Beyond Football: Rutgers in the Big Ten

November 7, 2017 | 4:30 p.m. to 6:00 p.m.

Rutgers Academic Building, Lecture Hall 4225
15 Seminary Place, New Brunswick

Want to know how Rutgers stacks up against its Big Ten peers off the gridiron? Where we stand in terms of Research Output, Diversity, US News & World Report Rankings, Fundraising, and more?

This is the first in a series of Campus Conversations where we will use data to shed light on areas of strength, challenges, and opportunities for growth at Rutgers University–New Brunswick.
Agenda

• The Big Ten Athletic Conference and Academic Alliance

• Benchmarking Rutgers University-NB among the Big Ten Public Institutions:
  – Enrollment & Admissions
  – Student Outcomes
  – Research
  – Physical Plant Characteristics
  – Budget/State Support/Tuition
  – Endowment
  – Rankings
The Big Ten Athletic Conference and Academic Alliance

14 Member Institutions – 13 Public and 1 Private
The Big Ten

**Athletic Conference**
- NCAA Division 1
- 14 Men’s Sports
- 14 Women’s Sports
- Dates back to the 1890s
- One of the most competitive and successful conferences in intercollegiate athletics

**Academic Alliance**
- Originally the Committee on Institutional Cooperation
- Began in 1958
- Provides opportunities for collaboration among students/faculty/staff of member institutions
- Big Ten public universities are a natural peer group for RU-NB (all but one in AAU)
The Big Ten Academic Alliance:
World-Class Universities, Working in Collaboration

“The working philosophy of the CIC has always been to help each member institution develop in depth and to exploit its own areas of strength, and then to make the combined strength available to all.”

Herman B. Wells, Indiana University President, at the founding of the Committee on Institutional Cooperation (now the Big Ten Academic Alliance) in 1958.

Strategic Priorities:
- Provide national leadership and influence
- Promote a sustainable culture of collaboration
- Increase cost savings and efficiencies
Benchmarking Rutgers University–NB among the Big Ten Public Institutions

Enrollment
Big Ten Total Enrollment
Fall 2016

<table>
<thead>
<tr>
<th>University</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ohio State University</td>
<td>59,482</td>
</tr>
<tr>
<td>University of Minnesota</td>
<td>51,579</td>
</tr>
<tr>
<td>Michigan State University</td>
<td>50,340</td>
</tr>
<tr>
<td>Rutgers University–NB</td>
<td>50,146</td>
</tr>
<tr>
<td>Indiana University</td>
<td>49,695</td>
</tr>
<tr>
<td>Pennsylvania State University</td>
<td>47,789</td>
</tr>
<tr>
<td>University of Illinois</td>
<td>46,951</td>
</tr>
<tr>
<td>University of Michigan</td>
<td>44,718</td>
</tr>
<tr>
<td>University of Wisconsin</td>
<td>42,582</td>
</tr>
<tr>
<td>Purdue University</td>
<td>41,513</td>
</tr>
<tr>
<td>University of Maryland</td>
<td>39,083</td>
</tr>
<tr>
<td>University of Iowa</td>
<td>32,011</td>
</tr>
<tr>
<td>University of Nebraska</td>
<td>25,897</td>
</tr>
</tbody>
</table>

Source: National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS) Survey
Big Ten: Enrollment – Fall 2016
Percentage of Graduate, Undergraduate

Source: National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS) Survey
Undergraduate Enrollment by Student Demographics
Fall 2016

Rutgers–New Brunswick

- White: 40%
- Latino: 13.1%
- Black: 7.5%
- Asian: 25.7%
- International: 8.3%
- Other: 5.6%

Big Ten Average

- White: 65.1%
- Latino: 5.9%
- Black: 5.0%
- Asian: 8.2%
- International: 10.3%
- Other: 5.6%

Source: National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS) Survey
Graduate Enrollment by Student Demographics
Fall 2016

Rutgers–New Brunswick

- White: 41.9%
- Latino: 9.3%
- Black: 9.4%
- Asian: 14.9%
- Other: 4.6%
- International: 20.0%

Big Ten Average

- White: 53.0%
- Latino: 4.2%
- Black: 3.9%
- Asian: 5.3%
- Other: 6.0%
- International: 27.7%

Source: National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS) Survey
Big Ten: Enrollment by Residency – Fall 2016
Incoming First-Time Undergraduate

Source: National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS) Survey
Benchmarking Rutgers University–NB among the Big Ten Public Institutions

