

**The 36<sup>th</sup> Volume of A National Study of the  
Supply and Demand for  
Teachers of Agricultural Education  
2006-2009**

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The “Supply and Demand Study” is an ongoing project sanctioned and sponsored by the American Association for Agricultural Education (formerly the American Association for Teacher Educators in Agriculture) since 1965

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## Personal Statement

This study continues to be an important part of the Agricultural Education profession by providing valuable information used by state departments of education and public institutions around the country. Although many request information from this study it continues to become more difficult with every volume of this study to collect the necessary data to make this study successful. The future success of this study requires that institutions respond in a timely fashion with accurate information, without this the timeliness of this study becomes difficult and the data may be compromised. I hope that in future volumes of this study we are able to receive better participation from institutions so that the timeliness of this study can be improved.

This report continues to provide trend data in a number of tables that are drawn from all of the previous authors and reports. The layouts for many of the tables, data, instrumentation, and parts of the verbiage may have been taken directly from earlier studies and I make no claim to the originality of any parts of the study.

I accept full responsibility for any data inconsistencies. I have worked in consultation with others to minimize the occurrence of errors but recognize fully that mistakes may have slipped by our review and I apologize in advance for those errors that may relate to your state or your teacher education program. And as usually found in this study, there are areas that can be found that include over or under reporting due to the nature of the information including in the areas of demographic information, agricultural program type, teacher sources, and job sources.

I would like to thank Dr. Jason Peake at the University of Georgia, Tifton whom created an online input system to collect data for the supply portion of the study. I also need to thank Larry Gossen and his entire staff at the National FFA Organization for their assistance in collecting state demand data. Without their assistance we would not have as high of a response rate. Thank you!

Respectfully,

A handwritten signature in black ink that reads "Adam J. Kantavich". The signature is written in a cursive style with a large, sweeping flourish over the last name.

# A National Study of the Supply and Demand for Teachers of Agricultural Education from 2006-2009

## Introduction and History

This is the 36<sup>th</sup> volume of the national survey of the supply and demand for teachers of Agricultural Education in the United States. This study is sanctioned by the American Association for Agricultural Education and is conducted as a service to the profession.

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1965 - 1973	Dr. Ralph Woodlin, initially of the Ohio State University and later of the University of Tennessee, Knoxville, conducted the annual studies.
1974 – 1984	Dr. David Craig of the University of Tennessee continued the study.
1985 – 1989	Dr. William G. Camp Virginia Tech was responsible for the annual study.
1990-1991	Dr. J. Oliver of Virginia Tech.
1992 - 2001	Dr. William G. Camp Virginia Tech was responsible for the annual study.
1994	At the annual convention of the American Vocational Association, the Agricultural Education Division elected to change the study to a 3-year cycle and this current volume (2004-2007) is the third triennial study.
1995	Last annual study.
2004-05	The American Association for Agricultural Education broke from holding their meetings in conjunction with Association of Career and Technical Education (ACTE, formerly AVA) to holding it on its own. The first meeting away from ACTE was held in May of 2004. It was at this time that the membership selected Dr. Adam J. Kantrovich of Morehead State University to take over the study with the assistance of Dr. Tom Broyles of Virginia Tech. (Report Presented May 2006)
2006-07	Study performed and reported by Dr. Adam J. Kantrovich of Morehead State University with demand data collection assistance provided by Doug Loudensager, Ernie Gill, and the staff of National FFA. Report Presented May 2007)
2006-9	Study was compiled by Dr. Adam J. Kantrovich of Michigan State University Extension with significant assistance from Larry Gossen and his team at The National FFA Organization

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## Importance of the Study

Agricultural Education in the United States is in a constant state of flux. Not only is the profession changing rapidly, but the patterns by which new teachers are educated and brought into the profession are undergoing dramatic revisions in most states (Lynch, 1996). According to the National Center for Education Statistics, the number of elementary and secondary school teachers is projected to rise, primarily due to the increase in school enrollment” during the early part of the 21st century (Gerald, 1999). Thus, it is as important as ever that data are available to illuminate the numbers and sources of new teachers in Agricultural Education. Moreover, it is important that data are available to track the changes as they are implemented in Agricultural Education programs throughout America. Secondary Agricultural Science Education Programs offer students the opportunity to apply the “general” education curriculum of science and mathematics and leadership skills through FFA. These opportunities for up and coming generations should not be forgone due to a lack of prepared educators. As a national organization it is our duty to track the occurring changes in educational trends, policy, student needs, and agricultural educator’s needs. Our stakeholders are the community at large; with proper marketing and preparation we can meet the needs of tomorrow.

## Background

The profession's concern for the supply and demand for teachers of Agricultural Education is not a new phenomenon. In a bulletin published by the Department of the Interior only four years after the Smith Hughes Act, C. D. Jarvis (1921) reported a total of 283 graduates from specialized teacher preparation programs in Agricultural Education, for 38 colleges of agriculture in the United States. He went on to quote C. H. Lane of the Federal Board for Vocational Education:

In the North Atlantic region 352 students were enrolled in resident teacher-training classes during the school year 1919-20, as against 247 for the previous year. In the southern territory 849 students were enrolled in 1919-20 compared with 389 for the previous year. The east-central region had an enrollment of 343 for 1919-20 as against 282 for the previous year. In the west-central region, for 1919-20, 491 students were enrolled as against 164 for the previous year. In the Pacific-coast region, 275 students were enrolled in 1919-20 compared with 252 for the previous year.

In summarizing the enrollment in resident teacher-training classes it is found that there were 2,310 students enrolled during 1919-20, compared with 1,334 for 1918-19. Experience has shown that many students who work in these classes do not become teachers. Furthermore, these enrollments represent the number of students of all years, and many of them will not be immediately available for service. In 1920, 444 students who had carried the work in agricultural education were graduated. (p. 9)

Estimating the supply and demand of teachers is often a difficult and frustrating task. Many people have tried over the years, and the results have been mixed at best. In 1992, an Office of Educational Research and Improvement study (National Center for Educational Statistics, 1992) estimated the number of Agricultural Education teachers in the United States in 1987-88 at 10,598. This supply and demand study reported the total number of teachers at 11,072 for the same year, a difference of 474 teachers.

Moreover, agricultural educators have debated the reality of an agriculture teacher shortage. Parmley, Bowen, & Warmbrod (1979) examined data from previous national supply and demand

studies by Woodin and Craig, attempting to make sense of a confusing situation. They concluded that the shortage reported by the ongoing studies resulted not from a shortfall in the number of graduates but from the low percentage of graduates choosing teaching as their initial profession. By extending their reasoning, the classic laws of supply and demand from the field of economics implied that the shortage was a function of salaries for beginning teachers rather than an inadequate numbers of graduates. More recently, Brown (1995) concluded:

Approximately half of those graduating with a bachelor's degree in agricultural education were electing not to enter the teaching profession. The problem was not created by insufficient numbers completing bachelor's degrees in agricultural education. The problem was created by insufficient recruitment of qualified individuals into the profession of teaching. (p. 11)

Although this may have been the case in previous studies the past three studies (2003-2009) the average percentage of newly qualified teachers entering teaching is 71.2%. Regardless of the theoretical basis for the teacher shortage, a very real problem faced the profession of Agricultural Education in those years: how to recruit enough qualified people into teaching to fill the need of the profession for replacement teachers. A de-facto "teacher shortage" has been a constant problem for Agricultural Education for at least the 40 years covered by this study. Then, between 1976 and 1988, student enrollment in public school Agricultural Education declined from 697,000 to 522,000 (Scanlon, Yoder, Hoover, & Johnson, 1989). That student decline occurred during a concurrent but much less dramatic decline in the number of teachers in the profession, from 12,844 in 1978 to 11,204 in 1987. During the same general timeframe, the number of newly qualified potential teachers of agriculture fell from 1,749 in 1977 to 643 in 1994. Many of the positions becoming vacant during that timeframe were not filled because of the decreasing number of teaching positions. Thus, even with fewer new potential teachers available, not only did the placement rate for new teacher education graduates decline, but the shortage of the 1960s and 1970s appeared to become a very brief national teacher surplus in the mid-1980s, even though we have not experienced a single year since 1965 in which all teaching positions have been filled. Notably, the decline in the number of newly qualified teachers of agriculture continued throughout the 1980s, in spite of the general increase in teacher education enrollments during that period, as reported by Rodman (1987).

According to a 2010 brief that was prepared by Nancy Conneely and Erin Uy of the National Association of State Directors of Career and Technical Education Consortium wrote of a shortage of teachers for all Career and Technical Education (CTE) programs. Conneely and Uy cite that from 1994 to 2004 2.25 million teachers were hired while 2.7 million left teaching. The state that three major factors have caused this 1) The number of students in CTE courses have increased requiring more classes and teachers. They cite a U.S. Department of Education report that 15 million were enrolled in high school and post-secondary CTE programs in 2006-7, a 6 million increase in seven years. 2) Existing CTE teacher education programs have been eliminated (from 432 to 385) resulting in a student decline in CTE teacher prep programs, and 3) retirements of CTE teachers that are not being replaced by new qualified teachers.

Today we are also seeing changes in funding of education at the state level towards education as state budget deficits loom. This can have profound affects on career and technical education programs at the secondary education level. While this is occurring there is a national movement being seen in many areas of the country by consumers wanting to promote local food systems which does provide additional opportunity for our secondary agricultural education programs to tap into

this phenomenon to reinvigorate, grow, or create new local agricultural education programs for a new audience.

### **Problem and Purpose**

The problem addressed by this ongoing study is twofold. Leaders of the profession need current, accurate estimates of the numbers of and demand for teachers of Agricultural Education to provide for meaningful policy decisions at all levels. Teacher organizations and teacher educators need current, accurate supply and demand information to use in recruitment activities and in counseling potential teachers of Agricultural Education. Yet, detailed data of that nature, specific to Agricultural Education, are not available outside this study.

The purpose of the study was to conduct a census of the field of public school Agricultural Education and determine the situation regarding the supply and demand of teachers in the United States, Specific questions to be addressed were:

1. What are the current numbers and trends in terms of total numbers of teachers of Agricultural Education nationally, by region, and by state?
2. What kinds of public school programs exist for Agricultural Education nationally, by region, and by state?
3. What are the numbers and trends in newly qualified potential teachers of Agricultural Education nationally, by region, and by agricultural teacher education institution?
4. What are the numbers and trends in teacher education programs nationally and by region?

### **Data Collection**

This study is a population census and is descriptive in nature. The data came from two main sources.

**Supply Data** – e.g. teacher education programs, graduates, and placements. The head teacher educator of a program that prepares teachers of agriculture at institutions of higher education in the United States was surveyed. In several institutions, the head teacher educator passes responsibility for the study to another faculty member or a higher administrator chose to respond.

**Demand Data** – e.g. numbers of teachers, numbers of replacements hired, sources of replacements hired, types of schools, and kinds of programs. The person in charge of Agricultural Education at each state department of education was surveyed. In several states, the state department official does not have access to the data needed or for some other reason does not respond to the survey. In several other states no state department of education official with access to the data could be found, responded, able to locate data, or no one knew who kept the data because of turn over. In those cases, the most suitable sources of information that was located were surveyed. For instance the state FFA executive secretary or the state president of the agricultural teacher association might be used.

The initial call for responses began February 15, 2010. Repeated follow-ups by e-mail, telephone, and in person through November 2010 that resulted in responses from 72 institutions (80.8%) to provide the teacher supply data. Through this response it was found that six programs had no newly certified teachers graduate in the past three years. During the initial preparation phase for the study it was also found that some institutions no longer offer programs such as Rio Grande in Ohio while the University of Maryland has just begun a teacher certification program. For the teacher demand data, 46 of 53 States and Territories responded (86.7%)

In the past data for those states that did not respond to the repeated attempts at data collection, previous-study data were used. Realizing that using data dating back over multiple rounds for multiple years is not a clean substitute for current information and that the data can significantly skew the results the researcher decided to leave missing data. For those teacher education institutions and State Staff that failed to respond, repeated attempts were made via email, phone, and at various professional conferences to retrieve some response even if the response was that no Agricultural Education Program existed.

The method of response was recorded for the demand portions of the study. There were three response types; email, using the traditional mail system (“Snail-mail”), or by fax. The overwhelming majority of responses came from email with only one response coming from “snail mail” and one response coming through a fax.

