

Factors Influencing Postsecondary Education Enrollment Behaviors of Urban Agricultural Education Students

Levon T. Esters
Iowa State University

Abstract

The purpose of this study was to identify the factors that influenced the postsecondary education enrollment behaviors of students who graduated from an urban agricultural education program. Students indicated that parents and/or guardians had the most influence on their decisions to enroll in a postsecondary education program of agriculture. However, they indicated that their mothers or female guardians had slightly more influence than their fathers or male guardians. Students also reported an interest in agriculture, personal factors, and job opportunities as the events and experiences that most influenced their decisions to enroll. Students who did not choose to enroll cited a lack of interest and personal factors as the primary reasons. Discriminant analysis revealed that high school grade point average and mother's or female guardian's level of influence were the most important factors for predicting if students would or would not enroll in a postsecondary education program of agriculture.

Introduction

Recruitment and retention of agriculture students at the university level has been historically important (Tarpley & Miller, 2004). However, due to the concern about the substantial decline in agriculture student numbers (Wildman & Torres, 2001), colleges of agriculture are being challenged to identify new methods of increasing the diversity in their programs (Gilmore et al., 2006). Because increasing diversity continues to be a major challenge for most colleges of agriculture, administrators are continually challenged to seek innovative approaches for appealing to potential students (Wildman & Torres, 2001), especially students from diverse racial and ethnic backgrounds. Clearly, there is an increasingly diverse society and a projected shortage of available graduates expected in the food, agriculture, and natural resources system of the United States (U.S.) over the next few years (Goecker, Gilmore, Smith, & Smith, 2005). This phenomenon suggests that colleges of agriculture must assign student recruitment a priority to satisfy the workforce needs in the agricultural industry.

Historically, colleges of agriculture have targeted students with farming backgrounds (Touchstone & Riesenber, 1997); however, the demographic composition of today's college of agriculture student has changed in many ways (Dyer, Breja, & Haase-Wittler, 2000). For example, Gilmore et al. (2006) noted that several factors are impacting higher education institutions as they offer academic programs to prepare future graduates in the agricultural and natural resources professions; one of the most important factors is the racial and ethnic characteristics of K-12 students. Additionally, there has been a steady increase in the percentage of minority students over the last thirty years (39% in 2002 compared to 22% in 1972) with the percentage of Hispanic students increasing from 6% to 18% over the same time period (Gilmore et al., 2006). Although higher education programs in agricultural and natural resources have sought to attract more minority students, there was a very small increase in minority baccalaureate degree recipients from 1995-2004.

Another demographic trend impacting enrollment in colleges of agriculture relates to the number of students from urban backgrounds. For example, more than 80% of the population in the United States currently lives in urban areas (Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, 2006) with over one-half of the U. S. population living in urbanized areas including more than 200,000 people. The increase in the number of people living in urban areas has had an impact on colleges of agriculture that have historically enrolled students from primarily rural areas. Esters (2004) concluded that due to demographic changes, opportunities to maintain a stream of future professionals in the food, fiber, and natural resources industry will depend on the ability of colleges of agriculture to attract students from nontraditional backgrounds such as those from urban and suburban areas.

Although the majority of the undergraduate students enrolling in colleges of agriculture represent non-urban areas, college recruitment efforts should focus on students from urban areas (Talbert, Larke, Jones, & Moore, 1997). Further, Tarpley and Miller (2004) suggested that urban areas should be considered a starting point when recruiting students into colleges of agriculture. Interestingly, one of the most successful approaches to increase diversity within colleges of agriculture has been the recruitment of students from specialized urban agricultural education programs.

The concept of specialized urban agricultural education programs has existed for more than 50 years, most notably with the development of the W.B. Saul High School of Agricultural Sciences in Philadelphia, Pennsylvania. During the past 20 years, there has been increasing interest among educators to establish urban agricultural education programs in other major cities. Urban agricultural education programs can be found in some of the nation's largest cities including the Chicago High School for Agricultural Sciences in Chicago, Illinois, the Agricultural Food and

Sciences Academy in Minneapolis, Minnesota, and John Bowne High School in Queens, New York.