Admissions
Big Ten: Percent Admit and Percent Yield – Fall 2016
First-time Degree-seeking Undergraduate

Source: National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS) Survey
Big Ten: Percent of Full-Time First-Time Undergraduates Awarded Pell Grants – Fall 2015

Source: National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS) Survey
Big Ten States
Share of Freshmen Leaving Home State to Start College

Source: Postsecondary Education OPPORTUNITY - The Pell Institute for the Study of Opportunity in Higher Education
Big Ten States
Net In-Migration Rate of Persons with Bachelor’s Degrees

Source: Postsecondary Education OPPORTUNITY - The Pell Institute for the Study of Opportunity in Higher Education
Benchmarking Rutgers University–NB among the Big Ten Public Institutions

Student Outcomes
Big Ten: Graduation Rate
4 and 6 Year Graduation Rate, 2010 Cohort

Source: National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS) Survey
Big Ten: Graduation Rate Gap
2010 Cohort

Source: National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS) Survey
Doctoral Degrees Conferred – FY16

Source: National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS) Survey

Doctoral degrees may include Ph.D., Ed.D., D.M.A., D.B.A., D.Sc., D.A., or D.M, and others, as designated by the awarding institution.
Big Ten: Salary After Attending
Median Earnings of Undergraduate Students Who Received Federal Financial Aid, at 10 Years After Entering Respective Institution

Source: U.S. Department of Education – College Scorecard
Benchmarking Rutgers University–NB among the Big Ten Public Institutions

Research
### Big Ten: Number of Members in the National Academies

<table>
<thead>
<tr>
<th>University</th>
<th>National Academy Membership</th>
<th>American Academy of Arts &amp; Sciences Membership</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Michigan</td>
<td>106</td>
<td></td>
</tr>
<tr>
<td>University of Wisconsin</td>
<td>80</td>
<td></td>
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<tr>
<td>University of Illinois</td>
<td>75</td>
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<tr>
<td>University of Minnesota</td>
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<tr>
<td>Ohio State University</td>
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<tr>
<td>Penn State University</td>
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<tr>
<td>University of Maryland</td>
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<tr>
<td>Purdue University</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>The University of Iowa</td>
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<td></td>
</tr>
<tr>
<td>Indiana University</td>
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</tr>
<tr>
<td>Michigan State University</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>University of Nebraska</td>
<td>22</td>
<td></td>
</tr>
</tbody>
</table>

*National Academy Membership includes:
The Academy of Sciences, Academy of Engineering, Academy of Medicine.*


Big Ten Publics: Total Research Spending

NSF Data (FY 2015)

Total R&D Expenditures ($ = 000)

University of Michigan: $1,369,278
University of Wisconsin: $1,069,077
University of Minnesota: $880,618
Ohio State University: $817,881
Penn State University: $791,031
University of Illinois: $639,817
Rutgers University-NB: $628,613
Purdue University: $558,611
Michigan State: $558,248
University of Maryland: $505,699
Indiana University: $485,076
University of Iowa: $443,218
University of Nebraska: $284,438

Source: National Science Foundation (NSF) – Higher Education Research and Development Survey (HERD)
Big Ten Publics: Federal Research Spending
NSF Data (FY 2015)
Federal R&D Expenditures ($ = 000)

<table>
<thead>
<tr>
<th>University</th>
<th>Federal R&amp;D Expenditures</th>
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</thead>
<tbody>
<tr>
<td>University of Michigan</td>
<td>$735,447</td>
</tr>
<tr>
<td>University of Wisconsin</td>
<td>$533,286</td>
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<tr>
<td>Penn State University</td>
<td>$513,410</td>
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<td>University of Minnesota</td>
<td>$476,029</td>
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<tr>
<td>Ohio State University</td>
<td>$446,048</td>
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<tr>
<td>University of Illinois</td>
<td>$338,178</td>
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<tr>
<td>University of Maryland</td>
<td>$332,393</td>
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<tr>
<td>Rutgers University-NB</td>
<td>$323,675</td>
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<tr>
<td>Michigan State</td>
<td>$272,838</td>
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<tr>
<td>University of Iowa</td>
<td>$225,587</td>
</tr>
<tr>
<td>Purdue University</td>
<td>$217,330</td>
</tr>
<tr>
<td>Indiana University</td>
<td>$210,899</td>
</tr>
<tr>
<td>University of Nebraska</td>
<td>$95,831</td>
</tr>
</tbody>
</table>

