

A DATA-BASED
ASSESSMENT OF
RESEARCH-DOCTORATE
PROGRAMS

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Pre-pub version available

What's Available at

www.nap.edu/rdp

1. A PDF of the report, *A Data-Based Assessment of Research-Doctorate Programs in the United States*;
2. A PDF of the *Revised Methodology Guide to the Data-Based Assessment of Research-Doctorate Programs in the United States* (2010);
3. A spreadsheet in Excel that contains the data collected on each program, illustrative rankings with their ranges, and analytic tables; and
4. A list of Frequently Asked Questions about the study.
5. Demos of different ways to use the spreadsheet

Final version in February/March 2011

The Spreadsheet

- One big Excel spreadsheet with links to details for each program
- How do I make it manageable?

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A	B	C	D	E	G	H	
Show All	GENERAL INFORMATION	GENERAL INFORMATION	GENERAL INFORMATION	GENERAL INFORMATION	GENERAL INFORMATION	GENERAL INFORMATION	
Broad Field							
Field							
	Select Broad Field before selecting Field.						
1	Program ID	Broad Field	Field	Institution Name	Program Name	Control	Regional Code 1=NE 2=MW 4=SC 5=SE
2	20038036	Agricultural Sciences	Animal Sciences	AUBURN UNIVERSITY	Poultry Science	Public	4
3	20016838	Agricultural Sciences	Animal Sciences	CLEMSON UNIVERSITY	Wildlife and Fisheries Biology	Public	3
4	20056238	Agricultural Sciences	Animal Sciences	COLORADO STATE UNIVERSITY	Animal Science	Public	5
5	20015486	Agricultural Sciences	Animal Sciences	CORNELL UNIVERSITY	Animal Science	Private	1
6	20016265	Agricultural Sciences	Animal Sciences	IOWA STATE UNIVERSITY	Animal Breeding and Genetics	Public	2
7	20016278	Agricultural Sciences	Animal Sciences	IOWA STATE UNIVERSITY	Animal Nutrition	Public	2
8	20016579	Agricultural Sciences	Animal Sciences	IOWA STATE UNIVERSITY	Meat Science	Public	2
9	20028509	Agricultural Sciences	Animal Sciences	KANSAS STATE UNIVERSITY	Animal Science	Public	2
10	20057965	Agricultural Sciences	Animal Sciences	LOUISIANA STATE UNIVERSITY AND AGRICULTURE	Animal and Dairy Sciences	Public	4
11	20058294	Agricultural Sciences	Animal Sciences	LOUISIANA STATE UNIVERSITY AND AGRICULTURE	Wildlife and Fisheries Science	Public	4
12	20021195	Agricultural Sciences	Animal Sciences	MIAMI UNIVERSITY	Zoology	Public	2
13	20046730	Agricultural Sciences	Animal Sciences	MICHIGAN STATE UNIVERSITY	Animal Science	Public	2
14	20047043	Agricultural Sciences	Animal Sciences	MICHIGAN STATE UNIVERSITY	Large Animal Clinical Sciences	Public	2
15	20062170	Agricultural Sciences	Animal Sciences	NEW MEXICO STATE UNIVERSITY MAIN CAMPUS	Animal Sciences	Public	5
16	20041269	Agricultural Sciences	Animal Sciences	NORTH CAROLINA STATE UNIVERSITY	Animal Science and Poultry Science	Public	3
17	20041696	Agricultural Sciences	Animal Sciences	NORTH CAROLINA STATE UNIVERSITY	Zoology	Public	3
18	20026815	Agricultural Sciences	Animal Sciences	NORTH DAKOTA STATE UNIVERSITY MAIN CAMPUS	Animal and Range Sciences	Public	2
19	20026954	Agricultural Sciences	Animal Sciences	NORTH DAKOTA STATE UNIVERSITY MAIN CAMPUS	Zoology	Public	2
20	20028761	Agricultural Sciences	Animal Sciences	OHIO STATE UNIVERSITY MAIN CAMPUS	Animal Sciences	Public	2
21	20041861	Agricultural Sciences	Animal Sciences	OKLAHOMA STATE UNIVERSITY MAIN CAMPUS	Animal Nutrition	Public	4
22	20018522	Agricultural Sciences	Animal Sciences	OREGON STATE UNIVERSITY	Animal Science	Public	5
23	20031169	Agricultural Sciences	Animal Sciences	PENN STATE UNIVERSITY	Animal Science	Public	1
24	20055637	Agricultural Sciences	Animal Sciences	PURDUE UNIVERSITY MAIN CAMPUS	Animal Sciences	Public	2
25	20012353	Agricultural Sciences	Animal Sciences	RUTGERS THE STATE UNIVERSITY OF NEW JERSEY	Animal Sciences	Public	1
26	20040613	Agricultural Sciences	Animal Sciences	SOUTHERN ILLINOIS UNIVERSITY CARBONDALE	Zoology	Public	2
27	20021700	Agricultural Sciences	Animal Sciences	TEXAS A & M UNIVERSITY	Animal Science	Public	4

