecedents: 1837-1897

By Alick Maclean
Our Primary Focus Today

“U.S. News refines its methodology for one simple reason: to improve it.” *USNWR*
The LAST timeline you’ll ever need

1983
First ranking

1987
Begin publishing annually

1988
More than just reputation

1995
Reed College boycott

1998
Cornell ranked #6

1999
Caltech ranked #1

2003
Yield rates dropped from ranking

2005
St. John’s College boycott

2008
Presidents & Provosts polled for feedback

2007
80 presidents boycott reputation survey

“U.S. News refines its methodology for one simple reason: to improve it.” USNWR
Why did US News rankings become popular?

- Struggling magazine
- College enrollment up 47% between 1970 and 1983
- Increasing importance of a college degree
- Mobile students
Ranking Scandals Ensue

“Temple University on Monday announced that its business school had **submitted false data for years** for rankings purposes. The university said that it had asked Moshe Porat, dean of the business school, to resign…”

*Inside Higher Ed July 2018*

- Fudged GMAT and GPA information
- Underreported admission offers
- Reported average debt for all graduates, not just those who borrowed
- Counted “academic coaches” as faculty in student-faculty ratio
What happened next will shock you

Job duties

Temple has extensive external reporting activity, including accreditation bodies, rankings/guidebooks and reports for governmental agencies. These submissions require data and involve significant review and verification. The Assistant Director in collaboration with the Director for Data Analysis and Reporting will oversee Temple University’s processes for completing, verifying and submitting surveys and other external reports.

The Assistant Director will provide oversight within the Office of Institutional Research and Assessment for data collection, analysis and verification support for responses to external surveys and rankings for the university and will work with the schools and colleges to ensure data verification processes are being followed for school and program specific survey submissions. Responsibilities include assist with codification of data definitions; analyze survey methodologies; identify sources of data; review internal data collection processes; audit responses to external surveys and rankings; monitor survey submission procedures; assist with maintenance of the master calendar of external surveys and rankings and archiving of survey submissions. The Assistant Director will determine the need for reports and processes to automate data collection and assist with process development. The Assistant Director will provide regular updates on rankings methodologies and outcomes for university leadership. In collaboration with external auditors, regularly review internal data control processes and provide training and support on internal procedures, policies and best practices. Performs other duties as assigned.
These colleges LIED to US News. Their punishment will leave you speechless.

8 More Colleges Submitted Incorrect Data for Rankings

*U.S. News* will consider them unranked for the rest of this rankings year, but that punishment will last only a few weeks. Errors included graduation rates, spending per student, average faculty salaries and more.
Why do colleges game the rankings?

- **Motivation**: Being aware of the performance measures and caring about the ranking.

- **Opportunity**: Having the ability to take action to influence the information used to calculate the ranking.

- **Measurement Error**: The measurement is an imperfect proxy for what we want to know.
Motivation

“The Arizona Board of Regents approved a contract this year that will give Michael M. Crow, president of Arizona State University, a $10,000 bonus if the institution's U.S. News rank rises.”

_The Chronicle of Higher Education 2007_

“The University of Missouri at Kansas City gave the Princeton Review false information designed to inflate the rankings of its business school, which was under pressure from its major donor to keep the ratings up, according to an outside audit released Friday.”

_Inside Higher Ed 2015_
Motivation

Being ranked in the top 25 of US News was associated with 6-10% increase in applications.

American Educational Research Association, 2014
Opportunity

- Misreporting
- Change Practices
- Interpretation
Measurement Error

Construct → What matters → What is measured → Proxy

Where things go wrong
U.S. News Ranking Methodology

- Expert Opinion (20%)
- Outcomes (35%)
- Alumni Giving (5%)
- Financial Resources (10%)
- Faculty Resources (20%)
- Student Excellence (10%)

- What counts
- How is it counted
- How to game the measurements
Expert Opinion (20%)

- Peer Assessment (15%)
- High School Counselor Rating (5%)
Expert Opinion (20%)

“The U.S. News ranking formula gives weight to the opinions of those in a position to judge a school's undergraduate academic excellence.”  

