

WESTERN REGION STUDENT TEACHERS' PERCEPTIONS OF RURAL AND URBAN  
AGRISCIENCE PROGRAMS

Research: Quantitative RPA: Teacher Education and School-Based Ag Education

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## Western Region Student Teacher Perceptions of Rural and Urban Agriscience Programs

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### Abstract

*Agricultural Education is continually changing and its role in the urban school is becoming more important. Agriscience teachers must be willing to teach within urban programs. This study was performed in order to identify characteristics in recruiting agriscience teachers in urban programs. Data collection took place during the months of August and September 2010 using a researcher designed questionnaire. Seventy Western Region student teachers, completing their programs in the AAAE Western Region, completed the questionnaire. Findings of this study concluded participants' value location as an important factor when selecting their teaching position. The majority of participants experienced an agriscience program in a rural program and agreed they are receiving the correct preparation to teach in an urban program. Participants completing an agriscience program in rural and urban areas are willing to teach in either rural or urban programs. The majority desire to teach in the type of program they experienced in high school; therefore most of the participants want to teach in rural programs. Kirchoff and Lawrenz's model of the pathway to retention in high-need settings indicates that the main influence in perspective teachers to teach in urban settings were choosing teaching as a career, choosing where to teach, and remain teaching in high-need settings (2011). The researchers suggested the importance of creating awareness and encouraging students to learn about urban agricultural programs. Research needs to be conducted on how to influence those teachers to accept jobs in urban areas.*

### Introduction-Theoretical Framework

There are currently 7,429 agriculture education programs that exist in all 50 states, Puerto Rico, and the Virgin Islands (National FFA Organization, 2010). According to the National FFA Organization (2010), within the 7,429 agricultural education programs, there are 506,199 FFA members. The National FFA Organization (2005) set a goal to have 10,000 programs by 2015. With an integrated model of classroom instruction, teaching, laboratory instruction, experiential learning, leadership opportunities and personal skill training, these programs will better serve the students of agricultural education programs (National FFA Organization, 2008). According to Warner (2006), the most promising area of expansion would be in urban school districts where schools are diverse in their offerings to accommodate the increasing student populations.

Agricultural education in the United States (US) is constantly changing (Kantrovich, 2007). As new teachers are educated and brought into the profession, they have to adapt as the education profession continues to change (Lynch, 1996). It is important to track the implemented changes within agricultural education programs throughout America (Kantrovich, 2007). In recent years, there has been a shortage of teachers nationally. As agricultural education programs increase in popularity in urban settings, the demand for teachers able and willing to teach in those urban settings also increases (Warner, 2006). This new demand raises questions

concerning the motivating factors leading teacher candidates to pursue teaching jobs in urban areas, particularly since a majority of teacher candidates are from more traditional program experiences. The shortage of agricultural education teachers is not a result of the shortfall of graduates but the low percentage of graduates that actually choose teaching as their career (Kantrovich, 2007). According to Brown (1995):

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.9).

In order to increase the number of agricultural education programs, it is very important to increase the number of programs in urban areas (Warner & Washburn, 2007a). The United States Census Bureau (USCB) defines an urban area as an area encompassing 50,000 people or more. Urban areas can be inside or outside of metropolitan areas and geographic areas such as counties and places can contain urban areas, rural areas, or both (United States Census, 2010). Esters (2005) stated the concept of urban agricultural education programs has been around for more than 50 years. Urban agricultural education programs combine the traditional vocational program model with new approaches and broadened curricula (National Research Council, 1988). Esters (2007) stated there has been increasing interest among educators to establish urban agricultural education programs in major cities. Therefore, an adequate amount of agricultural education teachers must be willing to teach and maintain a position within those urban programs (Warner & Washburn, 2007a).

