

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
http://ageconsearch.umn.edu
aesearch@umn.edu

Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.

From Farm Management to Agricultural and Applied Economics: The Expansion of a Professional Society as Seen through a Census of Its Dissertations from 1951 to 2005

- Supplemental Tables -

Michael A. Boland
Iniversity of Minnesot

University of Minnesota mboland@umn.edu

John M. Crespi

Kansas State University <u>icrespi@k-state.edu</u>

October 2010

Abstract: This paper provides supplemental tables to accompany Boland, M.A. and J.M. Crespi. "From Farm Management to Agricultural and Applied Economics: The Expansion of a Professional Society as Seen through a Census of Its Dissertations from 1951 to 2005." *Applied Economics Perspectives and Policy* 32, No. 3 (Autumn 2010): 456-471. The supplemental information contains departmental specific statistics with regard to dissertation topic and journal outlets for dissertation spawned articles.

JEL Code: Q

Cite as: Boland, M.A. and J.M. Crespi. "From Farm Management to Agricultural and Applied Economics: The Expansion of a Professional Society as Seen through a Census of Its Dissertations from 1951 to 2005. – Supplemental Tables." October 2010.

The authors would like to acknowledge the help of Louise Letnes, Paola Mancia, Hilda Pena Deborah Sanchez, Lori Thielen and Troy Walker for help with data gathering. Much of the data were collected as part of a grant awarded by USDA CSREES to the National Food and Agribusiness Management Education Commission. Contribution no. 11-110-J from the Kansas Agricultural Experiment Station.

From Farm Management to Agricultural and Applied Economics: The Expansion of a Professional Society as Seen through a Census of Its Dissertations from 1951 to 2005

- Supplemental Tables -

Michael A. Boland & John M. Crespi

A full discussion of the compilation of data from dissertations from 1951 to 2005 can be found in Boland and Crespi, 2010. This paper provides supplementary information that was not presented in Boland and Crespi, 2010 and is provided here for researchers who are seeking more details. In brief, the data set examined has 7,967 graduated doctoral students between 1951 and 2005. Dissertations from the 41 universities listed in Table 1 were considered in the study. Throughout this supplementary report, unless otherwise noted, we will refer to these schools by their assigned school code (1-41) as shown in Table 1.

Table 1. The 41 U.S. Ph.D. Awarding Institutions Examined in the Study.

Tuble 1. The	i Cibi i hibi i ivai	ding institutions L	adminica in the Stud	<i>y</i> •
1. Arizona	10. Georgia	19. Michigan St.	28. Oregon St.	37. Virginia Tech.
2. Auburn	11. Hawaii	20. Minnesota	29. Penn St.	38. Washington St.
3. Cal. Berkeley	12. Illinois	21. Mississippi St.	30. Purdue	39. West Virginia
4. Cal. Davis	13. Iowa St.	22. Missouri	31. Rhode Island	40. Wisconsin
5. Clemson	14. Kansas St.	23. Montana St.	32. South Dakota St.	41. Wyoming
6. Colo. St.	15. Kentucky	24. Nebraska	33. Tennessee	
7. Connecticut	16. Louisiana St.	25. No. Carolina St.	34. Texas A&M	
8. Cornell	17. Maryland	26. Ohio St.	35. Texas Tech	
9. Florida	18. Massachusetts	27. Oklahoma St.	36. Utah St.	

Number of Dissertations over Time

Table 2 shows the 10 leading doctoral programs over time based upon total number of dissertations written. Schools are listed by their assigned number from Table 1.1 Iowa State University (#13), Michigan State University (#19), and University of Wisconsin (#40) together have produced nearly 20 percent of all doctoral degrees in agricultural economics. Concentration has been declining in doctoral programs in agricultural economics. For example, although the top 20 programs graduated 82 percent of all doctoral students in agricultural economics over the 1951 to 2005 time period, the top three programs graduated 33 percent of those students from 1951 to 1960 but only 6 percent from 2001 to 2005. Further, while noting that the sample size is smaller in the 2001-2005 column than the other columns in the table, the largest schools over the entire time period (#13 Iowa State, #40 Wisconsin, and #19 Michigan State) have all slipped out of the top 10 since the decade of 1990.

Table 2. Top 10 Schools by Number of Dissertations, 1951-2005

Rank	1951 -	- 1960	1961	- 1970	1971	- 1980	1981	- 1990	1991	- 2000	2001	- 2005	All	Years
1st	13	(84)	40	(118)	19	(151)	13	(120)	3	(108)	3	(51)	13	(538)
2 _{nd}	40	(79)	3	(111)	30	(116)	19	(120)	13	(98)	26	(49)	19	(503)
3 rd	30	(69)	13	(109)	40	(113)	20	(112)	12	(95)	25	(46)	40	(484)
4_{th}	8	(64)	19	(106)	13	(108)	40	(96)	20	(95)	30	(35)	3	(479)
5th	20	(57)	8	(96)	8	(103)	34	(94)	25	(89)	4	(35)	8	(454)
6th	12	(56)	26	(85)	12	(91)	8	(90)	26	(86)	12	(35)	30	(449)
$7 _{ m th}$	26	(49)	30	(80)	3	(88)	12	(81)	34	(85)	34	(31)	20	(436)
8_{th}	3	(48)	12	(75)	28	(73)	30	(77)	4	(76)	20	(29)	12	(433)
9_{th}	14	(37)	20	(74)	20	(69)	27	(73)	8	(73)	8	(28)	26	(392)
10th	19	(35)	25	(72)	22	(64)	3	(73)	30	(72)	9	(26)	25	(353)
All 41 Schools		675		1,322		1,761		1,761		1,762		686		7,967

¹ Table 4 shows the number of dissertations by school and time period.

