

# Maintaining Advising Quality In Undergraduate Agricultural Economics Programs

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## Introduction

Faculty in colleges of agriculture are particularly concerned about maintaining advising quality. Dynamic enrollment patterns, increased diversity in jobs taken by agricultural graduates, the lack of any training in advising in graduate programs, and low priority given to advising by the profession are among the factors which can potentially undermine advising quality. However, systematic data on the structure, rewards, and performance of faculty advising in colleges of agriculture are not always available for monitoring changes in advising quality.

In response to nation-wide increases in undergraduate enrollments,<sup>1</sup> a study was made to learn more about the state of faculty advising in agricultural economics programs at major colleges of agriculture. The purposes of this study were: 1) to provide a documentation of academic advising in agricultural economics from which future changes can be measured and 2) to encourage faculty dialogue on advising quality. Although this paper is limited to agricultural economics departments, other departments in colleges of agriculture can adapt the methodology of this study and initiate similar studies in their own departments.

To learn more about the state of faculty advising in agricultural economics, a mail survey of agricultural economics departments at major universities in the United States, Canada, and Puerto Rico was conducted. Department chairpersons were asked to complete a comprehensive set of questions relating to the structure and implementation of their advising programs, and to evaluate selected dimensions of advising performance. This paper summarizes findings of that survey. Specifically, the objectives of this paper are: 1) To describe various characteristics of undergraduate agricultural economics advising programs, including how resources are allocated within these programs, and how these programs are maintained and rewarded, 2) to develop a model identifying factors that contribute to advising quality, and 3) to offer suggestions for maintaining and improving advising quality.

### The State of Faculty Advising in Agricultural Economics

Agricultural economics departments located at land grant universities in the United States, major provincial agricultural universities in Canada, and the major agricultural university in Puerto Rico, were surveyed for this study. Forty-seven of the fifty-seven departments which responded to the survey revealed considerable

variety in the structure and implementation of their advising programs (Table 1). When contrasted to a previous study, the average enrollment in all agricultural economics departments in 1979 represented a 70 percent increase over 1975 estimates, (Davis, et al.). This compares with a 22 percent increase experienced during the 1971-75 period. The average number of faculty advisors per department declined from 15 in 1974-75 to 10 in 1979, and the average number of advisees per advisor had increased from 19 to 29 during the same period. Specific budgeting for advising was reported in 43 percent of the departments along with a variety of budgeting formulas. When averaged across departments, .2 equivalent-full-time faculty<sup>2</sup> was budgeted for advising 100 students during the year. As a group, the 476 advisors in the departments surveyed were an average age of 41, indicating that advising responsibility is shared by both senior and junior faculty.

There was considerable variety in the manner in which advising resources were allocated (Table 2). When averaged by departments, the typical advisee spent approximately 15 minutes with his/her advisor during an average of .68 visits made during a typical month. The degree of utilization of advisors also differed among departments. Approximately 56 percent of the advisees visited their advisor on a regular basis.

Comparisons of resources allocated to advising across departments must take into consideration differences in extra-departmental advising services. Schools with active centralized placement services reduce but cannot completely eliminate departmental employment/career counseling. Some inferences about the extent of extra departmental advising can be made from

**TABLE 1. Selected Advising Characteristics of Undergraduate Agricultural Economics Departments at Major Universities, 1979.**

Characteristic	Total	Departmental Average
Undergraduate enrollment:	9525	202.6
Seniors	2827	60.2
Juniors	2831	60.2
Sophomores	2178	46.3
Freshmen	1689	35.9
Undergraduate advisors:	476	10.1
(By highest degree held) PhD	451	9.6
Masters	24	.5
Bachelors	1	.1
Advisees per advisor		29.1
EFTF <sup>b</sup> per 100 advisees		.2
Average age of advisor		41.2
Percent female advisors		4.8

<sup>a</sup> Based on 47 agricultural economics departments at major universities located in the United States (43), Canada (3) and Puerto Rico (1).

<sup>b</sup> Equivalent-full time faculty

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**TABLE 2. Advisor Resources in Undergraduate Agricultural Economics Departments at Major Universities, 1979.**

Characteristic	Departmental <sup>a</sup> Average
Typical advisee:	
Minutes per month spent with advisor	14.5
Visits per month made to advisor	.7
Percentage of advisees:	
Seeing advisor on regular basis	56.4
Found employment through advisor	26.5
Change advisors during program	8.4
Percent of advisors' time spent advising on following subjects:	
Academic	69.8
Employment and career	17.8
Personal and social	8.7
Other	3.0
Percentage of upper level courses consisting of:	
General electives	27.1
Agricultural economics electives	24.3
Percentage of course programs developed by advisors approved without changes by department chairperson	89.3

<sup>a</sup> Based on 47 agricultural economics departments at major universities located in the United States (43), Canada (3) and Puerto Rico (1).