Urban agricultural education programs combine the traditional vocational program model with new approaches and broadened curricula (National Research Council [NRC], 1988). A particular emphasis of urban agricultural education programs is to attract more urban, minority, and non-minority students into agricultural education (Talbert, 1996). One of the primary reasons for this interest is that more American cities have expanded into rural areas, thereby, creating the need for schools to change their programs to reflect the changing community (Predmore, 2004). Bowen (2002) argued that the creation of urban agricultural education programs in inner cities reflects “proactive behavior,” especially in terms of increasing diversity in agricultural education. This situation has become especially relevant in recent years since issues of diversity have gained increased attention in higher education and the American workforce.

Despite interest and the opportunity for growth in urban agricultural education, a paucity of research still exists. Previous literature related to urban agricultural education has focused on a number of issues including career choice (Esters & Bowen, 2005), attitudes toward agriculture (Talbert, 1996, 1997), factors influencing secondary school enrollment (Esters, 2004), perceptions of career opportunities (White, Stewart, & Linhardt, 1991), beliefs about agriculture (Thompson & Russell, 1993), urban agricultural education program development (Russell & Trede, 1999), perceptions of agricultural education stakeholders (Trede & Russell, 1999), and successful program components (Soloninka, 2003). Despite the breadth of topics that have been studied, there appears to be a lack of research examining the postsecondary enrollment behaviors of students enrolled in these programs.

It is widely known that understanding postsecondary enrollment behaviors is a dynamic and complex process influenced by a number of factors. For example, Frisbee, Belcher, and Sanders (2000) found that the reputation of the program and the university were important factors in the recruitment of students into a four-year automotive program. Other important factors included campus visits, parents/relatives, counselors/teachers, technology recruitment activities, friends, university catalogs, location, promotional materials, and alumni. Frisbee et al. (2000) recommended that recruiters communicate the reputations of the programs and universities to prospective students and involve parents in the decision making process.

In a similar study, Belcher, Brisbee, and Sandford (2003) identified whether there was a match between what students and faculty perceived as important recruitment techniques for baccalaureate automotive technology programs. The responses between the faculty and students were similar. Program and university reputations, campus visits, high schools/community colleges, and teachers/counselors were the most effective recruitment factors reported by both groups. Students

indicated that parents and relatives were more important to them in the recruitment process, more than what faculty perceived them to be. Additionally, faculty believed that friends were more important than did the students.

Several studies in the field of agriculture have also explored the influences on college choice and identified numerous factors including values, financial incentives, exposure to agriculture, and family (Donnermeyer & Kreps, 1994; Scofield, 1995; Wildman & Torres, 2001); and former graduates, campus visits, printed university publications, professors, career opportunities, and academic reputation (Washburn, Garton, & Vaughn, 2002). Other factors have included parents' education, gender, and high school grade point average (Hossler, Bouse, Schmit, & Vesper, 1991; Hossler & Stage, 1992); socioeconomic status and self-esteem (Paulsen, 1990); and race (Bouse & Hossler, 1991).

Agricultural education is not the only career cluster in Career and Technical Education (CTE) that has focused its efforts on secondary student populations from urban areas. Several studies have examined the link between CTE and urban students from vastly different perspectives. For example, Jones, Womble, and Searcy (1997) conducted a study to clarify the function and value of trade and industrial (T&I) courses in an urban high school environment. Specifically, it sought to assess the perceptions of urban high school students toward secondary T&I courses. Students indicated that they had career plans, expected to continue their education, attained good grades, and valued their T&I courses. It was concluded that information for improving T&I courses and the preparation of urban youth for employment could be attained through similar studies in other urban school districts.

In a study of urban business education students, Womble and Jones (1996) investigated the perceptions of urban high school students toward work and career-related issues. The target population for the study included secondary students enrolled in business education courses. The findings indicated that urban students perceived a relationship between education and future success, and expected schools to prepare them for work and further education. Additionally, the findings revealed that students formed perceptions toward work and career-related issues based on school awareness and work expectations, work awareness and support, and career choice and work preparation.

Similar to previous research, this study focused on students from an urban setting. However, a major difference was that this study examined the graduates of an urban secondary CTE program and the factors leading to their enrollment in a postsecondary CTE program.

Theoretical Framework

The theoretical framework for this study was based on the Social Learning Theory of Career Decision Making (SLTCDM; Krumboltz, Mitchell, & Jones 1976;

Mitchell & Krumboltz, 1990). Social learning theory explains how educational and occupational preferences and skills are acquired and how the selection of courses, occupations, and fields of work is accomplished. The theory identifies the interactions of genetic factors such as race, environmental learning experiences, and task skills. Influencers play a part in all career decisions that are made; however, different combinations of interactions of the influencers produce a multitude of different career choices that individuals make (Mitchell & Krumboltz, 1990).

