

Benefits and Costs of Faculty Participation in Extra- and Co-curricular Activities

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Abstract

As students enter the job market, employers consistently demand graduates possess workplace skills, including the ability to effectively communicate, work in teams, solve problems, exhibit leadership and, given the global workplace, value diversity (National Research Council, 2009). Most universities offer extra-curricular and co-curricular activities as learning opportunities for undergraduate students to gain such skills. In agricultural economics departments, these opportunities include academic competitions in marketing, case studies, quiz bowls, and student papers. Other opportunities include independent studies and study abroad where credit may be optional. While direct costs of such programs can be measured, intangible benefits are difficult to document. This research seeks to identify these intangible benefits through surveys of faculty motivation relative to perceived student motivation for student participation. Results show that faculty were motivated by students' improved skills and improved learning of disciplinary principles. Faculty devoted their time mostly for the personal reward of working with students. In contrast, faculty perceived that students participate for fun and travel. Factors common to both groups were personal rewards realized by faculty and networking opportunities with faculty by the students. Respondents also recommended ways to support extra-curricular activities, e.g., having a faculty member dedicated to each student activity; rewarding the activity; offering course credit; having adequate financial support; and publicizing participation.

Introduction

In addition to traditional classroom learning, college undergraduates can participate in a variety of extra-curricular and co-curricular learning opportunities such as student clubs, internships, and service learning activities. External academic competitions

and study opportunities often are available to supplement the on-campus experience. Upon graduation, students comment that these extra-curricular activities enhance their college experience (Seidman, and Brown, 2006). Participation requires student and faculty time, and involves financial costs that include registration fees and travel. The benefits take the form of enhanced student performance, but are not easily measured. Opportunities for participation in extra- and co-curricular activities in the field of agricultural economics are provided by national and regional professional associations, specialized associations such as marketing associations, and trade industry associations. Despite the interest on the part of faculty and students, there has been little research on this topic. The objective of this research is to determine and report motivations for, and benefits and costs of, participation in extra-curricular activities; to evaluate the correspondence between motivations of faculty contrasted to students; and to report what faculty perceive to be "best practices" that maximize the net benefit of participation.

This research focuses on student activities called extra-curricular and co-curricular activities. Examples of extra-curricular activities include academic case study competitions and quiz bowls, activities that are supplemental or optional to an academic curriculum. Examples of co-curricular activities include study abroad, internships and related experiential programs-as part of an academic curriculum. Extra-curricular and co-curricular activities are distinctly different, but both can add essential experience and skills to a student's course of study. For that reason, they are considered together in this study and the term extra-curricular is used for both.

Internship and study abroad programs place the student in an actual problem-solving situation. However, there is an increasing set of venues for extra-curricular activities in agricultural economics that either test for knowledge or simulate industry

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challenges. The Agricultural and Applied Economics Association (AAEA), formerly the American Agricultural Economics Association), sponsors an academic Quiz Bowl, where school teams answer questions from categories of economic concepts (<http://aaea.org/>, 2009). Regionally, the Southern Agricultural Economics Association (SAEA) sponsors a similar academic Quiz Bowl competition with participants from different schools mixed into three-person teams (<http://www.saea.org/>). In academic case studies, the Food Distribution Research Society (FDRS) hosts a live case study competition where presentations are made by company executives and industry experts, and question/answer sessions are held (<http://fdrs.ag.utk.edu/>). Teams develop solutions and presentations on-site, then present the following day. In another case study competition, the National Agri-marketing Association's (NAMA) annual student marketing competition asks teams to develop a marketing plan for a product or service based on market research prior to its conference, then present at the conference (<http://www.nama.org/>).

The primary beneficiaries of extra-curricular activities are students, because their academic and professional skills are enhanced. This enhanced student performance either in class or in later professional life is not easily measured. The dominant cost to students is their time for preparation and travel, which can be substantial. To make these activities possible, faculty must be willing to devote time to support these student activities. Costs associated with faculty participation include registration fees and travel, some of which might be incurred by faculty regardless of the number of students participating. In addition to explicit costs, there may be substantial opportunity costs in other teaching and research activities foregone, or in time spent with family. Thus, faculty incur both explicit and implicit costs. Given constrained budgets, faculty may be asked to justify continuation or expansion of these out-of-classroom educational pursuits.

