

## Satisfaction of Agri-business Employers with College Graduates They Have Hired

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### Abstract

The study involved agri-business employers who had hired Oregon State University (OSU) College of Agricultural Sciences (CAS) graduates and/or graduates from other colleges and universities. The objective was to identify perceptions of employers regarding desirable employment traits and their satisfaction with college graduates they had hired. The survey results indicated 1) most CAS OSU graduates are perceived as more knowledgeable of agriculture and more dependable than graduates from other colleges, 2) employers are satisfied with their CAS OSU employees, and 3) writing skills improvement was the number one suggestion for improvement for CAS OSU graduates.

### Introduction

A fundamental goal of higher education is to prepare students for productive careers, to the mutual benefit of individuals and employers. At a time when state legislatures and accrediting agencies are demanding student outcome assessment, employer evaluations are extremely important for institutions of higher education (Hassan and Payne, 1997). Colleges of agriculture have long been committed to quality education (Broder and Houston, 1986). Consequently, the quality of the undergraduate degree program requires an on-going sensitivity to the changing needs and perceptions of employers.

The need for a comprehensive method of gathering employer input was emphasized in an employer survey report in Pennsylvania. The study recommended initiating new data collection and analysis methods focused towards improvements in teaching and learning, including an employer survey to assess student competence and provide feedback for improvement in the curriculum (Cunningham, 1996).

A 1997 employer assessment of skill preparation of College of Agriculture graduates by the University of Nebraska-Lincoln (Andelt et al., 1997) indicated that colleges must be sensitive to the needs of employers by conducting employer assessment of students employed. Employers in the study indicated communication, leadership, interpersonal, competence, and computer skills, along with technical knowledge are necessary in today's agri-business industry.

Customer feedback is an established concept of strategic planning. Therefore, performance of educational institutions should be monitored on a regular basis (Lovelock, 1991). In addition, Lovelock recommended using testimonials from employers to attest to the quality of the graduates. This could help to build up the reputation of an educational institution and in turn attract quality academic staff.

Employer surveys have the advantage of ranking high in believability and utility for both formative and faculty driven assessment purposes, as well as for summative evaluations at the system or state level (Banta et al., 1996). Martilla et al. (1998) suggest the use of qualitative research techniques to identify potentially important factors. An employer survey provides longer-term measures of college outcomes and academic achievement (Cunningham, 1996).

The theoretical basis for conducting an employer survey was the belief that academic program impact could be best measured by assessing employer satisfaction to connect Oregon State University (OSU) the College of Agricultural Sciences (CAS) with the world of work. While many educators feel that the student is the ultimate customer, this paper looks at employers as one of the customer groups of education whose needs must be addressed and satisfied. The quality of the degree program cannot be separated from the successes and failures of its graduates in the market place.

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## Methodology

During the Fall and Winter of 1998-1999 a survey of agri-business employers in Oregon was conducted to determine their relative satisfaction with OSU CAS graduates. The following are the results of that survey.

The employer sample was drawn from lists of potential agri-business employers gathered from the Agri-Business Council of Oregon, Oregon Farm Bureau, and OSU CAS departments who placed students. A random draw of 300 names was taken. Each business name drawn was called and asked to identify a contact person to whom the survey would be mailed. Of the 300 in the sample, 149 said they would participate and identified a contact person.

Instruments were mailed to 149 individuals. Forty (40) returned the instrument saying they didn't hire college graduates (27 percent). Of the remaining 109 employers, 44 completed instruments were obtained after three follow-up mailers and a phone call. Forty-four (44) completed instruments resulted in a 40 percent return rate.

The results of this survey are therefore based on very small numbers. That fact should be kept in mind as one reads and interprets the data of this survey. Also remember that the initial sample drawn was 300.

## Results

Employers were asked to identify the institutions from which they hired college graduates. Employers who hired from institutions and colleges other than OSU CAS are listed in Table 1. Note that 61 college graduates were hired from 35 colleges or universities other than OSU CAS for Agri-business occupations in Oregon. Of those 61 graduates only 14 were hired from institutions with colleges of agriculture. Three graduates were hired from Oregon community colleges that have agricultural programs. Therefore, 44 graduates were hired into Agri-business occupations in Oregon that graduated from colleges or universities that provide no agricultural instruction. Further, 11 employers reported hiring only OSU CAS graduates. Therefore, several of the employers had the opportunity to make direct comparisons between other institutions' graduates and those of OSU CAS.

