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Motivations, barriers, and educational opportunities associated with distance learning in southwestern Iowa

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Motivations, barriers, and educational opportunities associated with distance learning in southwestern Iowa

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Signatures have been redacted for privacy

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ABSTRACT

The primary purpose of this study was to establish current adult learner demographics southwestern Iowa, determine learner motivation for pursuing further knowledge, identify learner barriers, and to assess the educational needs of the region.

The population of the study included participants who are active in Iowa State University Extension activities and also current business owners in southwestern Iowa. A proportionate sample was drawn to comprise the 1,880 non duplicated names and addresses. Sample size was predetermined in the United States Department of Agriculture Fund for Rural America Telecommunications Program grant proposal. A sociologist was contracted to develop the survey instrument. The instrument was determined to be valid by a panel of experts from the Iowa State University Sociology Department. The development of the survey instrument was primarily driven by the results of the focus groups conducted during August and September, 1998.

Mailings occurred over a 6 week period which yielded a 52.6 response rate. Quantitative data were analyzed by SPSS using crosstab and correlation statistics. The alpha level was set a priori of .05.

Overall, a significant number of people want additional education opportunities to assist in their self improvement efforts and also to improve current work performance. However, a significant number of people feel that they reached their educational goals or had no further interest in pursuing additional education.

The overall assessment of educational opportunities indicate business related subject matter as the primary educational need. Agricultural related subject matter was of lesser interest to the respondents.

Respondents are satisfied with life in southwestern Iowa, as indicated by the small percentage of respondents who indicated pursuing additional education to leave southwestern Iowa.

In conclusion, respondents in southwestern Iowa are very interested in educational opportunities that will help strengthen the community through self development and improvement of current work performance. They also identified lack of time due to current employment as the primary barrier to pursuing their education.

Recommendations from this study are to develop a model to provide educational programming to southwestern Iowa. This study was limited only to residents of southwestern Iowa who participate in Extension activities or own businesses.

CHAPTER I. INTRODUCTION

Demographics

The demographic makeup of rural learners has dramatically changed over the past 30 years. No longer are rural learners dependent on production agriculture for their sole means of income. Good transportation and communication allows people to live in rural areas and travel to urban areas, permit the urban worker to become a rural resident, and makes it feasible for the urban enterenpenuer to relocate to rural areas (Molnar,1997). Relocated urbanites have become an integral part of many rural areas and communities. The National Center for Educational Statistics notes from recent studies that rural adult learners look like, act like, and learn like urban learners (McCannon, 1985; Draves and Maes, 1981). Knowles (1984) describes adult learners as being self-directing, as deriving only positive benefits from experience, possessing great readiness to learn, and voluntarily entering and educational activity with a life-centered, task-centered, or problem-centered orientation to learning, and as being internally motivated.

Rural Community

Rural America has changed during the past 50 years. Molnar (1997) defines the phrase rural America, in the broadest sense. It no longer implies production agriculture or natural resource development and their ancillary services in small geographical separated, low population density areas. Crom (1985) states that regardless of the region one characteristic remains consistent: rural populations are widely separated over large geographical areas. The Economic Research Service of the United States Department of Agriculture (ERS, 1998) reported that rural America contains 83% of the Nation's land and is home to 21% of its people.

ERS has stated that many rural communities have flourished while others have not enjoyed the benefits of progress. Those that have declined have done so because of continual struggles with poverty, unemployment, inadequate infrastructure, and a lack of viable economic opportunities and leadership. Communities that have seen positive changes also lack the necessary resources and skills necessary to compete in the future economic environment. This group, if unprepared, will likely be left behind. ERS noted that rural people and communities are involved in a wide variety of economic activities. No longer are the days of a solely "farming" community where almost all their needs are taken care of locally.

College completion rates and participation in non credit educational activities are also a challenge for rural America. As compared to their urban counterparts far fewer rural residents are continuing their past their high school education to pursue the education that is increasingly necessary for success in today's economy (ERS). Rural areas differ in their needs and resources they possess to address their needs. Population shifts and the use of natural resources, ownership of land and its effect on rural people and communities, and the issues associated with low-income people are all matters that require special educational attention (ERS). This snapshot picture of rural America is much different from what it once was.