Benefits of extra-curricular activities are intangible, but there have been attempts at classification and specification. Employers consistently cite the need for graduates to possess effective workplace skills, including the ability to effectively communicate, work in teams, solve problems, exhibit leadership and, given the global workplace, value diversity (National Research Council, 2009). Extra-curricular activities provide learning opportunities for undergraduate students to gain such skills. Dunkelberger (1935) studied the relationship between extra-curricular activities and academic success. He noted suggestions by colleagues that students with poor academic performance be banned from participating in extra-curricular activities, while others felt that students performed better when they were busier. He paired students by class year, gender, and intelligence rating, allowing only the number of extra-curricular activities to vary. Students with inferior academic

performance had little or no extra-curricular activities. He concluded that these students might perform better if they were more engaged.

Further emphasizing the importance of non-classroom activities, Litzenberg (1996) asserted that partnerships with industry, such as internships, are essential in preparing graduates for effective agribusiness careers. He noted that benefits accrue to all stakeholders, including students, agribusiness firms, and faculty. Students usually have positive experiences and outcomes in development of their leadership and analytical capabilities and complex problem-solving activities.

Karsten et al. (2004) also examined internships, with a focus on documenting the benefits realized by students from internships in production agriculture. In this research, students interned with producers who used sustainable agricultural practices. Student research projects were guided by an interdisciplinary faculty team. An assessment of learning outcomes indicated that students had enhanced problem-solving abilities, as showcased in descriptive farm case studies and experiential curriculum materials developed.

Over the five-year period from 2001 to 2005, Popp (2006) surveyed students and their faculty advisers who participated in the American Agricultural Economics Association's Quiz Bowl. The objective was to identify factors that affected the number of wins and illustrate the benefits of participation in terms of additional understanding of academic course material. An explanatory model indicated that the likelihood of winning was positively affected by time spent in preparation, grade point average (indicating mastery of subject material), and experience in competitions. Benefits to students included a self-reported increase in understanding of course material from the experience.

Our research builds upon the findings of the above literature on extra-curricular activities. Research methods are presented below.

Methods

To assess the benefits and costs of extra-curricular activities, a survey was developed, pre-tested and administered. Data were collected to document the level of participation in extra-curricular activities, identify sources of financial support, and assess the benefits and costs of participation to both students and faculty. An electronic survey of individual faculty members in U.S. agricultural economics department was conducted in the spring semester of 2005. (Contact the authors for a copy of the survey.) The target population was faculty with responsibility to work with undergraduate students in roles other than teaching, such as club advisers, team advisers for academic competitions and undergraduate coordinators. Faculty known as active advisers or coaches were contacted directly to encourage participation.

Benefits and Costs

The survey included questions about the type, duration and level of student and faculty involvement in various extra-curricular activities; whether, and how much course credit was offered for these activities; reasons faculty wanted students to participate in activities (perceived benefits); reasons faculty thought students participated; the definition of a successful activity; motivation for faculty participation; negative aspects for students and advisors; identification of funding sources; and recommendations for departments considering offering extra-curricular activities.

When respondents were asked to rate particular items (such as reasons faculty wanted students to participate), a Likert scale (1 to 7, where 1 was not at all important, 4 was somewhat important, and 7 was very important) was used. The instrument was developed by the authors and tested by asking selected colleagues for comment on content and quality of communication. These individuals were asked to share the document with others. Revisions suggested by the test respondents were incorporated to clarify the intent of the survey questions. The instrument was sent electronically to the Agricultural Economics Department Heads' listserve, the AAEA Quiz Bowl advisors' listserve, and the NAMA marketing team advisors' listserve. Department heads were asked to share the survey with their undergraduate coordinator and other faculty who worked with students on extra-curricular activities.

Twenty-seven respondents representing twenty-two departments completed the survey. Multiple responses by departments were expected, given that advising and extra-curricular responsibilities are spread across faculty within departments. When more than one faculty member responded for the same department, the attitudinal responses provided by each individual were incorporated into the dataset. Data that provided departmental information (student numbers and course credit, for example) were entered once for each department.

Descriptive statistics of data collected in the survey are presented in the tables and figures. These take the form of averages of measures that describe respondents' answers to survey questions. For example, averages are provided for factors such as 'why faculty participate,' measured by Likert-style ratings, and tabular comparisons are used to illustrate differences between factors of interest. For selected relationships, correlation coefficients were calculated to assess direction and strength. For the 'best practices' section of the paper, comments of respondents were gathered into common threads for presentation. Survey results are presented below.

