RETIREMENT TRENDS AMONG SECONDARY AGRICULTURAL EDUCATION TEACHERS IN KENTUCKY

Abstract

In order to increase the number of qualified agriculture teachers available to meet the growing demand of the nation's schools, teacher certification programs must recruit new teachers into the profession (Camp et al, 2002). The number of potential teachers needed, however, must be determined before university agricultural education programs take actions to increase their enrollment numbers. By determining the demand needs in agricultural education, university programs can tailor their recruitment efforts to meet these needs. The purpose of this study was to establish current demographics of Kentucky high school agriculture teachers, determine when teachers would be eligible for retirement from the agricultural education profession in Kentucky, and to determine anticipated number of years teachers are planning to stay in the agriculture education profession in Kentucky.

Introduction

Throughout the United States, secondary schools are faced with the mounting problem of a decline in the number of qualified teachers. Arguably the "most imminent threat to the nation's schools" (Howard, 2003), this problem is complicated by a rise in student enrollment (Mangrubang, 2005). Due to this pending shortage, schools nation-wide have been forced to hire under-qualified teachers, leading to an increase in poorer school performance (Mangrubang, 2005). Rather than treating the symptom, some researchers have chosen to examine the problem – what is the cause of the teacher shortage, and furthermore when will more teachers be needed due to retirements?

Compounded causes of the shortage include, in some cases, a poor outlook on the future of the profession, less-than-adequate wages, and a boost in student enrollment (Howard, 2003). Many schools have attempted to address the problem in a "quick fix" fashion by hiring under qualified teachers and allowing them to be certified through alternative or emergency methods. However, hiring under-qualified teachers has only added to the problem. According to Linda Darling-Hammond, with the California Education Policy Seminar, teachers who are alternately certified have an attrition rate of forty to sixty percent, compared to the ten percent attrition rate of traditionally qualified teachers (Darling-Hammond, 1998). By creating a "quick fix" for the teacher shortage problem, schools actually increase the likelihood of adding to the teacher shortage in the future.

In addition to the aforementioned reasons, the baby boom of the 1950s is a substantial factor leading to the teacher shortage, i.e. pending retirements. As stated by Mangrubang in "Issues and Trends in Science Education" (2005), Ingersoll (2001), Weiss (1999), and Kim and Loadman (1994) all documented that one of the two major causes for a growth in teacher turnover rate was increased teacher retirements. Studied in 2003, estimates alleged that over two million teachers would be replaced in schools due to retirements over the proceeding ten years (Howard, 2003). Presently, over one million teachers are nearing retirement (Mangrubang,

2005). With the grandchildren of the "baby boomers" entering schools, this increase in student enrollment paired with the retirement of their grandparents adds to the criticality of the teacher shortage.

The problems associated with the teacher shortage are not isolated to a specific grade or subject, and agricultural education is just as much affected as other subjects. Nationwide, secondary agricultural education programs have been facing a lack of teachers for a number of years (Walker, 2004). According to Camp, et al (2002), in 2001, agricultural education programs nationwide posted 1,175 openings. Consequently, that same year, only 693 graduates were actively seeking agricultural teaching positions. As a result, this left over 300 schools nationwide without qualified agriculture teachers. Without further research devoted to accurately assessing the future teacher supply and demand in secondary agricultural education, this teacher shortage will only continue, forcing schools nationwide to hire under-qualified teachers, or worst - do away with agriculture programs altogether.

Theoretical Framework

In Kentucky, trends in the secondary agriculture teacher supply are different from that of much of the nation. While Kentucky currently carries a surplus of agriculture teachers, university agriculture educator programs must observe future trends in teacher retirement in order to maintain an adequate number of teachers to fill annual vacancies. As mentioned before, the "baby boomer" generation is nearing retirement, causing the potential of a temporary, yet potentially radical shift in agriculture teacher demand in Kentucky. Additionally, many graduates of Agriculture Education Teacher Preparation programs pursue careers outside teaching, further intensifying the need for a surplus of teachers in certification programs.