Readers of this research should view the list of colleges and universities in Table 1 to understand the variety of institutions from which Agri-business employers hired graduates. Further, one should note the background (at least institutionally) of the graduates being compared against OSU CAS graduates.

Several very interesting trends emerge from Table 2. For items one and two, one would expect to see a difference. Item three is interesting in that the actual mean difference is quite wide (.78 on a five point scale), however, the t-test showed no significance. The wide mean difference should be a warning to OSU CAS graduates to improve their writing skills. Also notice that writing skill was the only category for which OSU CAS graduates did not have a higher mean than graduates of other colleges and universities. Of the 18 employees that hired OSU CAS graduates, 13 rated OSU students as "low" and "needs improvement" in writing skills. Consequently, only seven of the 16 employers that hired employees from other institutions and colleges other than OSU CAS rated their employees as "needs improvement" and more rated them as "low".

The statistical significance on the character of dependability was interesting. This topic should receive further study. Is there something that colleges of agriculture do to increase employee dependability as compared to colleges and universities that do not have agriculture?

We received the following results when employees were asked the question, "All things considered, how satisfied or dissatisfied are you with employees you have hired who are graduates from the CAS at OSU?"

76.5% Very Satisfied  
17.6% Satisfied  
5.9% Neither Satisfied Nor Dissatisfied  
0% Dissatisfied  
0% Very Dissatisfied

We asked employers that if someone they knew asked about hiring graduates from the CAS at OSU, would they recommend or not recommend hiring them. The following information was provided by employers:

81.8% Recommend  
0% Not Recommend  
18.2% I Don't Know

Employers were asked if their organization interviewed, ability tested, personality tested, reviewed transcripts and GPA, reviewed resumes and/or checked references in recruiting. Table 3 provides data regarding employer recruitment activities. It appears that all employers review resumes and most interview, check references, and review transcripts. A surprising large number do ability testing and a few are starting to do personality testing.

We asked employers if their organization provided internships for students while they were in school. Employer responses were:

28.2% Yes  
71.8% No

We asked employers if their organization sent a

recruiter to OSU to interview potential employees. Employer responses were:

15% Yes  
85% No

It seems interesting that employers didn't appear motivated to provide internships for students to learn the business, nor were they likely to recruit on the OSU campus. Employers are using other means to identify new employees and it

Table 1. Institutions From Which Agri-business Employers Hired Graduates.

Institution	Number hired by Agri-business Employers
1. University of Oregon	6
2. Portland State University	5
3. Western Oregon University	4
4. Linfield	3
5. Willamette	3
6. Washington State University	3
7. Oregon Community Colleges	3
8. Humbolt State University	2
9. Lewis & Clark	2
10. Eastern Oregon University	2
11. University of California-Davis	2
12. Cal Poly-San Luis Obispo	2
13. University of Idaho	2
14. Utah State University	1
15. University of Maine	1
16. University of Maryland	1
17. OSU College of Business	1
18. University of Delaware	1
19. University of Cal-Los Angeles	1
20. University of Montana	1
21. Southern Oregon University	1
22. University of Washington	1
23. Western Baptist	1
24. Condoria University	1
25. George Fox University	1
26. Cal State Fullerton	1
27. University of Nevada-Reno	1
28. University of Michigan	1
29. Western Washington University	1
30. Idaho State University	1
31. Iowa State University	1
32. South Dakota State University	1
33. University of Portland	1
34. University of New Mexico	1
35. Kansas State University	1

Table 2. Comparisons in Preparation for OSU CAS Graduates vs Other Institutions' Graduates.

(Response scale; 1=very poor, 5=outstanding)

Characteristic	OSU CAS Mean	Other Institutions Mean	Paired T Sign
1. Prep for their new career	4.11	3.56	.054
2. Knowledge of subject (Ag)	4.22	3.25	.002*
3. Writing skills	3.88	4.66	.432
4. Oral presentation skills	4.18	3.60	.192
5. Critical thinking & analytical skills	4.22	4.00	.166
6. Computer, technical skills	4.00	3.81	.551
7. Helpfulness	4.17	4.00	.723
8. Dependability	4.39	4.09	.001*
9. Trainability	4.39	4.06	.338
10. Leadership skills	4.22	3.63	.082
11. Social skills (ability to get along with people)	4.35	4.06	.096
12. Choice of ethical course of action on work activity	4.35	3.94	.166
13. Overall job performance	4.28	3.88	.166

\*=Significant at the .05 level or greater.