Results and Discussion

In regards to extra-curricular participation, just over half (52%) of the responding departments participated in NAMA's student marketing competi-

tion; 43% participated in the AAEA Quiz Bowl competition; 9% participated in the FDRS case study competition; and 9% participated in the SAEA regional quiz bowl competition. Another third participated in other competitions such as the AAEA student paper competition or outstanding club award. Among those institutions that participated in one or more activities in the past five years, the activities with the most years of participation and the highest average number of student attendees was dominated by NAMA at 4.78 years and 11.5 attendees, followed by AAEA quiz bowl and SAEA quiz bowl. Sixty-four percent of schools offered coursework as an incentive for students to participate in extra-curricular activities, mostly for NAMA (an average of three credits) and Quiz Bowl (one credit). Seventy-nine percent of departments offered field trips, 79% offered internships, and 65% offered study abroad programs.

Participation Differences and Success Measures

Figure 1 delineates answers to survey questions on motivation for participation in extra-curricular activities. It compares and ranks reasons faculty wanted students to participate in activities (perceived benefits), with reasons faculty thought students participated. Responses to this question are noted in order of declining average ratings of importance to faculty. Faculty were most concerned about preparation and networking opportunities. The general category 'professional preparation' had the highest average rating and was the only category with a value higher than 6 on the Likert scale used here. Coursework credit was lowest in importance and was the only faculty item with an average rating lower than the scale's neutral value 4. Skills that commonly have been emphasized in agribusiness programs (Litzenberg, 1996), including leadership development, networking with professionals, teambuilding, oral communication, and problem solving, followed the top-rated item fairly closely and had relatively high average ratings that ranged between 5 and 6. Other categories rated were between 4 and 5, or slightly above the somewhat important or neutral value, and these included writing and visual communication skills.

In contrast, fun and travel topped the list of reasons that faculty believe students participate (Figure 1). Coursework credit was felt to be very important to students. After that, the high to low ordering of ratings of students' objectives was very similar to that of faculty. One item of note is that faculty thought that writing skills were least important to students.

These ratings are averages across all schools and activities. This procedure resulted in some loss of information. As an example, some skills would be more applicable to specific extra-curricular activities. Market research skills would be particularly applica-

ble to the NAMA competition, and probably would be more highly rated by faculty respondents who have been NAMA coaches, while coaches of quiz bowl teams probably would rate broader measures as more important.

According to the survey, faculty members defined success of student participation in extra-curricular activities through improved skills of students (rating of 6.7), with skills defined broadly as those listed categories. These ratings (Table 1) indicated a belief that through these activities, students do gain crucial skills. Enhanced understanding of economic principles as the result of being placed in settings where they had to recall and/or use those principles was second in ratings. Other factors rated lower in the success profile as a result of participation in extra-curricular activities were that the activities should be fun for students, that there should be recognition for faculty efforts, and winning or placing well in competitions. Monetary support or awards to faculty was least important.

Benefits and Costs

Respondents provided insights about the costs and benefits of participation for both students and faculty. The most important benefit, or reason, that faculty devoted time to these activities (Figure 2) was the personal reward from working with students. These competitions and activities were viewed as an enjoyable way to allocate a portion of their teaching/advising responsibility. Recognition by student groups was also relatively important, as indicated by their average rating of more than 4. All other responses, such as developing contacts in the agribusiness industry, recognition by the department/college/university, recognition by peers, reward in the individual's annual review, or enhanced professional development, were rated in the portion of the scale deemed 'somewhat important' to 'not important at all.'

Faculty also reported negative outcomes from participation, the most important of which was its time-consuming nature. The average reported time spent on extra-curricular activities was 72 hours per academic year. Among extra-curricular activities listed above, NAMA demanded most faculty time. Almost all the faculty who worked with NAMA teams indicated a commitment of more than 100 hours per year, with a range up to 160 hours. These responses highlighted the professional opportunity cost of allocating time to student activities. Those hours spent in preparation for competitions were hours not spent pursuing grants and publications. Additionally, some respondents indicated that their commitment to extra-curricular advising reduced time spent with family and on other interests. One respondent commented about the large time commitment and potential for loss of interest in continuing to work with students due to the responsibilities – this respondent referred specifically to 'burn-out.'

Overall, the perception was that rewards outside of personal interest in working with students were few, and that the level of professional recognition for this contribution was low. Responding faculty felt there were negative aspects of students' participation. Issues identified were time involved with activities and occasional missed classes, where these factors could lead to lower performance in other classes. But some respondents reported no negative aspects to participation.