Teachers are likely to seek positions in or close to their desired environment, hometown, or somewhere very similar (Easter, Shultz, Neyhart, & Reck, 1999; Gilbert, 1995; Werner, 1993). Prospective teachers are often reluctant to teach students with different backgrounds than their own; therefore, many agricultural education teachers are unwilling to teach in an urban program (Zeichner, 1993). When teachers are searching for employment, they will tend to look for jobs close to where they grew up (Zimpher, 1988). Teachers believe if they go back to their hometown or nearby surrounding areas they will have a better understanding of students since they have comparable backgrounds (Werner, 1993). In addition, teachers from rural/suburban backgrounds feel they would be successful when teaching in environments in which they are comfortable. Teachers growing up in rural or suburban areas are often reluctant to accept a teaching position within an urban area (Gilbert, 1995).

Teachers are often attracted to urban schools because they feel they can make a difference with the satisfaction of making a contribution in helping students with academic growth (Gilbert, 1995). Warner and Washburn (2007b) found that teachers who are eager to accept and retain teaching positions in urban locations are desperately needed. The most influential factors on the teachers' career decisions were the desire to interact with people and the opportunity to teach students valuable life skills through different components of the program. The increase in urban agriculture programs offers a multitude of benefits, but without agriculture teachers willing to teach in urban schools, there will be no one to reap those benefits and the efforts to expand urban agricultural education will be futile (Warner and Washburn, 2007b).

### **Purpose and Objectives**

The purpose of this study was to identify student teachers' perceptions of rural and urban agriscience programs, as well as to explore and describe the characteristics of agricultural education student teachers. This study evaluated students currently enrolled in their agricultural education student teaching experience. Perceptions of rural and urban agriscience programs were explored as well as the relationship between the types of agriscience program the student teacher experienced in high school compared to the type of program in which they desired to teach. These students attended a university in the Western Region.

The following objectives were developed based on the purpose of this study:

1. Describe the type of agriscience program the student teacher experienced in their high school career.
2. Describe factors that influence student teachers' career choice of teaching in urban and rural programs.
3. Describe student teachers' beliefs about urban programs.
4. Describe the relationship between the type of agriscience program the student experienced in high school and the type of program in which they desire to teach.

### **Theoretical Framework**

This study utilized Kirchoff and Lawrenz (2011) model of pathway to retention in high-need settings. The model of the pathway to retention in high-need settings (Kirchoff & Lawrenz, 2011), "indicates the main influences on scholars' decisions regarding teaching and teaching in high-need settings" (p. 252). According to the model, relations exist between choosing teaching as a career, choosing where to teach, and remain teaching in high need settings. The model becomes extremely relevant in recruiting agriscience teachers to urban settings. Urban settings are currently the high-need area in terms of growth for FFA and agriscience programs.