In addition to the influencers and the outcomes of their interactions, social learning theory suggests three sets of testable propositions that include factors influencing (a) preferences, (b) career decision making skills, and (c) entry behaviors into educational or occupational alternatives. Given that this research focused on the entry behaviors of individuals into a specific program of study (i.e., agriculture), social learning theory's third group of propositions provided the primary theoretical foundation for the study. The factors of primary importance in this study were within the social learning theory's category of influencers: 'Environmental Conditions and Events.' According to Sharf (2006), these factors are generally outside the control of the individual and include social, cultural, political, and economic conditions. Mitchell and Krumboltz (1990) described several conditions and events, categorized as social, educational, and occupational that affect an individual's decision making. Such factors may be planned or unplanned, and are usually beyond the control of the individual.

Purpose and Objectives

The purpose of the study was to identify the factors that influenced the postsecondary education enrollment behaviors of students who graduated from an urban agricultural education program. The research questions, therefore, posited for this study included:

1. What is the demographic profile of students who graduated from an urban agricultural education program?
2. Which individuals influence students to enroll or not enroll in a postsecondary education program in agriculture?
3. What events and/or experiences most influence students to enroll or not enroll in a postsecondary education program in agriculture?
4. What factors explain why students who graduated from an urban agricultural education program enroll or do not enroll in a postsecondary education program in agriculture?

Methods and Procedures

The population for this study included students ($N = 448$) who graduated from an urban agricultural education program in a Midwestern state between 1992 and 1995. One school was chosen to control some of the variance across agricultural science programs and the instruction that was delivered. It was assumed that students who graduated from high school between 1992 and 1995 were between 25 and 30 years of age and likely had completed some type of postsecondary education. Also, there was a greater chance that students who graduated several years prior to the study may have formed stable attitudes regarding why they chose to enroll or not enroll in a postsecondary education program in agriculture. In order to control frame error (Groves, 1989), efforts were made to obtain the current names and addresses of graduates with the assistance of the school's principal and agriculture coordinator.

A four-part survey instrument was developed based on a review of the literature and the social learning theory's category of influencers: 'Environmental Conditions and Events'. Section one included items pertaining to the amount of education completed, type of degree and/or certificate completed, individuals influencing secondary and postsecondary school enrollment behaviors, and events or experiences influencing students' secondary and postsecondary school enrollment behaviors. Section two included items related to career choice, individuals influencing career choice, and events or experiences that influenced former students' decisions to choose or not choose a career in agriculture. Section three included items measuring self-esteem using the *Rosenberg Self-Esteem Scale* (Rosenberg, 1965). Part four of the instrument included items eliciting demographic information. Level of influence variables were measured on a 5-point Likert-type scale ranging from 1 (*no influence*) to 5 (*very high influence*). Because this study was part of a larger investigation, only items in section one were used to address the four research questions. The survey was reviewed for content and face validity by a panel of experts consisting of five faculty with expertise in agricultural and workforce education and the agricultural coordinator from the participating high school. The survey was revised based on the comments and suggestions from the panel. Their input was incorporated into the final version of the instrument. The instrument was also pilot tested using 43 graduates of another urban agricultural education program who were similar in age and background characteristics to the sample used in the study. The test-retest reliability coefficient of the instrument was $r = .84$.

Data collection was conducted in three stages. The questionnaire, cover letter, and a prepaid return envelope were mailed to each of the 448 graduates. Two weeks after the first mailing, 31 (7%) graduates had responded. A second mailing was forwarded to all nonrespondents which resulted in a return of 21 additional surveys increasing the response rate to 12%. A final mailing was forwarded to all remaining nonrespondents. By the end of the third mailing, 36 additional surveys were returned yielding a total response rate of 20% ($n = 88$). Although the response rate for this

study is considered low, other follow-up studies conducted five years after high school graduation (Riesenberg & Stenberg, 1992), and involving agricultural education program completers (Helm & Straquadine, 1999) and college of agriculture graduates (Heyboer & Suvedi, 1999; Jones & Larke, 2001), have also yielded relatively low response rates (between 25% and 59%).