Purpose and Objectives

The purpose of this study is to establish current adult learner demographics in southwestern Iowa, their motivation for pursuing further knowledge, identify the barriers to achieving their educational goals, and to identify their educational needs. The specific objectives of this study were to: 1) Identify the demographics/motivational characteristics of the changing population in southwestern Iowa. 2) Determine the barriers that affect the

achievement of educational goals and what motivational factors encourage the pursuit of educational goals and (3) Establish the initial base for developing educational opportunities that address the needs of people in southwestern Iowa.

Assumptions

The study assumes that the data is representative of individuals who reside in southwestern Iowa and that focus group findings are accurate indicators of motivational factors, barriers and desire for educational programming.

Study Origin

"Iowa is known to be a rich agricultural state, a leader in education, and possesses a state of the art telecommunications fiber optics system that transcends the state". Why then should this study be conducted? Iowa is no different than any other states in that there are areas which need economic development that are much below the state's averages in production of agricultural related products, level of income, land values, business and industry, involvement in higher education, and community services. The southwest area of Iowa is an area that possesses those needs. The people of this area recognize their need for rural and community development and have been striving for years to improve and develop several segments of their economy". H.R. Crawford (personal communication, June 29, 1999)

Need for Rural Development

It is obvious from the data in table 1, located in Appendix F, that southwest Iowa is the area of the state, which has the greatest need for rural development. The Des Moines Register revealed data reflecting a ranking of Iowa counties which was provided by the U.S. Bureau of Education (1995). From the twenty counties, in figure 1 located in Appendix G , included in this study and according to the data in table 1, it should be apparent that four of

the last ranking 99 counties in the state are from southwest Iowa. These counties are Decatur (99), Taylor (98), Ringgold (97), and Adams (93). Ten of the twenty counties are ranked 60-99 and only one, Carroll, is ranked 16th in the top 25.

Other indicators of the need for rural development to enhance economic development are also reflected in table 1, such as differences in population, number of farms, and especially the land value noted to be 77% of the state average.

Initial Gathering of Data

Fourteen focus groups were conducted with an average of 10 participants each. Each group encompassed a two county area. The focus groups elicited impressions on the needs of their county in the area of community development, educational opportunities, and telecommunications. All sessions were tape recorded for development of the survey instrument. From the sessions, key concerns and recurring themes from discussions were identified.

Based on the concerns and themes of the focus groups, a survey instrument was designed by Dr. Margie Hanson, Iowa State University Extension Sociologist, and mailed to a proportionally random sample list from each county. Number of participants were proportionally based on current population estimates of each county for a total sample size of 2,000.

Rationale

The rationale for this study stems from a strong need in Southwest Iowa to strengthen rural communities through education, provide relevant and meaningful educational opportunities and to establish the framework that considers the barriers and motivation of the participants in its educational planning. Fishbein and Ajzen's (1975) work suggested that people's intentions to participate in an educational activity can be predicted

based upon their perceived knowledge, general observation, and/or other information about some topic, field, or issue relevant to the educational opportunity. Fishbein and Ajzen model's assumed that by analyzing a person's beliefs, and perceptions about a topic will lend itself in determining a person's attitude towards the gaining knowledge about the topic. Further work based on this theory is by Greenwald (1989). Greenwald suggested that individuals tend to evaluate subjects positively if they hold a positive attitude towards that subject matter or situation. If an individual or group has an interest in educational opportunities then the whole community will prosper. This can be equated to the saying the sum of the whole is greater than its parts.

CHAPTER II. REVIEW OF LITERATURE

Moore and Kearsley (1996) cite that around the country and around the world most adult distance education students are between the ages of 25 and 50. Adult learners are an increasingly important segment of the population in the United States (Cross & McCartan, 1984; Long, 1987). In rural America, Treadway (1984) observed that most people possessed the following characteristics: generally older, possessed fewer years of formal education, and had varying declining degrees of involvement in the farming operations. Barker (1985) stated that rural people are likely to be more homogeneous, community wise, but rural communities were more likely to differ from one another than do metropolitan communities. In spite of this blending of communities, the rural learner is characteristically similar to their urban counterparts.