Source: National Science Foundation (NSF) – Higher Education Research and Development Survey (HERD)
Big Ten: Patents Issued

- University of Wisconsin: 161 patents
- University of Michigan: 159 patents
- Purdue Research Fdn.: 122 patents
- University of Illinois: 97 patents
- Rutgers University: 75 patents
- University of Minnesota: 50 patents
- Indiana University: 40 patents
- Michigan State University: 40 patents
- Ohio State University: 40 patents
- Penn State University: 36 patents
- University of Nebraska: 28 patents
- University of Iowa: 24 patents

*Excludes the University of Maryland

Source: Association of University Technology Managers
Big Ten: License Income

- University of Michigan: $31,578,587
- University of Wisconsin: $24,738,970
- University of Illinois: $18,526,963
- University of Minnesota: $15,381,315
- Rutgers University: $12,579,211
- Michigan State University: $8,579,211
- Indiana University: $6,847,143
- University of Nebraska: $6,511,937
- Purdue Research Fdn.: $6,377,899
- Ohio State University: $5,972,460
- Penn State University: $5,879,469
- University of Iowa: $5,579,460

*Excludes the University of Maryland
Benchmarking Rutgers University–NB among the Big Ten Public Institutions

Physical Plant Characteristics
Rutgers New Brunswick Facilities
Generally Older and Smaller than Average for the Big Ten

Rutgers–New Brunswick
• 44% of buildings are 50 years of age or older
• Average building size of 18,000 square feet
• Total space per student = 216 square feet

Big Ten Public Average*
• 36% of buildings are 50 years of age or older
• Average building size of 60,000 square feet
• Total space per student = 303 square feet

* excludes Maryland and Rutgers

Source: Provided by Rutgers Institutional Planning and Operations
Benchmarking Rutgers University–NB among the Big Ten Public Institutions

Budget/State Support/Tuition
Big Ten Publics: University Budget Comparisons
IPEDS Finance Survey Data

Total Expenses & Deductions FY2015 (in billion $s)

Source: National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS) Survey
(Data not available for Penn State)
State Support for Higher Education
A Comparison of Big Ten States (FY2017)

$/Capita

- Nebraska, $395.13
- Maryland, $326.52
- Minnesota, $279.59
- Iowa, $272.88
- Indiana, $265.34
- Wisconsin, $255.07
- **New Jersey, $232.94**
- Ohio, $198.34
- Michigan, $189.06
- Pennsylvania, $132.44
- Illinois, N/A

$/$1,000 Personal Income

- Nebraska, $8.03
- Indiana, $6.13
- Iowa, $5.87
- Maryland, $5.66
- Wisconsin, $5.43
- Minnesota, $5.41
- Ohio, $4.44
- Michigan, $4.28
- **New Jersey, $3.77**
- Pennsylvania, $2.61
- Illinois, N/A

Source: State Higher Education Executive Officers (SHEEO) and the Center for the Study of Education Policy.
### Rutgers–New Brunswick’s Tuition and Fee Charges Compared to Big Ten Publics

**Annual In-State Undergraduate Tuition and Fees AY2016**

<table>
<thead>
<tr>
<th>University</th>
<th>Annual In-State Undergraduate Tuition and Fees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penn State University</td>
<td>$17,900</td>
</tr>
<tr>
<td>University of Illinois</td>
<td>$15,058</td>
</tr>
<tr>
<td>University of Michigan</td>
<td>$14,402</td>
</tr>
<tr>
<td><strong>Rutgers University–NB</strong></td>
<td><strong>$14,372</strong></td>
</tr>
<tr>
<td>Michigan State University</td>
<td>$14,142</td>
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<tr>
<td>University of Wisconsin</td>
<td>$14,062</td>
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<tr>
<td>Indiana University</td>
<td>$10,488</td>
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<tr>
<td>University of Maryland</td>
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<td>Ohio State University</td>
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<td>Purdue University</td>
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<tr>
<td>University of Iowa</td>
<td>$10,002</td>
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<tr>
<td>University of Nebraska</td>
<td>$8,575</td>
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</tbody>
</table>

*Source: National center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS) Survey (Data not available for Penn State)*
Rutgers–New Brunswick’s Tuition and Fee Increases Compared to Big Ten Publics

Average Annual In-State Undergraduate Tuition and Fee Percentage Increase AY11-AY16