A comparison was made between early and late respondents to address the problem of nonresponse bias (Miller & Smith, 1983). A chi-square analysis procedure was used to compare early and late respondents regarding the following variables: year of graduation, and whether or not they possessed a certificate and/or degree in agriculture. No statistically significant differences ($p > .05$) were found between early and late respondents on any of the four variables. Although early and late respondents were found to be similar on major variables included in the study, caution should be exercised when interpreting the results of the study because of the low response rate and less than desirable sample size.

The data were coded and analyzed using the Statistical Packages for the Social Sciences, version 16.0 (SPSS, 2007). Descriptive statistics including frequencies, percentages, means, standard deviations, and correlations were used to analyze the data and answer the research questions. Further, discriminant analysis was used to address research question four.

Findings

Sixty-eight percent of the students who responded to the survey were female. Fifty-four percent were white, 40% were African American, 4% Hispanic, and 2% were classified as "Other". Of the former students who responded, 43% indicated that they had high school grade point averages between 3.00 and 3.50; 27% had high school grade point averages between 3.51 and 4.00; and 24% had high school grade point averages between 2.50 and 2.99.

Students completed an associate's degree in 13 different academic programs. Associate degree majors included areas such as office management, science, nursing, communication, and education. Of the former students who responded, 8% completed a bachelor's degree in agriculture while 7% completed a bachelor's degree in liberal arts. An additional 5% completed a bachelor's degree in education, business, or science. At the master's degree level, students completed degrees in three different areas: agriculture, education, and liberal arts. No students had earned a doctoral degree. Eight students had also completed certificates in several areas of agriculture (i.e., pesticide applicator, animal science, and landscaping).

Students reported the level of influence that selected individuals had on their decisions to enroll or not enroll in a postsecondary education program in agriculture (see Table 1). Level of influence variables were measured on a 5-point Likert-type scale ranging from 1 (*no influence*) to 5 (*very high influence*). Although the

Table 1
Individuals' Level of Influence on Former Students' Decisions to Enroll in a Postsecondary Education Program in Agriculture (n = 37)

Individual	Males (n = 7 ^b)			Females (n = 30 ^b)			Overall (n = 37 ^a)		
	Rank	M	SD	Rank	M	SD	Rank	M	SD
Mother or female guardian	2	3.43	1.81	1	4.10	1.21	1	4.07	1.28
Father or male guardian	4	3.00	1.92	2	3.70	1.60	2	3.64	1.56
Friend	1	4.00	.58	4	3.07	1.66	3	3.18	1.57
Another teacher	6	2.57	1.51	3	3.10	1.64	4	3.14	1.59
Another family member	3	3.29	1.70	5	3.00	1.70	5	3.10	1.67
Agriculture teacher(s)	5	2.86	1.35	5	3.00	1.70	6	3.05	1.60
Guidance counselor	7	2.43	1.40	6	2.77	1.57	7	2.83	1.52

Note. Scale: 1 = No Influence, 2 = Very Low Influence, 3 = Low Influence, 4 = High Influence, and 5 = Very High Influence. ^aTotal does not equal 88 due to missing data. ^br_s = .93

responses produced ordinal data, the results were treated as interval data for analysis and interpretation purposes.

Mean values are reported only for those who responded ($n = 37$). Students indicated that their mothers or female guardians had a high influence ($M = 4.07$) on their decisions to pursue postsecondary education. Their fathers or male guardians ($M = 3.64$) also had a high influence. However, friends ($M = 3.18$) had a low influence on their choice to enroll in a postsecondary education program in agriculture, followed by another (subject-matter) teacher ($M = 3.14$). The females who responded indicated similar patterns with their mothers or female guardians ($M = 4.10$); their fathers or male guardians ($M=3.70$) had a high influence on their decisions to enroll. Similarly, teachers ($M = 3.10$) and friends ($M = 3.07$) also had a low influence. Conversely, the seven males who responded indicated that a friend ($M = 4.00$) had a high influence on their decisions to pursue postsecondary education while their mothers or female guardians ($M = 3.43$) and fathers or male guardians ($M = 3.00$) had a low influence on their decisions. Interestingly, friends had more influence on former students' decisions to enroll in a postsecondary education program in agriculture than teachers, family members, agriculture teachers, and guidance counselors. A Spearman's rho coefficient of .93 revealed that males and females were in agreement with their rankings of individuals who influenced their decisions to pursue postsecondary education.