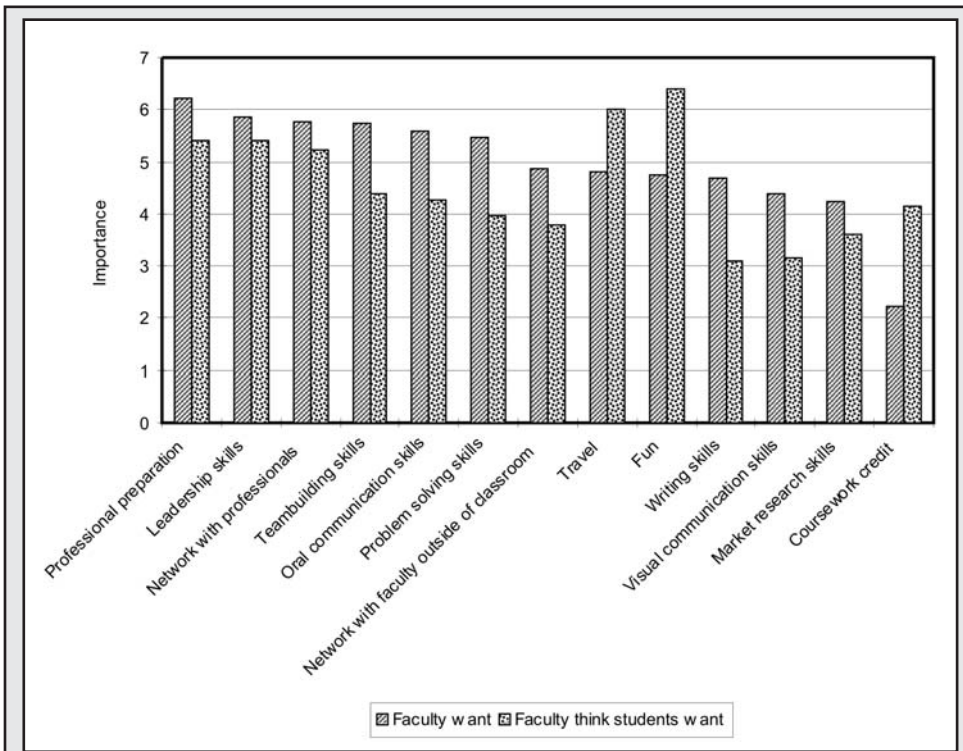


Figure 1: Motivations for Student Participation Based on Student Impacts*

*The survey used a Likert scale where 1 = not at all important; 7 = very important

Success Indicator	Average Rating*
Improved skills of students	6.37
Students learn economic principles	5.67
Students have fun	5.04
Recognition by university/college/department/professional organization	4.63
Teams placing well in competition	4.31
Securing monetary support and/or awards	3.15

*The survey used a Likert scale where 1 = not at all important; 7 = very important.

Benefits and Costs

Related to the cost of these extra-curricular activities, faculty reported, on average, that funding for extra-curricular activities came from departmental sources (23%), personal (17%), and club (16%) resources (Figure 3). Student fundraisers and industry support accounted for an additional 23%. In terms of total funding from the institution, departmental, college and university monies accounted for over one-third of expenses. This was quite different from proportions reported by Popp, and Rodriguez (2006.) where more than 75% of funding came from departments.

