A Guide to Graduate Study in Economics: Ranking Economics Departments by Fields of Expertise

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Ph.D. programs in economics are ranked overall and by subject field. The results provide insight to students researching graduate programs in economics in specific subject fields. Results indicate that (i) differences in overall research productivity measures diminish as a university's rank declines; (ii) a university ranked highly in a particular subject field may be the result of a single, extremely productive faculty member; and (iii) many programs outside the traditional top 20 programs are ranked high in specific subject fields.

JEL Classification: A11, A22, A23

1. Introduction

Each year, thousands of undergraduates apply for admission to graduate schools in economics intending to obtain a Ph.D. Many of these students have little idea on how to choose a graduate program, and many go to an undergraduate adviser looking for advice. Prospective graduate students and their advisers have little published research to help them in the process of choosing what schools best match the undergraduate's skills and interests.

This study highlights many of the characteristics of departments that offer doctoral degrees in economics and provides information on both overall productivity and productivity by subject field. This research is significant for those looking to obtain a Ph.D. in economics because the choice of where to attend graduate school has been shown to be important in both academic and nonacademic job markets. Research into the careers of Ph.D. economists (Barbezat 1992; McMillen and Singell 1994; Stock and Alston 2000; Siegfried and Stock 2004) consistently indicates that graduates from top-rated schools fare better in academic and nonacademic job markets than their peers from lower-ranked programs.

Based on the finding that the quality of the school influences outcomes in the job market, the best advice for those applying to graduate school in economics may simply be to apply to the best schools to which you will likely be admitted. Yet this advice is of little value for those who are unlikely to be admitted into a top program yet have a strong interest in one of the many subject fields of economics and a strong desire to pursue a particular field. This group of students is left getting advice from an undergraduate adviser who cannot be expected to know

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the strengths of economics departments across the country or to search the Web pages of all the programs that offer a Ph.D. looking for clues as to what school is the best match.

In this article, we provide information to undergraduate students and their advisers on the research strengths of 129 economics departments that offer Ph.D. degrees in the United States and to identify schools that are ranked highly in the many different subject fields of economics. This article should also provide guidance to departments hiring new Ph.D. candidates within a specific field and to job candidates looking for information on potential academic employers.

This article differs from the many papers ranking the quality of economics departments by identifying the relative strength of all Ph.D. programs and by specifically providing information on all the major subject fields in economics. Although Tschirhart (1989) ranks departments in fields of expertise, only a limited set of fields is identified, and departments are ranked using data that are now over 20 years old. U.S. News and World Report¹ also provides a ranking of economics departments by field. Their ranking is based on survey responses of department chairs who were asked to rank all departments on a five-point scale. Department rankings by field can also be found on the EconPhd.net website (http://www.econphd.net). This site ranks departments by field, using publications in 63 highly ranked economics journals during the 1993–2003 period. The data we used as the basis for this article are more comprehensive and cover a larger time frame. We used all journals in which economists at the Ph.D.-granting institutions in the United States had published during a 20-year period. Our data set consists of publications in 254 journals over the 20-year period 1985–2004. This analysis provides by far the most detailed, complete ranking of departments by field in the literature.

In addition to simply identifying the top 20 schools in each field, other information, not found elsewhere, is provided on the relative importance of the field at the school and how the scholarly output is distributed across the department's faculty. To measure the concentration of faculty in a field, we calculate a Herfindahl-Hirschman Index (HHI). The HHI is particularly important for an undergraduate to consider. Planning to obtain a Ph.D. from a school in hopes of studying with a single person is a risky undertaking not only because the faculty member may move but also because any single faculty member can mentor only a limited number of students.

We recognize that ranking departments is fraught with danger. Thursby (2000) has pointed out that using single measures of department productivity suggests differences between many departments that are meaningless, a finding we reiterate when solely aggregate measures of performance are used. However, by providing detailed information on departments by field and by identifying the publication patterns of the faculty within the field, we are able to highlight some differences that aggregate measures gloss over.

2. Methods

Similar to Tschirhart (1989), the data-gathering stage consists of four basic steps: (i) identifying all Ph.D.-granting institutions in economics as of the 2004 spring semester,² (ii) identifying all tenure-track or tenured faculty as of the 2004 spring semester, (iii) acquiring a list of faculty publications, and (iv) determining the quality of each publication.

¹ Available at http://www.usnews.com/usnews/edu/grad/rankings/phdhum/phdhumindex_brief.php (July 2007).

² Departments offering doctorates in agricultural economics were not included in the analysis.

To identify the universities offering doctoral degrees in economics, we used the website maintained by the University of Albany.³ This site contained a list of all economics departments with Ph.D. programs at American and Canadian universities and was verified with *Peterson's Guide to Graduate Schools.*⁴ Based on this, we identified 129 programs located in the United States that offered doctoral degrees in economics as of the spring of 2004.

The second step, identifying all tenure-track or tenured faculty for each university, was accomplished by accessing economics department Web sites. A slight shortcoming of this approach is that faculty lists are highly dependent on whether a department maintains and updates their faculty lists. Removing faculty members without any publications resulted in over 2600 faculty names. In the few cases where faculty appeared on multiple department websites, we included the faculty member in the department where he or she had a permanent and current affiliation. We recognize that there are some faculty who are members of a department other than economics (e.g., the Department of Managerial Economics and Decision Sciences at Northwestern University) yet contribute to the education of graduate students and are productive in the field of economics. Determining who these faculty are and the extent to which they are involved in the economics department made it impractical to include them in the analysis.

The third step focused on acquiring journal publications for each faculty member listed in the *Journal of Economic Literature* database Econlit. The database was queried for the publications of tenure-track faculty identified by the 129 departments. Faculty were dropped from the analysis if Econlit indicated that they had no published articles. This study focused on articles published between 1985 and 2004. Over this time period, Econlit cataloged over 38,000 publications of faculty who were employed in Ph.D. economics programs as of the spring of 2004.⁵ Further, Econlit provided four essential pieces of information that would be needed for analysis: (i) article source, (ii) page numbers, (iii) number of authors, and (iv) *Journal of Economic Literature* subject codes. The article source would be needed in order to assess the quality of the article. The credit each author received for a publication was weighted by the number of authors and page length. The greater the number of coauthors, the less credit assigned to each coauthor, and the greater the length of the article, the greater the credit assigned to each coauthor.⁶ The subject codes would be needed to sort articles by a field of expertise.

The final step was assigning a quality index, Q_j , to each journal. We used both the impact factors published in the 2004 Social Science Citation Index (SSCI scores) and rankings based on "citations per character in 1990" for articles published between 1985 and 1989 (JEL scores) proposed by Laband and Piette (1994).⁷ Many publications contained at least one or both an SSCI and a JEL score. There were 107 journals containing both an SSCI and a JEL score. There were an additional 131 with only an SSCI score and an additional 16 with only a JEL score. Thus, the total number of journals indexed in the JSCI that we used in our analysis was 238, and the total number of journals indexed in the JEL that we used in our analysis was 123.

³ Available at http://www.albany.edu/econ/eco_phds.html (July 2007).

⁴ Available at http://www.petersons.com/graduate_home.asp?path=gr.home (July 2007).

⁵ Coauthors listed as "et al." rather than by name in Econlit are not identified specifically by Econlit.

⁶ Articles with four or more authors or in articles where coauthors are not specifically identified (i.e., et al.) are treated as having four authors.

⁷ An alternative to using impact factors is to use total citations per journal per year. We chose to use impact factors to be consistent with past research (e.g., see Tschirhart 1989).