Determinants of Dissertation Awards

To account for trends in agricultural economics Ph.D. awards as a function of general demographic covariates, we performed a simple econometric analysis. We tried several macroeconomic variables such as overall incomes, periods of recession, unemployment, and governmental expenditures on agriculture, but found that the simple regression of the log of the U.S. unemployment rate three years earlier (UNEM $_t$), the log of undergraduate enrollments (ENROLL $_t$) three years earlier, and a dummy variable for the period of the draft during the Vietnam War years (VIET $_t$) resulted in a regression equation that performed well in predicting the logged number of agricultural economics dissertations (DISS $_t$) awarded in year t = 1951 to 2005.2 The resultant regression equation is given in equation (1):

(1)

The R₂ is 0.78 and the t-stats are given below each coefficient. An increase in the unemployment rate by 1% results in a modest, and arguably insignificant, increase in the number of dissertations occurring three years later by 0.184%. On the other hand, undergraduate enrollments and the Vietnam War did have statistically significant positive impacts on the number of dissertations produced. Every one-percent increase in undergraduate enrollment results in about a half-percent increase in the number of agricultural economics dissertations produced in the U.S. three years later. As figure 1 in Boland and Crespi, 2010 and equation (1) show, the Vietnam War years were especially important in increasing the number of Ph.D. graduates. The decline in graduates in the decades following that war are arguably the result of the end of the draft deferments as opposed to some other war-related phenomenon, as there is no important increase in dissertations in the subsequent Gulf War (1991) and even a decline in

² Specifically, *UNEM* is the annual civilian unemployment rate reported by the U.S. Department of Labor's Bureau of Labor Statistics available at www.bls.gov/ces. *ENROLL* is the post-secondary enrollment reported by the U.S. Census Bureau in the Current Population Survey (www.census.gov/population/www/socdemo/school.html). *VIET* is equal to one for the years 1965 to 1975; zero otherwise.

dissertations awarded throughout the Iraq War (2003 to present).

Trends in Dissertation-Spawned Publications.

Boland and Crespi, 2010 examined in general how dissertation-spawned journal publications have changed over time. Table 3 shows the various agricultural and applied economics outlets we examined.

Table 3. Classification of Journal Categories.

I abic 3	. Classification of gournar Categories.
Outlet	Journals Included in the Category
1	American J. of Agricultural Economics (formerly J. of Farm Econ.; AJAE/JFE)
2	Agricultural and Resource Economics Review (formerly North Eastern J. of
	Agricultural Economics, ARER/NEJAE); J. of Agricultural and Applied Economics
	(formerly Southern J. of Agricultural Economics, JAAE/SJAE); Review of Agricultural
	Economics (formerly North Central J. of Agricultural Economics, RAE/NCJAE); J. of
	Agricultural and Resource Economics (formerly Western J. of Agricultural Economics,
	JARE/WJAE)
3	Agricultural Economics (AE); J. of Agricultural Economics (JAE); Canadian J.
	of Agricultural Economics (CJAE); European Review of Agricultural Economics
	(ERAE); Australian J. of Agricultural Economics (formerly the Australian J. of
	Agricultural Economics, AJARE); J. of Development Economics (JDE); J. of
	Development Studies (JDS); J. of International Agricultural Trade & Development
	(JIATD); J. of International Development (JID); World Development (WD)
4	Agribusiness: An International J. (ABI), J. of Agribusiness (JAB), International Food
	and Agribusiness Management Review (IFAMR); J. of Food Distribution Research
	(JFDR)
5	J. of Soil and Water Conservation (JSWC); J. of Environmental Economics and
	Management (JEEM); Marine Resources Economics (MRE) and Land Economics (LE)

Publication of Dissertations

We looked first to see if a dissertation-spawned article appeared in AJAE. We acknowledge that this biases our findings toward AJAE articles. If no AJAE article was found, we discerned whether an article appeared in another traditional agricultural economics outlet. As such, we know that we are under counting in the case when an author has more than one publication from his or her dissertation. Our method was simply to ask, "Did one's dissertation result in at least one agricultural economics journal publication and, if so, where?" The categories and statistics for each department's dissertations are provided in Table 4 (with an aggregation for all schools given at the beginning of the table). Table 4 also shows the total number of dissertations

published by time period for each of the 41 schools in our study. The number of dissertations and their corresponding publication rates given in the row "All Years" refers only to the years in which we recorded a dissertation for that school (for example, "All Years" for Auburn University refers only to the time period from 1981 to 2005, whereas Cornell University covers 1951 to 2005).

Note that the row "2001-2005" covers fewer years than the other rows, so comparisons across time periods needs to be made with caution, obviously. Caution must also be taken when comparing programs in Table 4. First of all, some doctoral programs are newer than others, Cal. Davis, for example, did not produce Ph.D.s until the late 1960s and other departments have not graduated Ph.D. students for some time (the University of Wyoming awarded two Ph.D.'s in the 1980s and none since). As discussed, we did not include a category for other journals or other outlets. Hence "zero" under "% Pub" may include publishing an article out of one's dissertation in either a book or in another journal outlet for which we simply did not have time to pursue. As we note in Crespi and Boland, 2010, when examining the last decade's worth of data very few dissertation spawned articles from these 41 departments appeared in journals other than those shown here.