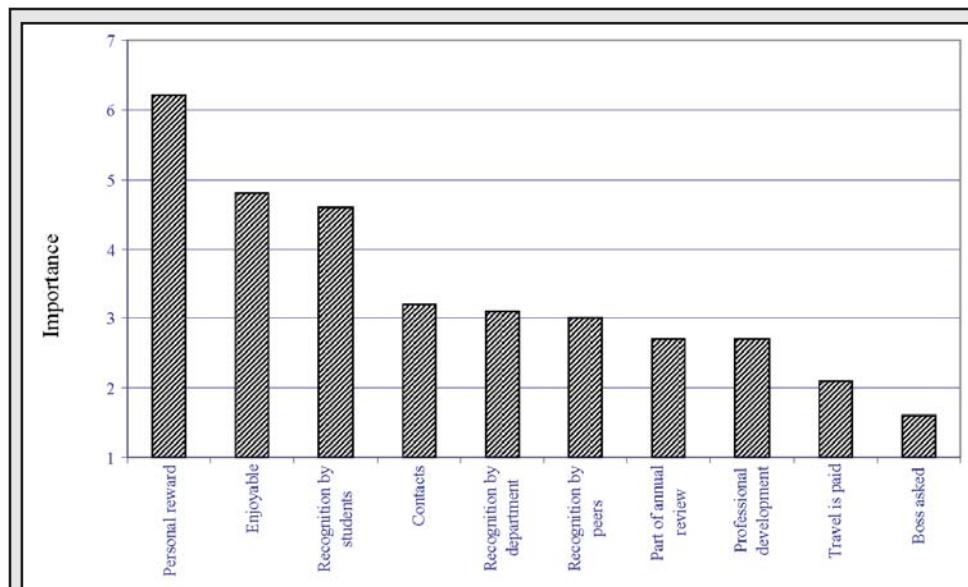


Figure 2: Motivations for Faculty Participation—A Faculty Perspective*
*The survey used a Likert scale where 1 = not at all important; 7 = very important.

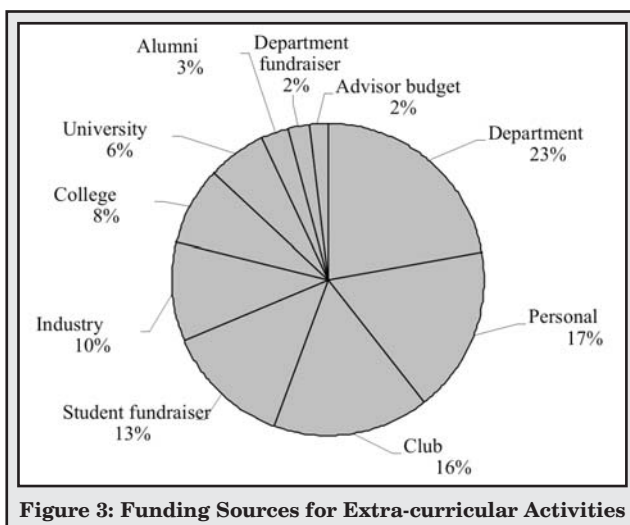


Figure 3: Funding Sources for Extra-curricular Activities

Correlations

Interrelations between variables in the dataset were evaluated through correlation coefficients. The relationships between selected factors that were rated by respondents may provide insight about faculty perceptions. Higher correlation coefficients indicate a stronger linkage between these factors.

Table 2 uses correlations to describe the relationship between why faculty want students to participate and the reasons faculty participate in these activities. The correlations were not particularly high. The largest was a positive association of 0.58 between faculty success as 'personally rewarding' and students having 'networking opportunities with faculty' from other institutions. Almost all other coefficients were less than 0.4. Perhaps as revealing is the pattern of signs on these correlations. As an example, the rating of the 'part of annual review' reason was inversely related to ratings of virtually all the benefits that faculty

wanted students to receive. A similar pattern, though the negative relationship was not as frequent, was noted with respect to the factors 'enjoy student interaction,' 'personal reward,' and 'student recognition.' These may be reasons that faculty do not participate in extra-curricular activities. In contrast, a positive relationship existed between most of the benefits that faculty wanted students to receive and 'administrator asked me to do this' and 'develop contacts,' perhaps suggesting these are more important in the choice process of faculty to engage in extra-curricular activities with students.

In Table 2, the student benefits for 'networking with faculty' and 'leadership development' were negatively related to 7 of the 9 reasons that faculty participate, again indicating that higher ratings of these reasons for faculty participation are associated with lower ratings of these reasons that faculty want students to participate. For 'networking with faculty' the larger coefficients are 'part of annual review' and 'make contacts.' However, in most of the columns, the reasons that faculty want students to participate had about the same number of positive and negative coefficients.

Correlations are provided to identify differences in ratings in the relationship between faculty rank and the reasons faculty want students to participate in extra-curricular activities (Table 3). Again, the largest of these correlations was less than 0.4, so by themselves these would provide weak information about possible relationships. However, there does appear to be a pattern of differences in ratings as rank changes from assistant to full professor. (Rank was formatted as a 0,1 variable and correlations with the rating of each reason that faculty want students to participate were calculated.) These coefficients may be interpreted as follows – a value of 0 designated a

Table 2. Correlations among Faculty Motivation for Participation and Desired Student Outcomes