### Non-Respondents

Although every attempt was made to contact initial respondents and the timeliness of this report was put at risk to allow for additional responses, Dr. Kantrovich made an attempt to call and send personal emails to every institution and state to locate an individual that would be able and willing to complete the survey. Those institutions, states, and territories that did not respond include:

<b>The Institutions that did not respond include:</b>	<b>The Institutions that did not respond continued:</b>	<b>States/Territories that did not respond to the Demand Study:</b>
Alabama A & M Univ.	Missouri State Univ.	Alabama
Tuskegee Univ.	College of the Ozarks	Alaska
Florida A & M Univ.	The Univ. of Maryland – E. Shore	Guam
Univ. of Florida	Univ. of New Hampshire	Hawaii
Univ. of Hawaii	Tennessee Tech Univ.	Puerto Rico
Louisiana Tech Univ.	Stephen F. Austin State Univ.	Tennessee
Southern University	Univ. of Wisconsin System	Virgin Islands
Univ. of Southwestern Louisiana	The Univ. of Puerto Rico	
Alcorn State Univ.		

When reviewing the institutions that did not respond these are institutions that most likely no longer certify agricultural educators or are the numbers are so small that it will have little bearing nationally with the exception of the University of Florida and the University of Wisconsin system. Reviewing the states and territories those that cause the most issue for not having data are Alabama

and Tennessee. The remainder of states and territories that did not respond has been inconsistent with responding in the past or few programs as compared to most other responding states.

## Regional and National Summary Data

This study will provide two perspectives (National & Regional) on the data collected. National and regional data will be presented in this section, followed by state and local data in the next section. Throughout the report, the American Association for Agricultural Education (AAAE) regions was used to organize the data by region.

North-Central:	Connecticut, Delaware, Illinois, Indiana, Iowa, Kansas, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Ohio, Pennsylvania, Rhode Island, South Dakota, Vermont, West Virginia, Wisconsin;
Southern:	Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, Oklahoma, South Carolina, Texas, Tennessee, Virginia, Puerto Rico;
Western:	Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming

The reader should note that detailed data regarding variables such as program focus, grade level of teaching assignment, gender, ethnicity, and others are almost always incomplete due to underreporting. As a result, most tables reflect subtotals that do not add up to the total number of positions reported regionally and/or nationally. We have tried to point out such discrepancies where they are most glaring, but please hold this limitation in mind as you use this study.

## Numbers of Teachers

As seen in Table 1 and Figure 1, the 2002 and 2003 data implies that the total number of positions has dropped from previous years. This is a false perception due to a decreased response rate and how datum is being utilized prior to this study. In the past data from previous Supply and Demand studies would be used to replace missing data. The previously used data has become too old to be considered reliable and therefore missing data was not replaced. This drop should not be considered a positive or a negative. It was for this reason that it was decided to renew our efforts with performing this study again to be able to offer a more complete and up-to-date report in May of 2007. From 2007 through 2009 we continue to see growth in the number of positions available as of Sept. 1.

As we see an initial decline of programs in 2001 to 2004 (partly due to a response rate issue for the 2002 & 2003 data) there is a steady increase between 2004 through 2009. By Sept 1, 2009 21 programs were not able to continue due to a lack of a qualified teacher. In 2009 there were an estimated 30 needed but unavailable to meet the demand for secondary

agricultural education programs. It is estimated that there was only 649 newly qualified teachers prepared to enter the field for fall of 2009. It was estimated that only 457 will have entered teaching in the September, 2009 to replace an approx. 840 positions. Some of these positions may have been filled by the approx. 390 teachers that received some type of emergency certification or other alternative certification. We know that approx. 831 teacher were hired to fill many of these positions It was expected that only 587 newly qualified teachers would have been prepared for the 2010 school year. If previous years needs remain similar a shortage could again be realized.

**Table 1**  
**Trends in Selected Information on the Supply of Secondary Teachers of Agricultural Education in 1964-65 and Since 1977**

Year	Total number of positions on Sept. 1	Teachers needed but unavailable Sept. 1	Number newly qualified to teach	Percent newly qualified entering teaching Ag Ed
1965	10,378	120	1,038	64.6
1977	12,694	221	1,749	60.8
1978	12,844	189	1,791	56.7
1979	12,772	144	1,656	54.9
1980	12,510	117	1,584	52.0
1981	12,450	98	1,468	52.2
1982	12,474	35	1,368	51.3
1983	12,099	42	1,277	45.6
1984	11,960	19	1,249	45.2
1985	11,687	8	1,207	40.8
1986	11,582	20	964	41.2
1987	11,204	14	952	41.6
1988	11,072	39	838	42.5
1989	10,840	25	588	52.9
1990	10,356	23	625	53.0
1991	10,176	9	638	50.9
1992	9,981	11	686	53.4
1993	10,118	20	636	54.2
1994	10,234	40	643	56.3
1995	10,164	51	625	60.2
1996	10,297	-	716	-
1997	10,532	-	657	-
1998	10,706	69.5	748	63.8
1999	10,915	-	789	-
2000	10,996	-	798	-
2001	11,189	67	857	59.4
2002	5,959	-	690	-
2003	6,170	-	749	-
2004	9,107	168	781	73
2005	9,282.5	-	744	-
2006	10,846.5	78	785	69.8
2007	9,735.5	-	593	-
2008	10,238.5	-	583	-
2009	10,600*	30	649	70.4

\* If the past responded position numbers were to be used from the non-respondent states of Alabama, Tennessee and Washington a total number of positions would be 11,550.

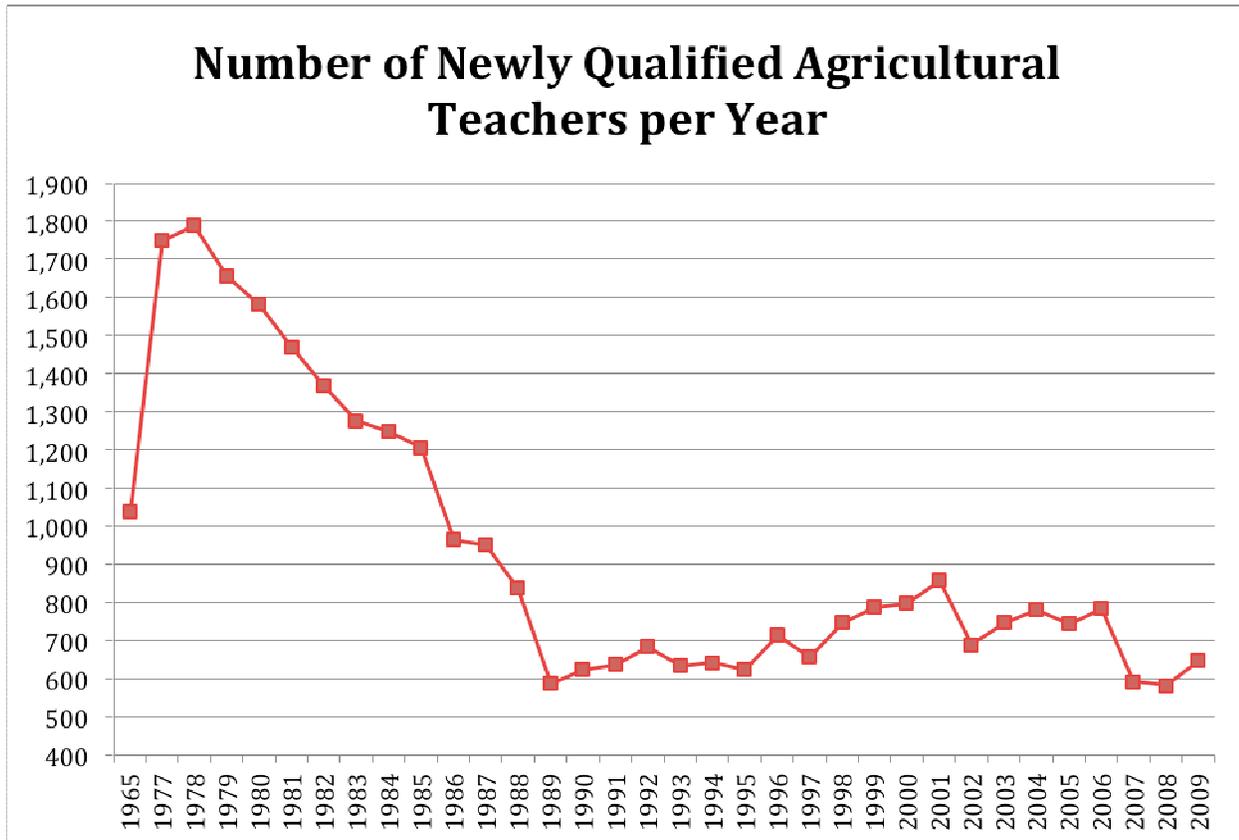
**Figure 1. Trend in Total Agricultural Education Teaching Positions, 1965-2009**



\* Due to low response rate 2002 – 2005 shows a false drop in the number of positions.

The total number of newly qualified potential teachers of Agricultural Education prepared in the US annually remained over 1,000 from the inception of the study until 1985, when it dropped to 964. The number reached a previous low of 588 in 1989, with a new low in 2008 of 583. Since 1989, the profession seems to have begun a recovery that has resulted in a fairly steady increase in the number of newly qualified potential teachers to a 14-year high of 857 in 2001, representing a 45.7 % increase from the 1989 low (See Table 1 and Figure 2). We again are seeing a drop in newly qualified teachers that is disturbing due to the Demand study response there were 165.7 new positions added with a loss of 86 positions for a net gain of 79.7. This could imply that there may be a greater shortage coming of qualified agricultural teachers if this trend were to continue.

**Figure 2. Trend in Total Newly Qualified Potential Teachers of Agricultural Education**



**Personnel Turbulence**

Table 2 repeats some of the data in Table 1 but adds several dimensions for comparison. An interesting set of statistics involves the net number of replacement teachers needed in Agricultural Education classrooms. The total of “replacement teachers needed” ranged from a high of 1,273 in 1975 to a low of 824 in 1980, with 888.5 (FTE) replacements needed in 2004. That figure can be misleading, however since many of those are simply moving from one school to another. The net number of replacement teachers needed could not be computed from earlier studies because data on school-to-school transfers were not collected until recently. Since 1985, school-to-school transfer data have been available and the net number of replacements needed fell fairly steadily from 805 in 1985 to 574.9 in 1998. The number of replacements needed is presently at 870. To estimate the overall rate of teacher turbulence in Agricultural Education for 2009, we can divide the number of teacher replacements required (870, see Table 2) by the number of teaching positions at the end of the previous year (10,238.5, see Table 1) for a gross replacement rate of 8.5%. Correcting that figure for teachers who moved from one school to another, we find that the net replacement rate was approx. 6.5% (667.2 / 10238.5).

The number of teachers needed but still unavailable at the start of the school year was 30 for 2009. This is down from the high of 211 in 1975. The 2009 number is the third lowest since the study began. The number of teachers working with various forms of temporary or emergency certification

has risen steadily from a low of 110 in 1990 to 390 in 2009. The number of departments expected not to operate for 2009 is down to 21. Much of this may be in part due to the willingness to make up for the shortage of qualified agricultural education teachers through the use of emergency or alternative certification methods as shown in Table 2.

**Table 2. Overview of Agricultural Education Teaching Positions and Personnel Turbulence in the United States for Selected Years\*\***

	1975	1980	1985	1990	1995	1998	2001	2006	2009
Total positions on Sept. 1	12,107	12,510	11,687	10,355.5	10,164	10,706	11,189	10,846.5	10,600
Replacements Needed	1,273	824	1,043	979	977	888.9	1,170.5	1218	869.7
Moving between schools	*	*	238	351	280	314	372	394	202.5
Net demand for replacements	*	*	805	628	697	574.9	798.5	824	667.2
Needed, but not available Sept. 1	211	117	8	23	40	69.5	67.0	78	30
Teachers with Emergency Certification	607	454	140	110	119	175.5	242.0	185	390
Departments that will not operate due to lack of qualified teacher	78	55	3	9	41	55	35	40	21

\* Data not collected for year indicated

\*\* This figure is not the same as “teachers hired” that will be reported in Table 7. “Replacements Needed” is computed as follows: Teachers Leaving Positions + New Positions + Vacancies Remaining – Positions Lost.