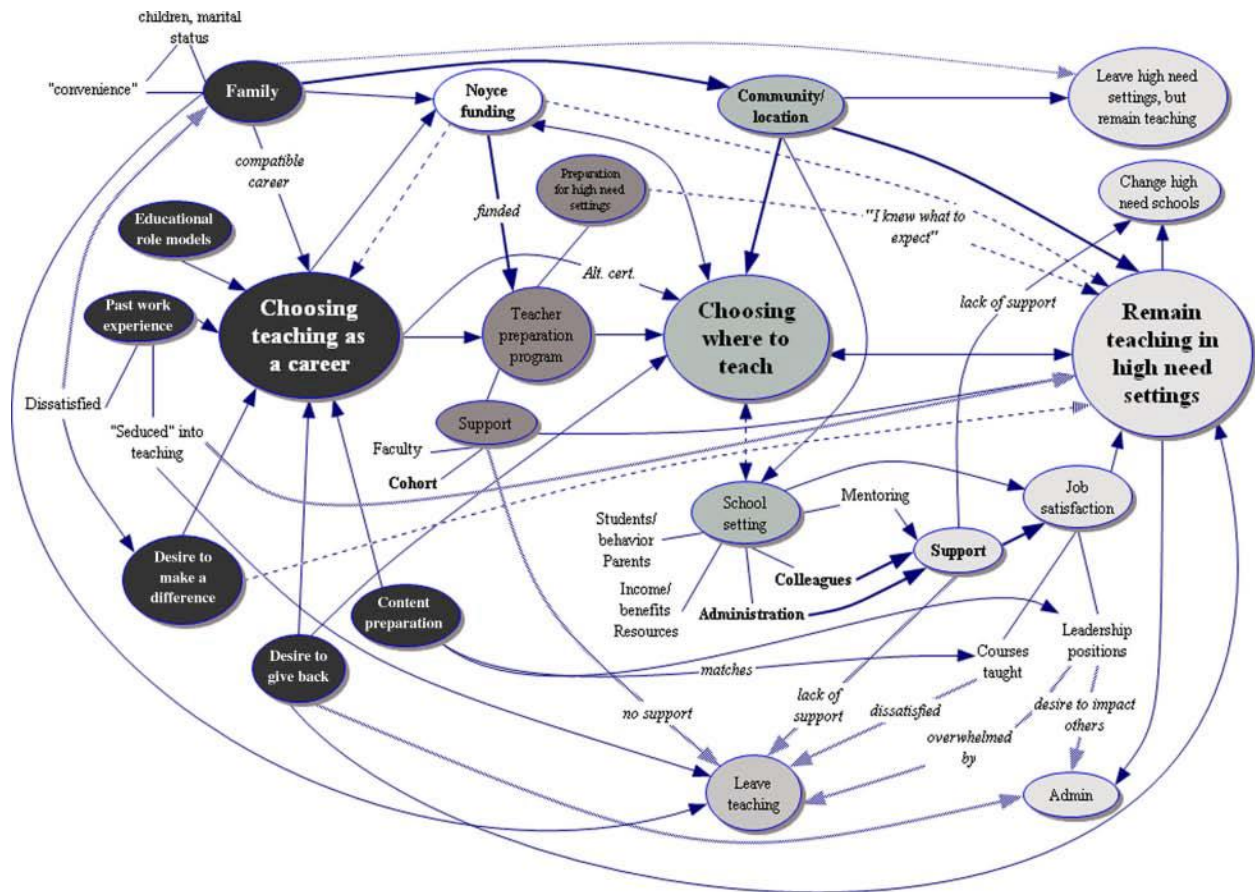


Figure 1: Model of the pathway to retention in high-need settings (Kirchhoff & Lawrenz, 2011)

The main category that influenced the decision about where to teach was the community and location. Almost all participants reported looking for teaching positions near their community or close to their family’s community. “The school setting seemed to highly influence the scholars, in particular, the support of administration and colleagues” (Kirchhoff & Lawrenz, 2011, p. 253). The support from the administration and colleagues greatly affected job satisfaction and ultimately, the decision to remain in the school.

No trends were found between the type of program (alternative or traditional certification) and the participants’ decision to teach. The two major topics related to the role of teacher education were support and preparation for high-need settings. Students found support in faculty and cohorts; cohorts had a significant impact on students remaining to teach in high-need settings (Kirchhoff & Lawrenz, 2011). Preparation for high-need settings was important, although not as relevant as support. Preparation levels varied greatly between the students, and specific details of preparation for high-need settings were more important than others. Several scholars reported the importance of the experience in high-need settings, especially for those who grew up with a different background. Pre-service teachers addressed the importance of learning how to deal with low-income students and their family situations (Kirchhoff & Lawrenz, 2011).

Lent et al. (2002) found when young adults make their career decision they mention their direct experiences relating to work shaped their choices. Kirchoff & Lawrenz's model of the pathway to retention in high-need settings shows a relationship between choosing teaching as a career, where to teach, and remain teaching in high-need settings (2011). In addition, Christopher-Sisk, Gravino, & Phillips (2001) found young adults will seek help from others to assist in their decision making process.

Warner and Washburn (2007b) found several specifics related to the teachers' decisions to teach agricultural education in urban schools. The desired location, decision to teach in a particular school, teachers' perceptions of urban schools, and participants' perceptions of agricultural education in rural schools were all part of the findings.