Selection of Demographic Variables

Research conducted over the past two decades has utilized demographic variables. Researchers have examined the adult learner focusing on such variables as sex, age, income, occupation, years out of school, previous educational levels, career goals, and degree goals Graham (1986). Graham cites additional researchers have found that the previous educational background is probably the single most important factor in determining adult education participation. Furthermore, those who had completed more formal education were more inclined to enroll in additional educational opportunities. Graham's study found that of those who sought additional education 75% identified work-related motives as their primary reason for continuing their education. Demographic variables are critical in identifying target market segments.

Mowen and Parks (1997) cite several segmentation criteria when defining target market segments: socio-demographics (i.e., age, gender, family composition, size, education levels, and employment type.; geographic location (i.e., accommodating those who are location bound or are unwilling/unable to leave home/work to attend resident instruction); psychographic (i.e., student attitudes about distance education and their attitudes toward work, family, community, and personal responsibilities). Further classification can be inferred to adult students with multiple family roles who desire the benefits of additional education to improve job knowledge while studying and participating in programs at their own pace.

Motivation

Early research focusing on educational motivation was derived from the work of Houle (1961). Houle's study of adults who were actively involved in lifelong learning identified three kinds of learning motives: activity oriented, goal oriented, and learning oriented. Houle suggests that the adult learner can be categorized primarily into one of the motivations; however, a cross between motives can occur and very few adults will exhibit just one motivation.

Johnstone and Rivera (1965) cite the following motives for taking educational courses: to become better informed; to prepare for a new job or occupation; to become better qualified for the job currently held and so forth. Botsman (1975) suggested individuals under the age of 29 pursue additional education to get a new job more often than people between 30 and 44 years of age. In addition, they identify additional reasons as: help to get a new job, work toward licensure/certification, work toward a degree, and to earn more income more often then respondents in the over 45 age group. In contrast, older respondents cite community betterment more often than the youngest group and the 30-44

age group. Given the above range of motives it is difficult to know the motives of any one adult would give for learning. Long (1991) states educators are tempted to assume that they can predict the motive by the nature or the content of the learner. When in reality, Miller (1980) found most educational activities were correlated to very real occupational, family, or other practical concerns of every day life.

Rural adults comprise nearly 27 percent of the nation's adult learners (McCannon, 1985). Their interests include both degree-oriented and non-credit activities (Maes, 1984), with occupational advancement and/or personal development as the primary motive for pursuing education (McCannon, 1985).

Barriers To Participation

While general demographics of urban and rural learners are the same, a distinct contrast between the two groups is that of residential location. Gray and Sullins (1997) suggest rural learners who live in areas of low population density receive fewer educational services and, have few opportunities. Rural learners are highly dependent upon the automobile for travel to work and learning centers.

Cross and McCartan (1984) and Charner and Fraser (1986) examined previous studies of barriers to participation in adult education programs and developed similar classifications from the barriers. Cross and McCartan's classifications were situational, institutional, or dispositional; and those of Charner and Fraser were situational, socio-psychological and structural. Situational barriers listed by both pairs of researchers included factors such as family status, occupation, social group, costs, lack of time, home responsibilities. Cross and McCartan found that lack of child care and a place to study or practice were additional situational barriers. In their research, Cross and McCartan

discovered that situational barriers most often were the reason for not pursuing additional education.

Cross and McCartan's instutional barriers and Charner and Fraser's structural barriers demonstrated the following similarities: inflexible course scheduling, too much time required to complete programs, lack of interest in full-time study, too much red tape, and lack of information. These types of barriers can contribute to the frustration of pursuing additional education.

Education

McCannon and Crom (1985) state the concept of lifelong learning is not new. The education of primitive societies was complex and continuous. Educational opportunities were not technical in nature; however, they did emphasize, character, skills, and moral qualities that people used and incorporated into their communities. Furthermore, according to various studies rural America wants and demands the same type of qualities instilled by our early ancestors in current educational programming. These same qualities are what drives today's rural America educational system. Focus groups conducted in southwestern Iowa (1998) found similar needs and desires. Education can build on these very fundamental qualities by developing educational opportunities that emphasize these traits.

Crom (1985) further emphasized that in order for educational opportunities to be relevant it is imperative that educational opportunities be accepted as an integral part of rural development by the community. These educational opportunities must be firmly grounded in the community by established educational centers and accepted into the daily lives of those who are served. Educational efforts must also address local needs and become the vehicle to solve realistic problems faced in rural communities. Crom postulated that by providing education to solve issues directly affecting rural communities will strengthen rural

and economic initiatives thus empowering rural communities to take control of their destiny.