Faculty Motivation	Benefits faculty want students to obtain											
	PP	NP	NF	T	O	W	V	L	P	MR	F	C
AnRev	0.02	-0.31	-0.35	-0.13	-0.37	-0.18	-0.28	-0.12	-0.07	-0.04	-0.38	-0.03
Enjoy	0.02	-0.20	-0.07	-0.32	-0.36	0.06	0.00	-0.41	-0.32	-0.18	-0.39	-0.19
TravSup	-0.06	-0.07	-0.17	0.26	0.13	0.44	0.17	-0.12	0.20	0.12	-0.16	0.43
ProfDev	0.16	-0.41	-0.20	-0.01	-0.04	0.21	0.21	-0.15	-0.24	-0.02	-0.15	0.19
PerRew	-0.23	-0.28	0.58	-0.13	-0.17	-0.23	-0.09	-0.21	-0.32	-0.18	0.11	-0.32
PeerRec	-0.02	0.12	-0.25	0.28	0.12	0.27	-0.01	0.04	0.18	-0.19	-0.23	0.24
StudRec	-0.25	0.25	0.08	0.33	-0.33	-0.23	-0.10	-0.13	-0.26	-0.13	0.02	-0.32
AdmReq	-0.02	0.18	-0.01	0.22	0.33	0.18	0.02	0.17	0.14	-0.16	0.16	-0.06
Contacts	-0.17	0.04	-0.32	0.05	0.15	0.34	0.01	-0.03	0.30	0.32	-0.23	0.55

STUDENT BENEFITS: PP = professional preparation; NP = networking with professionals; NF = networking with faculty; T = teambuilding; O = improve oral communication skills; W = improve written communication skills; V = visual communication skills; L = improve leadership skills; P = improve problem-solving skills; MR = improve market research skills; F = fun; C = receive course credit; FACULTY BENEFITS: AnRev = part of annual review; Enjoy = enjoy student interaction; TravSup = get travel paid; ProfDev = my professional development; PerRew = personally rewarding; PeerRec = peer recognition; StudRec = student recognition; AdmReq = administrator requested; Contacts = I can make contacts.

Table 3. Correlations between Faculty Rank and Desired Student Outcomes

Rank	Benefits faculty want students to obtain											
	PP	NP	NF	T	O	W	V	L	P	MR	F	C
Full	-0.23	0.23	0.37	0.17	0.27	0.22	0.28	0.15	0.14	0.11	0.30	0.18
Assoc	0.14	-0.22	-0.11	0.01	0.09	-0.06	-0.13	-0.01	-0.05	-0.07	0.10	0.01
Asst	-0.16	-0.37	0.15	-0.18	-0.27	-0.28	-0.27	-0.07	-0.34	0.07	0.10	-0.04

FACULTY RANK: Full = full professor; Assoc = associate professor; Asst = assistant professor; STUDENT BENEFITS: PP = professional preparation; NP = networking with professionals; NF = networking with faculty; T = teambuilding; O = improve oral communication skills; W = improve written communication skills; V = visual communication skills; L = improve leadership skills; P = improve problem-solving skills; MR = improve market research skills; F = fun; C = receive course credit.

rank other than assistant professor, and a value of 1 identified an assistant professor. So, being an assistant professor was associated with giving lower ratings to most categories of benefits that faculty wanted students to receive from participation. In contrast, being a full professor was positively associated with higher ratings of these reasons, with the exception of 'professional preparation' of students for the workforce.

Faculty Recommendations

Participants were asked, “If a school was considering offering an extra-/co-curricular opportunity for students, what suggestions would you have?” For faculty, suggestions included: a single, dedicated faculty member for each activity; that faculty members' participation in the activities be recognized and rewarded; a course dedicated to each activity (thus achieving recognition via formal teaching evaluations and a line item on the annual review); financial support from the department or college; results reported in faculty meetings and other outlets; and advisor appointments that rotate over time. For student participation, recommendations included: interested and dedicated student leaders; students feeling ownership of the activity; and students assisting with fundraising.

Conclusions

Faculty advisors have long described the benefits to students from participation in extra-curricular activities. This research examined a set of extra-curricular

opportunities presented to agricultural economics students, although the results should be transferable to other disciplines that offer their students similar opportunities. It also identified specific benefits to students that faculty could identify as increases in human capital – better analytical skills, better communications skills, and networking. Success measures were also reported. Faculty were generally pleased with the outcomes in areas considered important in the field. Costs of extra-curricular activities were identified in general categories. Despite the high monetary and non-monetary costs associated with offering and participating in extra-curricular activities, faculty see definite rewards for student participants.

Further, they enjoy working with students and pursue these opportunities despite a perceived lack of recognition or reward. As universities seek to enhance student engagement, extra-curricular activities provide a method to achieve this goal. While this study focused on faculty perceptions of student benefits, future research could survey student participants to gain a first-hand account of benefits.

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