\*\*\* Due to low response rate which show inaccuracies 2004 data is not shown on Table 2.

### Graduates and Placements

From the standpoint of agricultural teacher education, an important consideration in interpreting Table 3 is the change in perspective between 1975 and the present. As late as the 1985 supply and demand study, the survey sought simply the number of Agricultural Education BS/BA graduates. Until that time, being an Agricultural Education graduate was generally considered equivalent to being qualified to teach. That is no longer the case. Since 1985 the survey has sought the number of newly qualified potential teachers, which includes only part of the undergraduate program completers but also includes many masters degree or non-degree program completers. So the numbers found in the previous and following tables and figures all reflect those that have been produced and are qualified to teach.

As we saw in Table 1 and Figure 2, the total number of new potential teachers of Agricultural Education qualified annually, declined steadily from 1980 to 1989 then stabilized with an average annual production of 653 qualified agricultural educators between 1990 and 1998. Between 1999 and 2006 we saw an increase in the average number of qualified agricultural educators produced to 771. Now in just a few short years we have seen a 21% decline in the number of newly qualified teachers prepared to a three-year average of 608 for the years of 2007-2009. An examination of Table 3 shows that, of the 649 persons newly qualified to teach during 2008-09 school year, their professors estimated that 585 (90%) “probably wanted to teach.” The overall placement rate (in teaching agriculture) for the total was only 70.4%, when those teaching subjects other than agriculture are included in to the equation the percentage of those teaching increases to 77%. Assuming the estimate of those who "probably wanted to teach" is reasonably accurate (585/649) only about 10% of those newly qualified teachers who would like to teach were unable to secure satisfactory teaching positions in any subject.

**Table 3**  
**Newly Qualified Potential Agricultural Education Teachers and Placement.**

	1974-75	1989-90	1994-95	1997-98	2000-01	2003-04	2005-06	2008-09
Total Newly Qualified	1,660	625	625	748	857	781	785	649
Probably Wanted To Teach	*	386	351	619	693	628	705	585
Of Newly Qualified, Number Entering Teaching Agriculture	999	331	56.2	482	509	573	548	457
Percentage of Newly Qualified Entering Teaching Agriculture	60.2	53	48.4	63.8	59.4	73.4	69.8	70.4
Percentage who "Probably Wanted To Teach" Teaching	*	85.8	72.5	77.9	73.4	91.2	89.8	90

\* Data not collected for year indicated

Table 4 provides information concerning the placement of those persons newly qualified to teach Agricultural Education. Table 4 shows a 13% over reporting from the responses. Figure 3 is based on the results from Table 4 and will show percentages based on the data compiled from Table 4. The primary initial occupation for 62% those that were qualified to teach in the 2008-09 year was teaching agriculture. Those choosing to work in Agricultural Business coming in with a far 2<sup>nd</sup> place with 10% of those qualified to teach agriculture. A three-way tie for third are those that are teaching another subject, completing graduate work or are doing “other work”. Full time farming has declined markedly over the past 20 years, from 136 in 1975 to only 8 (approx. 1%) in 2009. Figure 3 provides a graphic illustration of the placement of this group in 2009.

Of the 649 (Table 1) number of newly qualified to teach reported in 2009 by teacher education institutions, 418 were teaching in the state they received their education while only 39 had taken agricultural teaching positions in other states.

**Table 4**  
**Number of Newly Qualified to Teach Agricultural Education Teachers Entering Various Occupations for Selected Years**

	1974-75	1989-90	1997-98	2000-01	2003-04	2005-06	2008-09
<b>Newly Qualified</b>	1,660	625	756	857	781	785	649
Teaching Ag Ed	999	295	482	509	515	548	457
Teaching Another Subject	55	19	30	49	58	46	43
Extension Service	*	29	18	26	26	27	24
Agricultural Business	125	157	96	80	96	104	71
Graduate Work	163	109	65	87	67	75	44
Farming	136	46	15	27	16	14	8
Armed Forces	18	3	**	**	**	**	**
Other Work	164	61	25	41	22	56	45
Unknown	*	*	22***	27	66	64	34
Unemployed & Available				17	18	7	10

\* Data not collected for year indicated

\*\* Placement in the armed forces is now included in Other Work

\*\*\* Previously was presented as Unemployed and Unknown

**Figure 3. Placement Patterns of Newly Qualified Potential Teachers of Ag. Ed. in 2009**

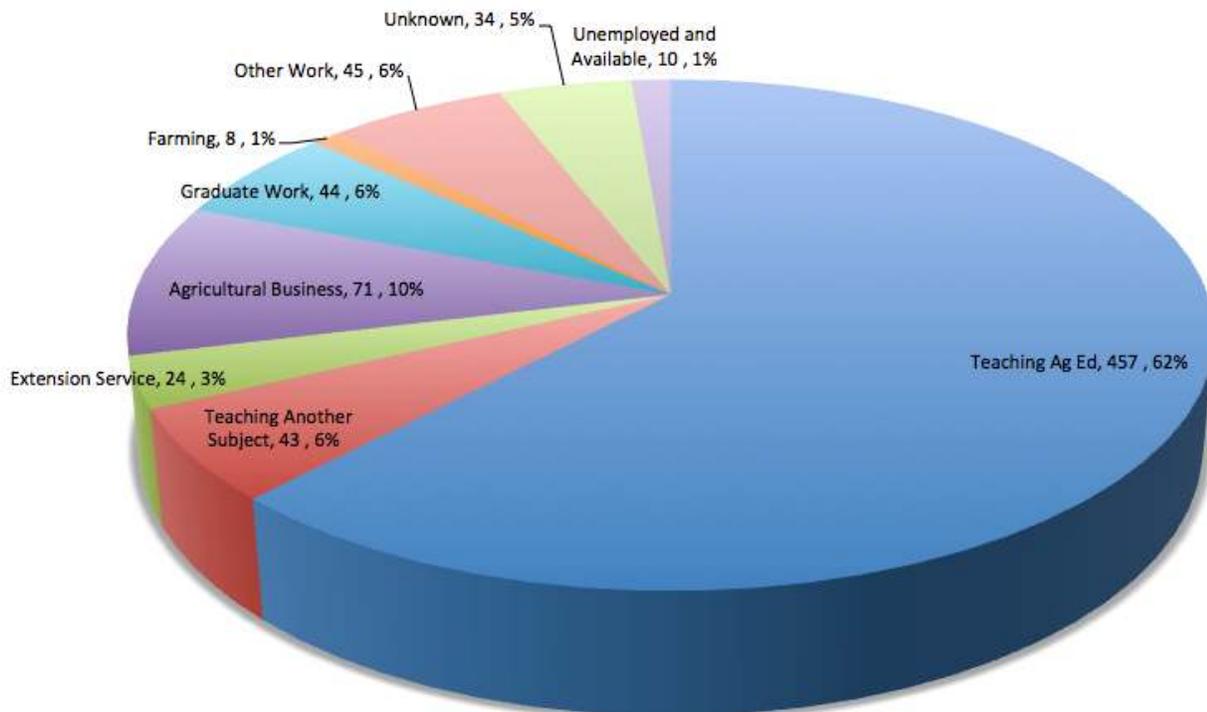


Table 5-A changes focus from teacher education program completers to teaching positions. The data shows that the Southern Region maintains 45% of the teaching positions with the North Central Region containing 38% and the Western Region holding on to approx. 17%. As expected the High School (Only) positions out weigh all other positions with a total of 8,410.5 or 79%. Middle school/junior high school only positions only make-up 1,520 (14%) positions. Full-time adult and/or Young Farmer teachers made up just 92 (0.9%) positions with the Western Region having none. 758 (7%) positions had some adult and/or Young Farmer responsibilities. The data shows that there are 4,468 (42%) single teacher positions, 3,515 (33%) positions are in multi-teacher departments, and 1,817 (17%) positions that are unknown, all of which are in the Southern Region).

**Table 5A.**  
**Types of Secondary Teaching Positions in Agricultural Education on September 1, 2009**

	North Central	Southern	Western	US Total*
<b>TOTAL POSITIONS:</b>				
Teaching high school only	3,044.5	3,675	1,691	8,410.5
Teaching junior high or middle school only	47	378	21	446
Combination high school and jr. high/middle school	743	654	123	1,520
Adult and/or Young Farmer Only	45	47	0	92
Unknown	297	0	0	297
Other	15	0	0	15
Teach at Vocational H.S. or Vocational Center	502	186	128.2	816.2
Some adult and/or Young Farmer responsibilities	231	514	13	758
Teachers teaching in more than one school	61	112	19	192
Single teacher dept.	2,191	1,496	781	4,468
Multi teacher dept.	1,257	1,231	1,027	3,515
Unknown	0	1,817*	0	1,817

\* Subtotals do not equal U.S. Total because of under or Over -reporting by category

Table 5B shows the teaching position numbers by the curriculum program of the teachers' primary program focus. The total number of teaching positions reported was 10,600. In marked contrast to earlier years, production agriculture program positions continue to decrease and presently only makes-up 3% of the programs positions being reported, this is down from the 2001 data with 1231 Production Ag program positions which made up 14.9% of the Agricultural Education Programs. There are 4,581 reported "combination" program positions that represent about 43.2% of the total (a 9% increase from 2006). Agricultural Science Program positions make-up 6.6% or 706 of the total

program positions reported. 1,069 of the program positions are unknown which makes-up 10.1% of the total program positions. There are only 531 Ornamental horticulture programs reported which is 5% of the total program positions, this is down 3% from 2006. Ag products make up .3% of the total and agricultural mechanics program positions continue to decrease from 5% in 2006 to only 3.6% of the total 2009 reported program positions.

**Table 5B**  
**Types of Secondary Teaching Positions in Agricultural Education on September 1, 2009**

	<b>North Central</b>	<b>Southern</b>	<b>Western</b>	<b>U.S. Total</b>	<b>U.S. Total in %</b>
<i>Total Positions</i>	3,984	4,808	1,808	10,600	100%
<i>Program Focus</i>					
Production Agriculture	44	232	95	371	3.5%
Agriscience	124	370	212	706	6.6%
Ornamental Horticulture	221	240	70	531	5.0%
Natural Resources/Environment	92	50	15	157	1.5%
Agricultural Products	11	18	0	29	0.3%
Agricultural Mechanics	83	118	184	385	3.6%
Agricultural Sales & Service	8	48	26	82	0.8%
Combination of Agricultural	2026	2184	371	4581	43.2%
Exploratory & Introductory	16	343	184	543	5.1%
Disadvantaged/Handicap	4	8	0	12	0.1%
Part-Time Agriculture & Other Courses/Programs	14	4	0	18	0.2%
Unknown	1,048	1,193	651	2892	10.1%
Other	230	0	0	230	19.4%

\*Subtotals may not equal U.S. Total because of under or over-reporting by category

### State and Regional Data

#### Programs of Agricultural Education

Tables 6A, 6B, and 6C provides region and state-specific data on Agricultural Education programs, organized by AAAE region. As Shown in Table 5B The Southern Region had the largest number of teaching positions with 4,808 positions followed by the North Central Region with 3,984 leaving the Western Region with the least amount at 1,798 positions. Texas continued its domination of the field with 1,596 teaching positions or 17% of all Agricultural Education teaching positions in the United States of those states reporting. California was second largest with 686 positions. Ohio has the third highest number of positions with 536 positions. Of those reporting Massachusetts had the least number of agricultural education positions with three state-wide. Rhode Island has the next least with only nine positions of those reporting.

Of interest, and not shown in the tables, Texas reporting 1,490 positions in 1995, 1,596 in 2006 and presently with 1,798 positions continues to show steady growth in teacher numbers over the last 15 years.

