

# **FACTORS INFLUENCING PUBLIC SCHOOL ADMINISTRATORS' HIRING PRACTICES OF AGRICULTURAL EDUCATION TEACHERS**

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## **Abstract**

*Teacher recruitment in agricultural has been a constant cry for the past 30 years. Researcher rate the shortage of teachers in agriculture as a top problem facing the agricultural education profession. But does a shortage of agricultural education exist? Some suggest that that a shortage of "quality" teachers exists, not a shortage of qualified teachers. This study sought to answer those questions. Results of this study indicate that in this state, in this year, a shortage of qualified agricultural education teachers did not exist. Further, a shortage of "quality" teachers did not exist as administrators expressed satisfaction with the potential teachers they interviews. Administrators in this study placed enthusiasm for teaching and the use of community relations skills as the most important factors they look for when hiring an agricultural education teacher. This supports Cantrell's (2003) research which found that administrators sought candidates who could orally present their knowledge of agriculture in an enthusiastic manner and who could develop rapport with members of the community. Experience in production agriculture, college activities, and grade point average were placed at the bottom of a list of presented candidate qualities.*

## Introduction

Historically, most vocational educational teachers have been hired under a system of alternative certification or emergency provisions. In most cases vocational teachers have entered the teaching profession using criteria much different from other common school teachers. Vocational teachers were expected to be expert in two areas: the art of teaching and the trade to be taught (Schaefer, 2001). But if only one of these were available, preference was given to employing vocational teachers who were deemed competent in their trade. In the early 1900s, the Federal Board of Vocational Education, led by Charles Prosser, advocated that if vocational teachers were required to meet the same certification requirements as common school teachers that the teacher's proficiency in their technical field would suffer. Further, it was the Board's opinion that: 1) colleges and universities were ill equipped to train vocational teachers, 2) professional teacher education was impractical for vocational teachers, and 3) practical experience in a trade should precede education in how to teach (Lynch, 1997). This made a different road map for vocational teachers as compared to general education teachers. The prevailing philosophy has been that teaching an experienced trades person to teach is much easier than teaching a prospective (or practicing) teacher a trade, or business. Consequently, many vocational and technical education teachers were employed because of their extensive experience in a craft or trade (Lynch, 1997).

Agriculture teachers (and home economics teachers) however completed certification requirements similar to other common school teachers. Boys were deemed to be qualified to teach vocational agriculture if they had lived and worked on their parents' farm and graduated from a vocational agriculture department in a county high school. Girls were deemed qualified to teach home economics if they had successfully completed a series of homemaking projects under the tutelage of her mother and her homemaking teacher. It was concluded that agriculture teachers and home economics teachers could be college trained, but only if they had previously completed high school programs and had practical experiences incorporated into their preparation as teachers. It was the technical content that was most important. Technical content that was best learned on the job, and not the ability to teach, was what teachers were hired upon (Lynch, 1997).

Teacher recruitment in Agricultural Education has been the focus for many years. Almost thirty years ago, Stewart and Shinn (1977) reported that a shortage of Agricultural Education Teachers was one of the five areas of greatest concern of teachers, supervisors and teacher educators. Twenty years later, in his study involving agricultural education leaders, Connors (1998) identified the recruitment and retention of secondary agriculture teachers as one of the two most critical issues facing the agricultural education profession.

Further evidence of teacher shortage is the hiring of agriculture teachers under emergency provisions or alternative certification. The hiring of uncertified agriculture teachers is often done under the assumptions of teacher shortage. School administrators, faced with otherwise not filling a teaching position, hire teachers under emergency and alternative certification programs (Roberts & Dyer, 2004), (Feistritz, 1999). In 2001, emergency certification was claimed for 242 agriculture teachers employed nationally (Camp, Broyles, & Skelton, 2002). The alternative teacher certification movement has risen out of a need for more teachers. Faced with the threat of

teacher shortages and concern about the quality of the teaching force, states have relaxed the requirements for certain teachers in order to meet the demand (Feistritzer, 1999).