In an effort to stay abreast of the demands for qualified agriculture teachers, a summary of these future retirement trends must be assessed. Moreover, teacher education programs can then tailor their recruitment efforts to recruit and supply the appropriate number of teachers in order to prevent the shortage from affecting high school agriculture programs. A study of the demographics, professional intentions, and current teaching experience of Kentucky's high school agriculture teachers will culminate in a collection of future demand needs for the profession due to anticipated retirements.

Faced with the "worst teacher shortage ever" (NEA, as stated in Walker), teacher educator programs, school administrator's, and education officials have been scrambling to develop solutions to the continuous lack of qualified teachers in the nation's schools. In an effort to develop solutions, researchers have focused on possible problems that lay behind the shortage. These causal factors include an increase in teachers reaching retirement, an increase in student enrollment, and growing teacher attrition rates (Howard, 2003).

The "baby boomer" generation is currently reaching retirement, creating a vast increase in future teaching vacancies in the upcoming years. Quoted from the U.S. Census Bureau in 2001, the baby boomer generation created one of the largest age increases in U.S. history:

> People born during the early years of the baby boom (1946 through 1950) fueled the 55 percent increase of the 50 to 54 year-olds, the largest percentage growth between 1990 and 2000 of any five-year age group…The second fastest-growing group was 45 to 49 year-olds, which registered a 45 percent increase" (Meyer, 2001).

According to this data, the previously stated "second fastest-growing group", the forty-five to forty-nine-year-olds, is currently between the ages of forty-nine and fifty-three, which indicates that the majority can be assumed to retire within the next nine to thirteen years. Additionally, Kentucky teachers are able to take an early retirement after twenty-seven years of service, or receive full retirement benefits after thirty years of service (Miller, 1999). This means that many teachers who began their career sooner than thirty-five years of age will be eligible to retire before age sixty-two, further increasing the number of Kentucky teachers expected to retire within the next fifteen years. The "baby boomer" generation not only contributes to the national teacher shortage problem by reaching retirement age, but also by adding to the increase in student enrollment in schools.

In 1997, there were approximately seventy-two million people under nineteen years of age in the United States, representing twenty-eight percent of the population (R. Riley, personal communication, Aug. 21, 1997). This enormous group of children is the progeny of the baby boomer generation, and account for an estimated string of record high school enrollment statistics for the next five years (R. Riley, personal communication, Aug. 21, 1997). While just the baby boomer generation alone is a large increase in population, their affect on population size will be felt indefinitely. As their children have children, et cetera, simple mathematics shows that the number of students enrolling in school is in a long-term growth spurt.

In addition to both the increased numbers in retirement-ready teachers and student enrollment, teacher attrition is another source of the teacher shortage. According to Walker (2004), "turnover is costly to any organization and it is far more cost effective to retain teachers than to hire. Understanding the factors associated with teacher turnover and retention is the critical first step to developing teacher retention strategies." Factors leading to teacher job satisfaction range from personal characteristics, student concerns, workload, recognition received, salary, policy-administration, unsupportive work conditions, parent family, student relationships, and the opportunity for advancement (Walker, 2004; Mangrubang, 2005).

Each of the previously mentioned factors compounds the teacher shortage problem that the nation is facing. While solutions have been numerous, it appears that a combination of ingredients will be required to eventually solve the problem.

In order to combat the teacher shortage on a short-term basis, many administrators have begun hiring unqualified teachers and entering into emergency certification. Critics argue, though, whether emergency-certified teachers are as qualified and effective as traditionally-

qualified teachers. According to Darling-Hammond (1998), "the single most important determinant of what students learn is the expertise of the teacher". Darling-Hammond conducted a study determining the effect of teacher education on student achievement. She discovered that the impact of teacher quality is great, and potentially detrimental to student scores. The following is an excerpt from her presentation, depicting the correlation between teacher quality and student achievement:

> [My study showed] the cumulative effects of teacher quality over three years in two different schools. Teacher effectiveness was rated as either low, average, or high. Student test scores were 50 percentile points lower if a student had three poor-quality teachers in a row than if he had three highly effective teachers. (Darling-Hammond, 1998).

