

## Law School Productivity & Impact—Evidence from the Legal Scholarship Network

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At a time of resource constraint in legal academia, there is ever-growing demand for indicators of how productive legal scholars are. This mirrors the trends towards increased accountability and increased focus on measurable aspects of research productivity and impact across academic disciplines.<sup>1</sup>

There are at least two major international law school rankings that consider research productivity and impact: The Times Higher Education rankings,<sup>2</sup> and the QS rankings.<sup>3</sup> Both of these include a research component, but because they use Elsevier data for most of their impact assessment, they likely undercount the productivity and impact of many American law schools where most publications appear in student-edited law reviews which are under-represented in databases like SCOPUS.

In the United States the most influential law school ranking is produced by U.S. News. It measures law school research by way of a peer survey. As such, it is vulnerable to subjective assessment by faculty members who may not be familiar with the broad range of research that comes out of each of their peer institutions and how those schools compare with one another. Others, like Brian Leiter, use more advanced polling methods to try and get a better sense of which schools scholars believe produce the best research.<sup>4</sup>

Because rankings are sensitive to their inputs, using index measures with many inputs, or producing a variety of rankings that each rely on different input data provides a clearer signal of actual research productivity and impact. To contribute to the ranking triangulation that input diversification allows for, this project gathers data from SSRN's Legal Scholarship Network—a popular e-repository for legal academic research—and uses it to assess the productivity and impact of American law schools. The below focuses on the research production of authors affiliated with the top 100 law schools as ranked by the U.S. News. A future report will attempt to replicate this for globally-ranked law schools.

### LSN, SSRN, and Data Collection

The Legal Scholarship Network (LSN) is a popular e-repository for legal scholarship. Many academics post their work here to seek feedback from colleagues, disseminate it prior to publication, or provide eased access to their published research. As such, it provides rich potential insight into the production and consumption of legal academic research.

Data was collected from SSRN by downloading metadata on papers appearing in LSN e-journals. I was able to collect data on 235,816 unique papers written by 103,969 unique authors. The self-provided affiliation data for each of these authors was then collected and subsequently associated with a top-100 law school where possible.

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<sup>1</sup> See Diana Hicks et al., *Bibliometrics: The Leiden Manifesto for Research Metrics*, 520 NATURE 429 (2015).

<sup>2</sup> QS, *World University Rankings 2018 by subject: law*, TIMES HIGHER EDUCATION (THE) (Sept. 0, 2017), <https://www.timeshighereducation.com/world-university-rankings/2018/subject-ranking/law>.

<sup>3</sup> *Top Law Schools in 2017*, TOP UNIVERSITIES (Mar. 0, 2017), <https://www.topuniversities.com/university-rankings-articles/university-subject-rankings/top-law-schools-2017>.

<sup>4</sup> Brian Leiter, Brian Leiter's Law School Reports, <http://leiterlawschool.typepad.com/leiter/rankings/>.

*School Identification.* Identifying which school authors are affiliated with is not a simple task. Because affiliation data on SSRN is self-reported by authors, there is little enforced structure, which can lead to multiple variations on the name for the same institution. For instance: the University of Illinois College of Law is in the same institution as the University of Illinois Urbana–Champaign, but is distinct from the University of Illinois–Chicago. Disambiguating these institutional names is the most error-prone portion of this ranking exercise. To do so I created a key-phrase dictionary that was checked against each author’s primary affiliation. The data and process used for this can be seen in Appendix I. It includes a canonical name for each of the 100 law schools, alternative names, and a name pair that is used to identify some schools.<sup>5</sup>

This approach was able to reconcile 20,879 authors with one of the top 100 law schools. Together, these authors were listed on about 90,000 of the papers appearing in LSN e-journals. Once we have papers linked to schools we can then measure each school’s productivity and impact.<sup>6</sup>

### *Productivity and Impact.*

A full table of data is provided in Appendix II. The following will briefly explore some of the data’s distributions as well as some different forms of ranking.