A strong K-12 and community college presence has been the backbone of rural areas since their creation. Blong and Bedell (1997) stated, "for thirty-two years, Iowa's community colleges have provided programs to meet the community interests and personal objectives of Iowans." (pg. 575) Community colleges have a new challenge in community development programming. Blong (1997) noted that partnerships between community colleges, universities, and private industry are particularly important in meeting this need. As compared to urban areas, far fewer rural residents are completing the education that is increasingly necessary for success in today's economy (ERS, 1998). This lack of completion is due in part to the lack of four year educational institutions in the immediate area. Dorshing and Boirch (1996) note that information and education on viable strategies for local development are critical to community survival. Without educational institutions to provide this information, communities will continue to struggle.

CHAPTER III. METHODOLOGY

Design

A descriptive survey design was used in this research project. The questionnaire was developed from fourteen focus group summaries. The focus groups were conducted approximately six weeks before the development of the questionnaire. The questionnaire was designed to address community satisfaction, previous rural development strategies, motivation for pursuing additional education, barriers to participation, and technology usage specifically for southwestern Iowa.

Source of Information and Funding

This study is the research extension of an 1998 United States Department of Agriculture Fund For Rural America Telecommunications grant # 97362305163.

Selection of Sample

A proportionate random sample was drawn from Iowa State University Extension lists, such as Master Gardener and crop and livestock programs; and from a random list of business owners purchased from American Business Information. A total of 1,880 non-duplicated names and addresses were selected based upon the sample size stated in the grant proposal.

Development of Instrumentation

The development of the survey instrument was primarily driven by the results of focus groups conducted during August and September, 1998. The focus groups were comprised of a variety of interest areas including local producers, organic producers, bankers, agricultural business personnel, teachers, and students. Before a pretest was given, a panel of experts from the Iowa State University Sociology Department reviewed the

document. The Committee on the Use of Human Subjects in Research at Iowa State University reviewed the survey instrument and process. The study was approved (Appendix B) by the Committee. A draft of the survey was pre-tested with twelve area residents. Modifications and minor revisions were made to the instrument based on the comments from the pretest. A final version of the questionnaire was then produced. The questionnaire was divided into sections pertaining to topic areas generated from focus group discussions and outlined in the grant proposal.

Collection of Data

Identification of survey participants was conducted from October 27-30, 1998. A pre-notification card alerting the participants of the forthcoming survey on November 3, 1998. A cover of letter, survey instrument, and a self-addressed stamped envelope were sent on November 9, 1998 to 1,880 individuals. The first survey was returned on November 12, 1998. A second mailing, to non-respondents, occurred on December 8, 1998.

The original grant proposal specified 2,000 individuals; however, the makeup of participants from one county list could not be confirmed therefore this list was excluded from the survey master list. Appendix C contains copies of the survey instrument and cover letter. Participants were informed of the voluntary nature of the study and of the confidentiality of their responses in the cover letter. All surveys were numbered for tracking purposes; confidentiality was assured by separating the name and address listing from the completed surveys.

In an attempt to garner a higher response rate, newspaper advertisements and articles, as well as radio spots, were purchased to encourage responses. Mailing labels were obtained from database sent from county Extension offices and American Business Information. The mailing process, completed over a six-week period, included a pre-

notification postcard (Appendix D), a first survey mailing, thank you/reminder postcard (Appendix E) and a second mailing survey along with a cover letter (Appendix F). Completed surveys were sent to the Department of Sociology at Iowa State University for data entry and analysis. Of the 1,880 surveys mailed, 64 were returned by the U.S. Postal Service as non-deliverable. Nine-hundred-ninety useable questionnaires were completed and returned for a useable response rate of 52.6 percent.

Analysis of Data

The data was coded, as received, and entered into SPSS 8.0 version statistical software for analysis. Coding accuracy was preset at 5 % random check of data by the data entry specialist. Data was reviewed periodically during entry. Outliers were checked against the original document and corrected, if so necessary. Responses were plotted with no differences observed. Non-response error was determined by comparing early and late responders as outlined by Miller and Smith (1983).