Table 4. Number of Dissertations and Share of Generated Publications by School: 1951-2005.

School	Period	Num.	% Pub	% AJAE	% #2	% # 3	% # 4	% # 5
All Schools	1951-1960	675	24%	24%	0%	0%	0%	0%
	1961-1970	1,322	15	14	1	0	0	(
	1971-1980	1,761	20	14	5	0	0	(
	1981-1990	1,761	23	15	6	1	1	(
	1991-2000	1,762	22	7	10	2	2	2
	2001-2005	686	28	7	11	5	2	3
	All Years	7,967	21	13	6	1	1	1
1 Arizona	1961-1970	1	0	0	0	0	0	(
	1971-1980	8	13	13	0	0	0	(
	1981-1990	5	20	0	0	0	0	20
	1991-2000	4	25	0	25	0	0	(
	2001-2005	2	0	0	0	0	0	(
	All Years	20	15	5	5	0	0	5
2 Auburn	1981-1990	10	40	10	30	0	0	(
	1991-2000	30	33	20	13	0	0	(
	2001-2005	6	50	0	33	0	17	(
	All Years	46	37	15	20	0	2	(
3 Cal. Berkeley	1951-1960	48	38	38	0	0	0	(
	1961-1970	111	20	20	0	0	0	(
	1971-1980	88	18	17	1	0	0	(
	1981-1990	73	37	36	0	0	1	(
	1991-2000	108	16	7	6	2	0	
	2001-2005	51	37	16	4	12	0	(
	All Years	479	25	20	2	2	0	1
4 Cal. Davis	1961-1970	10	20	10	10	0	0	(
	1971-1980	56	48	41	7	0	0	(
	1981-1990	71	56	48	6	0	0	3
	1991-2000	76	38	24	3	3	0	Ģ
	2001-2005	35	40	23	6	3	0	Ģ
	All Years	248	45	34	5	1	0	
5 Clemson	1961-1970	8	0	0	0	0	0	(
	1971-1980	22	5	0	5	0	0	(
	1981-1990	19	11	0	11	0	0	(
	1991-2000	23	13	0	4	4	0	4
	2001-2005	9	11	0	11	0	0	(
	All Years	81	9	0	6	1	0	1

Table 4. Number of Dissertations and Share of Generated Publications by School-Continued.

School	Period	Num.	% Pub	% AJAE	% #2	% # 3	% # 4	%#:
6 Colo. St.	1961-1970	1	0%	0%	0%	0%	0%	0%
	1971-1980	8	25	13	13	0	0	(
	1981-1990	34	21	12	9	0	0	
	1991-2000	35	26	9	17	0	0	
	2001-2005	19	16	0	11	5	0	
	All Years	97	22	8	12	1	0	
7 Connecticut	1951-1960	2	0	0	0	0	0	
	1961-1970	9	11	0	11	0	0	
	1971-1980	14	7	7	0	0	0	
	1981-1990	3	0	0	0	0	0	
	1991-2000	17	24	6	12	0	0	
	2001-2005	14	21	7	0	14	0	
	All Years	59	15	5	5	3	0	
8 Cornell	1951-1960	64	8	8	0	0	0	
	1961-1970	96	11	10	0	0	1	
	1971-1980	103	14	12	1	1	0	
	1981-1990	90	16	12	2	1	0	
	1991-2000	73	14	8	5	0	0	
	2001-2005	28	29	4	14	4	0	
	All Years	454	14	10	2	1	0	
9 Florida	1951-1960	7	14	14	0	0	0	
	1961-1970	15	7	7	0	0	0	
	1971-1980	33	24	6	18	0	0	
	1981-1990	49	18	10	8	0	0	
	1991-2000	50	12	0	8	0	4	
	2001-2005	26	23	4	4	0	8	
	All Years	180	17	6	8	0	2	
10 Georgia	1961-1970	1	0	0	0	0	0	
	1971-1980	3	0	0	0	0	0	
	1981-1990	25	32	28	0	0	4	
	1991-2000	29	21	3	14	0	3	
	2001-2005	16	38	6	25	6	0	
	1951-1960	1	0	0	0	0	0	
	All Years	74	27	12	11	1	3	
11 Hawaii	1961-1970	16	0	0	0	0	0	
	1971-1980	43	5	2	2	0	0	
	1981-1990	56	4	2	0	0	2	
	1991-2000	13	23	0	8	8	0	
	All Years	129	5	2	2	1	1	

Table 4. Number of Dissertations and Share of Generated Publications by School-Continued.