But does a shortage of agricultural education teachers actually exist? Camp, Broyles, and Skelton (2002), in a biennial report on the national supply and demand of agricultural education teachers, found that the number of newly prepared agricultural education teachers (n=857) actually exceeded the number of replacement teachers needed (n=798). The 2001 crop of newly minted teachers was at a 14 year high; 45.7% more teachers than were prepared in 1989. The surplus is further widened when former Agricultural Education Teachers and previous Agricultural Education graduates are brought into the mix. Camp, Broyles and Skelton confirm the arguments of Brown (1995) and Parmley, Bowen, and Warmbrod (as cited in Camp, Broyles, and Skelton 2002) who contend that the perceived teacher shortage in agricultural education is not a true shortage, but a shortage of teachers willing to accept a teaching position. Low teacher pay, inadequate benefits and a desire to return to school are the most important reasons teachers given by teachers leaving the profession (Luekens, Lyter & Fox, 2004). The shortage then is a shortage of potential teachers willing to take a teaching position in a specific location for specific salary.

In a study of administrators who hired first year Agricultural Education Teachers in Oklahoma, Cantrell (2003) found that administrators were most interested in a new teacher's academic achievement in college, knowledge of agriculture and knowledge of teaching. Administrators desired beginning teachers with experience in the FFA and supervision of student projects (SAE) but placed lower importance on experience in production agriculture. While administrators valued teachers who exhibited skill in integrating technology, serving a diverse student population and educating students with special needs, classroom management and building rapport within the community were rated higher.

Boulton (1979) studied administrators and the value that is placed on educational credentials when deciding on candidates to interview. Selected interviewees for teaching positions were chosen based on cooperating teacher recommendations, college supervisor recommendations and the candidate's subject area concentration. Jamison (1987) describes the job interview for teaching candidates as the most important screening device used in the hiring process. During the job interview, Seiferth (1979) found the personal impression job candidates leave on potential employers seemed to be the most influential consideration in the administrative hiring decision. The least important consideration was family ties in the community or school. Another relatively less important trait was a sizable number of personal and situational characteristics such as gender, minority group status, and marital status. The results support the findings of similar research studies done in the past (Seiferth, 1979). Mortaloni (1984) studied public school administrators regarding several areas associated with teacher preparation programs. Factors considered most important in recruitment of teachers were the letters of reference by the cooperating teacher, college supervisor, and building principal for the candidate's student teaching center, and the candidate's grade in student teaching.

### **Purpose and Objectives**

The purpose of this study is to examine the criteria used by administrators in Oklahoma

when hiring Agricultural Education teachers. The following research questions were developed for the study.

- 1) Does a shortage or surplus of secondary agricultural education teachers exist within the state?
- 2) Is there a shortage of quality among secondary agricultural education teaching candidates within the state?
- 3) What qualities are most important in selecting candidates for positions in teaching secondary agricultural education?
- 4) How satisfied are administrators with the applicant pool and those selected for interviews for open secondary agricultural education positions in the state.

### **Procedures**

A non-experimental, descriptive research design using quantitative methods was used in this study. A mailed questionnaire was used to obtain data and summary statistics were used to report on factors administrators' used in hiring agricultural education teachers. This research design is appropriate given no treatment or intervention is provided (Kerlinger, 1986). Using instruments developed by Lunger (2000), Rhodes (1993), Bolton (1973), and Jamison (1987), a questionnaire was developed which was designed to gather information on the importance administrators placed on teaching practice, teacher qualities, and teacher characteristics. Face validity was established by a panel of experts consisting of agricultural education and college of education faculty and professional staff of the department of career and technical education. The instrument was pilot tested using five administrators who had hired agricultural education teachers the previous year and who were not part of the study population. No major changes were made to the instrument as a result of the pilot. The questionnaire also included questions related to the number of applicants, interviews and the hiring process. Finally, demographic data was collected on the person most likely to influence the hiring decision.