Grasping the concept and an understanding of agricultural education in urban programs is extremely important. According to Warner (2006) urban schools enroll students whose demographic characteristics are different than those of rural and suburban students. In several urban schools, minority groups (American Indian/Alaska Natives, Asians/Pacific Islanders, Hispanic, and African American) represent the majority of the population (Warner, 2006). According to the Urban Teacher Collaborative (2000), 50% of minority students in the United States are enrolled in urban schools. It is projected that urban schools educate almost half of the students who are not proficient in English (Urban Teacher Collaborative, 2000)

There is a need to identify characteristics of teachers who want to teach in urban programs in order to recruit agriscience teachers for those programs. With a decline in the number of rural areas, there is a high need for urban agriscience teachers to teach in developing urban agricultural education programs. In looking at Western Region agricultural education student teachers, perceptions of urban and rural agricultural programs can be described, as well as the desired teaching location.

Having a better understanding of why and how teachers make decisions based on certain characteristics of teaching in rural or urban agricultural education program can give professionals in teacher education a better grasp on how to recruit teachers to teach in urban programs. Using Kirchoff and Lawrenz (2011) model of pathway to retention in high-need settings when recruiting teachers will help to retain those teachers in an urban setting.

### **Methods and Procedures**

This study was designed using quantitative research methods to examine the relationship between variables. This study describes student teachers of the Western Region according to the type of program they participated in during high school and the factors of job selection criteria. Student teachers' perceptions of urban and rural programs were also explored.

The target population for this study included all students completing their agricultural education student teaching experience within American Association for Agricultural Education (AAAE) Western Region universities in the fall 2010 semester. All 29 AAAE Western Region universities were contacted via a telephone call or email. The professor overseeing the student teacher preparation program was contacted and asked for cooperation in administering the questionnaire to students in their institution.

Seven universities did not have student teachers for the fall 2010 semester, and therefore, were not included in this study. Of the universities within the population, ten universities agreed to participate and their students were included in the accepting sample. Within the sample from the ten universities, 71 student teachers ( $N = 71$ ) completed the survey from Western Region universities. The surveys were completed before their teaching experience. The researcher believes the student teacher's experience will impact their perceptions. However, due to the timeline, the survey was completed before they went in the field.

One participant was removed due to not completing the instrument correctly. Therefore, the accepting sample included 70 Western Region student teachers ( $N = 70$ ). Nine student teachers ( $n = 9$ ) indicated they were not enrolled in agricultural courses in high school. Since these student teachers were not enrolled in agricultural courses, they were directed to skip the *types of programs* section and move on to the second section of the instrument.

The instrument was divided into five sections. The sections included the background of the type of program the participant experienced in high school, participant's beliefs about rural and urban programs, the importance of job selection criteria, how comfortable the participant is in teaching certain areas of content, and demographics. Validity was established by a panel of experts in the Agricultural Education and Communications Department at Texas Tech University. The panel measured the instrument for both face and content validity, making sure the instrument was measuring what it was intended to measure.

Reliability of the data collection instrument was established through a pilot test conducted on students at "state" university. Initial reliability estimates were low (estimates ranged from .13 to .78), particularly on the section measuring beliefs about rural and urban programs. The instrument was revised based on the reliability analysis and feedback from participants in the pilot. Several items were eliminated or reworded and the directions were edited to more clearly reflect the purpose of the items. A post hoc reliability analysis of the instrument yielded reliability estimates of .99 for the beliefs section, .89 for the job selection section, and .96 for the content area section.

Data was collected during the months of August and September of 2010. This study was conducted over the course of six weeks and reached 70 student teachers within nine AAEE Western Region universities. Each contact made after the initial correspondence was tailored for the convenience at each individual university due to student teacher program schedules. Universities participating in this study were given the instrument before the field experience. The individual overseeing the student teacher preparation program administered the survey.

