Ranking M.S. and Ph.D. Programs in Agricultural Economics – Spring 2004

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This study represents the most recent attempt to rank graduate programs in Agricultural Economics. It follows two previous studies I conducted in Spring 1994 and Fall 1999. This is likely to be the last such study that I conduct, given the proposal by the National Research Council to begin ranking graduate programs in Agricultural Economics.

I continue to be surprised by the interest these ranking studies generate among faculty and graduate students. I receive several requests for rankings each year from graduate students, who want to use the information as part of their decision making process about where to pursue graduate studies. Most departmental reviews look to these rankings as a measure of program quality and use the information in discussions about where they should go as a faculty. Not surprisingly, some question the methodology used, particularly when the subjective rankings reported here don't match faculty perceptions about their program.

For this reason, it's important to remember what these results tell the reader and what they omit. Simply put, the results represent opinions of about 50 individuals in the profession. Hopefully, because of the way in which the survey population was chosen, the respondents are more informed about the quality of graduate programs than the average agricultural economist in the United States. Nevertheless, the respondents bring to the task their own life experiences, good or bad. Sometimes these experiences provide good insight into the quality of graduate programs, while other times they may be relying on second and third hand information. The rankings are not based at all on objective criteria, other than the influence that objectively-based data may have on the

subjective assessments of respondents. In previous studies, for example, I have found that objective data and opinions can diverge quite significantly (see Perry 1994; 1995; 1997; 1999, also Hilmer and Hilmer).

This lack of objective analysis does not mean that the results should be immediately discounted as irrelevant. As I noted, prospective graduate students care about what others think of the programs they are considering for graduate studies. Some feel that completing a degree at a prestigious program can enhance the quality and quantity of post-graduate employment prospects. Recruiting of quality faculty may also be aided by program prestige.

Methodology

The methodological changes adopted for the survey in Spring 1999 were largely adopted for this survey. A list of individuals who reviewed for the AJAE in 2002 and 2003 were put together, with individuals not listed in recent issues of the *AAEA Directory* subsequently dropped from the list. The names were then sorted into field categories based on stated interests in the *Directory,* personal websites and publication lists. From this process it became apparent that a significant shift has occurred in the profession in terms of fields. Specifically, the Production field, long a mainstay in the agricultural economics profession, seems to have largely disappeared from Ph.D. programs across the country. Another longstanding field, Marketing and Price Analysis, also has evolved in several different ways depending on the department. As a result, the survey population was divided into seven major subject areas: Agribusiness, Marketing and Industrial Organization; International Trade; Resource and Environmental; Farm Management, Finance and Production; International

Development; Consumption and Price Analysis; and Rural Development. Each group contained at least 10 individuals, with Resource and Environmental Economics representing the largest sample pool (38 individuals). Total survey population was 106 professionals.

The survey instrument was virtually identical to that used in Fall 1993 and Spring 1999. Participants were asked to rank the top 20 Ph.D. programs in agricultural economics, using a 1-5 ranking scale. A ranking of 5 indicated an excellent program, 4 corresponded to an above average program, 3 being average, 2 being below average and 1 being a poor program. They were then asked to rank the top 10 M.S. programs, the top Canadian programs and the top five programs in their field using a 1-5 scale.

The surveys were sent out by email in April 2004, with followups to non-respondents sent in May. Of the 106 individuals surveyed, 51 (48 percent) replied by email or surface mail. This was a significant decline from the 69 percent response rate for the 1999 survey and 70 percent for the 1993 survey. Why the response rate declined is not clear. Three of the respondents refused to complete the survey, for a completion rate of 45 percent versus 58 percent in 1999. The three individuals who refused to participate felt they did not know enough to provide an informed opinion on graduate programs in agricultural economics.