**TABLE 3. Assignment, Training, and Coordination of Advisors in Undergraduate Agricultural Economic Departments at Major Universities, 1979.**

	Percentage <sup>a</sup> of Departments
Criteria for assigning advisors:	
Achieve equality across faculty	64%
Faculty interest or speciality	60
Student choice	53
Faculty or staff budgeted	23
Faculty or staff popularity	6
Training or support available:	
Advising handbooks	74%
Advising workshops	34
Special training	30
Understudy	15
None	23
Advisor coordinator(s):	
Faculty or staff member	55%
Department chairperson	32
Departmental committee	13
Other	11

<sup>a</sup> Column values do not total to 100% due to multiple reporting by departments.

data on the content of advising and the percentage finding employment through advisor (Table 2). Schools with advisors who spend a small percentage of their advising time on employment/career subjects and schools in which few found employment through advisors were thought to provide these services elsewhere.

Students have criticized advisors and advising programs which merely provide clerical services to students during registration (Donk and Oetting). This study found that advisors in agricultural economics per-

formed a variety of functions. On the average, 27 percent of the advisees reporting in the survey found employment from contacts made through the advisor, and the remainder found employment through other sources, such as college or university level placement services. In a strict sense, it appears incorrect to describe faculty advisors as mere academic advisors. Survey results indicate that only 70 percent of the typical advisor's time was allocated to academic matters, 18 percent allocated to employment/career matters and 12 percent to personal, social, and other matters (Table 2). Agricultural economics programs maintained a degree of flexibility during the study period with 27 and 24 percent of their upper level programs consisting of general electives and agricultural economics electives respectively. Department chairpersons generally approved course programs developed by advisors.

The methods in which advisors are assigned, trained, and coordinated has been frequently discussed in the literature, (Kramer and Gardner; Johnson and Pickney; Bonar). Five general criteria for assigning advisors were identified in this study (Table 3). The most common of these criteria was an attempt to achieve equality across faculty (64 percent) followed by faculty interest or special training in advising. For training and support, 74 percent of the departments made handbooks available to advisors and 34 percent used workshops to train their advisors. Coordination of advisors was done primarily by faculty or staff (55 percent), followed by the department chairpersons (32 percent).

Measuring and rewarding advising quality has also been discussed in previous studies (Davis, et al.; Bostaph and Moore). Measurements, rewards, and priorities in advising are shown in Table 4. Informal student feedback was reported as the primary method of measuring outstanding advising (85 percent). Salary increases were mentioned as the most common means of rewarding outstanding advising (57 percent). When asked to rank five given faculty activities in order of their importance for academic promotion or interim salary increases, 89 percent ranked research as the top priority. As a separate activity, advising received a cumulative ranking of fourth behind research, teaching and service; however, 30 percent (13 departments) provided no reward for outstanding advising (Table 4).

### Factors Associated With Advising Quality

The final objective of this study was to obtain a measure of advising quality across departments. Quality assessments used in the literature are primarily expressed in terms of student or advisor perceptions and tended to be institution specific (Mahoney, et al.; Borgard, et al.).

Several data sources for advising quality were considered in this survey, including advisees, advisors, and administrators. Difficulties in surveying students in individual departments precluded the measurement of advising quality by advisees. Evaluations by advisors were

not solicited due to problems associated with identifying individual advisors. College or university level administrators were thought to be too far removed from advising at the department level. Because of their dual role as faculty and administrators, department chairpersons were asked to evaluate selected dimensions of their advising program on a scale of 0 to 100, where 0 = poor and 100 = excellent. This research did not ascertain the degree to which one participant's perception of advising quality is more accurate than another's; rather, an attempt was made to measure quality consistently across departments. The results of this evaluation indicate that department chairpersons as a group gave the highest rating (88) to accessibility of faculty to students and the lowest rating (58) to follow-up of student careers by advisors (Table 5).

A conceptual model designed to explain differences in advising quality was developed using factors identified in previous studies. In general, advising quality is hypothesized as being a function of 1) the faculty reward system (Davis; Donk and Oetting), 2) advisor training and support (Bonar; Bostaph and Moore), 3) coordination of the advising program (Polson and Jurich; Borgard, et al.), 4) advising measuring and review process (Kapraun and Coldern), and 5) department size (Beck, et al.). Since each of these factors could be measured in several ways, alternative model specifications were considered. The model which best explained differences in advising quality is shown in (Table 6). Approximately 70 percent of variation in advising quality was explained using ordinary least squares.

**TABLE 4. Measurement, Rewards, and Priorities of Advising in Undergraduate Agricultural Economics Departments at Major Universities, 1979.**

	Percentage <sup>a</sup> of Departments	
Measurement of Outstanding Advising:		
Informal student feedback	85%	
Administrative review	28	
Formal student evaluations	11	
Review by advisors	11	
None	15	
Rewards for Outstanding Advising:		
Salary increases	57%	
Rank promotions	43	
Special recognition	23	
None	30	
Priorities Assigned to Faculty Activities: <sup>b</sup>	Mean Rank	Sum
Research	1.13	53
Teaching	1.81	85
Service	2.91	137
Advising	3.57	168
Administrative/Committee	3.79	178

<sup>a</sup> Column values do not total to 100% due to multiple reporting by departments.