School	Period	Num.	% Pub	% AJAE	% #2	% # 3	% # 4	% # 5
12 Illinois	1951-1960	56	29%	29%	0%	0%	0%	0%
	1961-1970	75	16	16	0	0	0	0
	1971-1980	91	22	16	5	0	0	0
	1981-1990	81	22	17	5	0	0	0
	1991-2000	95	20	7	6	0	6	0
	2001-2005	35	23	3	9	6	6	0
	All Years	433	21	15	4	0	2	0
13 Iowa St.	1951-1960	84	36	36	0	0	0	0
	1961-1970	109	19	19	0	0	0	0
	1971-1980	108	26	18	8	0	0	0
	1981-1990	120	18	13	4	1	0	0
	1991-2000	98	16	6	7	2	0	1
	2001-2005	19	37	16	11	11	0	0
	All Years	538	23	18	4	1	0	0
14 Kansas St.	1951-1960	37	38	38	0	0	0	0
	1961-1970	31	19	13	6	0	0	0
	1971-1980	45	11	0	7	0	4	0
	1981-1990	38	5	0	5	0	0	0
	1991-2000	65	14	3	8	3	0	0
	2001-2005	19	63	16	47	0	0	0
	All Years	235	20	10	9	1	1	0
15 Kentucky	1951-1960	4	25	25	0	0	0	0
	1961-1970	22	5	5	0	0	0	0
	1971-1980	29	31	10	17	0	3	0
	1981-1990	29	21	7	14	0	0	0
	1991-2000	30	17	3	10	0	3	0
	2001-2005	14	21	0	14	7	0	0
	All Years	128	20	6	11	1	2	0
16 Louisiana St.	1951-1960	6	17	17	0	0	0	0
	1961-1970	19	0	0	0	0	0	0
	1971-1980	7	14	14	0	0	0	0
	1981-1990	7	0	0	0	0	0	0
	1991-2000	13	31	0	15	0	15	0
	2001-2005	10	50	0	40	10	0	0
	All Years	62	18	3	10	2	3	0

Table 4. Number of Dissertations and Share of Generated Publications by School-Continued.

School	Period	Num.	% Pub	% AJAE	% #2	% # 3	% # 4	% # 5
17 Maryland	1951-1960	6	0%	0%	0%	0%	0%	0%
	1961-1970	27	4	0	4	0	0	C
	1971-1980	30	17	10	7	0	0	C
	1981-1990	20	40	30	5	5	0	C
	1991-2000	40	38	25	8	0	0	5
	2001-2005	16	44	13	13	6	0	13
	All Years	139	26	15	6	1	0	3
18 Massachusetts	1951-1960	1	100	100	0	0	0	0
	1971-1980	9	22	22	0	0	0	0
	1981-1990	10	20	0	20	0	0	0
	1991-2000	14	29	7	7	7	7	0
	2001-2005	4	0	0	0	0	0	0
	All Years	38	24	11	8	3	3	0
19 Michigan St.	1951-1960	35	34	34	0	0	0	0
	1961-1970	106	26	25	1	0	0	0
	1971-1980	151	15	14	1	0	0	0
	1981-1990	120	14	8	5	1	1	0
	1991-2000	70	9	3	1	0	4	0
	2001-2005	21	29	5	14	10	0	0
	All Years	503	18	14	2	1	1	0
20 Minnesota	1951-1960	57	19	19	0	0	0	0
	1961-1970	74	11	11	0	0	0	0
	1971-1980	69	22	19	1	0	1	0
	1981-1990	112	23	19	3	1	1	0
	1991-2000	95	25	5	14	3	1	2
	2001-2005	29	28	0	10	3	10	3
	All Years	436	21	13	5	1	1	1
21 Mississippi St.	1951-1960	1	0	0	0	0	0	0
	1961-1970	1	0	0	0	0	0	0
	1971-1980	15	13	7	0	0	7	0
	1981-1990	41	15	2	12	0	0	0
	1991-2000	35	14	0	11	0	3	0
	2001-2005	8	13	0	13	0	0	0
	All Years	101	14	2	10	0	2	0

Table 4. Number of Dissertations and Share of Generated Publications by School-Continued.

School	Period	Num.	% Pub	% AJAE	% #2	% # 3	% # 4	% # 5
22 Missouri	1951-1960	8	0%	0%	0%	0%	0%	0%
	1961-1970	41	15	12	0	0	2	0
	1971-1980	64	17	14	3	0	0	0
	1981-1990	43	19	9	9	0	0	0
	1991-2000	39	15	3	8	3	0	3
	2001-2005	6	17	0	17	0	0	0
	All Years	201	16	9	5	0	0	0
23 Montana St.	1961-1970	7	14	14	0	0	0	0
	1971-1980	5	0	0	0	0	0	0
	All Years	12	8	8	0	0	0	0
24 Nebraska	1961-1970	11	0	0	0	0	0	0
	1971-1980	28	4	0	4	0	0	0
	1981-1990	30	10	7	3	0	0	0
	1991-2000	28	25	0	25	0	0	0
	2001-2005	4	25	0	0	0	25	0
	All Years	101	12	2	9	0	1	0
25 No. Carolina St.	1951-1960	20	30	30	0	0	0	0
	1961-1970	72	21	19	1	0	0	0
	1971-1980	63	11	10	2	0	0	0
	1981-1990	63	25	21	3	0	2	0
	1991-2000	89	28	7	18	2	0	1
	2001-2005	46	17	7	7	4	0	0
	All Years	353	22	14	7	1	0	0
26 Ohio St.	1951-1960	49	10	10	0	0	0	0
	1961-1970	85	7	7	0	0	0	0
	1971-1980	63	8	6	0	0	2	0
	1981-1990	60	12	10	2	0	0	0
	1991-2000	86	15	5	2	3	5	0
	2001-2005	49	20	6	8	4	2	0
	All Years	392	12	7	2	1	2	0
27 Oklahoma St.	1951-1960	9	11	11	0	0	0	0
	1961-1970	36	22	19	3	0	0	0
	1971-1980	59	42	25	17	0	0	0
	1981-1990	73	18	7	5	3	3	0
	1991-2000	64	19	2	14	3	0	0
	2001-2005	21	19	0	19	0	0	0
	All Years	262	24	11	11	2	1	0

Table 4. Number of Dissertations and Share of Generated Publications by School-Continued.