Obviously, emergency certification for teachers is not the cookie-cutter answer for the nation's teacher shortage problems.

In many states, agricultural education is affected by the teacher shortage to an equal degree as other subject areas (Walker, 2004). Over the last thirty-three years, the number of teaching positions in secondary agricultural education programs nationwide has increased, while the number of qualified teachers available to fill these positions has decreased (Camp et al, 2002). According to Camp's 2002 teacher supply and demand study, an estimated 35 high school agriculture programs would not operate due to the lack of a certified teacher in 2001. In an effort to quell this shortage, teacher education programs have focused on recruitment. However, even if the number of newly qualified teachers exceeds the number of open positions, as in 2001 (Camp et al, 2002), many positions may remain unfilled due to the small number of graduates actively seeking teaching positions.

One of the potential solutions to the agriculture teacher shortage is an assessment of the future supply and demand needs for teachers. By determining the number of positions prospected to become available within a certain time period, teacher education programs can recruit accurate numbers of potentially highly-qualified teacher candidates to fill future jobs. By evaluating the future demand for teachers, not only are jobs filled that would otherwise remain vacant, but students can benefit by learning under highly-qualified, well-prepared educators that are trained to properly encourage growth in student achievement.

Purpose and Objectives

The purpose of the study was to determine retirement trends and current demographics of Kentucky's current high school agriculture teachers. In an effort to meet the purpose, the following three objectives were formulated:

1. To establish current demographics of Kentucky high school agriculture teachers;
2. To determine the number of teachers eligible to leave the agricultural education profession via retirement in any given forecasted year; and
3. To determine trends on the length of time current teachers are planning to stay in the profession.

Through this study, teacher educators in Kentucky universities can direct their agricultural education recruitment efforts to meet the future demand trends in the profession in critical years. By aiding universities in tailoring their teacher education programs for upcoming teacher retirement trends, this survey can also help to assuage the potential problems associated with a possible teacher shortage in secondary agricultural education programs within the state.

For the purpose of the study, the following assumptions were made:

1.) All participants understood the meaning of each survey question.
2.) All participants responded to the survey in an honest and accurate fashion.

For the purpose of the study, the following limitations were included:

1.) Results of this study were collected from surveys returned in person at the 2005 Kentucky Agriculture Teacher's Conference in Louisville and from those received via electronic mail or traditional mail as a follow-up.