What we want to know → Academic Excellence

What is measured → Survey Ratings
Gaming Expert Opinion (20%)

“Trinity College Dublin sent letters seeking favorable reviews.”
- Inside Higher Ed, 2016

“In the magazine's academic-reputation surveys, Ms. Watt said, administrators rated all institutions other than Clemson as below average.”
Graduation and Retention Rates (22%)

- Six-year graduation rate (17.6%)
- First-year retention rate (4.4%)
Graduation and Retention Rates (22%)

“The higher the proportion of first-year students who return to campus for sophomore year and eventually graduate, the better a school is apt to be at offering the classes and services that students need to succeed.”

What we want to know

Availability of Classes & Services

Graduation & Retention Rates

What is measured
Graduation Rate Performance (8%)

“This indicator of added value shows the effect of the college's programs and policies on the graduation rate after controlling for spending and student characteristics, such as standardized test scores, high school class standing and the proportion receiving Pell Grants.” USNWR

What we want to know

What is measured

Student Success Over/Under Performance

Graduation Rate Over/Under Performance
Social Mobility (5%)

- Absolute Pell Grant graduation rate (2.5%)
- Relative Pell Grant graduation rate (2.5%)
Social Mobility (5%)

“New this year, we factored a school's success at promoting social mobility by graduating students who received federal Pell Grants.”  

What we want to know

Success at Promoting Social Mobility

What is measured

Pell Grant Graduation Rates
Gaming Outcomes (35%)

Two ways to make a fraction larger:
• Increase the numerator
• Decrease the denominator

Rate of Persistence = \[
\frac{\# \text{ of students persisting}}{\# \text{ of students starting}}\]
Alumni Giving Rate (5%)

“This reflects the average percentage of living alumni with bachelor's degrees who gave to their school during 2015-2016 and 2016-2017. Giving measures student satisfaction and postgraduate engagement.” USNWR

What we want to know

What is measured

Student Satisfaction/ Postgrad engagement

Percent of Alumni who Donate
Gaming Alumni Giving Rate

Albion College spread out donations from graduating seniors over five years.

*Wall Street Journal, 2007*

“Anderson’s report found that for NCAA Division I Football Bowl Subdivision teams…winning football games increases alumni athletic donations…” *Inside Higher Ed, 2012*
Financial Resources (10%)

“U.S. News measures financial resources by using the average spending per student on instruction, research, student services and related educational expenditures in the 2016 and 2017 fiscal years. Spending on sports, dorms and hospitals does not count.” USNWR
Financial Resources (10%)

“Generous per-student spending indicates that a college can offer a wide variety of programs and services.” *USNWR*

What we want to know

What is measured

Variety of Programs and Services

Educational Expenditures per Student
Gaming Financial Resources

\[
\text{Financial Resources} = \frac{\text{Educational Expenditures}}{\# \text{ of students}}
\]

“We believe numbers don’t lie, especially when interpreted advantageously.”
Faculty Resources (20%)

- Class size (8%)
- Average faculty compensation (7%)
- Percent of faculty with terminal degrees (3%)
- Student/faculty ratio (1%)
- Percent of full-time faculty (1%)
Faculty Resources (20%)

“U.S. News uses five factors from the 2017-2018 academic year to assess a school's commitment to instruction.” USNWR

What we want to know

Commitment to Instruction

What is measured

Class Size, Faculty Information
“You get credit for the number of classes you have under 20 [students], so we lowered our caps on a lot of our classes to 19 just to make sure.” – Richard Freeland, former president of Northeastern University

Careful counting of faculty, and balancing tradeoffs.
## Gaming Faculty Resources