School	Period	Num.	% Pub	% AJAE	% #2	% # 3	% # 4	% # 5
28 Oregon St.	1951-1960	5	0%	0%	0%	0%	0%	0%
	1961-1970	40	23	20	3	0	0	C
	1971-1980	73	19	11	8	0	0	0
	1981-1990	61	20	11	8	0	0	0
	1991-2000	26	38	8	12	0	4	15
	2001-2005	12	67	33	0	0	0	33
	All Years	217	24	13	7	0	0	4
29 Penn St.	1951-1960	18	28	28	0	0	0	0
	1961-1970	31	26	16	6	0	3	0
	1971-1980	42	12	7	5	0	0	0
	1981-1990	16	63	31	31	0	0	0
	1991-2000	33	24	9	9	0	3	3
	2001-2005	11	45	18	18	9	0	0
	All Years	151	27	15	9	1	1	1
30 Purdue	1951-1960	69	19	19	0	0	0	0
	1961-1970	80	18	18	0	0	0	0
	1971-1980	116	26	21	5	0	0	0
	1981-1990	77	36	31	1	4	0	0
	1991-2000	72	29	11	8	4	6	0
	2001-2005	35	40	6	9	17	6	3
	All Years	449	27	19	4	3	1	0
31 Rhode Island	1971-1980	6	33	33	0	0	0	0
	1981-1990	11	9	0	9	0	0	0
	1991-2000	29	28	10	7	0	0	10
	2001-2005	14	7	0	0	7	0	0
	All Years	60	20	8	5	2	0	5
32 South Dakota St.	1951-1960	2	0	0	0	0	0	0
	1961-1970	1	0	0	0	0	0	0
	All Years	3	0	0	0	0	0	0
33 Tennessee	1961-1970	16	0	0	0	0	0	0
	1971-1980	40	15	10	5	0	0	0
	1981-1990	17	29	6	18	0	6	0
	1991-2000	21	10	5	5	0	0	0
	All Years	94	14	6	6	0	1	0

Table 4. Number of Dissertations and Share of Generated Publications by School-Continued.

School	Period	Num.	% Pub	% AJAE	% #2	% # 3	% # 4	% # 5
34 Texas A&M	1951-1960	7	14%	14%	0%	0%	0%	0%
	1961-1970	37	19	14	5	0	0	0
	1971-1980	55	35	20	15	0	0	0
	1981-1990	94	44	20	20	1	2	0
	1991-2000	85	39	13	21	1	2	1
	2001-2005	31	26	3	16	3	3	0
	All Years	309	35	16	17	1	2	0
35 Texas Tech	1981-1990	9	22	22	0	0	0	0
	1991-2000	14	21	0	21	0	0	0
	2001-2005	6	17	0	17	0	0	0
	All Years	29	21	7	14	0	0	0
36 Utah St.	1971-1980	15	20	13	7	0	0	0
	1981-1990	11	0	0	0	0	0	0
	1991-2000	25	4	0	4	0	0	0
	2001-2005	6	0	0	0	0	0	0
	All Years	57	7	4	4	0	0	0
37 Virginia Tech.	1961-1970	5	0	0	0	0	0	0
	1971-1980	28	25	14	11	0	0	0
	1981-1990	25	44	20	20	0	4	0
	1991-2000	37	27	5	16	5	0	0
	2001-2005	8	25	13	13	0	0	0
	All Years	103	29	12	15	2	1	0
38 Washington St.	1961-1970	10	10	10	0	0	0	0
	1971-1980	59	22	15	7	0	0	0
	1981-1990	59	25	7	15	0	3	0
	1991-2000	35	26	6	20	0	0	0
	2001-2005	25	16	0	8	0	8	0
	All Years	188	22	9	12	0	2	0
39 West Virginia	1981-1990	1	100	100	0	0	0	0
-	1991-2000	7	14	0	14	0	0	0
	2001-2005	12	17	0	0	8	0	8
	All Years	20	20	5	5	5	0	5

Table 4. Number of Dissertations and Share of Generated Publications by School-Continued.

School	Period	Num.	% Pub	% AJAE	% #2	% # 3	% # 4	% # 5
40 Wisconsin	1951-1960	79	27%	27%	0%	0%	0%	0%
40 Wisconsin		118						
	1961-1970		8	8	0	0	0	0
	1971-1980	113	19	18	2	0	0	0
	1981-1990	96	18	17	1	0	0	0
	1991-2000	59	24	14	5	3	0	2
	2001-2005	19	32	16	11	5	0	0
	All Years	484	19	16	2	1	0	0
41 Wyoming	1981-1990	2	0	0	0	0	0	0
	All Years	2	0	0	0	0	0	0

Dissertation Publication Rates

One should expect that the publication rates for 2001-2005 will be lower simply because the first articles from some of these dissertations are still in the publication process at present (2010), hence we have no recorded publication. Nevertheless, note that the rate of publication for many schools has increased in this time period, even with this caveat.

Dissertations Published in the AJAE

Based on the total number of dissertation publications from 1951 to 2005, the top five publishers for any of the outlets are: Iowa State (124 dissertations were published in one of the five outlets); Purdue (120); Cal. Berkeley (120); Cal. Davis (111), and Texas A&M (109). Using the same metric, the top five publishers of dissertations specifically in the AJAE are: Cal. Berkeley (97); Iowa State (95); Purdue (85); Cal. Davis (83), and Wisconsin (78). Hence, Iowa State, for example, saw 76 percent of its published dissertations appearing in AJAE.3

³ Relatedly, these top five publishers in the AJAE are also among the top ten schools for AAEA award winning theses and dissertations (source: www.agecon.ucdavis.edu/academic_programs/graduate/awards/).