Codes Beginning with the Letter	Description
A	General economics and teaching
В	Methodology and history of economic thought
С	Mathematical and quantitative methods
D	Microeconomics
E	Macroeconomics and monetary policy
F	International economics
G	Financial economics
Н	Public economics
Ι	Health, education, and welfare
J	Labor and demographic economics
K	Law and economics
L	Industrial organization
N	Economic history
0	Economic development, technological change, and growth
Р	Economic systems
Q	Agricultural and natural resource economics
R	Urban, rural, and regional economics

Table 1	1.	The JEI	Classification	System	for	Journal	Articles
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Publications that had neither an SSCI nor a JEL score were dropped from the analysis. It should be noted that although the SSCI indexes 172 journals in the economics discipline, we use all publications identified by Econlit and indexed in the SSCI, even if outside the economics discipline, in calculating productivity.

Following Tschirhart (1989), articles were adjusted by number of authors and page length. The first step consisted of dividing the number of pages of article *i*, $pages_i$, by the number of authors (*n*), thus ensuring that each author received 1/n credit times the number of pages. The second step consisted of taking the value from the first step ($pages_i$ divided by *n*) and dividing it by the average length of all articles from the same journal j (\bar{p}_j). The weighting that each coauthor of article *i* in publication *j*, W_{ij} , receives is given by

$$W_{ij} = \frac{pages_i/n_i}{\bar{p}_j}.$$

The quality, Q_j , of each article was then multiplied by W_{ij} , yielding a productivity value, P_{ij} , indicating the weighted quality assigned to each article assigned to the author. These weighted productivity values were summed by individual and then by school. The results presented in this study are based primarily on the SSCI scores because of the broader coverage of the SSCI and because the SSCI includes many of the newer journals that began publication after 1985.

In preparing to rank schools by subject fields, the JEL classification system was used.⁸ The JEL classification system consists of 18 different subject fields. We eliminated one subject field, M (business administration and business economics, marketing, and accounting). The remaining 17 subject fields are listed in Table 1. The subject field with the greatest number of faculty publications was D, microeconomics, and the field with the least number of faculty publications was JEL code B, methodology and history of economic thought.

⁸ In 1991, JEL modified its classification system. We followed the JEL recommendations in mapping pre-1991 subject codes to post-1991 subject codes (*Journal of Economic Literature* 1991).

3. Results

After gathering and cleaning the data and making the previously mentioned calculations, rankings are computed. The results are presented in Tables 2 and 3.

The second column of Table 2 provides the overall productivity rank of all 129 departments. This ranking was computed by summing P_{ij} for each university, with the top university having the greatest overall productivity sum. Although it is similar to rankings found in Graves, Marchand, and Thompson (1982) and Dusansky and Vernon (1998), some differences are apparent. These differences can be attributed to the difference in time periods analyzed, the inclusion of all articles listed in Econlit rather than a subset, and the use of the SSCI for the quality index.

The third column in Table 2, "Z-Score," indicates the number of standard deviations the school's productivity rank is above or below the mean productivity rank. Only 44 of the 129 schools have a positive Z-score, indicating that the distribution of overall productivity is skewed to the right. A noticeable feature of this skewness is that distinction between schools diminishes as the rank declines. For example, the top-ranked school, Harvard, has a Z-score of 5.08, and the fifth-ranked school, Yale, has a Z-score of 2.18, a substantial difference. However, as we move lower in the rankings, the 70th-ranked school, the University of Massachusetts, has a Z-score of -0.43, and the 80th-ranked school, the University of Delaware, has a Z-score of -0.50, a very small difference. The ordinal rankings presented in much of the literature that ranks economics departments miss the fact that below a relatively small group of top programs, the differences in aggregate productivity become fairly small.

The fourth column of Table 2, "Per Faculty Rank," shows how each school ranks when their total productivity sum is divided by the number of publishing faculty within the department; it represents the average productivity of publishing faculty in a department and may be the best indicator of the quality of the faculty for potential graduate students. For example, the California Institute of Technology has an overall rank of 38 and an average rank of 7, suggesting that the lower overall rank of the department is greatly influenced by the smaller size of the department and not due to the productivity of each publishing faculty member. A student attending this institution would likely obtain an education from "top 10" faculty even though the relatively small department size dampens the overall productivity ranking. The fifth column of Table 2 indicates the overall productivity ranking of departments based on the journal rankings of Laband and Piette (1994) that appeared in the *Journal of Economic Literature*. Notice that rankings using the SSCI or those calculated by Laband and Piette (1994) identify the same top 10 schools, and there is only one difference in the top 20 schools.

The sixth column of Table 2, "Top Field," indicates each department's best subject field. Top field was determined by summing each department's productivity for each JEL category, using the first JEL code identified by the author as a guide and then choosing the subject field with the highest sum. The seventh column of Table 2 shows the HHI for each school. The HHI is typically used to measure the degree of market concentration for a particular industry. In this study, the HHI provides information on how concentrated the research is among the number of faculty publishing in the department. The HHI is found by squaring the faculty member's share of the department's total productivity and then summing the results:

School	Overall Productivity Rank (SSCI)	Z-Score (SSCI)	Per Faculty Rank (SSCI)	Overall Productivity Rank (JEL)	Top Field (SSCI)	HHI (SSCI)	Field Strength Index (SSCI)	Average Ph.D. Graduates (2002–2007) ^a
Harvard U	-	5.08	1	1	IJ	0.03	- 1	31
UC Berkeley	2	4.09	4	3	D	0.03	1	23
Princeton U	3	3.79	С	2	D	0.04	0.88	19
MIT	4	3.29	2	4	J	0.05	1	21
Yale U	5	2.18	11	5	D	0.07	1	18
U Michigan	9	1.92	18	7	J	0.03	0.74	6
New York U	7	1.92	00	6	D	0.04	0.72	10
UCLA	8	1.76	16	9	D	0.04	0.51	23
Stanford U	6	1.75	13	80	D	0.04	0.63	20
U Chicago	10	1.50	5	10	D	0.05	0.58	36
Columbia U	11	1.48	6	11	Ц	0.09	0.85	11
Northwestern U	12	1.43	12	12	C	0.06	0.54	22
UC San Diego	13	1.35	9	13	C	0.05	0.65	13
U Wisconsin, Madison	14	1.08	10	14	C	0.06	0.51	17
Boston U	15	0.93	22	15	J	0.05	0.45	13
U Pennsylvania	16	0.91	15	17	J	0.07	0.50	12
Ohio State U	17	0.84	28	16	D	0.05	0.39	15
Michigan State U	18	0.83	49	19	J	0.08	0.58	12
Cornell U	19	0.64	23	22	D	0.06	0.28	10
U Virginia	20	0.52	17	18	D	0.08	0.34	6
U Maryland, College Park	21	0.49	27	20	Η	0.05	0.54	25
U Illinois, Urbana	22	0.46	38	24	C	0.05	0.23	12
Carnegie Mellon U	23	0.45	41	25	Ū	0.05	0.45	50
Duke U	24	0.44	31	23	C	0.06	0.16	10
UC Davis	25	0.44	25	29	Ц	0.06	0.38	L
J Southern California	26	0.43	19	32	D	0.11	0.38	7
U Texas, Austin	27	0.38	24	26	ſ	0.08	0.41	10
Brown U	28	0.38	29	27	0	0.06	0.41	7
U Minnesota	29	0.37	20	28	D	0.07	0.34	13
Mouth Concline Ctate II	00	100	0.2	00	<	200	0.05	0