Students were also asked to list an event or experience that most influenced their decisions to enroll in a postsecondary education program in agriculture (see Table 2). Four students indicated that an interest in agriculture was the event or experience that most influenced their decisions to enroll. Personal factors were the events or experiences cited by two students as influencing their decision to pursue enrollment, while limited job opportunity was indicated by one student. Additionally, two students noted events or experiences that were classified as "Other". Of the former students who did not enroll in a postsecondary education program in agriculture, 13 students indicated events or experiences that were classified as "Other," while 13 students indicated a lack of interest and eight students indicated personal factors.

Of the 88 students who responded, 14 received a degree/certificate in agriculture. There were only four students who received more than one degree and/or certificate. The remaining 10 students received one degree and/or certificate in agriculture.

There were few significant relationships among the independent variables. Choosing to enroll in a postsecondary education program in agriculture was not related to gender, race, father's or male guardian's level of education, mother's or female guardian's level of education, father's or male guardian's occupation, mother's or female guardian's occupation, self-esteem, father's or male guardian's level of influence on postsecondary education, or mother's or female guardian's level of influence on postsecondary education.

Table 2
Events and Experiences Most Influencing Former Students to Enroll in a Postsecondary Education Program in Agriculture (n = 88)

Event/Experience	Enrolling ^a	Not Enrolling ^b	Total %
	<i>f</i>	<i>f</i>	
Lack of interest	--	13	17.1
Other	2	13	17.0
Personal factors	2	8	13.2
Other educational interest	--	7	9.2
Interest in agriculture	4	2	7.9
Other career interest	--	6	6.8
Low salaries	--	5	6.6
Enlisted in armed services	--	4	5.3
Limited job opportunities	1	3	5.3
Job opportunity	1	2	3.9
Negative high school experience	--	3	3.9

Note. ^aFive students did not provide an event or experience. ^bSeven students did not provide an event or experience.

Discriminant analysis was used to test whether a model consisting of selected factors could explain why students enrolled or did not enroll in a postsecondary education program in agriculture. Due to the low response rate (20%) in the study, the purpose for using the discriminant analysis was to explain if the two groups were similar. The dependent variable in the discriminant analysis was whether or not former students enrolled in a postsecondary education program in agriculture ("yes" or "no"). The independent variables were gender, race, father's or male guardian's level of education, mother's or female guardian's level of education, father's or male guardian's occupation, mother's or female guardian's occupation, high school grade point average, father's or male guardian's level of influence on postsecondary

education, and mother's or female guardian's level of influence on postsecondary education. Before computing the discriminant analysis, intercorrelations among these variables were computed (see Table 3). The following scale was used to describe the strength of the relationships: .01 to .09 = negligible; .10 to .29 = low; .30 to .49 = moderate; .50 to .69 = substantial; and .70 or higher = very strong (Davis, 1971).

The independent variables were further analyzed for their suitability to be included in a discriminant analysis model. Because the intent was to maximize the number of cases classified correctly with a discriminant model, only variables with zero-order correlations of .20 or higher were used in the discriminant analysis. Although there are no generally accepted criteria of practical significance (Pinquart & Sorensen, 2006), Cohen (1992) and Rosenthal (1991) suggest that a variable should explain at least 1% of the variance of the dependent variable. To be of practical significance in this study, variables needed to explain at least 4% of the variance in the dependent variable.

Two variables satisfied the minimum criterion of .20 for inclusion in the discriminant analysis (see Table 3). High school grade point average ($r = .29$) and mother's or female guardian's level of influence ($r = .20$) were related positively to enrolling in a postsecondary education program. Students who chose to enroll in a postsecondary education program had higher high school grade point averages and their mother or female guardian had a greater influence on their decisions to enroll. Accordingly, these variables were included in the discriminant analysis.

A stepwise discriminant analysis procedure was initially performed on the independent variables to determine if they discriminated between students who enrolled or did not enroll in a postsecondary education program in agriculture. In terms of using stepwise discriminant analysis, Tabachnick and Fidell (2001) noted that, "when the researcher has no reason for assigning some predictors higher priority than others, statistical criteria can be used to determine order of entry in exploratory research." (p. 481). No variables qualified for the stepwise analysis. As an alternative, the full-entry method was utilized. The discriminating power of the two variables was determined by Wilks' lambda. As shown in Table 4, high school grade point average and mother's or female guardian's level of influence explained 8% of the variance. Wilks' lambda indicated that the independent variables discriminated between students and if they chose to enroll in a postsecondary education program. Therefore, students who chose to enroll had higher high school grade point averages and their mothers or female guardians had a greater influence on their decisions to enroll.