Rate of Dissertations Published Over Time

However, taking the size of the program into account creates a different picture. We look now at the rate of dissertation publications (not the volume) as a share of the number of dissertations produced. Over the life of each program, the top five publishers based on publication rates in any of the outlets are: Cal. Davis (45%); Auburn (37%); Texas A&M (35%); Virginia Tech (29%), and Penn State (27%). The top five publishers of dissertations specifically in the AJAE are: Cal. Davis (34%); Cal. Berkeley (20%); Purdue (19%); Iowa State (18%), and Wisconsin (16%).

What about the recent state of the profession's dissertation related publications? In the most recent years, 2001 to 2005, the results show a very different picture. The top five publishers in any journal are: Oregon State (67%); Kansas State (63%); Auburn (50%); Louisiana State (50%), and Penn State (46%). For AJAE publications, only Cal. Davis and Iowa State remain in the top five. Specifically, the top five publishers of dissertations in the AJAE from 2001 to 2005 are: Oregon State (33%); Cal. Davis (23%); Penn State (18%); Kansas State (16%), and Iowa State (16%).

Classification of Doctoral Research and Journal Outlet by Subject Categories

Table 5 lists the twelve American Economic Association (AEA) subject categories that are
assigned to each dissertation. The appendix provides a detailed breakdown of these classification
subject codes. Each dissertation was assigned to one of these categories, most often, by the
graduate student or his or her major professor. Those dissertations that we found that were
not listed in the AAEA newsletters or journals (a very small number), we used the title and/or
abstract to assign a subject classification code.

Likelihood of Publication by AEA Category and Department

Table 5 also shows the likelihood of publication based upon the type of dissertation one produced by dividing the 7,967 dissertations into the 12 AEA categories showing number of dissertations and the percentage of these published in the 5 journal outlets by AEA categories (both over time and in all years of the study). As can be seen in Table 5, each category historically has garnered about a 20% dissertation publication rate. AEA category 1, Consumer Demand, has seen a steep increase in its publication rate growing from a 7% rate of dissertation publications in the 1950s to 35% today. By comparison, though, AJAE publication rates of dissertation articles under this category grew only through the 1980s and have declined today roughly to their 1950s' level. The increase is being absorbed by the other journals.4

⁴ We also used conjoint analysis to examine each of the publication rates as a function of school, AEA code, and decade in which the dissertation was awarded. What the conjoint analysis showed was that the type of dissertation and the year of graduation accounted together for only about 30% of the variation in publication rates, with a graduate's school being the most important factor.

Table 5. Number of Dissertations and Publication Rates by AEA Code: 1951-2005

AEA Code	Period	Num.	% Pub	% AJAE	% #2	% # 3	% # 4	% # 5
1. Consumer Demand	1951-1960	43	7%	7%	0%	0%	0%	0%
	1961-1970	71	17	17	0	0	0	C
	1971-1980	43	26	21	2	0	2	C
	1981-1990	65	29	22	5	2	2	0
	1991-2000	99	22	12	6	0	4	C
	2001-2005	40	35	8	10	5	13	C
	All Years	361	22	15	4	1	3	(
2. Production Economics &	1951-1960	112	35	35	0	0	0	(
Supply	1961-1970	159	19	18	2	0	0	(
	1971-1980	323	23	16	7	0	0	(
	1981-1990	324	33	21	10	1	1	(
	1991-2000	176	25	12	12	1	0	(
	2001-2005	74	43	4	24	9	5	(
	All Years	1,168	28	18	8	1	1	(
3. Agricultural Products:	1951-1960	127	20	20	0	0	0	(
price analysis, subsector models,	1961-1970	218	14	12	2	0	0	(
marketing, futures markets	1971-1980	225	24	18	4	0	1	(
	1981-1990	311	22	15	6	0	1	(
	1991-2000	199	24	5	13	2	4	1
	2001-2005	78	23	8	9	5	1	(
	All Years	1,158	21	13	6	1	1	(
4. Agricultural Inputs:	1951-1960	156	24	24	0	0	0	(
land, labor, finance	1961-1970	268	11	10	0	0	1	(
	1971-1980	227	17	13	4	0	0	(
	1981-1990	128	19	15	2	0	2	(
	1991-2000	142	14	6	4	0	4	(
	2001-2005	45	31	9	18	2	0	2
	All Years	966	17	13	3	0	1	(
5. Natural Resources:	1951-1960	42	31	31	0	0	0	(
energy, conservation, land use,	1961-1970	112	16	14	2	0	0	(
water, forestry, fisheries	1971-1980	157	26	17	10	0	0	(
	1981-1990	235	25	15	9	0	1	1
	1991-2000	236	23	6	9	3	0	5
	2001-2005	103	30	8	11	3	0	ç
	All Years	885	25	13	8	1	0	2

Table 5. Number of Dissertations and Publication Rates by AEA Code-Continued.