Source: National center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS) Survey
(Data not available for Penn State)
Benchmarking Rutgers University–NB among the Big Ten Public Institutions

Endowment
Big Ten Publics: Endowment $
NACUBO/Commonfund Data FY 2016

University/System/Foundation Endowment Totals (in billion $s)

- University of Michigan: $9.7
- Penn State University: $3.6
- Ohio State University: $3.6
- University of Minnesota: $3.3
- University of Wisconsin: $2.4
- University of Illinois: $2.3
- Purdue University: $2.3
- Michigan State University: $2.2
- Indiana University: $2.0
- University of Nebraska: $1.5
- University of Iowa: $1.3
- Rutgers University: $1.1
- University of Maryland: $1.0

Source: National Association of College and University Business Officers and Commonfund Institute
Big Ten Publics: Endowed Faculty Positions

Number of Endowed Faculty Positions - 2016

<table>
<thead>
<tr>
<th>University</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Michigan</td>
<td>531</td>
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<tr>
<td>Indiana University</td>
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<td>University of Minnesota</td>
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<tr>
<td>University of Wisconsin</td>
<td>456</td>
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<tr>
<td>Penn State University</td>
<td>434</td>
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<tr>
<td>Ohio State University</td>
<td>296</td>
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<tr>
<td>University of Iowa</td>
<td>251</td>
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<tr>
<td>University of Nebraska</td>
<td>217</td>
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<tr>
<td>Purdue University</td>
<td>207</td>
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<tr>
<td>Michigan State University</td>
<td>168</td>
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<tr>
<td>University of Maryland</td>
<td>147</td>
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<tr>
<td>Rutgers University NB</td>
<td>113</td>
</tr>
<tr>
<td>Rutgers University</td>
<td>85</td>
</tr>
</tbody>
</table>

Source: Data from Michigan State’s Office of University Advancement
Figures for Illinois and Nebraska are for 2012.
Benchmarking Rutgers University–NB among the Big Ten Public Institutions

Rankings
# Popular U.S. and International Rankings and Typical Ranking Metrics

<table>
<thead>
<tr>
<th>Rankings</th>
<th>Typical Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>U.S.</strong></td>
<td></td>
</tr>
<tr>
<td>US News</td>
<td>- Student Selectivity (SATs, Admit Rate, % in top of class, etc.)</td>
</tr>
<tr>
<td>Wall Street Journal/Times Higher Education (WSJ/THE)</td>
<td></td>
</tr>
<tr>
<td>Forbes</td>
<td>- Student Success (Graduation &amp; Retention Rates)</td>
</tr>
<tr>
<td>Kiplinger</td>
<td>- Reputation</td>
</tr>
<tr>
<td>Washington Monthly</td>
<td>- Financial and Faculty Resources (Expenditures per FTE, Student-Faculty Ratio)</td>
</tr>
<tr>
<td><strong>International</strong></td>
<td></td>
</tr>
<tr>
<td>Academic Rankings of World Universities (ARWU) – Shanghai</td>
<td>- Research &amp; Teaching Reputation</td>
</tr>
<tr>
<td>US News – International Times Higher Education</td>
<td>- Research Productivity (e.g. publications, citations, research income)</td>
</tr>
<tr>
<td>Center for World University Rankings (CWUR)</td>
<td>- International Collaboration</td>
</tr>
<tr>
<td>QS World University Rankings–London</td>
<td></td>
</tr>
</tbody>
</table>
# U.S. Rankings for the Big Ten Publics