Data was analyzed using Statistical Package for Social Sciences (SPSS) version 17.0 for Microsoft® Windows. Frequencies and percentages were used to describe the type of program the student teacher completed in high school and to describe the characteristics of teaching in urban and rural programs. Frequencies and percentages were used to describe Western Region student teachers' beliefs about urban programs.

## **Findings**

### *Demographics*

The variables of gender, age, ethnicity, and grade point average were evaluated by calculating frequencies, frequency percentage, and mode. The sample for this study consisted of 40 females (57.1%) and 30 male (42.9%) participants. Ages of the participating student teachers ranged from 20-51. The average age for the participants of this study was 22. Participant age was grouped categorically to provide a clearer picture of the distribution of ages throughout the sample. The majority were between the ages of 20-23 ( $n = 57$ , 81.4%). Other age categories represented were ages 24-28 ( $n = 12$ , 17.2%) and older than 29 ( $n = 1$ , 2.7%) with one individuals reporting their age as 51.

Four ethnic categories were identified among respondents. The majority of the sample ( $n = 65$ , 92.9%) was White (Non-Hispanic), followed by Hispanic ( $n = 3$ , 4.3%), African American ( $n = 1$ , 1.4%), and other ethnicities ( $n = 1$ , 1.4%). All student teachers self-reported their grade point average by category. The most frequently reported grade point average category reported was 3.0-3.5 ( $n = 31$ , 44.3%) followed by 3.6-4.0 ( $n = 25$ , 35.7%) and 2.6-3.0 ( $n = 12$ , 17.1%).

Objective one sought to describe the type of agriscience program the student teacher participated in during high school. Characteristics were assessed to determine if student teachers were enrolled in agriculture courses in high school and if they were active in the National FFA Organization. It is important to note that if the student was not enrolled in agriculture courses in high school, they were to skip to the second section of the survey. The majority of student teachers ( $n = 61$ , 87.1%) were enrolled in agriculture courses in high school and the remaining student teachers ( $n = 9$ , 12.9%) were not enrolled in agriculture courses in high school.

The population of the student teacher's hometown determined the type of community the student teacher experienced during their high school agriculture courses. The Bureau of the Census defines an urban area as an area with 50,000 people or more. The majority of student teachers completed high school in a rural community ( $n = 51$ , 72.9%). Student teachers completing high school in an urban community ( $n = 19$ , 27.1%) was significantly lower than those in rural communities.

The second objective sought to describe factors that influence student teachers' career choice of teaching in urban and rural programs. Western Region student teachers determined the importance of five factors in job selection by ranking five items from most important to least important (Table 1). The scales of measure ranged from one to five with one being the most important and five being the least important. Based on the five factors of important job selection criteria, participants value location ( $M = 2.01$ ,  $SD = 1.27$ ) as the most important factor in job selection. The second most important factor to consider in job selection was salary ( $M = 2.94$ ,  $SD = 1.33$ ), followed by type of program ( $M = 3.06$ ,  $SD = 1.35$ ) and content area ( $M = 3.10$ ,  $SD = 1.35$ ). The least important characteristic when selecting a teaching position was the length of the contract ( $M = 3.89$ ,  $SD = 1.14$ ).



Table 1  
*Average Ranking of Importance of Job Selection Factors*( $N = 70$ )

Characteristic	<i>M</i>	<i>SD</i>
Location	2.01	1.27
Salary	2.94	1.33
Content area	3.06	1.35
Type of program	3.10	1.35
Length of contract	3.89	1.14

*Note:* 1 = most important, 5 = least important.

The most important characteristic in job selection is location. Student teachers were given four characteristics in which they considered importance when choosing their desired teaching location. Most student teachers, ( $n = 51, 72.9\%$ ) indicated that teaching in their home state was an important factor in job selection, followed by  $42.9\%$  ( $n = 30$ ) who desired to locate within a 60-mile radius of their hometown. They indicated teaching within their hometown was not important, with only  $18.6\%$  ( $n = 13$ ) desiring to teach in their hometown and  $28.6\%$  ( $n = 20$ ) indicated location wasn't an issue when selecting a teaching position, and they would locate anywhere.