Tables 6A-C also provides data sorted by program/option for each state. When those positions marked as “Unknown & Under/Over Reporting Difference” or “Other” are removed from the list/population of positions by program the largest curriculum offering by positions is a “Combination of Agricultural Programs/Courses” with 4,581 positions, rather than a dedicated program to any other single agricultural and/ natural and environmental sciences option with “Agriscience” coming in 2<sup>nd</sup> with 706 positions. As follows in rank order is the number of positions dedicated to program(s);

1.	Combination of Agricultural Programs/Courses	4,581	43.2%
2.	*Unknown & Under/Over Reporting Difference	2892	27.3%
3.	Agriscience	706	6.6%
4.	Exploratory and Introduction to Agriculture	543	5.1%
5.	Ornamental Horticulture	531	5.0%
6.	Agricultural Mechanics	385	3.6%
7.	Production Agriculture	371	3.5%
8.	Other	230	2.2%
9.	Natural Resources and/or Environmental Sciences	157	1.5%
10.	Agricultural Sales and Services	82	0.8%
11.	Agricultural Products	29	0.3%
12.	Part-Time Agriculture and Other Programs	18	0.2%
13.	Disadvantaged/Handicapped/Disability Programs	12	0.1%

\*The under-reported difference data was added to the “Unknown” to properly equal total program positions

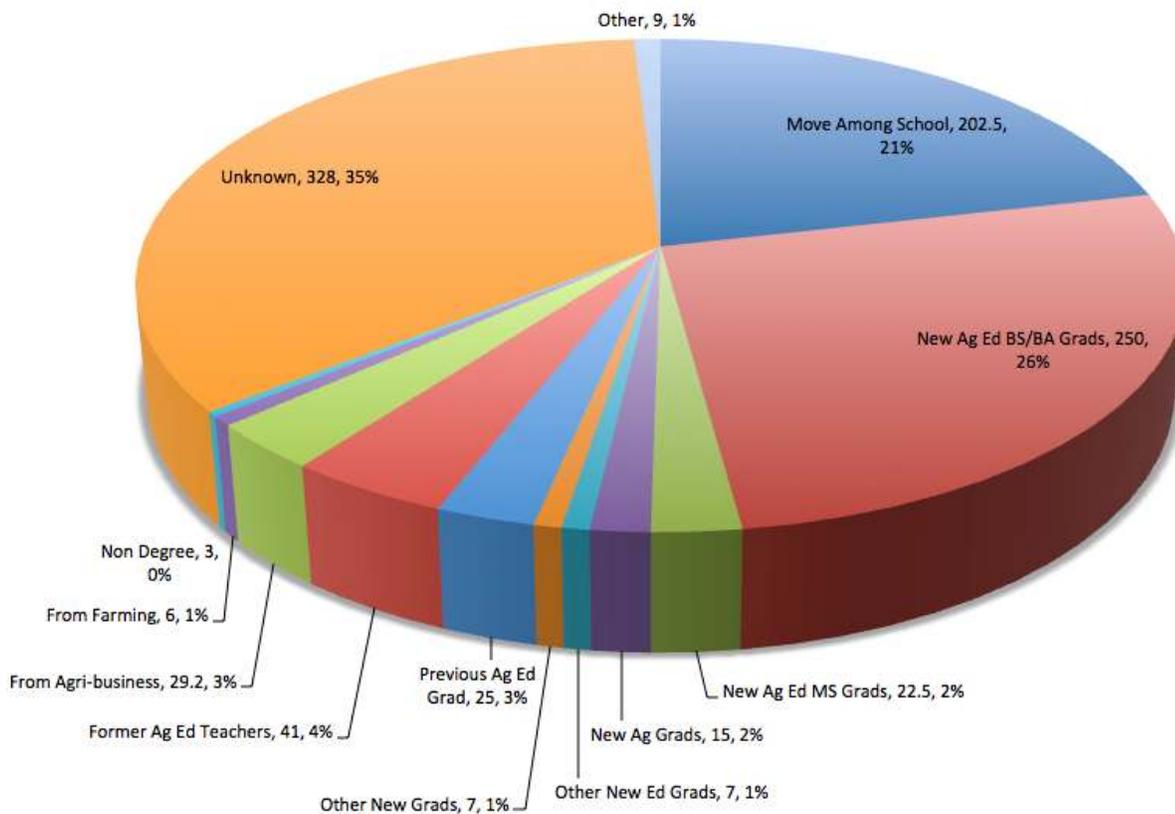
### Sources of New Teachers

Figure 4 shows the Sources of teachers hired in 2009 while Tables 7A-C provides detailed data regarding the sources of the teachers hired in 2009. An estimated total of 831.2 (FTE) teachers had been hired by September 1, 2009. Of those, 202.5 had simply moved from one school to another. The largest number of new hires was in the Southern Region with 410 new hires, the North Central Region is second with 283 new hires and the Western Region had a total of 138.2

Of those reporting Connecticut, Maine, Rhode Island, and Washington had no new hires. Texas had the highest number of new hires with 173. At least five states hired more than 40 new teachers by Sept. 1, 2009.

The contribution to new hires of those that were new master's degree graduates in Agricultural Education was only 22.5. Only 25 previous Agricultural Education graduates entered teaching and 41 former Agricultural Education teachers re-entering the field. Figure 4 illustrates the relative importance of the various sources of new hires for Agricultural Education in 2009. When you remove the “Unknown” (made up 35%, 328 FTE) category from the total the largest group of new hires came from “New Ag Ed BS/BA Graduates” (26%, 250 FTE) with “Those Moving Among Schools” (21%, 202.5 FTE).

**Figure 4.**  
**Sources of New Hires for Agricultural Education Positions in the United States, 2009**



**Teacher Education Completers and Placements**

An examination of Tables 8A-C represent the numbers and job placements of newly qualified graduates and other potential teachers, by region and by institution. As reported in Table 3, a total of 649 newly qualified potential Agricultural Education teachers were educated from all sources that responded in 2009 which is down 136 from the previous study. From those institutions that reported, the Southern Region produced the highest amount of newly qualified teachers with 341 down 63 from the previous study. The state of Texas again produced the highest number of completers with 144 that is 42% of the graduates within the Southern Region and just over 22% of the national total completers. The North Central Region produced 190 newly qualified Teachers (down from 257 from the previous study). The Ohio State University produced the most with only

18 newly qualified graduates (down from the 34 produced from the previous study). Purdue University came in a close second with 17 with Iowa State University and the University of Minnesota system tying for 3<sup>rd</sup> with 14 each. The Western Region produced the least amount of graduates with only 118 newly qualified teachers (down 6 graduates from the previous study). Oklahoma State University produced the largest number of graduates with 25 and California Poly – San Luis Obispo producing the 2<sup>nd</sup> highest number of graduates with 19 for the Western Region.

### **Program Structure**

Tables 9A-B provide data by state and region of the program structure of Agricultural Education in the United States in 2009. Clearly the dominant pattern for program level remains that of the high school maintaining 8,411 positions (down slightly from 8,451) of those states and territories reporting. In 23 of the states of those reporting there are no junior high or middle school programs. Of those states reporting there are only 92 Adult/Young Farmer programs while 758 teachers are reported to have at least some Adult/Young Farmer responsibilities (down from 860). Nationwide there are 4,468 positions in single teacher departments (down from 5,745) and 3,515 positions in multiple teacher departments (down from 4,600.5). There are 192 teachers assigned to multiple schools (up from 113) and 1,520 teachers with responsibilities for both high school and junior high/middle school programs (up from 1,224.5).

### **Race/Ethnicity and Gender of Newly Qualified Potential Teachers**

Tables 10A-C show the race/ethnicity and gender of newly qualified potential teachers of Agricultural Education by region and by institution. Data on race/ethnicity and gender of newly qualified teachers have only been collected since 1994 and is still a challenge to collect. Many programs do not collect or track this information. Over reporting has occurred in these datum. Females represented the majority of newly qualified agricultural teachers with 394 and males making up 338. White, non-Hispanic males totaled 324 and females 381. There were no male or female potential teachers of Asian or Pacific Island descent, four individuals of Native American / Alaskan descent that were newly qualified (two males and two females). A total of seven African-Americans, three male and four females (which is again down from the previous study) that are considered newly qualified, and again 15 Hispanic (nine male and six female) that were prepared nationally in 2009.

### **Race/Ethnicity and Gender of Teachers of Agricultural Education**

Tables 11A-C show the race/ethnicity and gender of active teachers of Agricultural Education by region and by state. The 1998 study was the first time this data had been reported on gender and race/ethnicity for practicing teachers. This data also continues to be a challenge to collect. Many states do not track this information by program therefore this datum may be underreported when compared to the U.S. total of agricultural education teaching positions that have been reported. For the teachers reported by gender, males continue to substantially outnumber females by over a 2:1 ratio with 4,611 males (54%) and 1,860 females (22%) and 1,902 (23%) that regardless of race/ethnicity the gender is unknown. White, non-Hispanic teachers represented 68% of all teachers reported with unknown ethnicity second with 28% or 2,349 teachers. African American teacher's make-up 1.5% or 133 teachers while there are 107 (1.2%) Hispanic teachers. Native

American/Native Alaskan and Asian/Pacific Islanders only number 42 (up 20 from the previous study) or 0.50% of the Agricultural teachers nationwide.

### **Faculty Numbers and Affiliation**

We saw a steady increase in Assistant, Associate and Full Professor faculty at the post-secondary level that have at least a portion of their duties associated with teacher education from 1998 through 2006. In 1998 155 positions were reported while in 2006 167.45 FTE were reported. In 2009 there are only 143.4 positions from those institutions that had reported. This is a decrease of about 24 FTE's. College of agriculture affiliations for faculty and the degrees granted through remained the dominant location. Approximately 75% of the degrees granted for newly qualified agricultural teachers are housed in colleges of agriculture with just over 15% in colleges of education and 10% in other colleges. Colleges of agriculture continue to house the majority of faculty that have at least a portion of their time designated to agricultural education teacher preparation. A total of 77% or 110.4 FTE's of agricultural education teacher prep program faculty are housed in colleges of agriculture with 13% (18.6) being housed in colleges of education and 10% (14.3) being housed in other colleges. A number of responses were received to what those "other" colleges were. Some are very similar to colleges of agriculture while others are considered departments of agriculture within other colleges.

Other Colleges that grant undergraduate degree or house faculty include:

- College of Applied Arts
- College of Applied Arts and Sciences
- College of Science and Technology
- College of Business and Technology
- College of Applied Science and Technology

**Table 6A – North Central Region  
Programs of Agricultural Education and Their Primary Focus by State and Region on September 1, 2009**

State	Total Positions	Production Ag	Agriscience	Ornamental Horticulture	Natural Resources & Environment	Ag. Products	Ag. Mechanics	Ag. Sales & Service	Combination of Ag courses	Exploratory / Intro Ag.	Disadvantaged / Handicapped	Part time ag & other Program	Unknown	Other
CT	104	17	18	7	5	0	11	0	18	0	0	0	24	0
DE	63	0	0	16	3	0	11	0	9	8	2	0	13	1
IL	399	0	0	0	0	0	0	0	399	0	0	0	0	0
IN	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IA	240	0	0	0	0	0	0	0	240	0	0	0	0	0
KS	194	0	0	0	0	0	0	0	194	0	0	0	0	0
ME	41	2	5	5	12	7	1	0	5	0	0	4	0	0
MD	68.5	0	0	11	2	0	2	0	42.5	0	1	10	0	0
MA	3	0	0	3	0	0	0	0	0	0	0	0	0	0
MI	115	0	83	15	17	0	0	0	0	0	0	0	0	0
MN	221	0	0	0	0	0	0	0	0	0	0	0	0	221
MO	482	0	0	25	0	2	15	0	440	0	0	0	0	0
NE	142	0	1	0	0	0	1	0	140	0	0	0	0	0
NH	35	0	1	14	5	0	2	0	3	2	0	0	0	8
NJ	58	0	8	34	7	0	1	8	0	0	0	0	0	0
NY	193	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	86	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OH	536	25	0	83	26	0	36	0	366	0	0	0	0	0
PA	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RI	9	0	8	6	0	0	0	0	0	0	0	0	0	0
SD	80	0	0	0	0	0	0	0	80	0	0	0	0	0
VT	26.5	0	0	0	12	0	0	0	12.5	2	0	0	0	0
WV	91	0	0	2	3	2	3	0	76	4	1	0	0	0
WI	297	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	297	NA
<b>Regional Total</b>	<b>3,984</b>	<b>44</b>	<b>124</b>	<b>221</b>	<b>92</b>	<b>11</b>	<b>83</b>	<b>8</b>	<b>2,025</b>	<b>16</b>	<b>4</b>	<b>14</b>	<b>334</b>	<b>230</b>
<b>U.S. Total</b>	<b>10,600</b>	<b>371</b>	<b>706</b>	<b>531</b>	<b>157</b>	<b>29</b>	<b>385</b>	<b>82</b>	<b>4,580</b>	<b>543</b>	<b>12</b>	<b>18</b>	<b>1,069</b>	<b>230</b>