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School	Overall Productivity Rank (SSCI)	Z-Score (SSCI)	Per Faculty Rank (SSCI)	Productivity Rank (JEL)	Top Field (SSCI)	HHI (SSCI)	Field Strength Index (SSCI)	Average Ph.D. Graduates (2002–2007) ^a
Iowa State U	31	0.35	59	21	0	0.04	1	7
Vanderbilt U	32	0.35	35	31	Ē	0.06	0.18	9
Johns Hopkins U	33	0.24	14	33	D	0.11	0.37	8
Syracuse U	34	0.24	53	37	ſ	0.05	0.31	9
Pennsylvania State U	35	0.24	43	39	D	0.05	0.23	12
Georgetown U	36	0.22	40	40	Щ	0.07	0.20	7
Boston College	37	0.15	26	34	D	0.10	0.29	80
California Inst Tech	38	0.09	7	38	D	0.13	0.46	4
U of Rochester	39	0.09	21	36	D	0.10	0.30	12
UNC, Chapel Hill	40	0.08	48	41	J	60.0	0.31	12
George Mason U	41	0.08	55	35	D	0.06	0.28	15
U Colorado, Boulder	42	0.05	56	43	Ц	0.06	0.31	10
UC Santa Cruz	43	0.01	30	44	F	0.10	0.31	7
City University of New York								
(CUNY)	44	00.0	98	47	ſ	0.04	0.32	6
U Washington	45	-0.04	50	46	Ш	0.12	0.20	14
U Illinois, Chicago	46	-0.04	34	50	ſ	0.10	0.31	5
Arizona State U	47	-0.07	57	42	C	0.07	0.13	2
Rice U	48	-0.08	36	51	C	0.10	0.21	5
Texas A&M U	49	-0.09	60	45	C	0.06	0.20	6
Georgia State U	50	-0.12	69	48	I	0.08	0.27	11
UC Santa Barbara	51	-0.12	63	52	D	0.07	0.13	10
Florida State U	52	-0.14	61	49	J	0.08	0.22	4
Indiana U	53	-0.19	46	54	Е	0.09	0.14	9
George Washington U	54	-0.22	75	57	F	0.06	0.14	4
Rutgers U	55	-0.22	70	55	F	0.07	0.14	3
UC Riverside	56	-0.23	44	56	D	0.12	0.19	5
U Oregon	57	-0.25	54	53	F	0.09	0.15	9
U Houston	58	-0.26	72	59	J	0.07	0.20	6 ^b
U Pittsburgh	59	-0.76	68	63	0	0.07	015	L

Table 2. Continued

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School	Overall Productivity Rank (SSCI)	Z-Score (SSCI)	Per Faculty Rank (SSCI)	Overall Productivity Rank (JEL)	Top Field (SSCI)	HHI (SSCI)	Field Strength Index (SSCI)	Average Ph.D. Graduates (2002-2007) ^a
U Iowa	60	-0.28	52	58	C	0.11	0.16	4
U Wvoming	61	-0.30	32	68	0	0.14	0.45	3
U Arizona	62	-0.32	51	66	Ď	0.10	0.15	9
U Kentucky	63	-0.34	45	61	Η	0.16	0.42	5
U Florida	64	-0.35	64	09	C	0.09	0.06	9
Southern Methodist U	65	-0.36	62	65	D	0.09	0.12	б
Clemson U	99	-0.37	73	64	J	0.09	0.13	7
Purdue U	67	-0.39	76	62	D	0.10	0.10	8
U Connecticut	68	-0.41	89	71	R	0.11	0.46	5
Washington U, St. Louis	69	-0.41	67	69	D	0.15	0.18	8
U Massachusetts, Amherst	70	-0.43	85	73	J	0.09	0.12	00
Emory U	71	-0.43	66	67	D	0.14	0.07	4
UC Irvine	72	-0.44	81	LL	D	0.07	0.06	10
U South Carolina	73	-0.44	39	74	J	0.24	0.33	7
U Georgia	74	-0.46	65	72	E	0.11	0.07	3
Virginia Tech	75	-0.47	74	78	D	0.09	0.10	4
U Albany	76	-0.47	71	80	J	0.13	0.12	5
SUNY Binghamton	77	-0.48	LL	70	0	0.16	0.18	4
Wayne State U	78	-0.49	47	75	R	0.23	0.55	4
U Wisconsin, Milwaukėe	62	-0.49	95	62	J	0.15	0.16	9
U Delaware	80	-0.50	101	76	Ы	0.09	0.05	9
American U	81	-0.52	102	81	J	0.09	0.07	7
U Missouri, Columbia	82	-0.53	78	83	J	0.10	0.10	7
U Kansas	83	-0.54	93	85	C	0.14	0.06	3
RPI	84	-0.54	33	94	0°	0.20	0.11	2^{b}
SUNY Buffalo	85	-0.54	83	86	R	0.19	0.41	2
U Nebraska, Lincoln	86	-0.55	84	82	A	0.13	0.88	2
Florida International U	87	-0.57	92	93	Н	0.15	0.15	12
U Notre Dame	88	-0.57	42	84	G°	0.23	0.04	5
IT Alabama	00	0 20	00	20	20	0 1 A	0.05	v

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School	Overall Productivity Rank (SSCI)	Z-Score (SSCI)	Per Faculty Rank (SSCI)	Overall Productivity Rank (JEL)	Top Field (SSCI)	HHI (SSCI)	Field Strength Index (SSCI)	Average Ph.D. Graduates (2002-2007) ^a
U Oklahoma	06	-0.60	76	88	D	0.13	0.07	5
Brandeis U	91	-0.61	37	89	Э	0.42	0.11	2
Louisiana State U	92	-0.62	80	06	J	0.13	0.06	13
SUNY Stony Brook	93	-0.62	91	96	D	0.14	0.11	10
Oregon State U	94	-0.63	86	95	Dd	0.19	0.07	5
Lehigh U	95	-0.64	66	76	J	0.11	0.04	3
U Miami	96	-0.64	62	91	ſ	0.27	0.09	2
Auburn U	67	-0.64	06	92	Γ	0.14	0.11	2
New School U	98	-0.64	87	104	Щ	0.22	0.08	12
Washington State U	66	-0.65	88	105	L	0.20	0.10	10
Tulane U ^e	100	-0.65	104	66	0	0.12	0.07	Suspended
Oklahoma State U	101	-0.66	105	103	R	0.15	0.36	5
Southern Illinois U, Carbondale	102	-0.67	94	100	C	0.15	0.03	9
Northern Illinois U	103	-0.67	100	102	J	0.17	0.13	2
West Virginia U	104	-0.68	112	101	Η	0.16	0.06	8
U New Orleans	105	-0.68	114	109	G	0.13	0.06	3
Colorado State U	106	-0.68	117	106	R	0.14	0.15	4
U Tennessee, Knoxville	107	-0.69	107	110	Н	0.10	0.12	5
U Hawaii, Manoa	108	-0.69	116	114	0	0.13	0.06	9
U Utah	109	-0.69	124	107	ſ	0.11	0.06	10
U Arkansas	110	-0.70	108	112	D	0.10	0.02	1
Western Michigan U	111	-0.70	120	116	J	0.17	0.06	4
Temple U	112	-0.71	125	108	J	0.15	0.03	36
U New Mexico	113	-0.71	113	117	0	0.08	0.11	5
U Mississippi	114	-0.71	111	98	C	0.13	0.03	4
Kansas State U	115	-0.71	115	119	Γ	0.17	0.08	4
Fordham U	116	-0.72	109	118	C	0.15	0.05	8
U Rhode Island	117	-0.72	103	115	0	0.28	0.21	4
U New Hampshire	118	-0.73	122	121	Jcd	0.20	0.04	2
Utah State U	119	-0.73	128	113	0	017	0.15	2

Table 2. Continued

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School	Overall Productivity Rank (SSCI)	Z-Score (SSCI)	Per Faculty Rank (SSCI)	Productivity Rank (JEL)	Top Field (SSCI)	HHI (SSCI)	Field Strength Index (SSCI)	Graduates (2002–2007) ^a
Northeastern U	120	-0.74	118	120	L	0.10	0.16	New program
Claremont Graduate U	121	-0.74	82	124	Н	0.25	0.04	10
IJ Missouri, Kansas City	122	-0.74	106	111	Ш	0.23	0.05	18
Clark II	123	-0.75	110	123	Ц	0.30	0.04	4
Portland State II	124	-0.76	121	122	J ^{cf}	0.25	0.03	0^{f}
Middle Tennessee State	125	-0.76	126	125	ſ	0.18	0.04	3
Colorado School of Mines	126	-0.76	123	127	0	0.26	0.10	3
Texas Tech U	127	-0.80	119	126	ſ	0.28	0.05	9
Suffolk U	128	-0.81	127	129	L	0.55	0.02	New program
Howard U	129	-0.81	129	128	F	0.29	0.01	10

This column of data represents the average number (rounded up) of doctorates granted by each university in the past five years and was acquired by calling each university. It should be noted that these data provide no information regarding retention rates. While multiple attempts were made to contact several universities, we were unable to acquire this information for some departments; as such, NA (not available) is used to represent these instances

This information was obtained by counting and then averaging the number of doctoral dissertations listed in the December 2004, 2005, and 2006 issues of the Journal of Economic Literature.