The following procedures were used in analyzing the data: Frequencies, Crosstabs, and Spearman & Pearson's Correlations. Blocking techniques were placed on highest educational level, gender, and age in order to discover differences among segmented groups. Pearson's R correlation was used to compute the correlations between the variables within each factor. Spearman's correlation was used in computing the r for motivation and barrier correlations. The groups were defined as follows: Highest Educational Group- Group one = High School diploma and below; Group two = Some college and Associate degree; Group three = Bachelor and Graduate degrees. Age groupings are defined as follows: 1-30, 31-44, 45-60, and 61-90. Significance level for all statistical tests was set at .05.

CHAPTER IV. FINDINGS

The findings reported were based upon a survey administered to participants in twenty pre-determined counties in southwestern Iowa who have used county Extension programs. Not all respondents answered each question, so the reported responses do not always total 990. The overall useable response rate was 52.6%.

Demographic Findings

Findings reported in this subsection focus on the demographics of the segmented target market groups. Group composition was organized by highest educational level. The composition is as follows: Group 1- High School diploma and below; Group 2- Some college experience, or Associate degree; Group 3- Bachelor or Graduate degree.

Figure 1 presents the mean age blocked on the highest educational level. Overall, 982 individuals responded to the question focusing on age and educational level. The mean age of all respondents was 51.6, slightly higher than the national mean age range of 25-50 for rural adult learners. Of the 982 respondents, 65% were male.

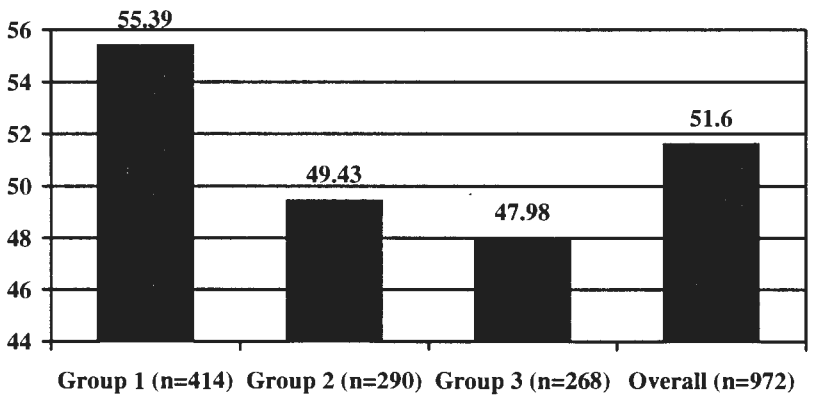


Figure 1. Mean age of respondents by highest educational level

The mean age for male respondents was 51.79 with a range of 21 to 84 and a standard deviation of 12.82. Female respondent mean age was 51.15 with a range of 24 to 84 and a standard deviation of 11.79.

Figure 2 graphically presents respondent marital status. The percentage married was calculated using the information derived from the question, "what is your spouse's present employment status?" A total of 836 people responded to the question with 86% responding as having an employed spouse.

Figure 2. Marital demographics

In figure 3, in more than 70% of the households, there were no children under the age of 12. Approximately 18% of households reported 1 to 2 children under 12. Approximately 4% of households reported 3 to 4 children with households that reported over 4 children were under 2%.