**Table 6B – Southern Region  
Programs of Agricultural Education and Their Primary Focus by State and Region on September 1, 2009 – Southern Region**

State	Total Positions	Production Ag	Agriscience	Ornamental Horticulture	Natural Resources & Environment	Ag. Products	Ag. Mechanics	Ag. Sales & Service	Combination of Ag courses	Exploratory /Intro Ag.	Disadvantaged /Handicapped	Part time ag & other Program	Unknown	Other
AL								No Response						
AR	282	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FL	413	52	142	67	0	0	8	8	0	141	0	0	0	0
GA	445	0	75	12	0	0	22	0	266	70	0	0	0	0
KY	250	70	3	50	15	0	20	15	67	10	0	0	0	0
LA	203	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MS	146	51	60	6	8	2	8	0	0	0	0	4	7	0
NC	396	0	7	34	0	0	25	0	132	43	3	0	152	0
OK	437	0	0	0	0	0	0	0	0	0	0	0	477	0
PR								No Response						
SC	120	3	52	23	0	16	0	7	0	0	0	0	0	0
TN								No Response						
TX	1798	0	0	0	0	0	0	0	1700	0	0	0	98	0
VA	318	56	31	48	27	0	35	18	19	79	5	0	0	0
VI								No Response						
<b>Regional Total</b>	<b>4,808</b>	<b>232</b>	<b>370</b>	<b>240</b>	<b>50</b>	<b>18</b>	<b>118</b>	<b>48</b>	<b>2,184</b>	<b>343</b>	<b>8</b>	<b>4</b>	<b>734</b>	<b>0</b>
<b>U.S. Region</b>	<b>10,600</b>	<b>371</b>	<b>706</b>	<b>531</b>	<b>157</b>	<b>29</b>	<b>385</b>	<b>82</b>	<b>4,580</b>	<b>543</b>	<b>12</b>	<b>18</b>	<b>1,069</b>	<b>230</b>

\* PR – Puerto Rico; VI – U.S. Virgin Islands

Table 6C – Western Region

**Programs of Agricultural Education and Their Primary Focus by State and Region on September 1, 2006 – Western Region**

State	Total Positions	Production Ag	Agriscience	Ornamental Horticulture	Natural Resources & Environment	Ag. Products	Ag. Mechanics	Ag. Sales & Service	Combination of Ag courses	Exploratory /Intro Ag.	Disadvantaged /Handicapped	Part time ag & other Program	Unknown	Other
AK								No Response						
AZ	93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CA	686	81	175	55	10	0	163	26	0	176	0	0	0	0
CO	118	0	2	4	2	0	0	0	109	1	0	0	0	0
Guam								No Response						
HI								No Response						
ID	112	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MT	86	0	0	0	0	0	0	0	86	0	0	0	0	0
NV	25	0	20	0	0	0	4	0	0	0	0	0	1	0
NM	90	14	3	8	1	0	11	0	46	7	0	0	0	0
OR	121	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
UT	103	0	2	3	2	0	5	0	91	0	0	0	0	0
WA	324		0	0	0	0	0	0	0	0	0	0	0	0
WY	50	0	10	0	0	0	1	0	39	0	0	0	0	0
<b>Regional Total</b>	<b>1,808</b>	<b>95</b>	<b>212</b>	<b>70</b>	<b>15</b>	<b>0</b>	<b>184</b>	<b>26</b>	<b>371</b>	<b>184</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>
<b>U.S. Total</b>	<b>10,600</b>	<b>371</b>	<b>706</b>	<b>531</b>	<b>157</b>	<b>29</b>	<b>385</b>	<b>82</b>	<b>4,580</b>	<b>543</b>	<b>12</b>	<b>18</b>	<b>1,069</b>	<b>230</b>

**Table 7A – North Central Region  
Sources of Agricultural Education Teachers Hired for Beginning of School Year 2009, by State and Region**

State	Total Teachers Hired	Move Among School	New Ag Ed BS/BA Grads	New Ag Ed MS Grads	New Ag Grads	Other New Ed Grads	Other New Grads	Previous Ag Ed Grad	Former Ag Ed Teachers	From Agri-business	From Farming	Non Degree	Unknown	Other
CT	0	0	0	0	0	0	0	0	0	0	0	0	104	0
DE	8	2	3	0	0	0	0	1	1	0	0	0	0	1
IL	36	9	25	0	0	0	0	0	0	0	0	0	2	0
IN	23	4	10	0	0	0	0	2	2	1	0	0	4	0
IA	18	9	6	UK	0	0	0	0	1	1	1	0	0	0
KS	14	4	10	0	0	0	0	0	0	0	0	0	0	0
ME	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	6	4	1	0	0	0	0	0	1	0	0	0	0	0
MA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MI	1	0	0	0	1	0	0	0	0	0	0	0	0	0
MN	18	5	8	0	0	0	0	0	4	0	0	1	0	0
MO	49	6	23	0	0	0	0	2	6	5	0	0	0	7
NE	15	6	5	0	0	1	0	0	1	1	1	0	0	0
NH	3	0	1	0	0	1	0	0	1	0	0	0	0	0
NJ	6	0	1	0	1	0	0	1	1	2	0	0	0	0
NY	5	0	0	3	0	0	2	0	0	0	0	0	0	0
ND	14	3	7	0	0	0	0	1	3	0	0	0	0	0
OH	24	8	13	0	0	0	0	0	1	2	0	0	0	0
PA	12	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RI	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SD	5	2	0	0	1	0	0	0	1	0	1	0	0	0
VT	3	1	0	0	0	0	2	0	0	0	0	0	0	0
WV	7	2	4	0	0	0	0	1	0	0	0	0	0	0
WI	16	0	0	0	0	0	0	0	0	0	0	0	16	0
<b>Regional Total</b>	<b>283</b>	<b>69</b>	<b>117</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>4</b>	<b>8</b>	<b>23</b>	<b>12</b>	<b>3</b>	<b>1</b>	<b>126</b>	<b>8</b>
<b>U.S. Total</b>	<b>831.2</b>	<b>202.5</b>	<b>250</b>	<b>22.5</b>	<b>15</b>	<b>7</b>	<b>7</b>	<b>25</b>	<b>41</b>	<b>29.2</b>	<b>6</b>	<b>3</b>	<b>328</b>	<b>9</b>

\* UK - Unknown

**Table 7B – Southern Region**  
**Sources of Agricultural Education Teachers Hired for Beginning of School Year 2009, by State and Region**

State	Total Teachers Hired	Move Among School	New Ag Ed BS/BA Grads	New Ag Ed MS Grads	New Ag Grads	Other New Ed Grads	Other New Grads	Previous Ag Ed Grad	Former Ag Ed Teachers	From Agri-business	From Farming	Non Degree	Unknown	Other
AL								No Response						
AR	23	9	5	0	0	0	0	0	4	2	0	0	3	0
FL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GA	17	0	10	3	0	0	0	0	0	2	0	1	0	1
KY	24	4	11	2	0	0	0	5	2	0	0	0	0	0
LA	16	0	0	0	0	0	0	0	0	0	0	0	16	0
MS	15	6	0	0	3	0	0	0	0	0	0	1	5	0
NC	54	27	11	0	3	2	0	2	3	4	0	0	2	0
OK	49	17	31	0	0	0	0	0	1	0	0	0	0	0
PR								No Response						
SC	21	8	4	2	0	0	0	2	2	3	0	0	0	0
TN								No Response						
TX	173	0	0	0	0	0	0	0	0	0	0	0	173	0
VA	18	6	0	7	2	0	0	3	0	0	0	0	0	0
VI								No Response						
<b>Regional Total</b>	<b>410</b>	<b>77</b>	<b>72</b>	<b>14</b>	<b>8</b>	<b>2</b>	<b>0</b>	<b>12</b>	<b>12</b>	<b>11</b>	<b>0</b>	<b>2</b>	<b>199</b>	<b>1</b>
<b>U.S. Total</b>	<b>831.2</b>	<b>202.5</b>	<b>250</b>	<b>22.5</b>	<b>15</b>	<b>7</b>	<b>7</b>	<b>25</b>	<b>41</b>	<b>29.2</b>	<b>6</b>	<b>3</b>	<b>328</b>	<b>9</b>

**Table 7C – Western Region  
Sources of Agricultural Education Teachers Hired for Beginning of School Year 2009, by State and Region**

State	Total Teachers Hired	Move Among School	New Ag Ed BS/BA Grads	New Ag Ed MS Grads	New Ag Grads	Other New Ed Grads	Other New Grads	Previous Ag Ed Grad	Former Ag Ed Teachers	From Agri-business	From Farming	Non Degree	Unknown	Other
AK								No Response						
AZ	6	2	0	2	0	0	0	0	0	1	1	0	0	0
CA	66	30	34	0	0	0	0	0	0	0	0	0	2	0
CO	16	3	7	0	1	1	0	0	2	1	1	0	0	0
Guam								No Response						
HI								No Response						
ID	5.2	1.5	2	0.5	0	0	0	0	1	0.2	0	0	0	0
MT	13	1	3	0	0	0	0	2	2	4	1	0	0	0
NV	1	0	1	0	1	1	0	0	0	0	0	0	0	0
NM	10	4	3	0	0	0	2	0	0	0	0	0	1	0
OR	7	2	0	3	0	0	1	0	1	0	0	0	0	0
UT	8	4	1	0	2	1	0	0	0	0	0	0	0	0
WA	0	9	6	0	0	0	0	1	0	0	0	0	0	0
WY	6	0	4	0	0	0	0	2	0	0	0	0	0	0
<b>Regional Total</b>	138.2	56.5	61	5.5	4	3	3	5	6	6.2	3	0	3	0
<b>U.S. Total</b>	831.2	202.5	250	22.5	15	7	7	25	41	29.2	6	3	328	9

**Table 8A – North Central Region  
Newly Qualified Teachers of Agricultural Education for the 2009-Year and Their Job Placement as of September 1, 2009**

State	Institution	Newly Qualified	Teaching in State	Teaching in a Different State	Teaching Another Subject	Working in Agribusiness	Working in Extension	Farm	Graduate	Other work	Unemployed	Unknown
CT	University of Connecticut	4	1		1		1			1		
DE	Delaware State University	0										
DE	University of Delaware	6	2	1						1	2	
IA	Iowa State University	14	7	0	0	1	0	0	1	2	1	2
IL	Illinois State University	4	2									2
IL	Southern Illinois University	11	5	0	0	6	0	0	0	0	0	0
IL	University of Illinois	7	4	0	1	1	0	0	0	1	0	0
IL	Western Illinois University	5	3			1						1
IN	Purdue University	17	8	0	2	3	0	0	2	2	0	0
KS	Kansas State University	10	26			1			1			
MD	University of Maryland	0	0	0	0	0	0	0	0	0	0	0
MI	Michigan State University	3	1		1					1		
MN	University of Minnesota	14	7	3	0	2	0	1	1	0	0	0
MO	Northwest Missouri State University	10	4	3	1	0	0	0	2	0	0	0
MO	University of Missouri	17	8	0	2	0	0	0	0	0	0	0
ND	North Dakota State University	4	3							1		
NE	University of Nebraska - Lincoln	9	5	0	1	1	0	1	1			
NJ	Rutgers University	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NY	Cornell University	8	2	3	0	3	1	0	0	0	0	0
NY	SUNY Oswego	1										1
OH	The Ohio State University	18	6	3	0	3	0	0	2	4		
PA	Penn State University	12	8	0	0	2	0	1	1	0	0	0
SD	South Dakota State University	10	1	1		8						
WV	West Virginia University	6	2	1					2			1
	<b>Regional Total</b>	190	105	15	9	32	2	3	13	13	3	7
	<b>U.S. Total</b>	649	418	39	43	71	24	8	44	45	10	34