The third objective sought to describe student teachers' beliefs about urban agricultural education programs. Participants of this study were asked to describe their level of agreement with nine statements based on a Likert-type scale. The six levels of agreement included 1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = slightly agree, 5 = agree, and 6 = strongly agree.

Participants of this study agreed there is a need for qualified agricultural education teachers in urban programs ( $n = 44, M = 5.41, SD = 1.10$ ). In addition, student teachers agreed it is important to look at how to expand in urban areas ( $n = 34, M = 5.00, SD = .91$ ). Participants indicated they agreed with the statement, "the trend for growth in agriculture education is going toward urban areas" ( $n = 28, M = 4.43, SD = 1.00$ ). The statement, "different preparation is needed to teach in urban programs than rural programs" ( $n = 24, M = 4.37, SD = 1.13$ ) gathered a slightly agree level of agreement from the teachers. Along with the importance of different preparation, student teachers indicated their slight agreement with the statement that, "student teaching experience will prepare them to teach in an urban program," ( $n = 30, M = 4.34, SD = 1.18$ ). In addition, participants agreed that they have the skills to teach in an urban program ( $n = 35, M = 4.54, SD = 1.11$ ).

In addition, participants indicated they slightly agreed with the statement of taking a job in an urban program ( $n = 25, M = 4.31, SD = 1.12$ ). The statements, "individuals who graduate from an urban school are more prepared to teach in an urban agriscience program," ( $n = 23, M = 3.86, SD = 1.34$ ), and "the type of high school program I attended does not affect my ability to teach in a rural or urban program," ( $n = 20, M = 3.80, SD = 1.50$ ) received a slightly lower level of agreement. Almost half of the participants indicated they agree that there is a difference in teaching in rural and urban programs ( $n = 33, M = 2.16, SD = 1.21$ ).

Objective four sought to determine the relationship between the type of program the student teacher experienced in high school compared to the type of program in which they desire to teach. A Pearson's chi-square test was utilized. Of the 70 AAAE Western Region student teachers, 61 student teachers were included in this objective since they experienced agriscience courses in high school. Eighty-four percent of student teachers attended high school in a rural community ( $n = 51$ ). Of those student teachers, 24 ( $n = 24$ ) desire to teach in a rural program, two ( $n = 2$ ) desire to teach in an urban program ( $n = 2$ ), 20 ( $n = 20$ ) desire to teach in either a rural or urban program, and one ( $n = 1$ ) does not plan to teach. Of the student teachers who participated in a high school program in an urban area ( $n = 10$ ), desire to teach in a rural program ( $n = 2$ ), desire to teach in an urban program ( $n = 5$ ), and desire to teach in either a rural or urban program ( $n = 7$ ).

A contingency table analysis was conducted to evaluate whether the type program the student teacher experienced in high school compared to the type of program they desire to teach (Table 2). The two variables were the type of program the student teacher attended in high school (rural or urban) and the type of program the student teacher desires to teach (rural, urban, does not matter, do not plan to teach). Follow-up comparisons were conducted between student teachers experiencing a program in rural or urban areas. The Holm's sequential Bonferroni method was used to control for Type I error at the .05 level across the comparisons. The only difference that was significant was between those experiencing a program in rural and urban programs desiring to teach in urban and rural programs. The comparison was not conducted on those not desiring to teach or those who don't prefer to teach in a specific program due to matching the expected outcomes.

Table 2

*Relationship between program experienced and program desired to teach (N = 70)*

Comparison	Pearson chi-square	p value	Cramer's V
Rural versus urban	13.41	.00	.64

### **Conclusions-Implications-Recommendations**

Objective one sought to describe the type of agriscience program the student teacher experienced in high school. The majority of Western Region student teachers completed agricultural courses at the high school level. Western Region student teachers have a better understanding about agricultural education programs in rural areas as opposed to urban agricultural education programs. The findings of this study support the findings of Werner (1993), who found teachers believe if they go back to their hometown or nearby surrounding areas, they will have a better understanding of students with comparable backgrounds.