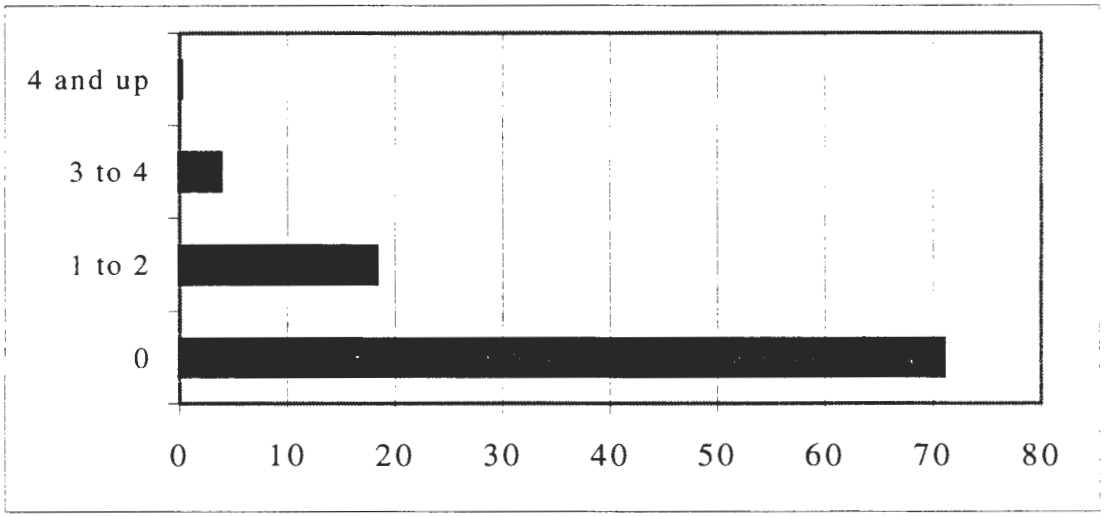


Figure 3. Children under the age of 12 residing in the household

In figure 4, over 65% of the households reported no children between the ages of 13-18. Approximately 25% of households reported 1 to 2 children, less than 3% of households reported three or more children.

Table 1 shows the employment status of the respondents by highest educational level. Overall, 78.1% are employed full-time and possess a bachelor or graduate degree (83.4%). A total of 11.2% of the respondents were employed on a part-time basis and possessed a high school diploma or less. Respondents who are retired accounted for 6.9% of the responses. A majority (11.6%) of retirees, possessed a high school diploma or less. Other, accounted for the following responses: student, seasonal, and unemployed.

Table 2 represents the distribution of employment status by age. A total of 961 persons responded to the question of employment status and gender. A majority of respondents working full time were between the ages of 18 and 30.

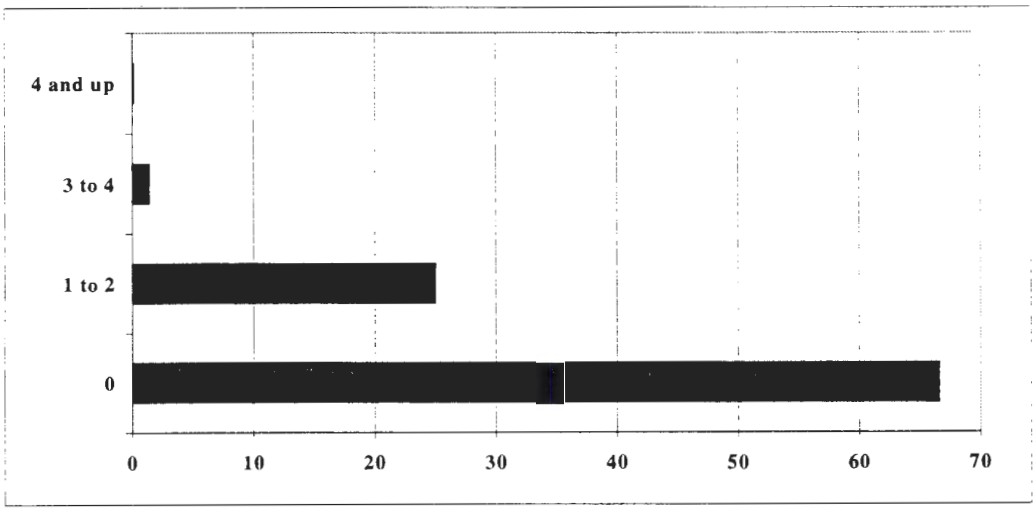


Figure 4. Children between the ages 13-18 years residing in the household

Table 1. Percentage of employment status by highest educational level

Employment Status	Group 1 n= 404	Group 2 n=289	Group 3 n=268	Overall N=961
Full Time	70.1	80.7	83.4	78.1
Part Time	14.2	9.9	9.6	11.2
Retired	11.6	5.6	3.4	6.9
Other	6.1	3.8	3.6	4.5

Note. Group definitions: Group 1- H.S. degree and below; Group 2- Some College and Associate Degree; Group 3- Bachelor/Graduate Degree

Table 2. Percentage of employment status by age

Employment Status	Group 1 n= 44	Group 2 n=261	Group 3 n=418	Group 4 n=248	Overall N=961
Full Time	90.9	86.2	84.9	50.0	76.6
Part Time	6.8	10.3	10.8	14.9	11.5
Retired			1.4	29.0	8.0
Other	2.3	3.5	2.8	6.0	3.8

Note. Group definitions: Group 1- 18-30 years; Group 2 – 31-44 years; Group 3 – 45-60 years; Group 4 – 61-90 years

The percentage of full time respondents decreased as the age of the respondents increased; however, 50% of respondents in the 61-90 age group were still employed on a full time basis. Likewise the percentage increases (2.3% to 6.0%) as the age of the respondents increases in the category of other. Other includes: seasonal and on-call employment.