Table 3
Intercorrelations Among Independent and Dependent Variables for Former Students Who Chose or Did Not Choose to Enroll in a Postsecondary Education Program in Agriculture (n = 88)

Factors	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆	X ₇	X ₈	X ₉	Y ₁
Gender (X ₁)	--									
Race (X ₂)	.04	--								
Father or male guardian level of ed. (X ₃)	.05	-.05	--							
Mother or female guardian level of ed. (X ₄)	.08	-.08	.36*	--						
Father or male guardian occupation (X ₅)	.00	.03	.42*	.06	--					
Mother or female guardian occupation (X ₆)	.13	-.14	.22	.34*	.22	--				
High school grade point average (X ₇)	.14	-.11	-.19	.05	-.05	-.18	--			
Father or male guardian level of influence (X ₈)	.14	-.08	.26	.28	-.01	.17	.08	--		
Mother or female guardian level of influence (X ₉)	.12	-.15	.05	.37*	-.04	.19	.07	.65	--	
Postsecondary enrollment in agriculture (Y ₁)	.03	-.13	-.16	.04	-.03	-.07	.29*	-.03	.20	--

Note. Code: Gender (0 = Male, 1 = Female); Race (0 = African American, 1 = Other); Agricultural degree/certificate (0 = No, 1 = Yes); Father or male guardian level of education (0 = High school diploma or less, 1 = Technical degree or more); Mother or female guardian level of education (0 = High school diploma or less, 1 = Technical degree or more); Father or male guardian occupation (0 = Blue collar, 1 = White collar); Mother or female guardian occupation (0 = Blue collar, 1 = White collar); Postsecondary enrollment in agriculture (0 = No, 1 = Yes); Self-esteem, Father or male guardian level of influence, Mother or female guardian level of influence, and High school grade point average are expressed as interval data.
 **p* < .05.

Table 4
Discriminant Analysis for Former Students Who Chose or Did Not Choose to Enroll in a Postsecondary Education Program in Agriculture (n = 88)

Function Derived	Eigen Value	Canonical R	Wilks' Lambda	Chi-Square
Postsecondary education in agriculture	.088	.29	.92	3.38
Variables Comprising Discriminant Function		Standard Discriminant Coefficient		
H.S. GPA		.581		
Mother or female guardian level of influence		.894		

The discriminant function accurately classified former students if they enrolled in a postsecondary program of agriculture 70% of the time. Also, the discriminant function accurately classified former students who did not choose to enroll in a postsecondary education program of agriculture 67% of the time (see Table 5). Therefore, the overall classification accuracy of the function was 67%, which is better than what could be expected by chance (50% accuracy).

Table 5
Results of Predicting Group Membership Based on Discriminating Variables

Actual Group (N)	Predicted Group Membership			
	Postsecondary Agriculture Enrollment		No Postsecondary Agriculture Enrollment	
	<i>f</i>	%	<i>f</i>	%
Postsecondary agriculture enrollment	7	70.0	3	30.0
No postsecondary agriculture enrollment	11	33.3	22	66.7

Note. Percent of cases classified correctly = 67.4%.

Discussion

Because of the low response rate and small sample size, caution should be exercised when interpreting the results of the study. Students in this study represented a nontraditional group of agriculture students. Approximately one-half were minority students, most of whom had above average grade point averages. Students in this study also completed undergraduate and graduate degrees and

certificate programs in several academic areas including education, business, and science.

Students indicated several events or experiences such as an interest in agriculture, personal factors, and other job opportunities that most influenced their decisions to enroll in a postsecondary education program of agriculture. These findings support the Social Learning Theory of Career Decision Making that suggests environmental conditions and events influence the choice of educational pursuits (Sharf, 2006). In particular, the events and experiences noted by the students in this study were more closely related to the educational and occupational conditions within the SLTCDM category of environmental conditions and events.

In terms of social influencers, students indicated that parents and/or guardians were the individuals who had the most influence on their decisions to enroll in a postsecondary education program of agriculture. However, mothers or female guardians had slightly more influence than fathers or male guardians. Interestingly, friends had more influence on students' decisions to enroll than teachers, family members, agriculture teachers, and guidance counselors. Overall, the findings regarding the impact of social influencers on student enrollment decisions are consistent with previous research (Belcher et al., 2003; Frisbee et al., 2000; Hossler & Stage, 1992) that reported parents and friends influenced postsecondary students' enrollment decisions.