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Broad Field

 Physical and Mathematical Sciences

Field

 Chemistry

 Ranked Programs: 178

Program ID	Institution Name	Program Name	Control	Regional Code 1=NE 2=MW 3=SA 4=SC 5=W	Program Size Quartile	R Rankings: 5th Percentile	R R
3227	20034881	ARIZONA STATE UNIVERSITY	Chemistry	Public	5	3	27
3228	20037804	AUBURN UNIVERSITY	Chemistry	Public	4	2	136
3229	20043364	BAYLOR UNIVERSITY	Chemistry and Biochemistry	Private	4	2	83
3230	20036119	BOSTON COLLEGE	Chemistry	Private	1	3	20
3231	20059086	BOSTON UNIVERSITY	Chemistry	Private	1	3	65
3232	20034807	BOWLING GREEN STATE UNIVERSITY	Photochemical Sciences	Public	2	2	118
3233	20025023	BRANDEIS UNIVERSITY	Chemistry	Private	1	2	31
3234	20066626	BRIGHAM YOUNG UNIVERSITY	Chemistry and Biochemistry	Private	5	3	66
3235	20018182	BROWN UNIVERSITY	Chemistry	Private	1	2	33
3236	20032951	CALIFORNIA INSTITUTE OF TECHNOLOGY	Chemistry	Private	5	4	2
3237	20037189	CARNEGIE MELLON UNIVERSITY	Chemistry	Private	1	3	38
3238	20019084	CASE WESTERN RESERVE UNIVERSITY	Chemistry	Private	2	3	52
3239	20057075	CITY UNIVERSITY OF NEW YORK GRAD. CENTE	Chemistry	Public	1	4	108
3240	20066804	CLARK UNIVERSITY	Chemistry	Private	1	1	150
3241	20016883	CLEMSON UNIVERSITY	Chemistry	Public	3	3	47
3242	20025638	CLEVELAND STATE UNIVERSITY	Bio-analytical Chemistry	Public	2	2	114
3243	20056296	COLORADO STATE UNIVERSITY	Chemistry	Public	5	4	91
3244	20057512	COLUMBIA UNIVERSITY IN THE CITY OF NEW YC	Chemistry	Private	1	3	7
3245	20015622	CORNELL UNIVERSITY	Chemistry and Chemical Biology	Private	1	4	12
3246	20048220	DARTMOUTH COLLEGE	Chemistry	Private	1	2	65
3247	20027021	DREXEL UNIVERSITY	Chemistry	Private	1	1	104
3248	20029977	DUKE UNIVERSITY	Chemistry	Private	3	3	21
3249	20058728	DUQUESNE UNIVERSITY	Chemistry	Private	3	2	92
3250	20061948	EMORY UNIVERSITY	Chemistry	Private	3	4	27
3251	20044211	FLORIDA ATLANTIC UNIVERSITY	Chemistry	Public	3	2	104
3252	20022754	FLORIDA INSTITUTE OF TECHNOLOGY	Chemistry	Private	3	1	142