AEA Code	Period	Num.	% Pub	% AJAE	% #2	% # 3	% # 4	% # 5
6. Environmental Economics:	1951-1960	0	0%	0%	0%	0%	0%	0%
pollution, regulation,	1961-1970	1	100	100	0	0	0	0
nonmarket valuation	1971-1980	80	26	19	8	0	0	0
	1981-1990	40	30	25	5	0	0	0
	1991-2000	181	32	9	15	2	1	6
	2001-2005	84	23	6	5	2	0	10
	All Years	386	29	12	10	1	1	5
7. Agricultural and Food Policy:	1951-1960	60	27	27	0	0	0	0
regulation, taxation, welfare	1961-1970	144	17	15	1	0	1	0
	1971-1980	142	23	20	2	0	1	0
	1981-1990	133	29	16	11	1	1	0
	1991-2000	131	26	11	11	2	0	2
	2001-2005	34	32	15	15	3	0	0
	All Years	644	24	16	6	1	1	0
8. Economic Development:	1951-1960	67	22	22	0	0	0	0
developing economies, aid,	1961-1970	206	11	10	1	0	0	0
regional, general equilibrium	1971-1980	408	13	9	4	0	0	0
	1981-1990	327	13	8	3	1	1	0
	1991-2000	286	15	5	6	4	0	0
	2001-2005	95	26	6	4	15	0	1
	All Years	1,389	15	8	4	2	0	0
9. International Economics:	1951-1960	9	0	0	0	0	0	0
trade, integration	1961-1970	45	11	9	2	0	0	0
	1971-1980	52	21	19	2	0	0	0
	1981-1990	131	17	13	3	1	0	0
	1991-2000	157	20	6	10	1	3	1
	2001-2005	61	16	2	10	3	2	0
	All Years	455	17	9	6	1	1	0
10. Industrial Organization &	1951-1960	39	18	18	0	0	0	0
Market Structure	1961-1970	75	23	23	0	0	0	0
	1971-1980	48	8	6	2	0	0	0
	1981-1990	29	31	24	3	3	0	0
	1991-2000	88	28	9	13	0	7	0
	2001-2005	46	37	13	13	2	9	0
	All Years	325	24	15	6	1	3	0

Table 5. Number of Dissertations and Publication Rates by AEA Code-Continued.

AEA Code	Period	Num.	% Pub	% AJAE	% #2	%#3	% # 4	% # 5
11. General:	1951-1960	12	17%	17%	0%	0%	0%	0%
teaching, extension,	1961-1970	8	38%	38%	0%	0%	0%	0%
methodology,	1971-1980	22	23%	18%	5%	0%	0%	0%
professional	1981-1990	19	11%	5%	5%	0%	0%	0%
development	1991-2000	54	13%	4%	7%	0%	0%	2%
	2001-2005	26	15%	8%	8%	0%	0%	0%
	All Years	141	16%	10%	6%	0%	0%	1%
12. Research Methods:	1951-1960	8	50%	50%	0%	0%	0%	0%
statistics, econometrics, mathematical	1961-1970	15	27%	27%	0%	0%	0%	0%
programming	1971-1980	34	18%	12%	6%	0%	0%	0%
	1981-1990	19	42%	32%	11%	0%	0%	0%
	1991-2000	13	15%	8%	8%	0%	0%	0%
	2001-2005	0	0%	0%	0%	0%	0%	0%
	All Years	89	27%	21%	6%	0%	0%	0%

Finally, Table 6 shows the number of dissertations produced at each of the 41 schools by AEA code (1951-2005). One can see the impact that some programs have on particular segments. Berkeley, Cornell, Iowa State, Michigan State, and Wisconsin have produced a large number of our profession's economic development economists (AEA code #8). A large number of dissertations in the area of natural resources (AEA code #5) have come from Cal. Berkeley, Oregon State, Wisconsin and Cal. Davis. Iowa State, Michigan State, Minnesota and Purdue have been responsible for producing a good many of the profession's production economists (AEA code #2). It is also useful to look at programs in terms of size. Massachusetts would be considered a small program based upon the number of dissertations. However, one can see that its main focus for its dissertations is clearly in the areas of natural resources (#5) and environmental economics (#6).

Table 6. Number of Dissertations by School and AEA Code, 1951-2005.

AEA/School	1	2	3	4	5	6	7	8	9	10	11	12
1. Arizona	0	6	1	1	6	1	1	2	0	0	2	0
2. Auburn	2	7	8	3	11	3	2	4	5	1	0	0
3. Cal. Berkeley	12	45	56	46	94	34	36	102	19	22	6	7
4. Cal. Davis	14	43	30	21	48	17	18	24	17	9	3	4
5. Clemson	6	7	13	6	13	7	7	16	1	1	3	1
6. Colo. St.	1	9	8	6	23	16	1	23	6	1	3	0
7. Connecticut	2	7	6	5	3	8	9	6	3	8	2	0
8. Cornell	40	36	58	52	43	20	41	121	18	18	2	5
9. Florida	20	28	28	11	15	2	11	28	20	13	3	1
10. Georgia	4	17	16	6	8	8	5	3	3	2	1	1
11. Hawaii	5	26	20	8	24	0	6	30	4	5	0	1
12. Illinois	6	65	84	95	29	19	22	50	26	25	3	9
13. Iowa St.	24	119	72	70	29	23	45	84	40	12	17	3
14. Kansas St.	9	35	40	23	13	2	18	69	14	5	3	4
15. Kentucky	7	29	24	10	5	3	16	16	11	3	4	0
16. Louisiana St.	2	11	16	8	1	4	3	9	6	1	1	0
17. Maryland	5	16	16	7	24	12	23	21	7	4	2	2
18. Massachusetts	1	0	3	1	10	11	2	3	1	4	0	2
19. Michigan St.	28	71	66	54	24	16	47	132	19	26	12	8
20. Minnesota	19	86	50	67	35	14	40	68	22	25	9	1
21. Mississippi St.	1	28	27	3	7	4	6	10	13	2	0	0

Continued.