Table 3. Activities of Recruitment by Agri-Business Employers (N=44)

Activity	Yes	No	Don't Know
1. Interview	90.9%	9.1%	0%
2. Ability testing	31.8%	68.2%	0%
3. Personality testing	13.6%	86.4%	0%
4. Review transcripts & GPA	72.7%	27.3%	0%
5. Review resumes	100%	0%	0%
6. Check references	90.9%	4.5%	4.5%

would be beneficial for colleges of agriculture to study these means so plans could be drawn to more effectively place graduates.

Employers were then given the opportunity to respond to open-ended questions. The first of the open-ended questions was: "Think of your BEST college graduate employee. List five specific behaviors, skills, or knowledge items that would describe your best college graduate employee. List the actual things the employee has done or knows that lead you to classify him or her as an outstanding employee." The top 10 most commonly listed responses to the BEST college graduate question were:

1. Knowledge of subject matter

2. Knowledge of new technology
3. Excellent verbal communication skills
4. Excellent leadership skills
5. Good people skills
6. Self-starter
7. Computer skills, created our website
8. Work ethic
9. Reliability
10. Makes educated and informed decisions; gets input before making final decisions that will affect growers.

A second-open-ended question asked was: "Think of your WORST college graduate employee and list the things that employee has done or doesn't know that lead you to

classify him or her as a poor employee.”

The top 10 most commonly listed responses to the WORST college graduate employee questions were:

1. Undependable
2. Wants to be a manager right away
3. Service to customer is lacking
4. Poor understanding of agriculture in general
5. Poor communication skills
6. Poor judgement, no common sense
7. Failure to discern future, potential opportunities
8. Not willing to represent the agency professionally
9. Did not listen to instructions
10. Not up on latest computer software.

The last open-ended question asked: “In what way could OSU CAS improve its graduates for your positions.”

The top 10 most commonly listed responses to the improvement question were:

1. Writing skills improvement
2. Make sure agriculture graduates have plenty of practical education (hands-on)
3. Require internships, we want more than book knowledge
4. Help them understand that in the real world they will do many things for themselves
5. More computer coursework relevant to the real world
6. Students need a broad understanding of not only agriculture but also business, taxes, etc.
7. They need a “stiff” practical training in journalism and media
8. They need factual science, not unsubstantiated environmentalism
9. We need well-rounded students
10. They need a practical education in natural resources, production and management

## Conclusions and Recommendations

The conclusions and recommendations which can be drawn from this data include:

1. Agri-business employers hire college graduates who have no agricultural college level coursework.

It is recommended that follow-up studies seek to identify the reasons for this practice. Does it have to do with a shortage of appropriately prepared college graduates in agri-business or do factors such as previous work experience, family ties, etc. enter into the equation?

2. Graduates of CAS OSU were significantly more knowledgeable about agriculture than graduates of institutions which do not offer agricultural coursework. While this seems an obvious statement, one should realize that many students with strong agricultural backgrounds attend colleges which do not offer agriculture (for various reasons) and therefore the additional study does appear more valuable.

It is recommended that further study be done to be able to identify those with an agricultural background and attending institutions with no agricultural coursework to try to sort on the practical experience factor versus the book knowledge and book knowledge plus internship category.

3. Students who graduated from the CAS at OSU were more dependable than students graduating from non-agricultural institutions.

It is recommended that further research be done to determine if dependability is something taught in CAS at OSU or if it comes with the type of student electing the CAS at OSU. In either case, the results of such a study could be very valuable.

4. Employers are generally satisfied with CAS OSU graduates and would generally recommend the CAS at OSU to other employers.

5. Employers do interview and review resumes.

Further research should be done to determine if the number of employers who do ability testing and personality testing is increasing or decreasing.

6. Employers are not as active in providing internships as their comments about the need for practical experience might indicate.

Further research should determine what barriers exist to internships for college students.

7. Employers do not come to the OSU campus for hiring.

Further research should seek to identify the routes used by agri-business employers to identify employees.

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