<table>
<thead>
<tr>
<th>Format</th>
<th>Number of sections</th>
<th>Total enrollment</th>
<th>Mean section size</th>
<th>US News group</th>
<th>Percent of courses offered &lt;20</th>
<th>Percent of enrollment in &lt;20 course</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Scenario</strong></td>
<td>Lecture 2</td>
<td>839</td>
<td>420</td>
<td>50+</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Lab 3</td>
<td>213</td>
<td>71</td>
<td>50+</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Lab 5</td>
<td>626</td>
<td>125</td>
<td>50+</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Scenario A:</strong> adding one lecture and one lab with &lt;20 students each</td>
<td>Lecture 2</td>
<td>820</td>
<td>410</td>
<td>50+</td>
<td>17%</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>Lecture 1</td>
<td>19</td>
<td>19</td>
<td>&lt;20</td>
<td>17%</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>Lab 8</td>
<td>820</td>
<td>100</td>
<td>50+</td>
<td>17%</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>Lab 1</td>
<td>19</td>
<td>19</td>
<td>&lt;20</td>
<td>17%</td>
<td>2%</td>
</tr>
<tr>
<td><strong>Scenario B:</strong> adding 2 lectures and 8 labs with &lt;20 students each</td>
<td>Lecture 2</td>
<td>801</td>
<td>400</td>
<td>50+</td>
<td>50%</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>Lecture 2</td>
<td>38</td>
<td>19</td>
<td>&lt;20</td>
<td>50%</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>Lab 8</td>
<td>683</td>
<td>85</td>
<td>50+</td>
<td>50%</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>Lab 8</td>
<td>156</td>
<td>19</td>
<td>&lt;20</td>
<td>50%</td>
<td>12%</td>
</tr>
<tr>
<td><strong>Scenario C:</strong> all sections are &lt;20</td>
<td>Lecture 44</td>
<td>839</td>
<td>19</td>
<td>&lt;20</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Lab 44</td>
<td>839</td>
<td>19</td>
<td>&lt;20</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Scenario D:</strong> one lecture and all labs are &lt;20</td>
<td>Lecture 1</td>
<td>839</td>
<td>839</td>
<td>50+</td>
<td>98%</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>Lab 44</td>
<td>839</td>
<td>19</td>
<td>&lt;20</td>
<td>98%</td>
<td>50%</td>
</tr>
<tr>
<td><strong>Scenario E:</strong> lectures are 50 each and labs are &lt;20</td>
<td>Lecture 17</td>
<td>839</td>
<td>50</td>
<td>50+</td>
<td>72%</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>Lab 44</td>
<td>839</td>
<td>19</td>
<td>&lt;20</td>
<td>72%</td>
<td>50%</td>
</tr>
</tbody>
</table>
Student Excellence (10%)

• SAT/ACT scores (7.75%)
• Students graduating in top 10% of their high school class (2.25%)
“Simply put, students who achieved strong grades and test scores during high school have the highest probability of succeeding at challenging college-level coursework; enabling instructors to design classes that have great rigor.”

*USNWR*
Gaming Student Excellence

“Emory University officials announced Friday that administrators had knowingly misreported information about the SAT and ACT scores, class rank, and grade point averages of incoming students since at least 2000.” *Inside Higher Ed, 2012*

“In 2008, Baylor University told newly admitted students that they’d receive a $300 campus-bookstore credit if they retook their SATs, and $1,000 a year in student aid if the scores improved by more than 50 points.” *Boston Magazine, 2014*
Gaming Student Excellence continued

- Test optional
- Early Decision
- Merit Aid
- Spring admission

“I want to show my colleges I’m well-rounded, so I wrote a poem in Spanish about how chess club has made me a better quarterback.”
REVEALED! Formula for the Best College (according to US News)

- Classes & Services, Social Mobility: 27%
- Academic Excellence: 20%
- Commitment to Instruction: 20%
- Rigor of classes: 10%
- Variety of Programs & Services: 10%
- Student Over/Under Performance: 8%
- Student Satisfaction, Engagement: 5%

Graduation & Retention Rates
- Survey Ratings
- Faculty info, class size
- SAT scores, HS Rank
- Educational Expenditures per Student
- Grad. Rate Over/Under Performance
- % of Alumni Donating
Takeaways

- Ranking universities is difficult
- Some universities game the rankings
- IRP takes great care to report accurate information