U.S. Ph.D. Rankings

The rankings for Ph.D. programs are reported in Table 1. The average rank in Table 1 is the simple average of ratings given by all respondents. The 25 schools listed were the only schools ranked by 10 or more respondents. Only UC-Berkeley, UC-Davis and Maryland were listed by all 48 respondents. The rankings for Berkeley and Davis

were statistically significantly higher than those for Maryland and other schools. Maryland was ranked third, significantly higher than North Carolina State and lower ranked schools. Iowa State ranked fourth significantly higher than North Carolina State and lower ranked schools. North Carolina State was fifth, although its ranking was not significantly higher than Cornell (sixth) and Minnesota (seventh). Ohio State ranked eighth at 3.71, Purdue was ninth and Wisconsin ranked tenth. There was a clear break in the rankings between the top four schools and the next six schools. Illinois and Texas A&M posted nearly identical scores, but the gap between tenth place Wisconsin and eleventh place Illinois was large (0.25). Michigan State and Oregon State were also not statistically different from one another in 13th and 14th places. The next four schools (Washington State, Kansas State, Florida and Penn State) also formed a cluster with rankings between 2.88 and 3.02. The schools ranked 20th to 25th (Colorado State, VPI, Oklahoma State, Georgia, Rhode Island and Missouri) also were very close in their rankings.

The standard deviations provide some indication of consensus about where each program was ranked by respondents. The rankings for Berkeley, Davis, Maryland, Iowa State, Ohio State, Texas A&M, Washington State, Colorado State and Georgia all had standard deviations of 0.6 or less, indicating substantial agreement in rankings. At the other extreme were Illinois and Missouri, with standard deviations of 0.90 or more.

Nine schools had rankings in 2004 that were higher than in 1999, although only four schools (Maryland, Ohio State, Washington State and Connecticut) experienced a change in rankings of 0.15 or more. Over the past decade, the most dramatic increases in rankings have been for Ohio State (+0.77), Maryland (+0.58) and Iowa State (+0.35).

The other 16 schools experienced a decline in scores from 1999 to 2004. It is important to note, however, that only eight schools (Minnesota, Wisconsin, Michigan State, Colorado State, VPI, Oklahoma State, Missouri and Georgia) experienced a decline in rankings. Over the last decade, the largest declines have occurred at Minnesota (-0.51), VPI (-0.40), Wisconsin (-0.32), and Michigan State (-0.21). The reason for the overall decline in average scores is that respondents gave fewer high rankings to various programs. Consequently, the average score given by respondents in 2004 was 3.53, compared to 3.65 in 1999 and 3.75 in 1994.

U.S. M.S. Rankings

The rankings for M.S. programs are given in Table 2. Only programs mentioned by 10 or more respondents were included in the table. UC-Davis was ranked as the top M.S. program in 2004, with an average score of 4.43. Montana State closely followed at 4.39, with Maryland, Minnesota, and Iowa State rounding out the top five. The next 10 schools (Purdue, North Carolina State, Cornell, Ohio State, Arizona, Illinois, Oregon State, Wisconsin, Michigan State, and Kansas State) were all closely grouped, with ranking scores ranging from 3.67 to 3.96.

One particularly noteworthy result from the M.S. results was the decline in scores from 1999 to 2004. Only one M.S. program (Minnesota) received a higher average ranking in 2004 than it did in 1999. Some of these scores declined by a surprising amount for a five year period, including Kansas State (-0.50), Iowa State (-0.44) and Arizona (-0.39). Again, lower scores assigned by respondents suggests either a more critical appraisal of graduate programs or an actual decline in program quality.

Canadian Program Rankings

The survey recipients were also asked to rank Canadian graduate programs in agricultural economics. As in the 1999 survey, no attempt was made to distinguish between M.S. and Ph.D. programs because there were so few programs and most are relatively small. Only 30 of the 48 individuals who completed parts of the survey provided rankings for the Canadian programs. The results are summarized in Table 3.

As in 1999, Guelph seemed the clear choice as the top Canadian graduate program in agricultural economics, with a ranking of 3.84 and also a low standard deviation. British Columbia, Saskatchewan and McGill were also ranked as above average graduate programs. Compared to 1999, McGill experienced a large drop in rankings (-0.37). Alberta registered the largest positive increase (+0.16).

Rankings by Field

In the final portion of the survey, recipients were asked to list the top five programs in the designated field of interest and the ranking they gave to that particular program. Table 4 contains a summary of results for the top six schools in each area, provided a program was ranked by more than one individual. The International Development field rankings were omitted because of an insufficient number of survey respondents. Only four of the top 20 Ph.D. programs (Wisconsin, Washington State, Florida and Connecticut) failed to place one of their field areas in the top six.