In the summer of 2004 a list of all teaching position changes in the state obtained from the state department of career and technology education. The state department of career and technology education served as the official contact point where teaching positions were announced as open and announced as bring filled. By July 31<sup>st</sup>, 56 Agricultural Education had been hired for the 2004-05 school year. Schools were included if they hired an Agricultural Education Teacher between May 1<sup>st</sup> and July 31<sup>st</sup>. After July 31<sup>st</sup>, three schools hired teachers for the upcoming year, but these schools were not included in the population because many schools were about to be in session and the perceived applicant pool for those schools was very low. One school district hired two new teachers and was sent only one questionnaire, reducing the study population to 55 school districts. Program specialists with the State Department of Career and Technology supplied the names of the contact person at each school. This contact person was identified as the most appropriate person to receive the questionnaire.

### **Study Population**

Schools in the population were largely small, rural, schools with single teacher agricultural education departments. Table 1 shows the distribution of schools based on enrollment in grades 9-12. Over three-quarters of the schools in the study had less than 500 students enrolled in grades 9-12.

Table 1

*Enrollment in Grades 9-12 for Schools in Target Population*

Enrollment	<i>N</i>	%
< 100	17	30.9%
100 – 499	27	49.1%
500 – 999	5	9.1%
> 1000	6	10.9%
Total # of Schools	55	100.0%

Figure 1 displays information regarding the source of agricultural education teachers hired by schools in the study. Nearly half of the teachers hired were agricultural education teachers simply moving from one school to another. Recent graduates of teacher preparation programs represented the bulk of those hired who had no previous teaching experience

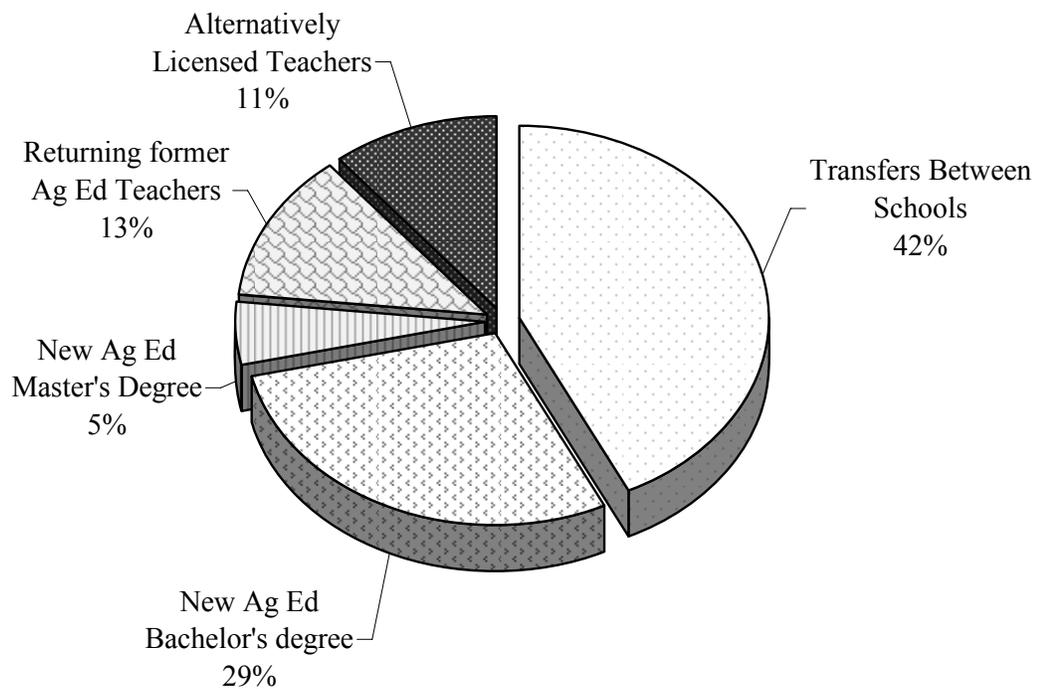


Figure 1. Sources of New Hires for Agricultural Education Positions

A four-page, booklet formatted questionnaire with cover letter and self-addressed return envelope was mailed to all subjects along with a cover letter and return envelope. A U.S. Postage stamp was affixed to each envelope giving the appearance of a personal letter. Three weeks later a second questionnaire was mailed to those who had not responded. Usable responses were received from 48 of the 54 administrators for an overall response rate of 89%. Non-response error was addressed by comparing non-respondents to respondents on school demographic data as suggested by Lindner, Murphy and Briers (2001). Non-respondents were found to be significantly different in terms of school enrollment therefore results of this study can only be generalized to the respondents and not the total population of administrators and schools.