## U.S. Undergraduate Program Rankings, Big 10 Publics

<table>
<thead>
<tr>
<th>School</th>
<th>US News</th>
<th>WSJ/THE</th>
<th>Forbes</th>
<th>Kiplinger</th>
<th>Washington Monthly</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Michigan-Ann Arbor</td>
<td>28</td>
<td>27</td>
<td>38</td>
<td>86</td>
<td>37</td>
</tr>
<tr>
<td>University of Wisconsin-Madison</td>
<td>46</td>
<td>71</td>
<td>87</td>
<td>102</td>
<td>26</td>
</tr>
<tr>
<td>University of Illinois at Urbana-Champaign</td>
<td>52</td>
<td>48</td>
<td>69</td>
<td>108</td>
<td>-</td>
</tr>
<tr>
<td>Pennsylvania State University-Main Campus</td>
<td>52</td>
<td>125</td>
<td>142</td>
<td>217</td>
<td>145</td>
</tr>
<tr>
<td>Ohio State University-Main Campus</td>
<td>54</td>
<td>69</td>
<td>131</td>
<td>107</td>
<td>119</td>
</tr>
<tr>
<td>Purdue University-Main Campus</td>
<td>56</td>
<td>43</td>
<td>143</td>
<td>134</td>
<td>25</td>
</tr>
<tr>
<td>University of Maryland-College Park</td>
<td>61</td>
<td>82</td>
<td>72</td>
<td>80</td>
<td>70</td>
</tr>
<tr>
<td>University of Minnesota-Twin Cities</td>
<td>69</td>
<td>122</td>
<td>139</td>
<td>56</td>
<td>54</td>
</tr>
<tr>
<td><strong>Rutgers University</strong></td>
<td><strong>69</strong></td>
<td><strong>147</strong></td>
<td><strong>158</strong></td>
<td><strong>148</strong></td>
<td><strong>68</strong></td>
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<tr>
<td>University of Iowa</td>
<td>78</td>
<td>145</td>
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<tr>
<td>Michigan State University</td>
<td>81</td>
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<td>178</td>
<td>236</td>
<td>38</td>
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<tr>
<td>Indiana University-Bloomington</td>
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<td>138</td>
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<td>272</td>
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<tr>
<td>University of Nebraska-Lincoln</td>
<td>124</td>
<td>467</td>
<td>253</td>
<td>245</td>
<td>174</td>
</tr>
</tbody>
</table>

*If a range is given, lower number in range is listed.

**If more than one Rutgers campus is ranked, New Brunswick is referenced.

Trends in US News National Rankings
Rutgers Compared to Selected Higher-Ranked Peers

National University Rankings

Rutgers University - NB
Ohio State University
University of Illinois
University of Wisconsin
University of Michigan
## International Rankings for the Big Ten Publics

<table>
<thead>
<tr>
<th>School</th>
<th>ARWU (Shanghai)</th>
<th>US News - International</th>
<th>Times Higher Education</th>
<th>CWUR</th>
<th>QS</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Michigan-Ann Arbor</td>
<td>24</td>
<td>17</td>
<td>21</td>
<td>22</td>
<td>21</td>
</tr>
<tr>
<td>University of Wisconsin-Madison</td>
<td>28</td>
<td>31</td>
<td>43</td>
<td>26</td>
<td>55</td>
</tr>
<tr>
<td>University of Minnesota-Twin Cities</td>
<td>34</td>
<td>42</td>
<td>56</td>
<td>46</td>
<td>163</td>
</tr>
<tr>
<td>University of Illinois at Urbana-Champaign</td>
<td>37</td>
<td>51</td>
<td>37</td>
<td>36</td>
<td>69</td>
</tr>
<tr>
<td>University of Maryland-College Park</td>
<td>53</td>
<td>50</td>
<td>69</td>
<td>80</td>
<td>129</td>
</tr>
<tr>
<td>Purdue University-Main Campus</td>
<td>77</td>
<td>103</td>
<td>60</td>
<td>64</td>
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<tr>
<td><strong>Rutgers University</strong></td>
<td><strong>79</strong></td>
<td><strong>97</strong></td>
<td><strong>172</strong></td>
<td><strong>49</strong></td>
<td><strong>283</strong></td>
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<tr>
<td>Ohio State University-Main Campus</td>
<td>80</td>
<td>46</td>
<td>70</td>
<td>48</td>
<td>86</td>
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<tr>
<td>Pennsylvania State University-Main Campus</td>
<td>85</td>
<td>66</td>
<td>77</td>
<td>58</td>
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</tr>
<tr>
<td>Michigan State University</td>
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<td>81</td>
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<tr>
<td>Indiana University-Bloomington</td>
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<td>129</td>
<td>117</td>
<td>135</td>
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<td>153</td>
<td>201</td>
<td>139</td>
<td>421</td>
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<tr>
<td>University of Nebraska-Lincoln</td>
<td>151</td>
<td>272</td>
<td>301</td>
<td>316</td>
<td>501</td>
</tr>
</tbody>
</table>

*If a range is given, lower number in range is listed.

**If more than one Rutgers campus is ranked, New Brunswick is referenced.

What does this all mean for Rutgers?
Edward J. Bloustein
President, Rutgers University
1971-1989

G. Wayne Clough
President, Georgia Institute of Technology
1994-2008
Questions?

Comments?

Ideas for future conversations