<sup>b</sup> Respondents were asked to rank activity from one to five on basis of importance for promotion or salary increases, (where 1 = most important and 5 = least important).

**TABLE 5. Department Chairperson Evaluations<sup>a</sup> of Selected Advising Program Characteristics in Undergraduate Agricultural Economic Departments at Major Universities, 1979.**

Characteristics of Advising Program	Mean	Std. Rank	Std. Dev.	Min Value	Max Value	N
1. Attitude of faculty toward advising	84.47	2nd	14.27	40.00	100.00	47
2. Proportion of faculty actively involved in advising	73.23	5th	27.56	10.00	100.00	47
3. Faculty interest in undergraduate student activities	65.64	6th	25.85	5.00	100.00	47
4. Accessibility of faculty to students	87.55	1st	11.22	50.00	100.00	47
5. Uniformity among advisors in counseling knowledge and interpretation	79.34	4th	17.78	10.00	100.00	47
6. Follow-up of student careers by advisors	57.57	7th	25.59	5.00	100.00	47
7. Experience of advisors in general	81.34	3rd	17.54	20.00	100.00	47
8. Your overall assessment of advising quality in your department	85.40		10.25	50.00	100.00	47

<sup>a</sup> Evaluations based on a scale of 0 to 100, where 0 = poor and 100 = excellent.

**TABLE 6. Factors Associated with Differences in Department Chairperson Evaluation of Undergraduate Advising, 1979.**

Dependent Variable		Mean	Estimated coefficient <sup>a</sup>
Name	Description		
ASSESS	Overall assessment of advising quality, scale of 0 - 100	85.40	
Explanatory Variables			
1. CONSTANT			86.43
			(43.01)***
2. RANK	Priority given to advising; binary variable = 1 if advising ranked 3rd or less; 0 if otherwise	.36	9.12 (4.10)***
3. COORD	Coordination of advising; binary variable = 1 if advising program not coordinated; 0 if otherwise	.11	-16.45 (-4.88)***
4. TRAIN	Training of advisors; binary variable = 1 if not trained or supported; 0 if otherwise	.23	-5.68 (-2.43)**
5. TOTENROL	Undergraduate program size in total student enrollment	199.60	-0.14 (-2.17)**
6. MEASURE	Measurement of advising quality; binary variable = 1 if not measured; 0 if measured	.13	-6.66 (-2.35)**
7. REVIEW	Review of advising by administrators; binary variable = 1 if reviewed by administrators; 0 if otherwise	.28	10.00 (4.51)***

R<sup>2</sup> = .7133; Number of observations = 41

<sup>a</sup> t-values appear in parenthesis

\*\*\* Significant at the a - .01 level

\*\* Significant at the a - .05 level

Results indicated departments with higher quality ratings tended to give higher priority to advising relative to other faculty activities, made an effort to coordinate their advising programs, made an effort to train or support their advisors, made an attempt to measure advising quality, and implemented an administrative review system for their advising programs. Larger departments tended to have lower quality ratings, confirming fears expressed by Beck, et al., that advising quality may decline as enrollment increases.

### Summary and Conclusions

A study of faculty advising programs was undertaken to document the state of advising in agricultural economics and to offer a methodology which could be readily adapted for the study of faculty advising in other departments in colleges of agriculture. Departments of agricultural economics have adopted a variety of approaches in structuring and implementing their advising programs. Departments showed considerable variation in the level and kinds of resources allocated to advising, as well as in their advisor reward systems. In general, advisors in agricultural economics offer a variety of student services in addition to academic advising. An assessment of advising quality by department chairpersons indicated that some departments perceive themselves as doing a better job of advising than others and that there are areas for improvement in selected dimensions of advising in many departments. A model designed to identify factors which contribute to advising quality suggested several methods by which a department could improve the quality of its advising program.

Expanding undergraduate enrollments, increased diversity in jobs taken by agricultural economics graduates, the absence of advisor training in graduate programs, and low professional priorities given to advising are factors which could potentially mitigate advising quality in agricultural economics. The strategy for implementing a quality program cannot rely solely upon student-faculty contacts in the classroom. Academic advising must be considered a major component of the undergraduate's program.

Colleges of agriculture can ill afford to ignore their advising responsibilities. A deliberately designed program should first include a mechanism for monitoring advising quality. Such measures can be used as a basis for identifying adverse changes in advising quality. Second, departments should make conscious efforts to coordinate advising programs and not leave such programs to drift haphazardly. Third, faculty and staff with advising responsibilities should be rewarded for their efforts in order to maintain an available supply of creative and enthusiastic advisors. Fourth, departments should be prepared to adjust their advising programs to maintain advising quality in the face of increased enrollments. Finally, advising programs should be designed to accommodate those student and program needs which are unique to the institution.

### Notes

<sup>1</sup>For data on enrollment increases see "1980 Fall Agricultural Enrollment," *NACTA J.* 25(2): 4-10.

<sup>2</sup>Equivalent-full-time faculty represents a full time faculty budgeted for one year.

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