Rankings can be analyzed based on the number of respondents listing a particular program in their top five, or based on the quality ranking scores provided by respondents. Data on both types of ranking criteria were reported in the table, but the quality ranking scores were used to rank programs in the table. Purdue had the top program in Farm Management, Finance and Production, Cornell was considered

strongest in Agribusiness, Marketing and Industrial Organization, Maryland had the best Resource and Environmental Economics field, and Illinois was considered strongest in Consumption and Price Analysis. Penn State and Illinois tied for the top ranking in rural development, and Purdue and UC-Berkeley tied for the top ranking in International Trade.

Summary and Conclusions

The primary purpose of this paper was to update an earlier study ranking graduate programs in agricultural economics. Approximately 100 agricultural economists active in research were asked to subjectively rank up to 20 Ph.D. programs, 10 M.S. and Canadian graduate programs, and the five top programs in a field in which they have expertise. The Ph.D. rankings shifted somewhat from 1999 to 2004. Minnesota continued its decade long decline as a Ph.D. program, and Wisconsin also experienced a significant decline in average rank score. Ohio State continued its decade long rise in the rankings, from 18th position in 1993 to 8th in 2004. Maryland, Iowa State and Washington State also registered solid gains in the last five years.

In the M.S. area, virtually all programs were ranked lower in 2004 than in 1999. UC-Davis was the top ranked M.S. program, while most of the top 15 programs scored about the same in rankings. Guelph remained the top Canadian graduate program in agricultural economics.

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Table 1. Ph.D. Program Rankings in Agricultural Economics

		2004 Survey			1999 Survey		1993 Survey	Change in Average Rank	
	Ph.D. Program	Average Rank	Standard Deviation	Number of Respondents	Average Rank	Standard Deviation	Weighted Rank	1999 to 2004	1993 to 2004
1	UC-Berkeley	4.88	0.43	48	4.85	0.35	4.86	0.03	0.02
2	UC-Davis	4.74	0.44	48	4.77	0.52	4.72	-0.03	0.02
3	Maryland	4.65	0.47	48	4.50	0.56	4.07	0.15	0.58
4	Iowa State	4.47	0.58	46	4.34	0.65	4.12	0.13	0.35
5	North Carolina	4.00	0.75	47	4.12	0.72	4.02	-0.12	-0.02
6	Cornell	3.81	0.75	44	3.69	0.79	3.74	0.12	0.07
7	Minnesota	3.76	0.67	46	4.10	0.76	4.27	-0.34	-0.51
8	Ohio State	3.71	0.58	43	3.31	0.79	2.94	0.40	0.77
9	Purdue	3.68	0.79	40	3.72	0.79	3.70	-0.04	-0.02
10	Wisconsin	3.65	0.67	45	3.90	0.69	3.96	-0.25	-0.31
11	Illinois	3.45	0.92	44	3.42	0.90	3.57	0.03	-0.12
12	Texas A&M	3.43	0.59	38	3.48	0.80	3.57	-0.05	-0.14
13	Michigan State	3.27	0.78	44	3.43	0.90	3.49	-0.16	-0.22
14	Oregon State	3.17	0.74	38	3.20	0.72	3.17	-0.03	0.00
15	Washington State	3.02	0.52	30	2.81	0.69	2.85	0.21	0.17
16	Kansas State	2.97	0.69	31	2.94	0.94	3.01	0.03	-0.04
17	Penn State	2.90	0.65	42	2.95	0.73	3.00	-0.05	-0.10
18	Florida	2.88	0.76	34	2.90	0.72	3.00	-0.02	-0.12
19	Connecticut	2.72	0.65	18	2.56	0.77	NA	0.16	NA
20	Colorado State	2.61	0.59	18	3.08	0.85	NA	-0.47	NA
21	VPI	2.61	0.75	27	2.99	0.80	3.01	-0.38	-0.40
22	Oklahoma State	2.57	0.65	27	2.84	0.73	2.59	-0.27	-0.02
23	Georgia	2.54	0.53	27	2.75	0.73	2.73	-0.21	-0.19
24	Rhode Island	2.53	0.82	19	3.29	0.88	NA	-0.76	NA
25	Missouri	2.50	0.91	24	2.89	0.56	2.92	-0.39	-0.42