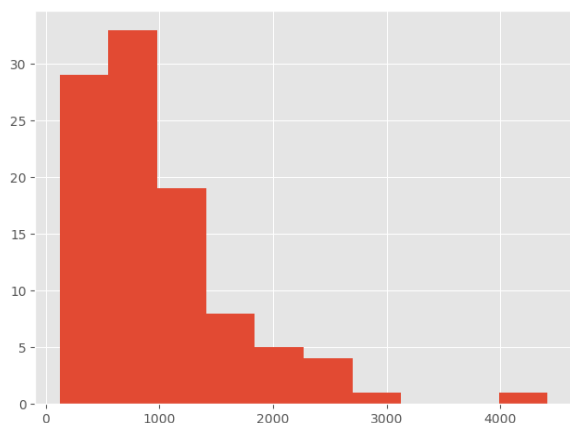


Figure 1. Papers/School Distribution.

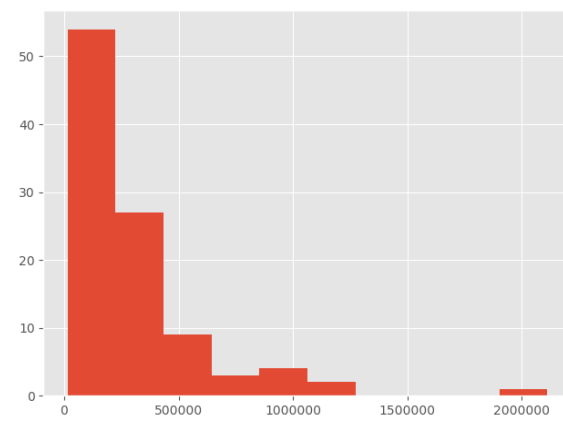


Figure 2. Downloads/School Distribution.

The distribution of papers/school and downloads/school are both quite skewed, suggesting that a few schools have much greater raw numbers of productivity and impact. However, if we normalize by the number of authors on LSN affiliated with the school, we see a somewhat less-skewed distribution.

<sup>5</sup> For instance, if the parser runs into the word “California” it will then look for Hastings, Irvine, Davis, etc. in order to reconcile each of the branch campuses with the correct law school.

<sup>6</sup> It is important to note that just because an author is linked to an institution does not mean that he or she is a faculty member at that institution’s law school. In some instances, members from cognate disciplines will have posted articles to LSN e-journals, and in others students and alumni may affiliate themselves with the institution.

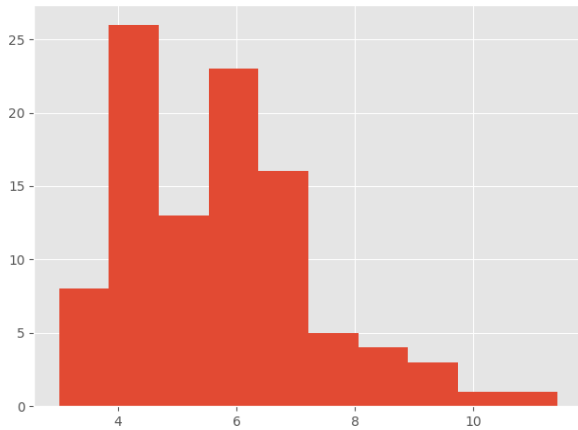


Figure 3. Papers/Author Distribution.

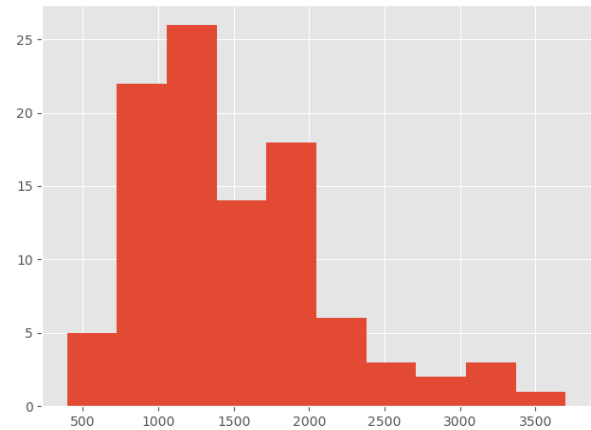


Figure 4. Downloads/Author Distribution

If we examine downloads/paper as a function of a school's rank (see Figure 5), we see clearly that papers affiliated with more highly-ranked schools tend to be downloaded more than their peers. There are some exceptions to the general trend though.