Finally, the findings indicated that high school grade point average and mother's or female guardian's level of influence were the most distinguishing factors in predicting whether or not students enrolled in postsecondary education programs of agriculture. Therefore, students with higher grade point averages and whose mothers or female guardians exerted a high influence were more likely to enroll. Further, there is a lack of research examining the college enrollment behaviors of students enrolled in urban agricultural education programs. However, the findings support career development and college enrollment theory that suggests parental influence, especially mothers, and grade point averages are fairly moderate predictors of students' postsecondary enrollment behaviors (Hossler et al., 1991; Hossler & Stage, 1992; Otto, 2000).

In general, there were several factors that influenced students' decisions to enroll in a postsecondary education program of agriculture. The factors identified were embedded within the classification of environmental conditions and events, in particular, the educational and occupational conditions. The findings, therefore, support the Social Learning Theory of Career Decision Making contention that a vast array of conditions influences the decision making process.

Implications

The findings of this study are unique to one school; however, they have implications for other CTE programs. For example, former students indicated a lack of interest, career interests, personal factors, educational interests, and other factors as the leading events and experiences that influenced their decisions not to enroll in a postsecondary education program of agriculture. Accordingly, administrators, directors, and CTE teachers of urban programs should ensure they are providing a variety of career development experiences that may increase students' interest in postsecondary education in the various CTE career clusters.

An example of a career development experience could be the development and integration of a comprehensive careers course. Careers courses frequently aim to expose students to a variety of career options and the academic requirements for those options. Further, careers courses engage students in the decision making process helping them to choose among various educational and career options (Hughes & Karp, 2004). In particular, careers courses at the secondary level provide students with the opportunity to gain self-knowledge, engage in educational and occupational exploration, and develop career planning strategies.

Although a major limitation of this study is the relatively small sample size, the findings raise the question of whether or not similar results would be found with other programs regarding the impact of CTE on the educational and career choices of urban students. In addition, the findings suggest that more attention should be given to factors that influence the career decision making process. This is especially important since many of the influencers identified in this study (e.g., social influencers, educational and career interests) can impact other decisions across the lifespan.

Recommendations

Since former students indicated that parents and/or guardians were the individuals that most influenced their decisions to enroll in postsecondary education programs of agriculture, more emphasis should be on involving them in the college choice process. For example, organizers of high school college recruitment events should arrange for postsecondary CTE program coordinators to talk with students and their parents and/or guardians about the opportunities in various CTE career clusters. This recommendation supports research (Keller, 2004; Kerka, 2000; Otto, 2000) that concluded parenting behavior and family functioning have a strong influence on career development. The school in this study did not have a systematic student follow-up system to determine the types of educational and career options students were pursuing. Therefore, it is recommended that urban agricultural education programs develop student follow-up procedures to determine if their graduates are enrolling in postsecondary education programs of agriculture.

Bice (1980) noted that a comprehensive follow-up system should be an integral part of every urban agricultural education program. Developing and implementing a follow-up system could benefit programs since it can provide useful information for career guidance and counseling staffs, assist to promote the value of programs, determine if students are being placed in training and/or occupations directly related to their educational achievement, and assist in the improvement of curriculum efforts. The goal of most agricultural education programs is to prepare students for entry into education and careers in agriculture. Therefore, administrators and stakeholders of urban agricultural education programs should design strategies to help increase the number of students choosing to enroll in postsecondary programs. This goal is particularly important since the future of agriculture will rely on a more diverse workforce (Esters, 2005).

This study focused on only one type of CTE program. Therefore, future research should replicate this study with other urban-based CTE programs and populations. This is especially important due to the paucity of research with respect to the postsecondary enrollment behaviors of urban CTE students. Although many theories of career development focus on inherited abilities and environmental events, social learning theory emphasizes the importance of learning experiences and task approach skills (Sharf, 2006). Accordingly, future studies should test additional propositions and examine other factors of social learning theory that influence the postsecondary education enrollment behaviors of urban CTE students. Finally, future research should consider utilizing qualitative research approaches to obtain richer understandings of the factors that influence enrollment behaviors.

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The Author

Levon T. Esters is an Assistant Professor in the Department of Agricultural Education and Studies at Iowa State University, 217A Curtiss Hall, Ames, Iowa 50011. E-mail: lte@iastate.edu. Phone: 515-294-0897.