### Findings

Table 2 shows a demographic profile of the respondents. In a cover letter attached to the questionnaire, the contact person is asked to forward the questionnaire to the person most responsible for the hiring decision if that person was not who was contacted. Therefore the individual completing the instrument may not have the same person who initially received the mailing.

Table 2

#### *Demographic Profile of Respondents*

Variable		<i>M</i> ( <i>n=48</i> )	<i>Range</i>
Age		48.23	30-62
Years in current position		7.06	1-29
Years at current school		4.85	1-20
Highest education of administrator	Masters	17	
	Master + 30	27	
	Doctorate	4	
Administrative title	Superintendent	34	
	Building Principal	14	

The school superintendent was identified in 34 of the 48 responses as the person who for all practical purposes made the recommendation to the school board on whom to hire for the open position. Fourteen respondents indicated that the building principal made that recommendation and two respondents indicated that the school board hired the agricultural education teacher. School superintendents and building principals were primarily involved in the interview process, with a school board member, the entire school board, and another teacher being involved in the interview process about one quarter of the time.

Table 3

*Personnel Involved in Interviewing Teacher Applicants*

Personnel	Interviews Candidates <i>n</i> =48		Recommends to school board <i>n</i> =48	
	<i>f</i>	%	<i>f</i>	%
School Superintendent	37	77%	34	71%
Building Principal	37	77%	14	29%
School Board Member	11	23%	0	-
School Board	10	21%	2	4%
Other Teacher(s)	11	23%	0	-
Parent(s)	5	10%	0	-
Community Member(s)	2	4%	0	-
Student(s)	1	2%	0	-

Respondents were asked to rate on a scale of 1 to 5, (1 being high and 5 being low), the importance of teaching practices, teacher qualities and teacher characteristics in hiring an agricultural education teacher. The scale found in Table 4 was developed to further interpret the scores.

Table 4

*Attitudinal Scale Developed for Teacher Practice, Qualities and Characteristics*

Mean Score <sup>a</sup>	Attitude
1.00 – 1.49	Very Important
1.50 – 2.49	Approaching Importance
2.50 – 3.51	Undetermined Importance
3.51 – 4.49	Approaching non-importance
4.50 – 5.00	Not Important

<sup>a</sup>1=Very Important, 5=Not Important

Eighteen questions were categorized into the three subgroups of teaching practice, teacher qualities, and teacher characteristics. The three subgroups were checked for internal consistency using Cronbach's alpha coefficient. Cronbach's alpha is appropriate for estimating

internal-consistency reliability within a scale (Isaac & Michael, 1995). Cronbach's alpha for each subgroup were: .70 for teaching practice, .77 for teacher qualities, and .78 for teacher characteristics.

Table 5

*Administrator's Opinion of the Importance of a Candidate's . . .*

1. Teaching practices	<i>M</i>	<i>SD</i>	
a. use community relations skills	1.21	0.46	Very Important
b. use classroom management skills	1.30	0.46	Very Important
c. use technology in the classroom	1.68	0.75	Approaching Importance
d. to educate a diverse student population	1.85	0.90	Approaching Importance
e. integrate other subjects into their teaching	1.98	0.70	Approaching Importance
f. work with students with special needs	2.11	0.93	Approaching Importance
Mean of means	1.68		Approaching Importance
2. Teaching quality indicators	<i>M</i>	<i>SD</i>	
a. experience w/ FFA programs & activities	1.35	0.52	Very Important
b. experience in showing livestock	1.74	0.79	Approaching Importance
c. experience in production agriculture	1.87	0.80	Approaching Importance
d. experience in college activities	2.44	0.68	Approaching Importance
e. agriculture grade point average	2.50	0.80	Undetermined Importance
f. overall grade point average	2.83	0.66	Undetermined Importance
Mean of means	2.12		Approaching Importance
3. Teacher characteristics	<i>M</i>	<i>SD</i>	
a. enthusiasm for teaching	1.13	0.39	Very Important
b. verbal communication skills	1.26	0.48	Very Important
c. expression of maturity	1.32	0.51	Very Important
d. neat and well groomed appearance	1.40	0.53	Very Important
e. appearance of self-confidence	1.43	0.76	Very Important
f. knowledge of teaching methodology	1.70	0.71	Approaching Importance
Mean of means	1.37		Very Important

The number of applications received per teaching position averaged almost 19 and ranged from a low of five to a high of 39. Nearly five candidates were interviewed for each open

position. Twenty four schools reported receiving applications from a least one candidate who was seeking alternative certification.