The top field at this school is not an offered field. The top offered field for the following schools is RPI, Q; U Notre Dame, F; U Alabama, E; Southern Illinois U at Carbondale, F; U of New Hampshire, D; and Portland State U, O. U of Notre Dame offers a field in E, which may be closely related to G. At U of Alabama, the Ph.D. in economics is offered out of the Business School, where a Ph.D. in applied statistics is available. U of New Hampshire offers a field in I, which may be closely related to J.

School may or may not offer a field in microeconomic theory (D) but does offer multiple fields in applied microeconomics.

At the time of this writing, Tulane U had suspended its Ph.D. program because of Hurricane Katrina.

Portland State U does not offer a Ph.D. in economics. The university offers doctoral degrees in urban studies and systems science, both of which offer an emphasis in economics.

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School American U Arizona State U Auburn U Boston College	A	a															
American U Arizona State U Auburn U Boston College		R	C	D	Е	F	G	Н	I	J	K	Γ	Z	0	Р	0	R
Arizona State U Auburn U Boston Collece	49	32	70	105	78	56	88	LL	60	64	63	73	56	46	41	74	*
Auburn U Roston College	58	LL	34	40	30	34	32	94	35	37	53	66	83	25	9	66	94
Roton College	35	51	86	87	117	*	78	11	65	95	57	38	62	120	*	107	52
PUSION CONCE	69	72	35	23	29	22	53	38	41	67	*	59	84	50	*	16	5
Boston U	*	56	14	19	11	29	24	12	15	10	12	10	33	26	52	33	11
Brandeis U	*	*	110	120	34	116	54	121	106	110	59	LL	40	87	17	44	*
Brown U	51	68	28	38	48	37	50	28	32	15	75	103	57	2	11	18	29
California Inst Tech	48	35	15	11	87	78	21	32	*	92	28	41	41	103	*	52	*
Carnegie Mellon U	5	17	38	33	26	99	3	18	24	98	*	30	54	53	48	56	55
City U of New York	76	24	06	72	47	52	19	43	5	18	41	55	23	56	14	102	87
Claremont Graduate U	06	76	*	110	112	67	95	78	*	120	*	126	63	71	57	113	*
Clark U	*	*	*	*	121	62	116	*	*	113	*	82	34	76	*	68	96
Clemson U	25	67	103	66	84	71	52	55	33	41	15	48	42	57	76	87	59
Colorado School of Mines	*	*	*	126	*	*	*	*	*	127	*	63	¥	123	*	29	*
Colorado State U	82	18	122	108	96	85	84	84	06	111	80	93	73	116	25	83	38
Columbia U	18	9	37	20	9	3	12	6	22	49	18	11	13	00	3	26	26
Cornell U	17	58	17	24	37	41	16	13	9	24	48	54	75	10	24	46	35
Duke U	37	10	27	39	31	19	15	23	17	60	27	12	37	13	82	64	76
Emory U	21	82	62	63	44	46	57	65	100	115	13	85	*	49	*	50	76
Florida International U	×	83	82	102	LL	25	114	110	73	118	*	100	26	38	55	61	*
Florida State U	70	43	81	62	50	70	55	34	54	25	6	51	50	09	72	35	L
Fordham U	¥	87	64	125	86	68	62	*	95	121	*	123	*	94	*	*	*
George Mason U	6	3	40	25	62	66	39	25	92	55	11	57	52	99	43	47	61
George Washington U	42	73	67	70	58	30	33	31	37	58	39	33	69	28	42	27	LL
Georgetown U	*	*	48	46	20	18	26	33	78	57	*	17	*	27	*	6	69
Georgia State U	14	16	68	65	104	76	82	11	47	23	60	96	64	84	46	20	00
Harvard U	15	L	2	3	-	2	1	3	1	2	7	9	2	1	2	4	7
Howard U	*	*	118	127	118	103	*	105	*	119	*	*	*	*	*	112	*
Indiana U	5	*	53	53	28	43	70	41	30	82	62	121	LL	30	27	38	68
Iowa State U	30	*	44	31	62	51	43	52	58	39	65	35	*	22	40	1	33

Table 3. Field Rankings (based on first-listed JEL code for publications)^a

							The JEL	. Classific	Classification System for Journal Articles	tem for J	ournal A	rticles					
School	A	В	0	D	Е	F	Ð	H	I	J	K	Γ	Z	0	Р	Ø	R
Iohns Honkins []	24	6	39	15	13	62	61	37	11	30	*	52	*	64	*	40	60
Kansas State U	*	79	114	109	67	115	118	106	66	78	*	53	×	118	*	114	88
Lehigh U	33	46	93	88	102	LL	121	85	51	86	*	104	25	82	31	72	82
Louisiana State U	62	*	87	95	71	89	83	73	42	69	*	106	86	89	×	106	50
MIT	9	5	3	5	4	38	5	2	4	1	8	0	4	5	13	L	4
Michigan State U	32	26	23	44	72	21	25	10	12	9	99	23	71	18	26	61	67
Middle Tennessee State	*	47	117	124	119	83	66	*	83	62	*	124	×	98	*	98	*
New School U	*	41	111	113	41	84	74	120	¥	96	*	107	*	40	47	*	101
New York II	16	4	6	4	2	14	8	27	27	17	69	16	20	4	22	34	32
North Carolina State U	39	*	32	52	36	63	40	51	44	29	56	25	27	80	39	2	44
Northeastern U	50	42	*	128	108	113	109	*	*	126	73	27	67	92	*	*	*
Northern Illinois U	*	*	119	76	110	110	87	81	82	42	81	114	*	66	*	117	80
Northwestern U	34	37	4	10	5	36	58	30	20	13	*	L	16	16	74	90	45
Ohio State U	47	57	13	13	17	23	10	59	13	22	31	24	18	42	29	85	31
Oklahoma State U	81	38	104	115	115	92	93	92	85	109	74	92	81	73	*	58	19
Oregon State U	74	59	62	67	125	114	106	96	69	114	*	40	87	90	*	57	86
Pennsvlvania State U	67	11	21	28	40	32	99	70	70	47	37	36	*	17	21	48	18
Portland State U	78	49	116	116	89	118	*	119	87	101	*	105	*	16	59	62	102
Princeton U	12	1	L	2	0	1	2	14	0	4	9	20	L	9	12	21	10
Purdue U	13	*	69	49	65	45	56	95	88	84	*	34	*	111	65	22	103
RPI	55	71	88	106	114	117	*	90	64	LL	*	56	76	24	×	14	42
Rice []	*	*	19	35	60	109	44	9	LL	72	*	71	*	100	*	65	43
Rutgers U	89	*	61	57	46	28	37	53	94	80	40	50	8	48	67	17	73
S. Illinois U. Carbondale	*	45	75	81	92	60	117	112	103	124	49	112	70	65	64	59	*
Southern Methodist U	*	75	41	47	68	47	80	39	55	93	*	99	78	61	*	24	70
Stanford U	26	21	18	9	14	6	6	15	8	14	33	5	9	12	10	11	21
Suffolk U	*	*	95	123	*	120	103	115	101	122	×	95	61	121	¥	93	*
SUNY Binghamton	*	63	63	LL	98	*	81	107	107	54	54	74	19	95	*	10	56
SUNY Buffalo	*	53	83	78	105	111	98	93	56	105	14	78	*	55	35	100	15
CLININ Channi Buoch	*	*	01	SO	100	*	105	117	100	56	CV	10	65	90	*	×	81