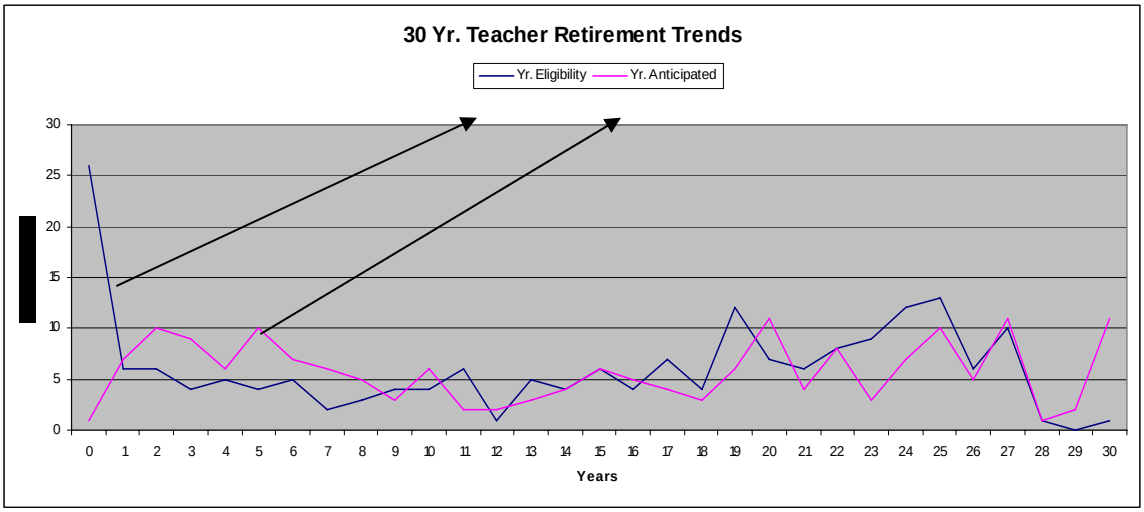
Procedures

The scope of the study consisted of Kentucky's 294 high school agriculture teachers. Initially, a survey was developed by university faculty of the agricultural education profession from Murray State University, University of Kentucky, Morehead State University and Western Kentucky University. A pilot survey was sent to various members of the agricultural education faculty at these Kentucky universities to determine clarity and accuracy of the survey. Once the pilot survey was completed, revisions were addressed and the final survey was handed out to the population at the 2005 Kentucky Agriculture Teacher's Conference in Louisville, Kentucky. A follow-up survey was conducted via mail one week after the Conference.

Findings

Demographical characteristics of the 194 teacher respondents show that 76 percent of the respondents were male, with 24 percent being female, with all respondents averaging 37.8 years of age. Respondents also reported that the average number of years having taught agriculture was 12.3. Ten percent of the teacher respondents also indicated that they had taught outside of the state of Kentucky, with the average number of years teaching elsewhere 3.1 years. Sixty-eight percent of the respondents were former four-year high school FFA members, with 71% of them being former chapter officers and 30% being either former regional or state officers.

An analysis of a thirty year retirement eligibility span of the respondents indicated that there were specific years that merited recognition due to a slightly above average number of respondents eligible to retire, as shown on the graph.



Of the 194 responding teachers, 13.40 percent were eligible to retire presently. 6.19 percent of the respondents will be eligible to retire in nineteen years. Lastly, 21.13 percent of the respondents will be eligible for retirement between twenty-four and twenty-seven years from the present. When examining the number of years respondents anticipate continuing to teach high school agriculture the data shows a fairly constant rate with 10-12 average retirements statewide each year over the next 30 years, given no changes in the number of programs.

Conclusions

After evaluating the aforementioned data, the following conclusions can be gathered from the 2005 levels of teachers in Kentucky. Twenty-six teachers are currently eligible to retire, after which no more than 6.7 percent of the teachers will be eligible to retire in any given year for the next thirty years. Additionally, no more than 5.5 percent of all Kentucky agriculture teachers stated that they anticipate retirement in any given year. This estimation constitutes a total of ten to twelve open positions state-wide annually.

With regard to Kentucky's teacher supply, Kentucky has the ability to certify twenty-five to forty agriculture teachers per year, enough to meet the yearly demand for replacements due to retirements. Finally, barring no decrease or increase in the number of programs within the state, Kentucky is estimated to have a net surplus of a minimum of thirteen to fifteen agriculture teachers per year if current state-wide certification levels are maintained. This surplus is not only beneficial to the teacher programs, but also to other industries that hire Agriculture Education graduates in that ample numbers will be present to fill non-teaching employment ranks, i.e. extension, etc.

With this knowledge, Kentucky universities are able to maintain Kentucky's surplus of qualified secondary agriculture teachers by amending recruitment efforts to certify between twenty-five and forty agriculture teachers per year. This will not only ensure that Kentucky's students are taught by qualified teachers, but also decrease the number of agriculture programs discontinued due to a lack of teachers, and perpetuate Kentucky's teacher surplus.

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