Table 2. M.S. Graduate Program Rankings in Agricultural Economics

		2004 Survey			1999 Survey		1993 Survey	Change in Average Rank	
	M.S. Program	Average Rank	Standard Deviation	Number of Respondents	Average Rank	Standard Deviation	Average Rank	1999 to 2004	1993 to 2004
1	Davis	4.43	0.56	28	4.44	0.87	4.48	-0.01	-0.05
2	Montana State	4.39	0.83	31	4.42	0.63	4.54	-0.03	-0.15
3	Maryland	4.22	0.72	23	4.56	0.50	4.22	-0.34	0.00
4	Minnesota	4.10	0.68	21	4.04	0.79	4.57	0.06	-0.47
5	Iowa State	4.00	0.78	26	4.44	0.61	4.38	-0.44	-0.38
6	Purdue	3.96	0.66	25	4.07	0.88	4.40	-0.11	-0.44
7	North Carolina St.	3.92	0.64	24	4.08	0.64	NA	-0.17	NA
8	Cornell	3.88	0.70	26	4.09	0.58	4.43	-0.20	-0.54
9	Ohio State	3.86	0.55	22	3.93	0.68	NA	-0.07	NA
10	Arizona	3.82	0.85	28	4.21	0.73	4.39	-0.39	-0.57
11	Illinois	3.82	0.83	22	3.92	0.82	NA	-0.10	NA
12	Oregon State	3.77	0.85	22	4.00	0.78	4.15	-0.23	-0.38
13	Wisconsin	3.76	0.51	25	3.92	0.65	4.33	-0.16	-0.57
14	Michigan State	3.73	0.81	22	4.00	0.63	4.32	-0.27	-0.59
15	Kansas State	3.67	1.00	18	4.17	0.80	NA	-0.50	NA

Table 3. Canadian Graduate Program Rankings in Agricultural Economics

		2004 Survey			1999 Survey		Change
	M.S. Program	Average Rank	Standard Deviation	Number of Respondents	Average Rank	Standard Deviation	1999 to 2004
1	Guelph	3.80	0.75	30	3.84	0.78	-0.04
2	UBC	3.40	0.92	20	3.38	0.94	0.02
3	Saskatchewan	3.25	0.94	20	3.21	0.96	0.04
4	McGill	3.19	0.79	21	3.56	0.93	-0.37
5	Laval	2.89	0.94	18	2.91	1.16	-0.02
6	Alberta	2.89	0.74	18	2.73	0.91	0.16
7	Manitoba	2.50	0.50	14	2.66	0.82	-0.16

Table 4. Top Graduate Programs in Agricultural Economics by Field

Field and School	Average Rank	Percent Listing This Program
A. Agribusiness, Marketing and Industrial Organization (n=5)		
Cornell	4.50	40
Purdue	4.00	80
Kansas State	4.00	60
Nebraska	4.00	40
Illinois	3.75	80
B. Resource and Environmental Economics (n=17)		
Maryland	4.92	88
UC-Berkeley	4.86	94
UC-Davis	4.45	71
Oregon State	4.25	24
North Carolina St.	4.14	47
Iowa State	4.13	53
C. International Trade (n=4)		
Purdue	4.75	75
UC-Berkeley	4.75	75
UC-Davis	4.33	75
Minnesota	4.25	100
Cornell	4.00	75
Iowa State	4.00	50
D. Consumption & Price Analysis (n=4)		
Illinois	5.00	50
Kansas State	4.50	50
UC-Davis	4.33	75
Iowa State	4.33	75
North Carolina	4.33	75
E. Rural Development (n=6)		
Penn State	4.50	67
Illinois	4.50	33
Ohio State	4.33	50
Missouri	4.17	100
Clemson	3.83	100
F. Farm Management, Finance and Production (n=4)		
Purdue	4.67	75
Illinois	4.00	100
Kansas State	4.00	75
Texas A&M	4.00	50