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School	A	В	C	D	Е	F	Ð	Н	I	J	K	Г	N	0	Ρ	0	R
Syracuse U	27	44	49	42	66	42	30	7	25	20	68	102	74	45	79	39	3
Temple U	÷	55	109	16	111	102	101	80	80	90	35	98	*	114	54	104	61
Texas A&M U	29	*	20	37	73	92	63	26	57	46	29	44	46	54	28	84	74
Texas Tech U	16	80	121	119	103	*	111	104	*	75	*	117	*	*	*	118	*
Tulane U	*	*	66	104	*	75	89	83	*	107	*	64	38	85	*	36	48
U Alabama	45	48	58	76	55	69	79	61	*	108	19	94	89	101	81	82	98
U Albany	*	09	57	68	75	48	75	61	61	43	*	*	*	81	*	*	*
U Arizona	85	74	45	41	122	*	119	16	*	33	62	28	6	68	*	75	*
U Arkansas	×	*	89	89	106	100	85	116	*	100	32	87	*	LL	50	60	83
UC Berkeley	4	0	8	-	3	4	2	4	16	3	-	Ι	1	2	1	30	9
UC Davis	41	19	43	32	15	8	45	29	98	52	*	14	5	41	8	70	64
UC Irvine	*	23	99	69	59	82	09	75	75	62	*	91	30	39	18	80	92
UC Los Angeles	28	84	10	6	8	9	18	45	*	L	30	3	10	3	30	92	72
UC Riverside	*	81	33	34	64	73	123	42	50	79	71	70	72	62	*	81	16
UC San Diego	40	70	0	26	12	13	9	16	¥	26	5	21	90	35	32	16	II
UC Santa Barbara	56	*	47	45	49	90	17	21	45	81	38	29	*	86	*	9	100
UC Santa Cruz	73	29	65	55	24	11	27	58	*	34	24	49	48	29	58	89	104
U Chicago	10	14	56	2	25	26	4	19	14	00	L	4	*	11	6	67	46
U Colorado, Boulder	86	52	LL	59	82	12	104	24	46	36	LL	31	11	44	75	12	14
U Connecticut	92	65	84	73	85	94	71	87	59	99	4	75	44	70	78	15	12
U Delaware	54	*	98	86	53	105	67	86	36	74	*	45	15	107	63	110	36
U Florida	38	*	50	74	69	40	LL	36	23	70	50	43	51	52	73	109	30
U Georgia	71	64	76	75	42	81	41	44	99	85	43	09	47	122	*	63	16
U Hawaii, Manoa	*	*	96	100	66	64	*	109	*	112	*	84	49	59	99	41	58
U Houston	62	39	59	61	83	24	65	82	40	28	51	62	55	83	56	116	23
U Illinois, Chicago	23	15	85	71	57	88	102	60	7	19	55	113	12	104	44	88	1
U Illinois, Urbana	63	27	16	29	32	39	11	22	39	38	44	15	32	- 61	20	37	13
U Iowa	*	*	29	84	27	55	34	74	62	76	*	61	*	69	*	69	99
U Kansas	36	34	54	82	61	96	62	*	104	87	22	89	28	117	*	43	54
II Vantualar	51	04	00	00	00	11	00	0	20	62	00	101	15	70	12	10	11

School	А	В	C	D	Е	Н	IJ	Н	I	J	K	Γ	Z	0	Р	ø	R
U Maryland, College Park	88	86	36	30	35	10	42	5	10	50	23	26	29	20	4	28	- 57
U Mass, Amherst	64	33	101	85	70	50	59	100	48	45	*	90	43	31	33	31	62
U Miami	*	*	80	111	123	59	94	101	43	59	*	*	*	58	*	73	*
U Michigan	19	61	25	17	6	L	14	1	3	2	10	00	17	15	5	51	39
U Minnesota	*	12	55	16	16	31	28	48	21	48	61	46	99	14	49	99	24
U Mississippi	68	*	78	90	81	121	16	88	86	117	72	79	53	*	*	94	*
U Missouri, Columbia	84	*	60	101	45	16	73	*	72	53	×	67	¥	75	*	105	49
U Missouri, Kansas City	*	13	123	122	54	*	122	118	*	106	*	116	¥	*	45	*	*
U Nebraska, Lincoln	б	20	79	103	74	95	113	76	89	66	76	72	80	105	62	49	53
U New Hampshire	*	22	112	96	120	101	¥	76	79	83	¥	120	*	88	*	76	93
U New Mexico	65	*	120	112	101	93	115	102	63	102	*	81	×	*	*	23	66
U New Orleans	*	¥	100	92	107	87	31	103	*	125	×	108	¥	119	*	*	25
UNC, Chapel Hill	20	99	24	58	56	54	22	35	31	21	36	58	35	74	23	LL	*
U Notre Dame	*	*	74	<i>6L</i>	52	49	38	108	76	*	34	110	82	62	*	797	105
U Oklahoma	99	*	107	64	80	80	86	89	109	61	¥	76	88	63	68	*	78
U Oregon	L	*	52	54	43	27	49	64	52	65	¥	65	85	110	*	32	47
U Pennsylvania	52	36	11	12	23	15	47	56	6	6	58	37	×	36	83	53	95
U Pittsburgh	*	*	30	48	38	65	64	72	93	104	26	83	×	93	L	95	28
U Rhode Island	44	*	105	114	*	*	112	113	797	*	풍	119	×	*	*	8	*
U Rochester	22	25	31	21	19	33	46	67	16	51	70	122	39	47	*	101	89
U South Carolina	09	*	94	118	91	58	96	62	49	16	*	115	60	76	*	*	84
U Southern California	72	30	12	14	51	57	51	47	34	31	52	13	24	34	16	45	37
U Tennessee, Knoxville	*	*	106	117	76	72	100	49	108	103	67	109	*	115	36	78	65
U Texas, Austin	11	85	26	27	39	44	36	20	38	11	64	39	36	37	*	25	34
U Utah	*	40	113	121	100	107	110	*	67	71	*	88	31	72	53	71	*
U Virginia	1	*	22	18	33	16	29	50	29	32	21	6	22	32	38	54	22
U Washington	59	*	51	56	21	17	23	69	110	40	25	68	59	21	71	55	63
U Wisconsin, Madison	43	69	9	22	18	5	20	17	19	27	17	19	*	23	61	19	40
U Wisconsin, Milwaukee	75	*	102	93	93	53	06	114	81	35	78	47	×	51	80	96	51
U Wvoming	53	*	73	60	06	108	35	68	*	123	46	66	*	43	*	"	*

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Table 3. Continued

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							The JEL	. Classific	ation Sys	on System for Journal Articles	ournal A	uticles					
School	A	В	C	D	Ш	F	Ð	Н	I	J	K	Γ	N	0	Ρ	0	R
Utah State U	46	*	115	107	124	112	120	111	96	116	*	125	*	113	60	13	75
Vanderbilt U	8	28	42	43	22	20	48	40	28	44	3	32	3	33	37	108	27
Virginia Tech	31	31	46	51	88	104	69	63	84	94	47	80	68	67	34	103	85
Washington State U	LL	*	*	80	113	106	72	66	53	91	*	42	*	109	69	42	*
Washington U, St. Louis	83	50	71	36	76	119	76	57	74	63	*	111	21	106	LL	*	20
Wayne State U	*	62	72	94	94	74	107	46	68	88	20	69	*	108	*	*	6
West Virginia U	80	*	108	98	95	86	68	99	105	89	45	86	62	112	70	111	41
Western Michigan U	87	54	*	66	116	98	108	98	71	68	*	118	58	102	15	115	90
Yale U	57	8	1	8	10	35	13	54	18	12	16	18	14	6	19	5	*
										ľ							

* indicates a research productivity score of zero for a particular field.