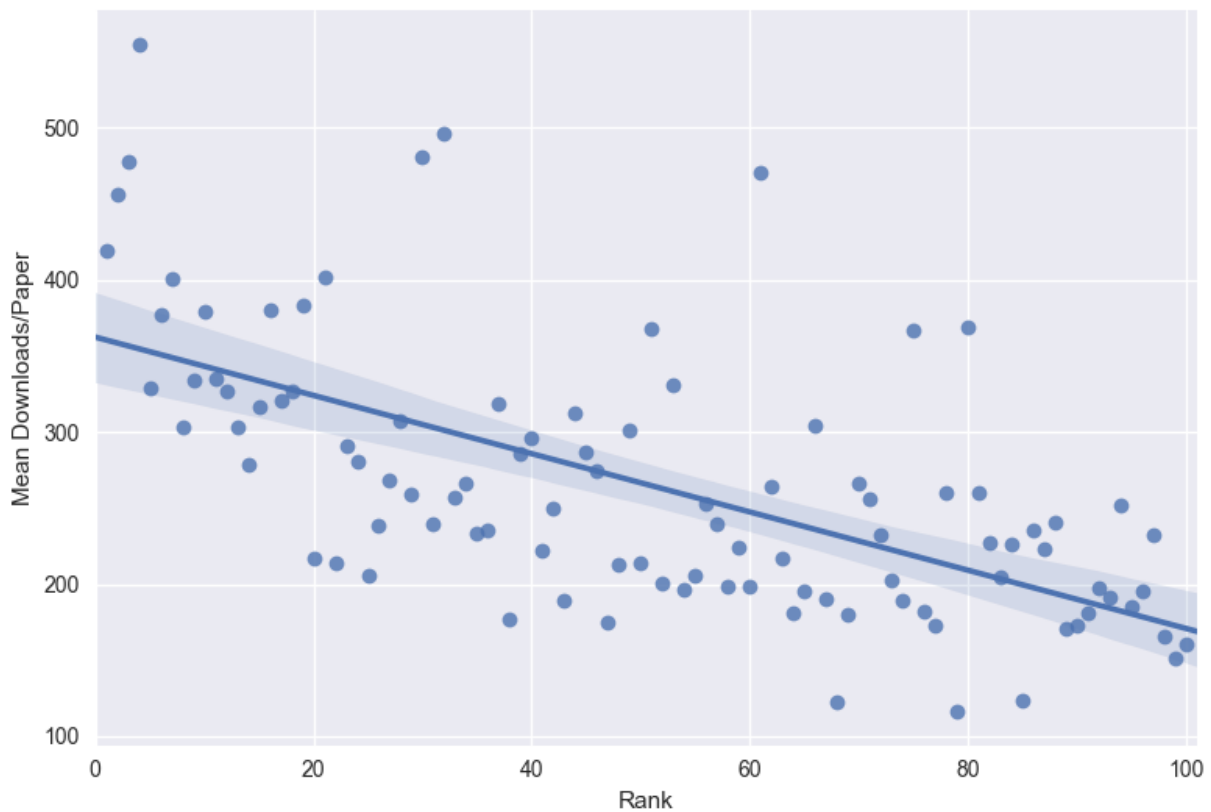


Figure 5. Downloads/Paper by Rank.

The ranking placement of various schools depends quite strongly on what criteria one uses to do the ranking. This is apparent when we rank the top schools based on different productivity or impact measures. For instance, ranking the top 20 schools based on the number of papers they have published in LSN e-journals leads to the below ranking:

<b>Rank</b>	<b>School</b>	<b>Papers</b>
1	Harvard	4414
2	New York University	3034
3	Penn	2590
4	Yale	2386
5	Georgetown	2366
6	Berkeley	2299
7	Stanford	2268
8	University of Chicago	2177
9	George Washington	2015
10	Duke	1900
11	University of Michigan	1859
12	Northwestern	1837
13	Cornell	1748
14	George Mason	1706
15	Columbia University	1626
16	University of Texas	1579
17	Vanderbilt	1541
18	UCLA	1511
19	University of Virginia	1498
20	University of Minnesota	1395

Meanwhile, if we instead rank the top 20 by the number of downloads per LSN paper we see quite different results. This is partially because some schools have comparatively few papers posted on LSN by affiliated authors, and thus have fewer low-impact papers:

<b>Rank</b>	<b>School</b>	<b>Downloads/Paper</b>
1	University of Chicago	555.32
2	Ohio State	496.07
3	George Washington	480.93
4	Harvard	478.15
5	University of Tennessee	470.21
6	Stanford	456.64
7	Yale	419.34
8	University of Notre Dame	402.17
9	University of Pennsylvania	400.39
10	USC	383.46
11	UCLA	380.25
12	Duke	379.40
13	New York University	377.16
14	University of San Diego	369.49
15	Baylor	367.54

16	University of Oklahoma	366.73
17	Northwestern	335.45
18	University of Virginia	333.62
19	Temple	330.69
20	Columbia University	328.93

The full data table is available in Appendix II, and an associated blog post at <http://ryanwhalen.com>. This work could be greatly strengthened by improved school disambiguation, and I welcome any suggestions as to how to improve this process. The matching dictionary used is available in Appendix I.

## Appendix I

The disambiguation process uses the below dictionary and the following protocol:

- Convert all strings to lower case
- If there is a direct match for the “defaultname” in the affiliation string treat the author as a member of that institution
- If there is a match in the “match” field and no data in the “and” field treat the author as a member of that institution
- If there is a match in the “match” field and data in the “and” field the author is treated as a member of that institution only if both fields match
- If there is a match with any of the “or” strings treat the author as a member of that institution.

<b>Match</b>	<b>and</b>	<b>or</b>	<b>defaultname</b>
Yale			Yale
Stanford			Stanford
Harvard			Harvard
University of Chicago			University of Chicago
Columbia University			Columbia University
New York University		NYU	New York University
University of Pennsylvania			University of Pennsylvania
University of Michigan	Arbor		University of Michigan
University of Virginia			University of Virginia
Duke			Duke
Northwestern			Northwestern
Berkeley			Berkeley
Cornell			Cornell
University of Texas	Austin		University of Texas
Georgetown			Georgetown
University of California	Los Angeles	UCLA	UCLA
Vanderbilt			Vanderbilt
Washington University in Saint Louis		Washington University in St. Louis; WUSTL	Washington University in St. Louis
University of Southern California		USC	University of Southern California
University of Iowa			University of Iowa
University of Notre Dame		Notre Dame	University of Notre Dame
Emory			Emory
Boston University			Boston University
University of Minnesota			University of Minnesota
Arizona State			Arizona State
Boston College			Boston College
University of Alabama			University of Alabama
University of California	Irvine	University of California–Irvine	University of California–Irvine
Washington and Lee			Washington and Lee
George Washington			George Washington
Indiana	Bloomington	Indiana–Bloomington	Indiana–Bloomington
Ohio State			Ohio State
University of Georgia			University of Georgia
University of Washington			University of Washington
University of Wisconsin	Madison		University of Wisconsin
Fordham			Fordham
University of Colorado	Boulder		University of Colorado
Wake Forest			Wake Forest
University of California	Davis	University of California–Davis	University of California–Davis
University of North Carolina	Chapel Hill		University of North Carolina

William and Mary		William & Mary	William and Mary
George Mason			George Mason
University of Florida			University of Florida
University of Illinois	Urbana	University of Illinois College of Law	University of Illinois
University of Utah			University of Utah
Brigham Young			Brigham Young
Southern Methodist			Southern Methodist
Florida State			Florida State
University of Arizona			University of Arizona
University of Maryland			University of Maryland
Baylor			Baylor
Tulane			Tulane
Temple			Temple
University of California	Hastings	University of California–Hastings	University of California–Hastings
University of Connecticut			University of Connecticut
University of Houston			University of Houston
Seton Hall			Seton Hall
University of Kentucky			University of Kentucky
University of Nebraska	Lincoln		University of Nebraska
University of Richmond			University of Richmond
University of Tennessee	Knoxville		University of Tennessee
Case Western			Case Western
Rutgers			Rutgers
University of Nevada	Vegas	UNLV	University of Nevada
Georgia State			Georgia State
Loyola	Los Angeles		Loyola LA
Northeastern			Northeastern
Pennsylvania State	Dickinson	Pennsylvania State–Dickinson; Pennsylvania State Carlisle; Dickinson Law	Pennsylvania State–Dickinson
University of Kansas			University of Kansas
University of Missouri			University of Missouri
Cardozo			Cardozo
Pepperdine			Pepperdine
St. John's University		Saint John's University	St. John's
University of Cincinnati			University of Cincinnati
University of Oklahoma			University of Oklahoma
University of Denver			University of Denver
University of Arkansas	Fayetteville	University of Arkansas–Fayetteville	University of Arkansas–Fayetteville
University of Miami			University of Miami
University of New Mexico			University of New Mexico
University of San Diego			University of San Diego
Villanova			Villanova
Loyola	Chicago		Loyola–Chicago