**Table 8B - Southern Region**

**Newly Qualified Teachers of Agricultural Education for the 2009-Year and Their Job Placement as of September 1, 2009**

State	Institution	Newly Qualified	Teaching in State	Teaching in a Different State	Teaching Another Subject	Working in Agribusiness	Working in Extension	Farm	Graduate	Other work	Un-employed	Un-known
AL	Auburn University	10	10									
AR	Arkansas State University	5	3	0	0	0	0	0	0	2	0	0
AR	Southern Arkansas University	8	3	1	1	1	0	0	2	0	0	0
AR	University of Arkansas	8	3	1	0	0	1	0	3	0	0	0
GA	Fort Valley State University	2	1		1							
GA	University of Georgia - Tifton	14	14	0	0	0	0	0	0	0	0	0
GA	University of Georgia - Athens	16	15	0	0	0	1	0	0	0	0	0
KY	Eastern Kentucky University	9	7	1			1					
KY	Morehead State University	4	1	0	1	0	0	0	0	1	0	1
KY	Murray State University (KY)	13	9	2								2
KY	University of Kentucky	6	3	1	0	0	1	0	0	0	0	1
KY	Western Kentucky University	13	10	1	1	1	0	0	0	0	0	
LA	Louisiana State University	6	5	0	1	0	0	0	0	0	0	0
MS	Mississippi State	2	1	1	0	0	0	0	0	0	0	0
NC	NC A&T State University	5	7	0	0	5	3	0	0	10	0	0
NC	North Carolina State University	27	18		1	1			4	1		2
SC	Clemson University	14	3	3	2	3	3	0	1	0	0	0
TN	Middle Tennessee State University	10	6	1	1	1			1			
TN	Tennessee State University	0	0	0	0	0	0	0	0	0	0	0
TN	University of Tennessee Martin	3	3									
TN	University of Tennessee, Knoxville	10	18	0	2	2	4	0	2	0	0	0
TX	Sam Houston State University	29	16	0	2	1	0	1	2	0	0	7
TX	Tarleton State University	19	15						4			
TX	Texas A&M University	32	16	1	5	5			2	2		1
TX	Texas A&M University-Commerce	7	6	0	0	0	1	0	0	0	0	0
TX	Texas A&M University-Kingsville	8	2		2	4						
TX	Texas State University	7	5			1	1					
TX	Texas Tech University	19	6	1	2	3		1	3	3		
TX	West Texas A&M UNiversity	14	5	0	1	2	2	1	3	0	0	0
TX	Unknown	9	3						1			5
VA	Virginia Tech	12	4	3	2	1	1	0	0	0	0	1
	<b>Regional Total</b>	<b>341</b>	<b>218</b>	<b>17</b>	<b>25</b>	<b>31</b>	<b>19</b>	<b>3</b>	<b>28</b>	<b>19</b>	<b>0</b>	<b>20</b>
	<b>U.S. Total</b>	<b>649</b>	<b>418</b>	<b>39</b>	<b>43</b>	<b>71</b>	<b>24</b>	<b>8</b>	<b>44</b>	<b>45</b>	<b>10</b>	<b>34</b>

**Table 8C - Western Region**

**Newly Qualified Teachers of Agricultural Education for the 2009-Year and Their Job Placement as of September 1, 2009**

State	Institution	Newly Qualified	Teaching in State	Teaching in a Different State	Teaching Another Subject	Working in Agribusiness	Working in Extension	Farm	Graduate	Other work	Un-employed	Un-known
AZ	University of Arizona	7	3				1		1		1	2
CA	Cal Poly- San Luis Obispo	19	13		1	1				3		1
CA	Cal Poly, Pomona	1	1	0	0	0	0	0	0	0	0	0
CA	California State University, Fresno	9	4			2					3	
CA	California State University, Chico	6	4	0	0	0	0	1	0	0	1	0
CA	UC Davis	5	13		1		1					
CO	Colorado State University											
ID	University of Idaho	7	2	2	1	1				1		
MT	Montana State University-Bozeman	6	3	0	0	2	0	0	0	1	0	0
NM	New Mexico State University	8	2	1	0	0	0	0	1	0	2	2
NV	University of Nevada, Reno	0										
OK	Oklahoma Panhandle State University	3	2	0	0	0	0	0	0	0	0	0
OK	Oklahoma State University	25	18	2	1	1		1		2		
OR	Oregon State University	5	3		2							
UT	Utah State University	5	18	2	3	1	1	0	0	4	0	2
WA	Washington State University	8	7							1		
WY	Univ of Wy	4	2						1	1		
	<b>Regional Total</b>	118	95	7	9	8	3	2	3	13	7	7
	<b>U.S. Total</b>	649	418	39	43	71	24	8	44	45	10	34

**Table 9A - North Central Region  
Types of Secondary Teaching Positions (FTE) in Agricultural Education on September 1, 2009**

State	High School	Jr. High/Middle School Only	High/Jr. High/Middle Combined	Adult/Young Farmer	Unknown	Other	Teach Voc. HS/Centers	Adult Responsibility	Teach 2 or more schools	Teachers in single dept.	Teachers in Multiple dept	Unknown
Connecticut	104	0	0	0	0	0	104	0	0	0	104	0
Delaware	54	7	2	0	0	0	3	0	1	11	52	0
Illinois	399	0	71	0	0	0	4	29	17	327	72	0
Indiana	224	3	23	0	0	0	5	0	3	173	77	0
Iowa	241	0	0	0	0	0	0	0	8	221	19	0
Kansas	0	0	194	0	0	0	0	0	0	148	46	0
Maine	38	0	3	0	0	0	17	0	1	25	16	0
Maryland	66.5	2	0	0	0	0	16	0	0	28	40.5	0
Massachusetts	3	0	0	0	0	0	3	0	0	3	0	0
Michigan	115	0	0	0	0	0	24	0	1	104	11	0
Minnesota	221	0	0	0	0	0	7	0	5	154	67	0
Missouri	449	0	140	20	0	15	85	130	0	203	279	0
Nebraska	0	0	142	0	0	0	0	1	9	135	7	0
New Hampshire	35	0	0	0	0	0	22	2	0	7	28	0
New Jersey	55	1	2	0	0	0	26	0	0	30	28	0
New York	100	15	78	0	0	0	70	0	10	65	128	0
North Dakota	30	3	53	0	0	0	4	0	0	68	18	0
Ohio	511	0	0	25	0	0	NA	NA	NA	NA	NA	NA
Pennsylvania	240	10	0	0	0	0	75	50	0	100	150	0
Rhode Island	8	1	0	0	0	0	0	NA	0	1	8	0
South Dakota	49	0	31	0	0	0	1	0	1	77	3	0
Vermont	20	0	0	0	0	0	21	4	0	6	20.5	0
West Virginia	82	5	4	0	0	0	15	15	5	45	46	0
Wisconsin	0	0	0	0	297	0	UK	UK	UK	260	37	0
<b>Regional Total</b>	<b>3,045</b>	<b>47</b>	<b>743</b>	<b>45</b>	<b>297</b>	<b>15</b>	<b>502</b>	<b>231</b>	<b>61</b>	<b>2,191</b>	<b>1,257</b>	<b>0</b>
<b>U.S. Total</b>	<b>8,411</b>	<b>446</b>	<b>1,520</b>	<b>92</b>	<b>297</b>	<b>15</b>	<b>816</b>	<b>758</b>	<b>192</b>	<b>4,468</b>	<b>3,515</b>	<b>1,817</b>

**Table 9B - Southern Region; Types of Secondary Teaching Positions (FTE) in Ag. Education on Sept 1, 2009**

State	High School	Jr. High/Middle School Only	High/Jr. High/Middle Combined	Adult/Young Farmer	Unknown	Other	Teach Voc. HS/Centers	Adult Responsibility	Teach 2 or more schools	Teachers in single dept.	Teachers in Multiple dept	Unknown
Alabama						No Response						
Arkansas	270	7	0	0	0	0	5	0	0	170	112	0
Florida	188	141	88	1	0	0	0	1	4	263	155	0
Georgia	326	70	4	45	0	0	9	445	4	298	147	0
Kentucky	243	7	0	0	0	0	2	10	0	60	190	0
Louisiana	136	10	52	0	0	0	7	0	5	NA	NA	NA
Mississippi	93	0	0	0	0	0	53	15	0	98	48	0
North Carolina	352	41	3	0	0	0	4	0	8	186	210	0
Oklahoma	0	0	437	0	0	0	0	0	0	288	149	0
Puerto Rico						No Response						
South Carolina	121	3	0	0	0	0	98	1	85	35	0	19
Tennessee						No Response						
Texas	1708	20	70	0	0	0	NA	NA	NA	0	0	1798
Virginia	238	79	0	1	0	0	8	42	6	98	220	0
Virgin Islands						No Response						
<b>Regional Total</b>	<b>3,675</b>	<b>378</b>	<b>654</b>	<b>47</b>	<b>0</b>	<b>0</b>	<b>186</b>	<b>514</b>	<b>112</b>	<b>1,496</b>	<b>1,231</b>	<b>1,817</b>
<b>U.S. Total</b>	<b>8,411</b>	<b>446</b>	<b>1,520</b>	<b>92</b>	<b>297</b>	<b>15</b>	<b>816</b>	<b>758</b>	<b>192</b>	<b>4,468</b>	<b>3,515</b>	<b>1,817</b>

**Table 9C Western Region; Types of Secondary Teaching Positions (FTE) in Ag. Education on Sept 1, 2009**

State	High School	Jr. High/Middle School Only	High/Jr. High/Middle Combined	Adult/Young Farmer	Unknown	Other	Teach Voc. HS/Centers	Adult Responsibility	Teach 2 or more schools	Teachers in single dept.	Teachers in Multiple dept	Unknown
Alaska						No Response						
Arizona	94	0	0	0	0	0	94	0	0	71	23	0
California	678	8	0	0	0	0	3	0	6	92	594	0
Colorado	117	0	1	0	0	0	9	13	0	79	39	0
Guam						No Response						
Hawaii						No Response						
Idaho	128	1	15	0	0	0	8.2	0	1	68	44	0
Montana	6	0	80	0	0	0	0	0	2	75	11	0
Nevada	25	0	0	0	0	0	1	0	0	14	11	0
New Mexico	84	6	0	0	0	0	1	0	5	61	29	0
Oregon	120	0	1	0	0	0	2	0	0	36	85	0
Utah	89	3	6	0	0	0	5	0	2	58	45	0
Washington	300	3	20	0	0	0	5	0	0	181	142	0
Wyoming	50	0	0	0	0	0	0	0	3	46	4	0
<b>Regional Total</b>	1,691	21	123	0	0	0	128	13	19	781	1,027	0
<b>U.S. Total</b>	8,411	446	1,520	92	297	15	816	758	192	4,468	3,515	1,817

**Table 10A - North Central Region  
Gender and Race/Ethnicity of Newly Qualified Potential Teachers of Ag. Ed on Sept. 1, 2009**

State	Institution	Newly Qualified	African American		Caucasian		Hispanic		Native American /		Asian / Pacific		Unknown or Other	
			M	F	M	F	M	F	M	F	M	F	M	F
CT	University of Connecticut	4	0	0	1	3	0	0	0	0	0	0	0	0
DE	Delaware State University	0	0	0	0	0	0	0	0	0	0	0	0	0
DE	University of Delaware	6	0	0	2	4	0	0	0	0	0	0	0	0
IA	Iowa State University	14	0	0	6	8	0	0	0	0	0	0	0	0
IL	Illinois State University	4	0	0	2	2	0	0	0	0	0	0	0	0
IL	Southern Illinois University	11	0	0	5	6	0	0	0	0	0	0	0	0
IL	University of Illinois	7	0	0	3	4	0	0	0	0	0	0	0	0
IL	Western Illinois University	5	0	0	1	4	0	0	0	0	0	0	0	0
IN	Purdue University	17	0	0	7	10	0	0	0	0	0	0	0	0
KS	Kansas State University	10	0	0	18	10	0	0	0	0	0	0	0	0
MD	University of Maryland	0	0	0	0	0	0	0	0	0	0	0	0	0
MI	Michigan State University	3	0	0	1	2	0	0	0	0	0	0	0	0
MN	University of Minnesota	14	0	0	7	6	0	0	0	0	0	0	0	1
MO	Northwest Missouri State University	10	0	0	2	8	0	0	0	0	0	0	0	0
MO	University of Missouri	17	0	0	2	8	0	0	0	0	0	0	0	0
ND	North Dakota State University	4	0	0	1	3	0	0	0	0	0	0	0	0
NE	University of Nebraska - Lincoln	9	0	0	6	3	0	0	0	0	0	0	0	0
NJ	Rutgers University	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NY	Cornell University	8	0	0	0	8	0	0	0	0	0	0	0	0
NY	SUNY Oswego	1	0	0	1	0	0	0	0	0	0	0	0	0
OH	The Ohio State University	18	0	0	4	14	0	0	0	0	0	0	0	0
PA	Penn State University	12	0	1	4	7	0	0	0	0	0	0	0	0
SD	South Dakota State University	10	0	0	3	7	0	0	0	0	0	0	0	0
WV	West Virginia University	6	0	0	3	3	0	0	0	0	0	0	0	0
<b>Regional Total</b>		<b>190</b>	<b>0</b>	<b>1</b>	<b>79</b>	<b>120</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>U.S. Total</b>		<b>649</b>	<b>3</b>	<b>4</b>	<b>324</b>	<b>381</b>	<b>9</b>	<b>6</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>