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$$HHI = \sum_{i=1}^{n} s_i^2,$$

where s represents the productivity share of the *i*th faculty member. Values for the index can range from 0 to 1, depending on the distribution of publication patterns across the faculty at the school. A value of 1.0 indicates that all the publications result from a single individual, and a value of 0 implies that the publications are spread equally among the faculty in the area.⁹

The eighth column of Table 2, "Field Strength Index," demonstrates how well each department does in its top field relative to the department that is the number one rank in that particular field. For example, Harvard's top field is financial economics, and it is the top-ranked department in financial economics; hence, Harvard has a field strength index of 1.0. Princeton University's top field is microeconomics (JEL code D), although its field strength index in microeconomics is 0.88, indicating that it produces 88% of the research of the top-ranked school in the microeconomics category.¹⁰ It is important to note that some universities may not offer a field in their top field (see footnotes for Table 2). Finally, the last column of Table 2, "Average Ph.D. Graduates (2002–2007)," provides information on the size of each program, and is included to provide additional information to potential applicants.¹¹ A significant portion of graduate education is obtained from one's classmates. As such, this figure provides information regarding the activity level of the graduate education within a department. A department may have many productive scholars but may not be as actively engaged in its graduate education.

Table 3 identifies the field rankings for each of the 129 departments using the first JEL code identified by the author. All articles were assigned to a field on the basis of the assumption that the first JEL code listed represents the primary subject field of the article. Once an article was categorized, the productivity value for each article, P_{ij} , was summed by subject and university, yielding a total productivity score within a particular field for a particular department. While this information is useful to potential graduate students and others, it should be noted that not all fields are offered at each university. Thus, potential graduate students should confirm that a field of interest is available at a particular university before applying.

Table 4 identifies the top 20 schools in each field. This table also identifies the number of faculty in each school who publish in the field regardless of where they publish or whether the journal is listed in the SSCI. Table 4 also shows the HHI for each of the top 20 schools in the field. For example, referring to Carnegie Mellon University, the value for the HHI in general economics and teaching (JEL subject code A) is 0.18, whereas for Cornell University the HHI is 1.0. At Carnegie Mellon, publication in this field is spread out among the eight members of the faculty who publish in this area. At Cornell, however, all the publications listed in SSCI are attributed to a single faculty member. (Although at Cornell, three people have published in this area, only one person has published in journals listed in the SSCI.) As another example, for

⁹ It should be noted that in the case of an HHI of 1.0, more than one faculty member may publish in this area, yet because other faculty members' publications may not be indexed in the SSCI, they are not recognized in our data as contributing to the department's research productivity.

¹⁰ The field strength index measures only the department's relative productivity in its top field. It is possible that a department has a higher field strength rating in a field other than its top field.

¹¹ These data were acquired by calling and e-mailing the graduate advisers or the department administrators at each university. In some cases, multiple attempts were made to contact the department and acquire this information.

School	Category Ranking SSCI	Number of Publishing Faculty	HHI	Importance Index
JEL category A: General eco.	nomics and teachin	g		To Provide
U Virginia	- 1	4	0.47	0.06
Carnegie Mellon U	2	8	0.18	0.06
U Nebraska, Lincoln	3	6	0.77	0.29
UC Berkeley	4	10	0.30	0.02
Indiana U	5	5	0.80	0.12
MIT	6	6	0.40	0.01
U Oregon	7	6	0.24	0.10
Vanderbilt U	8	5	0.98	0.04
George Mason U	9	12	0.26	0.04
U Chicago	10	2	0.53	0.00
U Texas, Austin	10	5	0.55	
Princeton U	12	5		0.04
Purdue U	12	6	0.33	0.01
			0.65	0.09
Georgia State U	14	4	0.66	0.05
Harvard U	15	9	0.24	0.01
New York U	16	2	0.73	0.01
Cornell U	17	3	1.00	0.02
Columbia U	18	3	0.85	0.01
U Michigan	19	4	0.80	0.01
UNC, Chapel Hill	20	6	0.40	0.03
JEL category B: Methodolog	y and history of ec	onomic thought		
Princeton U	1	9	0.23	0.02
UC Berkeley	2	9	0.30	0.01
George Mason U	3	14	0.38	0.07
New York U	4	4	0.84	0.02
MIT	5	3	0.46	0.01
Columbia U	6	2	1.00	0.01
Harvard U	7	6	0.38	0.00
Yale U	8	3	0.92	0.01
Johns Hopkins U	9	2	1.00	0.02
Duke U	10	6	0.35	0.02
Pennsylvania State U	11	1	1.00	0.02
U Minnesota	12	4	0.43	0.02
U Missouri, Kansas City	13	4	0.37	0.24
U Chicago	14	5	0.33	0.01
U Illinois at Chicago	15	3	0.94	0.02
Georgia State U	16	1	1.00	0.02
Carnegie Mellon U	17	5	0.31	0.01
Colorado State U	18	4	0.53	0.01
UC Davis	19	3	0.53	0.11
U Nebraska, Lincoln	20	2	0.32	0.01
IEL category C: Mathematic				0100
Yale U	1	20	0.34	0.35
UC San Diego	2	17		
MIT	3		0.11	0.30
Northwestern U		18	0.18	0.12
	4	18	0.18	0.25
Harvard U	5	19	0.16	0.08
U Wisconsin, Madison	6	16	0.18	0.26

Table 4. Subject Field Rankings for Ph.D.-Granting Institutions in Economics

School	Category Ranking SSCI	Number of Publishing Faculty	HHI	Importance Index
Princeton U	7	24	0.09	0.09
UC Berkeley	8	22	0.13	0.09
New York U	9	21	0.10	0.16
UCLA	10	23	0.12	0.13
U Pennsylvania	11	17	0.13	0.18
U Southern California	12	10	0.18	0.22
Ohio State U	13	16	0.29	0.15
Boston U	14	15	0.24	0.13
California Inst Tech	15	11	0.26	0.25
J Illinois, Urbana	16	18	0.14	0.17
Cornell U	17	13	0.17	0.16
Stanford U	18	19	0.09	0.09
Rice U	19	11	0.18	0.28
Texas A&M U	20	14	0.17	0.27
IEL category D: Microecond		~ 1		
UC Berkeley	1	35	0.06	0.17
Princeton U	2	28	0.07	0.15
Harvard U	3	28	0.07	0.10
New York U	4	25	0.08	0.23
MIT	5	21	0.09	0.13
Stanford U	6	25	0.10	0.22
U Chicago	7	24	0.09	0.22
Yale U	8	24	0.07	0.17
UCLA	9	26	0.11	0.17
Northwestern U	10	20	0.11	0.17
California Inst Tech	10	11	0.11	0.42
	11	15	0.19	0.42
U Pennsylvania Ohio State U	13	18	0.10	0.21
U Southern California	13	16	0.14	0.21
	15	9	0.18	0.20
Johns Hopkins U	16	15	0.27	0.29
U Minnesota				
U Michigan	17 18	27	0.07	0.11 0.20
U Virginia Poston II		13	0.15	
Boston U	19 20	17 19	0.11	0.15
Columbia U IEL catagory E: Macroscop			0.19	0.11
IEL category E: Macroecon			0.08	0.12
Harvard U	1	25		
Princeton U	2 3	20	0.12	0.15
UC Berkeley	3	18	0.17	0.11
MIT	4	12	0.24	0.11
Northwestern U	5	10	0.21	0.16
Columbia U	6	15	0.19	0.15
New York U	7	16	0.12	0.13
UCLA	8	15	0.12	0.11
U Michigan	9	19	0.09	0.09
Yale U	10	16	0.18	0.09
Boston U	11	11	0.22	0.13
UC San Diego	12	13	0.25	0.10
Johns Hopkins U	13	7	0.42	0.19