Pennsylvania State	University Park	Pennsylvania State–University Park	Pennsylvania State–University Park
University of Pittsburgh			University of Pittsburgh
University of Tulsa			University of Tulsa
American University			American University
University of Oregon			University of Oregon
Brooklyn Law			Brooklyn Law
Indiana	Indianapolis	Indiana–Indianapolis	Indiana–Indianapolis
St. Louis University		Saint Louis University	St. Louis University
University of South Carolina			University of South Carolina
Chicago	Kent	Illinois Institute of Technology; Chicago-Kent; Chicago–Kent	Chicago–Kent
Syracuse			Syracuse
Texas A&M			Texas A&M
University of Louisville			University of Louisville
Louisiana State	Baton Rouge	Louisiana State University Law Center	Louisiana State
Michigan State			Michigan State
Stetson			Stetson
West Virginia University			West Virginia University
Florida International			Florida International

## APPENDIX II

The full data table is reproduced below. It can also be accessed as a sortable html table at <http://ryanwhalen.com>. Column explanations are below:

- School: The School's name
- U.S. News Rank: The institution's 2017 U.S. News saw school ranking
- Papers: The total number of LSN e-journal papers written by authors affiliated with the institution
- Downloads: The total number of downloads of LSN e-journal papers written by authors affiliated with the institution
- Downloads/paper: Obvious
- Papers/Faculty: The number of LSN e-journal papers affiliated with the institution divided by the number of spring fulltime faculty reported by the institution in its 2016 ABA disclosure
- Downloads/Faculty: The number of downloads of LSN e-journal papers affiliated with the institution divided by the number of spring fulltime faculty reported by the institution in its 2016 ABA disclosure
- Downloads/Author: The number of downloads of LSN e-journal papers affiliated with the institution divided by the number of unique LSN e-journal authors affiliated with the institution.
- The number of LSN e-journal papers affiliated with the institution divided by the number of unique LSN e-journal authors affiliated with the institution.
- SSRN Authors: The number of unique LSN e-journal authors affiliated with the institution.

School	U.S. News Rank	Papers	Downloads	Downloads/ Paper	Papers/ Faculty	Downloads/ Faculty	Downloads/ Author	Papers/ Author	SSRN Authors
Yale	1	2386	1000541	419.3	34.1	14293.4	1793.1	4.3	558
Stanford	2	2268	1035652	456.6	26.4	12042.5	1928.6	4.2	537
Harvard	3	4414	2110573	478.2	28.7	13705.0	2119.0	4.4	996
University of Chicago	4	2177	1208925	555.3	29.8	16560.6	3123.8	5.6	387
Columbia University	5	1626	534843	328.9	11.0	3613.8	1323.9	4.0	404
New York University	6	3034	1144301	377.2	22.3	8414.0	1863.7	4.9	614
University of Pennsylvania	7	2590	1037005	400.4	32.8	13126.6	2480.9	6.2	418
University of Michigan	8	1859	564562	303.7	20.9	6343.4	1303.8	4.3	433
University of Virginia	8	1498	499758	333.6	19.2	6407.2	1952.2	5.9	256
Duke	10	1900	720863	379.4	24.4	9241.8	2529.3	6.7	285