Table 6. Number of Dissertations by School and AEA Code, 1951-2005-Continued.

						_	,					
AEA/School	1	2	3	4	5	6	7	8	9	10	11	12
22. Missouri	10	37	38	25	15	8	17	33	7	8	1	2
23. Montana St.	0	1	2	2	4	1	0	1	0	0	1	0
24. Nebraska	2	19	18	12	15	5	7	5	10	4	3	1
25. No. Carolina St.	24	41	50	43	39	22	37	32	37	16	9	3
26. Ohio St.	36	24	62	85	28	18	23	69	21	18	3	5
27. Oklahoma St.	2	54	47	16	30	7	28	55	11	6	4	2
28. Oregon St.	2	32	26	15	62	15	19	19	9	8	1	9
29. Penn St.	8	25	28	18	10	14	6	30	4	6	2	0
30. Purdue	18	71	59	98	16	9	35	65	33	25	9	11
31. Rhode Island	4	1	5	1	32	8	1	5	3	0	0	0
32. South Dakota St.	0	0	1	0	0	0	2	0	0	0	0	0
33. Tennessee	7	23	9	8	7	6	5	26	2	0	1	0
34. Texas A&M	17	60	53	41	40	8	32	23	16	6	11	2
35. Texas Tech	0	7	9	0	3	0	3	5	2	0	0	0
36. Utah St.	0	5	4	5	10	5	2	10	12	1	3	0
37. Virginia Tech.	3	11	13	10	6	14	14	21	5	2	3	1
38. Washington St.	9	31	40	14	39	5	16	21	8	2	2	1
39. West Virginia	0	1	3	0	7	3	0	1	2	2	1	0
40. Wisconsin	11	34	49	70	57	13	38	146	18	34	11	3
41. Wyoming	0	0	0	0	0	1	0	1	0	0	0	0

References

Boland, M.A. and J.M. Crespi. "From Farm Management to Agricultural and Applied Economics: The Expansion of a Professional Society as Seen through a Census of Its Dissertations from 1951 to 2005." *Applied Economics Perspectives and Policy* 32, No. 3 (Autumn 2010): 456-471.

Appendix

AEA specialization categories used from 1991 to 2005

- 1) Consumer Demand
- 2) Production Economics and Supply
- 3) Agricultural Products: price analysis, subsector, models, marketing, futures
- 4) Agricultural Inputs: land, labor, finance
- 5) Natural Resources: energy, conservation, land use, water, forestry, fisheries
- 6) Environmental Economics: pollution, regulation, nonmarket valuation
- 7) Agricultural and Food Policy: regulation, taxation, welfare
- 8) Economic Development: developing economies, aid, regional, general equilibrium
- 9) International Economics: trade, integration
- 10) Industrial Organization and Market Structure
- 11) General: teaching, extension, research, methodology, professional
- 12) Research Methods: statistics, econometrics, mathematical programming

AEA specialization categories from 1987-1990 and their corresponding match to the 1991-2005 categories

- 1) Agricultural Products; Demand, Supply, Prices; Food, Consumer, and Household Economics
- 2) Production Economics and Management; Risk and Uncertainty
- 4) Agricultural Inputs; Capital, Agricultural Finance; Land Appraisal and Prices; Labor; Human Capital
- 5) National Resources; Energy; Conservation; Environment; Wastes; Land Use and Tenure; Recreation; Water; Fisheries
- 7) Public Issues and Policy; Agricultural Regulations; Taxation; Inflation, Welfare Programs; Poverty; Regional and Community Development; Education; Health
- 8) Economic Growth and Development; Planning Models, Fluctuations; Technological Change;
- 9) International Economics; Trade; Integration; Business; Aid

Aggregate Production Capacity; Regional and Community; Migration

- 10) Marketing; Agribusiness; Cooperatives; Transportation; Industry Organization; Vertical Coordination
- 11) Agricultural Economics General; Curricula and Teaching; Extension, Profession
- 12) Research Methodology; Modeling; Econometrics; Mathematical Programming; Agricultural Data; Statistics

AEA specialization categories from 1951-1987 and their corresponding match to the 1991-2005 categories

- 1) Food and Consumer Economics
- 2) Production Economics and Management; Technological Change
- 2, 3) Agricultural Products: Demand, Supply, Prices
- 3) Marketing and Location; Transportation
- 4) Agricultural Finance, Capital, Credit; Agricultural Labor; Rural Manpower; Human Resource Development; Land Tenure; Taxes, Taxation, and Rural Appraisal
- 5) Fertility; Fisheries Economics; Land Economics; Natural Resource Economics; Pesticides
- 6) Energy; Environmental Economics; Conservation
- 7) Public Policy
- 8) Agricultural Income; Rural Poverty; Economic Development, Growth, and Planning; Migration; Regional Economics; Regional, Rural, and Community Development; Sector and Subsector Analysis; Socioeconomic Research
- 9) Trade
- 10) Cooperatives and Cooperation; Industrial Organization; Market Structure
- 11) Agricultural Economics, General Economics; Institutions, Private and Public
- 12) Agricultural Data; Research Methodology