Table 4. Continu	ed
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School	Category Ranking SSCI	Number of Publishing Faculty	HHI	Importance Index
Stanford U	14	11	0.17	0.08
UC Davis	15	13	0.13	0.16
U Minnesota	16	12	0.13	0.16
Ohio State U	17	10	0.30	0.11
U Wisconsin, Madison	18	11	0.18	0.09
U Rochester	19	6	0.26	0.19
Georgetown U	20	12	0.22	0.17
JEL category F: International e	conomics			
Princeton U	1	13	0.17	0.12
Harvard U	2	19	0.16	0.09
Columbia U	3	16	0.10	0.09
UC Berkeley	4	16	0.39	0.22
U Wisconsin, Madison	5	9	0.39	0.08
UCLA	6	15	0.24	
U Michigan	7	20	0.22	0.10 0.09
UC Davis	8	20	0.15	
Stanford U	9	14	0.46	0.19
U Maryland, College Park	10	7		0.08
UC Santa Cruz	10	12	0.38	0.15
U Colorado, Boulder	12	12	0.21	0.24
UC San Diego	12		0.27	0.23
New York U	13	9	0.31	0.08
		13	0.26	0.06
U Pennsylvania	15	7	0.40	0.10
U Virginia	16	6	0.35	0.11
U Washington	17	9	0.35	0.18
Georgetown U	18	13	0.13	0.16
Duke U	19	11	0.18	0.11
Vanderbilt U	20	12	0.24	0.12
IEL category G: Financial econ				
Harvard U	1	22	0.16	0.15
Princeton U	2	26	0.12	0.11
Carnegie Mellon U	3	19	0.12	0.33
U Chicago	4	14	0.16	0.15
MIT	5	16	0.18	0.07
UC San Diego	6	11	0.26	0.10
UC Berkeley	7	20	0.11	0.04
New York U	8	11	0.16	0.07
Stanford U	9	10	0.18	0.06
Ohio State U	10	11	0.22	0.09
U Illinois, Urbana	11	14	0.21	0.10
Columbia U	12	11	0.26	0.05
Yale U	13	15	0.22	0.04
J Michigan	14	16	0.11	0.04
Duke U	15	9	0.18	0.09
Cornell U	16	11	0.43	0.08
JC Santa Barbara	17	12	0.35	0.15
UCLA	18	17	0.11	0.04
City U of New York (CUNY)	19	15	0.23	0.12
U Wisconsin, Madison	20	7	0.28	0.05

School	Category Ranking SSCI	Number of Publishing Faculty	HHI	Importance Index
JEL category H: Public econom	ics			
U Michigan	1	19	0.24	0.14
MIT	2	14	0.21	0.08
Harvard U	3	17	0.16	0.05
UC Berkeley	4	20	0.19	0.06
U Maryland, College Park	5	11	0.16	0.15
Rice U	6	6	0.32	0.24
Syracuse U	7	18	0.10	0.16
U Kentucky	8	9	0.46	0.31
Columbia U	9	14	0.16	0.07
Michigan State U	10	10	0.45	0.10
Georgia State U	11	15	0.16	0.21
Boston U	12	9	0.28	0.08
Cornell U	13	13	0.13	0.08
Princeton U	14	16	0.13	0.02
Stanford U	15	15	0.14	0.05
UC San Diego	16	11	0.36	0.05
U Wisconsin, Madison	17	10	0.54	0.05
Carnegie Mellon U	18	13	0.18	0.08
U Chicago	19	6	0.29	0.04
U Texas, Austin	20	10	0.29	0.08
IEL category I: Health, educati		10	0.27	0.00
Harvard U		15	0.20	0.07
	1 2	13	0.20	0.07
Princeton U	3	18	0.20	0.00
U Michigan	4	18	0.20	0.10
MIT	5	14	0.20	0.03
City U of New York (CUNY)	6	7	0.22	0.17
Cornell U	7	9	0.29	0.09
U Illinois, Chicago	8	9	0.63	0.10
Stanford U	9	7	0.30	0.03
U Pennsylvania U Maryland, College Park	10	9	0.30	0.07
Johns Hopkins U	10	8	0.32	0.10
Michigan State U	12	10	0.16	0.07
Ohio State U	12	9	0.30	0.06
	14	8	0.27	0.04
U Chicago	14	8 7	0.44	0.04
Boston U		15	0.12	0.02
UC Berkeley	16 17	7	0.12	0.02
Duke U Yale U	17	10	0.30	0.07
	18		0.17	0.05
U Wisconsin, Madison	20	6	0.48	0.05
Northwestern U		-	0.25	0.04
IEL category J: Labor and dem		19	0.12	0.15
MIT Howard II	1	17	0.12	0.15
Harvard U	2			
UC Berkeley	2 3 4	22	0.23	0.12
Princeton U	4	20	0.14	0.12 0.19
U Michigan	5	23	0.08	0.19

School	Category Ranking SSCI	Number of Publishing Faculty	HHI	Importance Index
Michigan State U	6	13	0.45	0.27
UCLA	7	20	0.09	0.14
U Chicago	8	13	0.13	0.15
J Pennsylvania	9	15	0.16	0.22
Boston U	10	15	0.13	0.18
J Texas, Austin	11	6	0.45	0.23
Yale U	12	18	0.15	0.10
Northwestern U	13	13	0.32	0.11
Stanford U	14	15	0.13	0.10
Brown U	15	11	0.11	0.20
J South Carolina	16	6	0.46	0.60
New York U	17	17	0.11	0.08
City U of New York (CUNY)	18	15	0.13	0.27
J Illinois, Chicago	19	11	0.25	0.27
Syracuse U	20	16	0.12	0.27
IEL category K: Law and econo			0.12	0,21
UC Berkeley	1	9	0.25	0.02
Harvard U	2	4	0.35	0.02
Vanderbilt U	3	2	0.57	0.01
J Connecticut	4	4	0.45	0.07
JC San Diego	5	2	0.43	0.14
Princeton U	6		0.93	0.03
J Chicago	7	8		
MIT	8	5	0.47 0.34	0.02
Florida State U	9	7		0.01
J Michigan	10	4	0.28 0.72	0.06
George Mason U	10	9	0.72	0.01
Boston U	11	4		0.04
Emory U	12	4	0.40	0.02
SUNY Buffalo	13		0.42	0.08
Clemson U	14	23	0.75	0.12
ale U			0.77	0.06
	16	6	0.29	0.01
J Wisconsin, Madison Columbia U	17	2 5	0.65	0.01
	18		0.24	0.01
J Alabama	19	4	0.32	0.09
Vayne State U	20	2	0.53	0.07
EL category L: Industrial organ				
JC Berkeley	1	26	0.07	0.09
AIT ICI A	2	16	0.16	0.09
JCLA	3	20	0.16	0.13
J Chicago	4	17	0.10	0.11
tanford U	5	20	0.11	0.11
Iarvard U	6	19	0.14	0.04
Jorthwestern U	7	9	0.22	0.09
J Michigan	8	13	0.16	0.05
J Virginia	9	6	0.23	0.10
Boston U	10	15	0.14	0.08
Columbia U	11	7	0.23	0.06
Duke U	12	11	0.21	0.11