Table 6

*Number of Applicants, Candidates and Interviewees for Agricultural Education positions*

	<i>M</i>	<i>Range</i>
Number of applications for each position	19.19	5 - 39
Number of applicants with teaching experience	7.56	0 – 20
Number of alternatively certified applicants	1.61	0 – 5
Number of applicants interviewed	4.96	2 - 12
Number of applicants who brought a portfolio to the interview	1.68	0 - 6

Respondents were asked to rate their personal satisfaction with the quality of the applications they received and the quality of those candidates they interviewed. Table 5 shows that respondents were more impressed with the quality of those interviewed than they were with the applicant pool.

Table 7

*Administrator Evaluation of the Quality of Applicants and Interviewees*

Administrator Assessment	Satisfaction	
	<i>M</i>	<i>SD</i>
Quality of Applicants	1.93	.88
Quality of Interviewees	1.58	.73

*Note.* 1=very satisfied – 5 = very dissatisfied

## Conclusions

Based on the objectives of the study, the following answers are offered to imbedded questions.

Research Question One: Is there a teacher shortage in secondary agricultural education? Findings from this study support research Camp’s assertion that the shortage is regional in nature and that teacher education institutions are preparing a surplus of teaching candidates. School administrators in the study population looking to hire an agricultural education teacher in the summer of 2004 enjoyed a large pool of applicants. The researcher cautions readers though, that no effort was made to describe the applicants who may (and probably did) make application for a

number of positions. The fact nevertheless remains that administrators had an ample supply of applicants from which to choose.

Research Question Two: Is there a shortage of quality secondary agricultural education teachers? Findings from this study indicate that administrators are generally well satisfied with the applicant pool that applied from the open position in their school. Additionally administrators were even more impressed with the pool of candidates they chose to interview for the position.

Research Question Three: What qualities are most important in selecting teacher candidates? Administrators in this study placed enthusiasm for teaching and the use of community relations skills as the most important factors they look for when hiring an agricultural education teacher. This supports Cantrell's (2003) research which found that administrators sought candidates who could orally present their knowledge of agriculture in an enthusiastic manner and who could develop rapport with members of the community. Experience in production agriculture, college activities, and grade point average were placed at the bottom of a list of presented candidate qualities.

Research Question Four: How satisfied are administrators with the applicant pool and those selected for interviews? Administrators in this state are satisfied with the quality and quantity of the applications they are receiving for open positions in agricultural education. Administrators' satisfaction with the performance of interviewees is even greater than that of the applicant pool.

### **Discussion/Implications**

This study raises important questions in the agricultural education teaching profession. It contradicts the long standing view of many in the agricultural education profession who claim that there is a perpetual shortage of agricultural education teachers nationwide. This study also contradicts an even more popular view; that we have a shortage of quality pre-service agricultural education teachers. School administrators were pleased with the quality of applicants they received and even more pleased with the quality of those they interviewed for agricultural education positions. Recruitment of students into teacher education programs in agricultural education has been a constant cry for the last 30+ years. And while this research was conducted in the summer of one employment year, in one state it is event from this study that in that state, in that year, a shortage of agricultural education teachers in terms of quality and in terms of real candidates did not exist.

While we know the size of the administrator's candidate pool, we know very little about the job search from the teacher's perspective. Additional research is needed to determine the how aggressive pre-service teachers have been in the job hunt, and determine their willingness to relocate. It is important that this research study be repeated when feasible and practical in subsequent years in other states. Only when the agricultural education profession is willing to look at the supply and demand of agricultural education teachers in a fresh light will we be able to answer the teacher shortage question.

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