**Table 10B – Southern Region. Gender and Race/Ethnicity of Newly Qualified Potential Teachers of Ag. Ed on Sept. 1, 2009**

State	Institution	Newly Qualified	African American		Caucasian		Hispanic		Native American /		Asian / Pacific		Unknown or Other	
			M	F	M	F	M	F	M	F	M	F	M	F
AL	Auburn University	10	0	0	10	0	0	0	0	0	0	0	0	0
AR	Arkansas State University	5	0	0	4	1	0	0	0	0	0	0	0	0
AR	Southern Arkansas University	8	0	0	6	2	0	0	0	0	0	0	0	0
AR	University of Arkansas	8	0	0	5	2	0	0	0	1	0	0	0	0
GA	Fort Valley State University	2	0	0	1	1	0	0	0	0	0	0	0	0
GA	University of Georgia - Tifton	14	0	0	11	3	0	0	0	0	0	0	0	0
GA	University of Georgia - Athens	16	0	0	6	10	0	0	0	0	0	0	0	0
KY	Eastern Kentucky University	9	0	0	4	5	0	0	0	0	0	0	0	0
KY	Morehead State University	4	0	0	2	2	0	0	0	0	0	0	0	0
KY	Murray State University (KY)	13	0	0	6	7	0	0	0	0	0	0	0	0
KY	University of Kentucky	6	0	0	4	2	0	0	0	0	0	0	0	0
KY	Western Kentucky University	13	0	0	7	6	0	0	0	0	0	0	0	0
LA	Louisiana State University	6	0	0	4	2	0	0	0	0	0	0	0	0
MS	Mississippi State	2	0	0	1	1	0	0	0	0	0	0	0	0
NC	NC A&T State University	5	2	2	8	11	0	0	0	0	0	0	0	0
NC	North Carolina State University	27	0	0	13	14	0	0	0	0	0	0	0	0
SC	Clemson University	14	1	0	3	10	0	0	0	0	0	0	0	0
TN	Middle Tennessee State University	10	0	0	10	0	0	0	0	0	0	0	0	0
TN	Tennessee State University	0	0	0	0	0	0	0	0	0	0	0	0	0
TN	University of Tennessee Martin	3	0	0	3	0	0	0	0	0	0	0	0	0
TN	University of Tennessee, Knoxville	10	0	0	12	16	0	0	0	0	0	0	0	0
TX	Sam Houston State University	29	0	0	10	18	1	0	0	0	0	0	0	0
TX	Tarleton State University	19	0	0	8	11	0	0	0	0	0	0	0	0
TX	Texas A&M University	32	0	0	11	19	2	0	0	0	0	0	0	0
TX	Texas A&M University-Commerce	7	0	0	3	4	0	0	0	0	0	0	0	0
TX	Texas A&M University-Kingsville	8	0	0	3	1	2	2	0	0	0	0	0	0
TX	Texas State University	7	0	0	3	3	1	0	0	0	0	0	0	0
TX	Texas Tech University	19	0	0	11	7	0	0	1	0	0	0	0	0
TX	West Texas A&M University	14	0	0	10	4	0	0	0	0	0	0	0	0
TX	Unknown	9	0	1	1	7	0	0	0	0	0	0	0	0
VA	Virginia Tech	12	0	0	0	12	0	0	0	0	0	0	0	0
	<b>Regional Total</b>	<b>341</b>	<b>3</b>	<b>3</b>	<b>180</b>	<b>181</b>	<b>6</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>U.S. Total</b>	<b>649</b>	<b>3</b>	<b>4</b>	<b>324</b>	<b>381</b>	<b>9</b>	<b>6</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>

**Table 10C - Western Region - Gender and Race/Ethnicity of Newly Qualified Potential Teachers of Ag. Ed on Sept. 1, 2009**

State	Institution	Newly Qualified	African American		Caucasian		Hispanic		Native American /		Asian / Pacific		Unknown or Other	
			M	F	M	F	M	F	M	F	M	F	M	F
AZ	University of Arizona	7	0	0	2	5	0	0	0	0	0	0	0	0
CA	Cal Poly- San Luis Obispo	19	0	0	7	8	2	2	0	0	0	0	0	0
CA	Cal Poly, Pomona	1	0	0	0	1	0	0	0	0	0	0	0	0
CA	California State University, Fresno	9	0	0	2	7	0	0	0	0	0	0	0	0
CA	California State University, Chico	6	0	0	3	3	0	0	0	0	0	0	0	0
CA	UC Davis	5	0	0	5	9	0	1	0	0	0	0	0	0
CO	Colorado State University	0	0	0	0	0	0	0	0	0	0	0	0	0
ID	University of Idaho	7	0	0	2	5	0	0	0	0	0	0	0	0
MT	Montana State University-Bozeman	6	0	0	1	4	0	0	1	0	0	0	0	0
NM	New Mexico State University	8	0	0	2	5	1	0	0	0	0	0	0	0
NV	University of Nevada, Reno	0	0	0	0	0	0	0	0	0	0	0	0	0
OK	Oklahoma Panhandle State University	3	0	0	2	1	0	0	0	0	0	0	0	0
OK	Oklahoma State University	25	0	0	15	10	0	0	0	0	0	0	0	0
OR	Oregon State University	5	0	0	4	0	0	1	0	0	0	0	0	0
UT	Utah State University	5	0	0	13	18	0	0	0	0	0	0	0	0
WA	Washington State University	8	0	0	4	3	0	0	0	1	0	0	0	0
WY	Univ of Wyoming	4	0	0	3	1	0	0	0	0	0	0	0	0
<b>Regional Total</b>		<b>118</b>	<b>0</b>	<b>0</b>	<b>65</b>	<b>80</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>U.S. Total</b>		<b>649</b>	<b>3</b>	<b>4</b>	<b>324</b>	<b>381</b>	<b>9</b>	<b>6</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>

**Table 11A – North Central Region  
Gender and Race/Ethnicity of Agricultural Education Teachers by Region and State as of September 1, 2009**

	African American			Caucasian			Hispanic			Native American/Alaskan			Asian/Pacific Islander			UnKnown/Other		
	Male	Female	Unknown	Male	Female	Unknown	Male	Female	Unknown	Male	Female	Unknown	Male	Female	Unknown	Male	Female	Unknown
Connecticut	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	104
Delaware	0	0	0	26	36	0	0	0	0	0	0	0	0	0	0	0	1	0
Illinois	2	6	0	272	117	0	0	0	0	1	0	0	1	0	0	0	0	0
Indiana	1	0	0	163	86	0	0	0	0	0	0	0	0	0	0	0	0	0
Iowa	0	0	0	181	60	0	0	0	0	181	0	0	0	0	0	0	0	0
Kansas	0	0	0	162	30	0	1	1	0	0	0	0	0	0	0	0	0	0
Maine	0	0	0	25	16	0	0	0	0	0	0	0	0	0	0	0	0	0
Maryland	1	0	0	30	38	0	0	0	0	0	0	0	0	0	0	0	0	0
Massachusetts	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Michigan	0	1	0	63	49	0	0	1	0	0	0	0	0	1	0	0	0	0
Minnesota	0	0	0	156	65	0	0	0	0	0	0	0	0	0	0	0	0	0
Missouri	0	0	0	362	120	0	0	0	0	0	0	0	0	0	0	0	0	0
Nebraska	0	0	0	111	30	0	1	0	0	0	0	0	0	0	0	0	0	0
New Hampshire	0	0	0	18	17	0	0	0	0	0	0	0	0	0	0	0	0	0
New Jersey	2	0	0	30	26	0	0	0	0	0	0	0	0	0	0	0	0	0
New York	2	0	0	110	79	0	2	0	0	0	0	0	0	0	0	0	0	0
North Dakota	0	0	0	71	15	0	0	0	0	0	0	0	0	0	0	0	0	0
Ohio	0	0	0	388	147	0	1	0	0	0	0	0	0	0	0	0	0	0
Pennsylvania	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Rhode Island	0	0	0	2	7	0	0	0	0	0	0	0	0	0	0	0	0	0
South Dakota	0	0	0	58	22	0	0	0	0	0	0	0	0	0	0	0	0	0
Vermont	0	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0
West Virginia	0	0	0	69	22	0	0	0	0	0	0	0	0	0	0	0	0	0
Wisconsin	0	0	0	297	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Region Total	8	8	0	2,618	983	0	5	2	0	1	0	0	1	1	0	0	1	104
U.S. Total	99	34	0	4,019	1,739	78	63	34	10	8	13	6	9	6	0	413	34	1,902

**Table 11B – Southern Region  
Gender and Race/Ethnicity of Agricultural Education Teachers by Region and State as of September 1, 2009**

	African American			Caucasian			Hispanic			Native American/Alaskan			Asian/Pacific Islander			UnKnown/Other		
	Male	Female	Unknown	Male	Female	Unknown	Male	Female	Unknown	Male	Female	Unknown	Male	Female	Unknown	Male	Female	Unknown
Alabama																		
Arkansas	NA	NA	NA	NA	NA	NA	NA	NA	No Response	NA	NA	NA	NA	NA	NA	NA	NA	NA
Florida	9	1	0	234	162	0	5	7	0	0	0	0	0	0	0	0	0	0
Georgia	20	6	0	253	166	0	0	0	0	0	0	0	0	0	0	0	0	0
Kentucky	0	0	0	178	72	0	0	0	0	0	0	0	0	0	0	0	0	0
Louisiana	4	4	0	156	40	0	0	0	0	0	0	0	0	0	0	0	0	0
Mississippi	19	3	0	111	13	0	0	0	0	0	0	0	0	0	0	0	0	0
North Carolina	23	9	0	225	129	0	1	0	0	0	0	0	0	0	0	6	3	0
Oklahoma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	407	30	0
Puerto Rico									No Response									
South Carolina	8	1	0	71	39	0	0	0	0	0	0	1	0	0	0	0	0	0
Tennessee									No Response									
Texas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,798
Virginia	8	2	0	173	135	0	0	0	0	0	0	0	0	0	0	0	0	0
Virgin Islands									No Response									
Region Total	91	26	0	1,401	756	0	6	7	0	0	0	0	1	0	0	413	33	1,798
U.S. Total	99	34	0	4,019	1,739	78	63	34	10	8	13	6	9	6	0	413	34	1,902

**Table 11C – Western Region  
Gender and Race/Ethnicity of Agricultural Education Teachers by Region and State as of September 1, 2009**

	African American			Caucasian			Hispanic			Native American/Alaskan			Asian/Pacific Islander			UnKnown/Other		
	Male	Female	Unknown	Male	Female	Unknown	Male	Female	Unknown	Male	Female	Unknown	Male	Female	Unknown	Male	Female	Unknown
Alaska																		
Arizona	0	0	0	0	0	78	6	4	10	2	4	6	0	0	0	0	0	0
California	0	0	0	0	0	0	32	15	0	3	8	0	7	4	0	0	0	0
Colorado	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
Guam																		
Hawaii																		
Idaho	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Montana	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Nevada	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
New Mexico	0	0	0	0	0	0	10	3	0	0	1	0	0	0	0	0	0	0
Oregon	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
Utah	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Washington	0	0	0	0	0	0	1	2	0	0	0	0	0	1	0	0	0	0
Wyoming	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Region Total	0	0	0	0	0	78	52	25	10	7	13	6	7	5	0	0	0	0
U.S. Total	99	34	0	4,019	1,739	78	63	34	10	8	13	6	9	6	0	413	34	1,902

**Table 12 - Agricultural Education Faculty and Colleges of Affiliation by Region & US Totals in Fall 2009**

	FTE Positions				Faculty Housed in College of			Undergraduate Degree Granted in		
	Asst/Assoc/ Full Professor	Instructor	Graduate Assistant	Other	Agriculture	Education	Other	Agriculture	Education	Other
North Central Region	44.5	11.75	17.5	0	19	3	2	16	6	2
Southern Region	69.7	9	37	1	25	2	5	24	3	5
Western Region	29.2	9	7	0	12	4	0	13	2	0
U.S. Total	143.4	29.75	61.5	1	56	9	7	53	11	7
U.S. 2006	167.45	21.5	39	4	61.5	17.5	14	62	12	14
U.S. 2004	132	12.5	35	6	48	7	0	50	11	2
U.S. 2001	166.4	18	60.8	4.5	68.5	14.5	5	56	17.3	6
U.S. 1998	155	12.1	41.3	10.75	55.4	15.4	12	59	13	8

## Discussion and Conclusions

### Stability

As in the past the stability of the profession hinges on a number of variables that not only include secondary and post-secondary education but state and federal legislation on education, funding sources, the public's perception and knowledge of agriculture and education, and the immediate local administration of said school systems and programs. These notions go beyond the focus of this study but must always be given thought when looking at local and regional issues with supply and demand of agricultural teachers and the meaning of trends.