School	Category Ranking SSCI	Number of Publishing Faculty	HHI	Importance Index
J Southern California	13	11	0.55	0.11
JC Davis	14	13	0.14	0.10
J Illinois, Urbana	15	16	0.28	0.09
New York U	16	14	0.14	0.04
Georgetown U	17	12	0.18	0.11
Yale U	18	15	0.15	0.04
J Wisconsin, Madison	19	9	0.18	0.05
Princeton U	20	9	0.16	0.02
IEL category N: Economic	history			
JC Berkeley	1	8	0.25	0.03
Harvard U	2	10	0.34	0.02
Vanderbilt U	3	7	0.32	0.09
TIM	4	3	0.43	0.02
UC Davis	5	6	0.30	0.08
Stanford U	6	5	0.39	0.03
Princeton U	7	6	0.46	0.01
Rutgers U	8	4	0.35	0.10
U Arizona	9	4	0.33	0.12
UCLA	10	10	0.20	0.02
U Colorado, Boulder	11	4	0.48	0.05
U Illinois, Chicago	12	6	0.56	0.05
Columbia U	13	7	0.28	0.02
Yale U	14	5	0.39	0.01
U Delaware	15	2	0.81	0.13
Northwestern U	16	5	0.32	0.02
U Michigan	17	5	0.47	0.01
Ohio State U	18	6	0.31	0.02
SUNY Binghamton	19	3	0.63	0.11
New York U	20	2	0.52	0.01
IEL category O: Economic	development, techno	logical change, and	growth	
Harvard U	1	22	0.08	0.09
UC Berkeley		23	0.12	0.08
UCLA	2 3	20	0.14	0.11
New York U	4	15	0.17	0.10
MIT	5	13	0.33	0.06
Princeton U	6	16	0.11	0.05
Brown U	7	12	0.20	0.20
Columbia U	8	17	0.19	0.09
Yale U	9	15	0.13	0.06
Cornell U	10	13	0.11	0.11
U Chicago	11	4	0.61	0.06
Stanford U	12	15	0.13	0.05
Duke U	13	11	0.18	0.10
U Minnesota	14	8	0.21	0.11
U Michigan	15	16	0.21	0.04
Northwestern U	16	8	0.28	0.05
Pennsylvania State U	17	11	0.32	0.11
Michigan State U	18	10	0.45	0.07
U Illinois, Urbana	19	14	0.19	0.06
o minois, orbana	17	17	0.17	0.00

School	Category Ranking SSCI	Number of Publishing Faculty	HHI	Importance Index
U Maryland, College Park	20	9	0.24	0.06
JEL category P: Economic syst	ems			
UC Berkeley	1	5	0.40	0.03
Harvard U	2	7	0.40	0.03
Columbia U	3	9	0.20	0.02
U Maryland, College Park	4	2	0.37	0.04
U Michigan	5	6	0.65	0.08
Arizona State U	6	2	0.03	0.03
U Pittsburgh	7	4	0.34	0.10
UC Davis	8	2	0.66	0.10
U Chicago	9	3	0.63	0.04
Stanford U	10	3	0.44	0.02
Brown U	11	3	0.86	0.02
Princeton U	12	5	0.24	0.04
MIT	13	4	0.24	0.01
City U of New York (CUNY)	13	4	0.85	0.01
Western Michigan U	15	5	1.00	0.04
U Southern California	16	1		
Brandeis U	17	1	0.79 1.00	0.02
UC Irvine	18	6	0.87	0.12
Yale U	19	5	0.87	0.06
U Illinois, Urbana	20	2	0.28	0.01
		191211	0.90	0.02
JEL category Q: Agricultural a	nd natural resour	rce economics		
Iowa State U	1	29	0.07	0.36
North Carolina State U	2	24	0.12	0.34
U Wyoming	3	9	0.27	0.35
Harvard U	4	6	0.39	0.02
Yale U	5	6	0.39	0.04
UC Santa Barbara	6	7	0.32	0.14
MIT	7	7	0.21	0.02
U Rhode Island	8	8	0.24	0.76
Georgetown U	9	3	0.95	0.08
SUNY Binghamton	10	4	0.34	0.22
Stanford U	11	9	0.30	0.03
U Colorado, Boulder	12	7	0.22	0.08
Utah State U	13	14	0.15	0.56
RPI	14	3	0.54	0.21
U Connecticut	15	3	0.65	0.14
UC San Diego	16	6	0.30	0.03
Rutgers U	17	1	1.00	0.09
Brown U	18	6	0.22	0.04
U Wisconsin, Madison	19	6	0.31	0.03
Geargia State U	20	5	0.29	0.07
IEL category R: Urban, rural, a	and regional econ	nomics		
U Illinois, Chicago	1	5	0.42	0.21
Harvard U	2	11	0.27	0.02
Syracuse U	3	7	0.29	0.14
MIT	4	7	0.21	0.03
Boston College	5	6	0.54	0.13

School	Category Ranking SSCI	Number of Publishing Faculty	HHI	Importance Index
UC Berkeley	6	6	0.50	0.02
Florida State U	7	11	0.43	0.15
Georgia State U	8	8	0.52	0.13
Wayne State U	9	2	0.60	0.29
Princeton U	10	7	0.38	0.02
UC San Diego	11	8	0.23	0.04
U Connecticut	12	5	0.39	0.18
U Illinois, Urbana	13	5	0.33	0.05
U Colorado, Boulder	14	8	0.18	0.09
SUNY Buffalo	15	2	0.94	0.25
UC Riverside	16	5	0.48	0.12
U Kentucky	17	5	0.29	0.13
Pennsylvania State U	18	2	0.80	0.06
Oklahoma State U	19	3	0.45	0.35
Washington U, St. Louis	20	3	0.51	0.13

Table 4. Continued

JEL subject code I (health, education, and welfare), Stanford University has nine faculty members who have published in this area and an HHI of 0.63. Michigan State University is ranked slightly lower than Stanford and has 10 faculty publishing in the area with an HHI of 0.16. If a student wishes to pursue a graduate degree in economics at Stanford University with an emphasis in health, education, and welfare, he or she should realize that the scholarly activity in this area at Stanford is concentrated in a few of the nine people who publish in the area, while at Michigan State University, the publications are more evenly distributed across the faculty in this area.

The fifth column in Table 4, "Importance Index," demonstrates the importance of a particular field for a department relative to its overall productivity. The importance index simply divides a department's productivity score for a particular field by the department's overall productivity score. Refer to Princeton University, which ranks as the top department in JEL subject codes B and F, methodology and history of economic thought and international economics, respectively. For methodology and history of economic thought, Princeton has an importance index of 2%, and for international economics, Princeton has an importance index of 12%. This indicates that methodology and history of economic thought is more likely a spillover category and not the primary focus of the department's overall research agenda.

4. Conclusion

The primary objective of this article is to provide information to undergraduate students and to their advisers on the research strengths of 129 economics doctoral programs in the United States. We provide both total and average, or per capita, research productivity measures for publishing faculty and identify schools that are highly ranked in the many different subject fields of economics.

A noticeable feature of our total productivity rankings is that the distinction between schools diminishes as their rank declines. The data demonstrate that per capita and total

productivity measures result in differences in quality rankings, where total productivity is influenced by both the number of publishing faculty and the productivity of each faculty member. Students searching for graduate schools may benefit from considering both the average quality of the faculty and the total quality of the department.

For students who have a strong interest in a specific subject field of economics, we identify the schools that may best fit with the student's desires. As a cautionary note, we provide HHI measures that alert students to the possibility that some departments may have a top reputation in a subject field due to having a single, very influential faculty member.

Although this information should be helpful to students applying to graduate school, applicants should be mindful of several things. First, one should apply to many different Ph.D. programs. The loss from a redundant application is much smaller than the loss of not applying to a place that could become one's best offer (or maybe help to get a better deal elsewhere). Second, although a student will benefit by attending a university ranked highly in his or her preferred field, a major consideration should still be the overall quality of the department. There are several benefits of attending a highly ranked school: (i) a student often learns a lot from his or her classmates, who perhaps are better students; (ii) students may change their preferences during their studies, and our study shows that highly ranked departments overall are strong in many fields; and (iii) students may be more successful in their job search if they graduated from a department that is highly ranked overall. While this article can be a useful tool to start with, when actually choosing between competing offers, prospective students should check out department websites and relevant curricula vital themselves.¹²

Finally, our work shows that many top-ranked programs based on total productivity measures are able to provide an education that is broad in nature and that gives access to many of the subject fields of economics. For students who are interested in a specific subject field, attending a traditionally top-ranked program will likely not limit the student's ability to conduct future research in an applied discipline. At the same time, however, for students who will not attend a top-ranked school based on total productivity measures, they will likely attend a program with actively publishing faculty, and if they choose their programs correctly, it will still be possible to obtain a top-ranked education in one of the subfields of economics.

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¹² We thank an anonymous referee for pointing out these cautionary notes.

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