School	U.S. News Rank	Papers	Downloads	Downloads/Paper	Papers/Faculty	Downloads/Faculty	Downloads/Author	Papers/Author	SSRN Authors
Northwestern	10	1837	616213	335.4	17.8	5982.7	1975.0	5.9	312
Berkeley	12	2299	751912	327.1	31.5	10300.2	1347.5	4.1	558
Cornell	13	1748	530974	303.8	33.6	10211.0	1557.1	5.1	341
University of Texas	14	1579	439498	278.3	17.5	4883.3	1878.2	6.7	234
Georgetown	15	2366	749051	316.6	18.2	5761.9	1770.8	5.6	423
UCLA	15	1511	574555	380.2	17.2	6529.0	1934.5	5.1	297
Vanderbilt	17	1541	493785	320.4	41.6	13345.5	2789.7	8.7	177
Washington University in St. Louis	18	901	294489	326.8	14.8	4827.7	1702.2	5.2	173
University of Southern California	19	1314	503861	383.5	32.9	12596.5	1481.9	3.9	340
University of Iowa	20	655	141980	216.8	20.5	4436.9	771.6	3.6	184
University of Notre Dame	20	854	343453	402.2	20.3	8177.5	2352.4	5.8	146
Emory	22	1174	251069	213.9	19.6	4184.5	1249.1	5.8	201
Boston University	23	1117	325274	291.2	24.8	7228.3	1659.6	5.7	196
University of Minnesota	23	1395	391257	280.5	25.4	7113.8	1493.3	5.3	262
Arizona State	25	1082	223154	206.2	21.2	4375.6	1019.0	4.9	219
Boston College	26	1120	266962	238.4	26.0	6208.4	1022.8	4.3	261
University of Alabama	26	683	183507	268.7	18.5	4959.6	1683.6	6.3	109
University of California_Irvine	28	1320	405150	306.9	41.3	12660.9	2485.6	8.1	163
Washington and Lee	28	433	112332	259.4	13.1	3404.0	1841.5	7.1	61
George Washington	30	2015	969066	480.9	27.6	13274.9	3066.7	6.4	316
Indiana_Bloomington	30	1388	331947	239.2	26.7	6383.6	1333.1	5.6	249
Ohio State	30	837	415210	496.1	18.6	9226.9	2256.6	4.5	184
University of Georgia	30	858	220777	257.3	20.0	5134.3	1346.2	5.2	164
University of Washington	30	1200	319438	266.2	24.5	6519.1	1079.2	4.1	296
University of Wisconsin	30	750	175373	233.8	15.6	3653.6	863.9	3.7	203
Fordham	36	1223	288645	236.0	19.4	4581.7	1016.4	4.3	284
University of Colorado	36	783	249786	319.0	16.3	5203.9	1365.0	4.3	183
Wake Forest	36	528	93545	177.2	12.6	2227.3	1230.9	6.9	76
University of California_Davis	39	954	272667	285.8	22.2	6341.1	1854.9	6.5	147
University of North Carolina	39	934	276308	295.8	19.1	5638.9	1439.1	4.9	192
William and Mary	41	655	145634	222.3	14.9	3309.9	1300.3	5.8	112
George Mason	41	1706	426845	250.2	48.7	12195.6	1749.4	7.0	244

School	U.S. News Rank	Papers	Downloads	Downloads/ Paper	Papers/ Faculty	Downloads/ Faculty	Downloads/ Author	Papers/ Author	SSRN Authors
University of Florida	41	1155	219036	189.6	17.2	3269.2	1223.7	6.5	179
University of Illinois	44	1157	361494	312.4	28.2	8816.9	1882.8	6.0	192
University of Utah	44	783	224945	287.3	25.3	7256.3	1956.0	6.8	115
Brigham Young	46	592	162554	274.6	22.8	6252.1	1451.4	5.3	112
Southern Methodist	46	627	109639	174.9	16.1	2811.3	1218.2	7.0	90
Florida State	48	1171	248764	212.4	28.6	6067.4	1715.6	8.1	145
University of Arizona	48	814	244892	300.9	21.4	6444.5	1353.0	4.5	181
University of Maryland	48	1190	254447	213.8	24.3	5192.8	856.7	4.0	297
Baylor	51	123	45208	367.5	4.4	1614.6	1102.6	3.0	41
Tulane	51	418	83761	200.4	9.3	1861.4	872.5	4.4	96
Temple	53	986	326059	330.7	17.3	5720.3	1781.7	5.4	183
University of California_Hastings	54	584	114934	196.8	9.3	1824.3	1321.1	6.7	87
University of Connecticut	54	655	134930	206.0	14.9	3066.6	827.8	4.0	163
University of Houston	54	808	204289	252.8	13.7	3462.5	1469.7	5.8	139
Seton Hall	57	515	123414	239.6	15.6	3739.8	1738.2	7.3	71
University of Kentucky	57	389	77419	199.0	17.7	3519.0	850.8	4.3	91
University of Nebraska	57	275	61556	223.8	10.6	2367.5	809.9	3.6	76
University of Richmond	57	322	63936	198.6	9.2	1826.7	1014.9	5.1	63
University of Tennessee	57	522	245448	470.2	19.3	9090.7	3068.1	6.5	80
Case Western	62	676	178787	264.5	18.3	4832.1	1596.3	6.0	112
Rutgers	62	1266	275037	217.2	16.9	3667.2	1041.8	4.8	264
University of Nevada	62	549	99679	181.6	19.6	3560.0	1277.9	7.0	78
Georgia State	65	737	143834	195.2	12.9	2523.4	978.5	5.0	147
Loyola LA	65	573	174453	304.5	9.7	2956.8	2076.8	6.8	84
Northeastern	65	721	137301	190.4	20.6	3922.9	1144.2	6.0	120
Pennsylvania State_Dickinson	65	203	24920	122.8	11.3	1384.4	1132.7	9.2	22
University of Kansas	65	591	106362	180.0	19.7	3545.4	1363.6	7.6	78
University of Missouri	65	1043	278224	266.8	34.8	9274.1	2060.9	7.7	135
Cardozo	65	655	168034	256.5	11.3	2897.1	2301.8	9.0	73
Pepperdine	72	517	120432	232.9	14.4	3345.3	1852.8	8.0	65
St. John's	72	454	91952	202.5	12.3	2485.2	1242.6	6.1	74
University of Cincinnati	72	311	58953	189.6	12.0	2267.4	830.3	4.4	71