Objective two sought to describe characteristics of teaching in urban and rural programs. Western Region teachers ranked five factors in selecting their first teaching position. They indicated location was the most important factor when choosing a teaching position followed by salary. Student teachers know the locations they find desirable when selecting their teaching position. The findings of this study are not in agreement with the findings in studies conducted by Gilbert (1995) and Werner (1993) indicating teachers are likely to seek positions within their hometown; however, it supports the findings that they seek employment in similar environments. Student teachers prioritize their job selection based on the location of the program being in their

home state or within a 60-mile radius versus their hometown. Warner (2006) found teachers' decisions to teach in an urban school were based on their perceptions of urban schools and perception of agricultural education in rural schools. Findings from this study did not support those of Warner's (2006) study due to the fact that Western Region student teachers base their job selection criteria on location more than any other factor.

Objective three sought to describe student teachers' beliefs towards urban programs. Participants of this study agreed there is a need for qualified agricultural education teachers in urban areas, and that it is important to look at how to expand in urban areas. The majority of participants grew up in a rural program. Participants believe they are knowledgeable about urban agricultural education programs even though they did not attend one in high school; therefore, it is not imperative that we educate student teachers about the importance of urban agriscience programs. Warner and Washburn (2007a) indicated that in order to increase the number of agricultural education programs, it is very important to increase the number of programs in urban areas. This finding supports the findings from Warner and Washburn's study as participants agreed there is a need for qualified teachers in urban programs.

Objective four sought to determine the relationship between the type of program the student experienced in high school and the type of program in which they desire to teach. The majority of participants who were enrolled in an agriscience program in rural and urban programs are willing to teach in either rural or urban programs. Of those student teachers who indicated their desire to teach in a specific program, the majority desire to teach in the program type that they attended in high school.

Participants who participated in an agriscience program in a rural area are willing to teach in a rural or urban program. The findings of this study do not support the findings of a study conducted by Zeichner (1993) that concluded prospective teachers are often reluctant to teach students with different backgrounds than their own; therefore, many are unwilling to teach in an urban program. The results of this study show participants growing up in a rural area are willing to take a position in an urban agriscience program. The findings of this study support the finding from Warner and Washburn (2007a) indicating agriscience teachers must be willing to accept a position within urban agriscience programs.

The majority of student teachers who participated in agriscience programs in rural areas are willing to accept a teaching position within a rural or urban area. Student teachers need to be educated on urban programs early in their agricultural education study. It is recommended that universities provide students with opportunities to take classes about urban agricultural education programs. In addition, attending professional development events could increase knowledge and broaden their perceptions towards urban programs. Exposing student teachers to more than one type of program could increase awareness of the different types of program within agricultural education. This could create awareness for the types of agricultural education programs.

Future research should be conducted in the form of a nationwide study to see if these findings are regional or if they can be applied to agriculture education teacher preparation programs across the country. In addition, further research should be conducted on student

teachers' perceptions of urban and rural agricultural education programs. This would allow a greater understanding of the way teachers are making their decisions.

With student teacher's indicating they are willing to consider a job in an urban program; further research needs to be conducted on how to influence those teachers to accept jobs in urban areas. With this study identifying certain characteristics upon which teachers make their job selection choice, research is needed to identify ways to implement those characteristics in encouraging student teachers to accept teaching positions within urban agriscience programs.

It is not enough to simply recruit students into high-need settings, once agriscience teachers are there it is essential to keep them there. Reflecting Kirchhoff and Lawrenz (2011) model of pathway to retention in high-need settings, those items need to be considered in recruiting students to urban settings so that a higher number of teachers are retained. Using their model and keeping those items in mind will help urban programs to grow long-term.

In addition, additional research is needed on perceptions of students who would not consider teaching in an urban school. Research identifying educational material to educate students not interested in urban programs about the importance and benefits of teaching in an urban program should be conducted.

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