What is the stability of Agricultural Education in the nation today? Some of the positives of this can be seen in Table 1. We have seen the number of teachers needed but unavailable decrease since 2004 the percent of newly qualified teacher entering the field of Agricultural Education increased to 70% in 2009, the highest level to date since the study began. This may offer a false sense of security when we look at the number of newly qualified teachers that have been produced, the annual average for the last three years (2007-09) was 608; down from annual average of 770 for the previous three years (2004-6) or the 924 annual average for the last 34 years of the study. Since 2000 the annual average has been 723, regardless of the time span we are seeing a trend downward while a need continues to exist and is being filled through other means that may or may not be sufficient for the long term. Although we have seen some gaps close when it comes to the need to fill positions vs. the amount of newly qualified teachers available, this may be a false sense of security when we look at the significant amount of positions that have been filled through the use of emergency/alternative certifications, this may be an indicator that we still have a shortage of newly qualified teachers being prepared. If it was not for teachers being hired through the use of emergency/alternative certification methods we would be much less stable than we are today.

### Potential Teachers, Placement, and the Teacher Shortage

We are seeing a decrease of newly qualified teachers being prepared while the data still points to a relatively strong need for new teachers. Only 56% of the positions that are filled have been so with those qualified to teach with the remaining coming from outside of agricultural education (see Fig. 4)

With 80% of the institutions responding only an estimated 649 newly qualified teachers were produced, an 18% decrease that were prepared to enter the classroom in the fall of 2009. According to the collected state data there was an expected 876.2 positions to fill leaving a gap of 227.2 or 26%. It was estimated that in fall of 2009, 21 programs could not operate due to lack of a qualified agricultural teacher and that there were 30 more positions nationally than there were qualified teachers. The number of 21 programs that would not operate and that there were 30 more positions available than there were

qualified teachers. This may seem small but when we consider the high number of emergency/alternative certification methods used the number of programs or the positions available could have easily been multiplied by 10.

If the past three year trends continue, the decrease of agricultural education faculty at post-secondary institutions and a decrease in the number of newly qualified teachers, and with the continued growth in programs we can continue to be vulnerable to a significant shortage of qualified teachers.

The following facts can not be ignored or disguised:

- There were 30 teachers needed but unavailable with 70% of newly qualified teachers entering the field in 2009.
- According to their professors only 81% of the graduates wanted to teach.
- There were 390 teachers given emergency certification in 2009
- 165.7 Positions added for 2009-10 school year.
- 86 positions lost
- There were 21 departments estimated that would not operate because a teacher was unavailable.
- There were 41 (4%) former agricultural teachers re-entering the field, 25 (3%) previous graduates entering the field, 3 (0.3%) non-degreed entering the field, and approx. A total of 389.2 individuals that entered the agricultural teacher profession that did not come from agricultural education teacher preparation programs.

## **Diversity**

As has been the case for many years the agricultural education community still lacks diversity to a proportion that would not be tolerated by many state and federal agencies. Approximately 69% of all agricultural education teachers are identified as being white with almost 47% being white male and about 21% being white female. These numbers may be much high with the respondents identifying 2,349 or 28% of the teachers as an unknown or other race/ethnicity (much of this is due to a lack of tracking this information based on program area or at all in some cases). Only 31% of the agricultural teaching community at the middle and high school levels is non-Caucasians, if we were to remove those teachers that have been identified as unknown or other and compare the Caucasian population to the non Caucasian the there is only 4% that are not Caucasian. Caucasians also dominate those becoming newly qualified with only 4% of the newly qualified being non-Caucasian. The tide seems to be slowly turning when it comes to gender equity when producing newly qualified teachers (approx. 53% are Female) while we are still far behind in the actual profession (54% Male, 22% Female, 23% Unknown). With the continued changing face of the American population we need to do a much greater job at attracting qualified minority faculty to assist in the recruitment of minority students and their placements as agricultural teachers in the field.

## **Program Structure**

The total number of teaching positions reported by curriculum focus was 10,600. In marked contrast to yester-years, production agriculture programs continue to shrink only making-up 3.5% or 371 of the programs from those reporting. This is a sizable difference compared to the 2001 data with 1231 Production Ag positions which made up 15% of the Agricultural Education Programs. A "combination" program continues to grow and represents 43.2% or 4,581 positions. Agriscience programs only account for 706 positions or almost 6.7% of the total positions as reported by all states and territories responding. Ornamental horticulture programs made-up only 5% or 531 positions, a decrease from the previous study 8% or 839. Agricultural mechanics makes-up about 3.6% or 385 of all reported positions which continues its down slide since the 2004 levels of 720 positions which was up from the 2001 study of 566 positions.

The data shows that single teacher department positions account for about approximately 56% with positions in multiple teacher programs only reaching 44% of the positions.

## **Teacher Education**

We have continued to see the number of agricultural education teacher preparation programs continue to slowly dwindle over the past 10 years. When the study began the number of programs that were known to be able to produce newly qualified agricultural teacher numbered 99 institutions. During the previous study that number went down to 92 programs. Following this 2009 study that number is now 89 programs at post-secondary institutions that can newly qualify agricultural teachers. Not all of these institutions has had graduates within the last few years but can produce them.

The study received responses from 72 institutions (80.8%). 46 of the 53 States and Territories responded (86.7%). The six non-respondents included the states and territories of Alabama, Alaska, Guam, Hawaii, Puerto Rico, Tennessee, and the Virgin Islands.

In the past some of the non-respondent states that did not respond to the repeated attempts at data collection, previous-study data were used. Realizing that using data dating back to 1998 is not a clean substitute for current information and that the data can significantly skew the results the researchers decided to leave missing data. For those teacher education institutions and State Staff that failed to respond, repeated attempts were made via email and by phone, and at various professional conferences to retrieve some response even if the response was that an Agricultural Education Program no-longer existed at that institution.

The data implies that teacher education programs are continuing to do a good job producing qualified teachers with about 70% of them entering the field. However the annual average of the number of teachers being produced is down as well as are the number of teacher education faculty. Vacancies were left open at the secondary level and some programs were not expected to operate because newly qualified agricultural teachers were unavailable. As in the past while this has occurred there were some that were qualified and wanted to teach but did not enter the field.

## **Discussion and Recommendations**

As found on the National FFA website there are presently 7,487 FFA chapters which equates to 7,487 recognized agricultural education programs with more than 11,000 FFA Advisors & Teachers. It is clear that not all Agricultural Education programs have chartered FFA chapters. Obviously, the total number of programs and positions may be greater than the number of FFA chapters and FFA advisors as mentioned on the National FFA website, although there is presently no reliable statistics available to provide the actual number of programs. Any possibility for continued growth of new agricultural education programs will be difficult. There continues to be a push to meet the great opportunities that are available to add new Agricultural Education Programs but this will be under difficult circumstances with today's present situation. Unless things change there may not be enough qualified teachers to fill the roles necessary to provide for a new programs' success. Presently there are at least 10,600 agricultural teacher positions servicing 7,487 recognized agricultural programs (as reported by those states and territories that responded). There continues to be a shortage of newly qualified agricultural teachers going into the profession, and there are Agriculture Education programs that were expected not to operate in the Fall of 2009 because a qualified candidate to teach (30 in 2009) could not be found. There were 390 positions being filled through the use of emergency/alternative certification methods, 79.7 additional positions (165.7 new positions created "minus" a loss of 86 positions for a net gain of 79.7 in 2009). If the emergency/alternative certification methods are pulled from the equation, the agricultural education community is running at a deficit of human capital or in other terms, a possible shortage of significant proportion if it were not for emergency and alternative certification methods.

We have seen a decrease in FTE's at university programs, 90% of newly qualified potential agricultural teachers wanting to take teaching jobs with 70% of those wanting to teach in 2009 that actually took positions in the field. With the continued need for agricultural teachers, university faculty are already stretched to the limits to do more with less, to continue to meet more difficult goals set by universities for additional publications, more dollars brought from grantsmanship, on top of the teaching and service that should be our communities first priority, and all the while now being pushed for the need of additional graduates.

As has been the case for a number of years we continue to see a national deficit of newly qualified agricultural teachers, the severity of which can vary greatly according to state and region. There are many states that at the present time has a surplus of newly qualified teachers. Unfortunately those that make-up the surplus do not seem to be willing to leave their state of residence or a short proximity of their home to take a teaching position in another locale.

Many of the social challenges that commercial production agriculture faces today is caused by the lack of understanding and knowledge (agricultural literacy) of the general population. We are seeing local food movements within many communities around the country and a growth among the "non-farming" population wanting to know more about the food they eat and agriculture. Some of this may have occurred due to the changing face of the population (rural vs. urban, growth of immigrant populations, publicized food safety issues, etc...) but it has provided for a broadening of the definition of "Agricultural Education" within local agricultural education programs to include programs such as food science, food safety, natural resources,

environmental science, conservation, renewable energy, agro-ecology, sustainable agriculture, etc...With these challenges comes the potential for substantial growth into these new areas and to provide education about “agriculture” to a much larger audience than in the past.

To meet these opportunities it will require the growth of faculty numbers with a variety of backgrounds at the post-secondary level to prepare teachers to enter fill this need, provide outreach and professional development to those already in the field, and to work with state staff and local educational systems to promote secondary level agricultural education program growth.

This will be no easy task in today’s economy. Most states are in a budget deficit cutting and slashing higher education budgets which in-turn leads to less dollars for faculty and support staff, reductions in state departments of education, and K-12 budgets. All of this may mean the reduction in programs that are deemed “non-essential” to meeting the state/federal requirements to state and national educational standards.

The simple fact is that nationally there are not enough newly qualified agricultural teachers being produced, not enough of the newly qualified are going into the profession, and that there are more positions opening than there are individuals willing or able to fill those open positions. At the present time there is not any data that shows that this national trend will falter.

Many of the recommendations made in the past study remain the same:

1. There continues to be a need for an increase in FTE’s in Agricultural Education Faculty working with undergraduate programs
  - a. A portion of FTE’s should be dedicated to recruitment for potential agricultural education majors.
2. A stronger national effort to recruit minorities in to the profession at the post-secondary level and the secondary education level.
3. As with previous study recommendations, additional research into why students who are prepared as newly qualified teachers do not enter or leave the profession.
4. A national sponsored research project that can assist in determining if and/or how new educational reforms are turning newly qualified teachers away from the profession.
5. A call to all states to collect a minimum amount of annual demographic data on their secondary and adult agricultural teachers and programs.
6. A call for AAAE member institutions in each state to assist in the collection of demand study data in a timely fashion.
7. To return the National Supply and Demand Study to collect data on an annual basis using some electronic data collection system.

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