School	U.S. News Rank	Papers	Downloads	Downloads/ Paper	Papers/ Faculty	Downloads/ Faculty	Downloads/ Author	Papers/ Author	SSRN Authors
University of Oklahoma	72	244	89481	366.7	8.1	2982.7	1315.9	3.6	68
University of Denver	76	717	130615	182.2	9.6	1741.5	1044.9	5.7	125
University of Arkansas Fayetteville	77	304	52452	172.5	11.3	1942.7	718.5	4.2	73
University of Miami	77	753	196225	260.6	9.7	2515.7	1102.4	4.2	178
University of New Mexico	77	310	36048	116.3	9.7	1126.5	396.1	3.4	91
University of San Diego	77	791	292267	369.5	14.4	5313.9	3699.6	10.0	79
Villanova	77	460	119690	260.2	15.3	3989.7	1554.4	6.0	77
Loyola Chicago	82	470	106812	227.3	10.0	2272.6	1722.8	7.6	62
Pennsylvania State University Park	82	958	195698	204.3	28.2	5755.8	1322.3	6.5	148
University of Pittsburgh	82	840	189728	225.9	22.7	5127.8	1290.7	5.7	147
University of Tulsa	82	124	15325	123.6	6.9	851.4	528.4	4.3	29
American University	86	1184	278334	235.1	24.2	5680.3	983.5	4.2	283
University of Oregon	86	305	68106	223.3	10.9	2432.4	840.8	3.8	81
Brooklyn Law	88	663	159763	241.0	11.1	2662.7	2754.5	11.4	58
Indiana Indianapolis	88	683	116366	170.4	18.0	3062.3	1003.2	5.9	116
St. Louis University	88	510	88329	173.2	11.6	2007.5	1162.2	6.7	76
University of South Carolina	88	475	86071	181.2	11.9	2151.8	819.7	4.5	105
Chicago Kent	92	535	105582	197.3	8.2	1624.3	1852.3	9.4	57
Syracuse	92	638	122182	191.5	14.5	2776.9	860.4	4.5	142
Texas A&M	92	1018	256164	251.6	29.9	7534.2	1407.5	5.6	182
University of Louisville	92	445	82513	185.4	20.2	3750.6	1500.2	8.1	55
Louisiana State	96	293	57141	195.0	10.1	1970.4	664.4	3.4	86
Michigan State	96	913	211915	232.1	18.3	4238.3	1059.6	4.6	200
Stetson	96	388	64445	166.1	10.5	1741.8	947.7	5.7	68
West Virginia University	96	275	41686	151.6	9.5	1437.4	595.5	3.9	70
Florida International	100	535	86036	160.8	18.4	2966.8	1000.4	6.2	86