Start Guide Master Variables .05 R .95 R .05 S .95 S .05 Research .95 Research .05 Students .95 St

Institution Name	R Rankings: 5th Percentile	R Rankings: 95th Percentile	S Rankings: 5th Percentile	S Rankings: 95th Percentile
ARIZONA STATE UNIVERSITY	27	71	31	86
AUBURN UNIVERSITY	136	174	91	151
BAYLOR UNIVERSITY	83	167	98	160
BOSTON COLLEGE	20	58	28	83
BOSTON UNIVERSITY	65	124	113	159
BOWLING GREEN STATE UNIVERSITY	118	172	91	146
BRANDEIS UNIVERSITY	31	86	13	46
BRIGHAM YOUNG UNIVERSITY	66	144	62	119

Institution Name	Research Activity: 5th Percentile	Research Activity: 95th Percentile	Student Support & Outcomes: 5th Percentile	Student Support & Outcomes: 95th Percentile	Diversity: 5th Percentile	Diversity: 95th Percentile
	19	87	35	132	57	115
ARIZONA STATE UNIVERSITY						
AUBURN UNIVERSITY	112	168	7	102	8	21
BAYLOR UNIVERSITY	131	175	2	11	32	81
BOSTON COLLEGE	17	69	62	159	134	169
BOSTON UNIVERSITY	117	164	92	165	62	121
BOWLING GREEN STATE UNIVERSITY	130	169	3	36	37	96

TABLE 4a: 5th Percentile Dimensional Ranking Calculation: Research Activity

Institution Name: BOSTON UNIVERSITY
 Program: Chemistry
 Program ID: 20059086

(Col 1)	(Col 2)	(Col 3)	(Col 4)	(Col 5)	(Col 6)
Description	Variable	Standardized			
		Program Value*	Program Value with Variation†	Survey-Based Coefficient‡	Product of Col 4 X Col 5
Publications per Allocated Faculty	V1	1.364	-0.848	0.288	-0.244
Cites per Publication	V2	2.379	0.074	0.240	0.018
Percent Faculty with Grants	V3	55.75%	-0.233	0.329	-0.077
Awards per Allocated Faculty	V7	0.222	-0.332	0.144	-0.048

Program Ranking: **117 of 178 programs**

* Col 3 is based on data submitted by the program or calculated from these data.

† Col 4 is standardized value for the set of perturbed program values that produced the 5th percentile ranking.

Standardized values have a mean of 0 and variance of 1.

‡ Col 5 is the survey-based weights for each variable.

What do my programs look like?

- Click on filter icon in lower right hand corner of “Institution” column
 - Uncheck “select all”
 - Check the box by your institution’s name
- ⇒ Data for all your programs will be displayed

Approach to “errors”

- In a spreadsheet as large as ours, errors are inevitable.
- Caught some during the embargo period and revised the spreadsheet
- Provided contacts in case an error was spotted
- Will maintain a log of “institution mistakes or misunderstandings”
- Will correct NRC errors
- Will put up the revised spreadsheet week of Dec. 1
- Updating the study is important

Kinds of queries

- Genuine errors by NRC
- MPR software glitches
- IC misunderstandings of our directions
- Misrepresentation with ambiguity
- Misunderstanding of our methodology
- Disagreements with our methodology

Other resources for researchers

- Public Use Data Set
 - Student Survey Data
 - 5 fields, programs with >10 students
- With a confidentiality agreement
- All the program data
 - Faculty data
 - Student survey data for all programs

Next Steps

- A workshop—Jan. 20
 - Analyses using the data
 - Advice on next steps
- Updating
 - Aim for every 2 years
 - Review methodology every 10 years