Table 3 presents the distribution of employment by gender. Males, employed full time, account for 86.1% of 633 male respondents. Male employment status drops dramatically from full time to part time (5.1%). Females, employed full time, account for 59.1% of 337 female respondents. Females, employed part time (23.4%), do not have the same percentage decline as males in this particular employment status. However, a higher percentage of "other" (10.4%) is reported for female respondents. Respondents who indicated that they were retired were relatively the same percentage (8.5% - male, 7.1% - female).

Table 4 identifies respondent occupation by highest educational level. Nearly 25% of the respondents identified "farming" as their primary occupation and approximately 24%

Table 3. Percentage of employment status by gender

Employment Status	Male n=633	Female n=337
Full Time	86.1	59.1
Part Time	5.1	23.4
Retired	8.5	7.1
Other	.3	10.4

Table 4. Occupations of respondents by highest educational level

Occupation	Group 1 n= 414	Group 2 n=292	Group 3 n=268	Overall N=974
		Frequency		
		Percentage		
Farming	120	80	41	241
	29	27	15	25
Management	38	39	31	108
	9	13	12	11
Professional	2	16	94	112
	.5	6	35	12
Service	90	78	61	229
	22	28	23	24
Self Employed	31	21	10	62
	8	7	4	6
Other	133	58	31	222
	32	20	12	23

Note. Group definitions: Group 1- H.S. degree and below; Group 2- Some College and Associate Degree; Group 3- Bachelor/Graduate Degree

were employed in the "service" industry. Occupations included in "service" consist of occupations that are service based such as waitress or healthcare worker. Of the respondents who identified "farming" as their primary occupation, 29% possessed a high school diploma or less. Within that level, 46.2% had less than a 9th grade education. Respondents having some college exposure accounted for 27.4% of the respondents.

Occupations in the category of "other" include: blue collar occupations, seasonal, and other occupations considered to be hard labor type occupations. This category accounted for the largest group of respondents within the educational level "high school diploma or less" (32.1%). "Other" was listed by "some college and associate degree" group and respondents indicating "Bachelor or Graduate degrees" in the third and fourth spots (19.9% , 11.6%), respectively.

Respondents who have advanced degrees identified "professional" occupations (35.1%) as their primary occupation. The "service" industry accounted for 22.8% of the advanced degree occupations.

Occupation blocked on age is presented in Table 5. Nearly 25% of all respondents identified "farming" as their primary occupation. However, "farming" was not the primary occupation among the different groups and was most commonly reported as second. Respondents indicating "service" as their primary occupation accounted for 23.4% of the respondents.

Respondents who, ranged in age from 31-60, indicated "service" as their primary occupation, 28.4% and 26.2%, respectively.

A total of 226 (23%) indicated "other" as their primary occupation. Respondents 61 to 90 had the highest percentage of respondents at 43.7%.

Table 5. Occupations of respondents by age

Occupation	Group 1 n=44	Group 2 n=264	Group 3 n=424	Group 4 n=252	Overall N=984
			Frequency		
			Percentage		
Farming	8	59	109	67	243
	18	22	26	27	25
Management	16	32	50	11	109
	36	12	12	4	11
Professional	5	43	50	15	113
	11	16	12	6	12
Service	8	75	111	36	230
	18	28	26	14	23
Self Employed	2	17	31	13	63
- Non Farmer	5	6	7	5	6
Other	5	38	73	110	226
	11	14	17	44	23

Note. Group definitions: Group 1- Age 18-30; Group 2- Age 31-44; Group 3- Age 45-60; Group 4- Age 61-90

Management" is the predominate occupation of respondents in the age 18-30 group; however, the respondents selecting "management" represented small percentages among all the groups. "Management" was overall ranked second to the lowest occupation asked in the survey.

Respondents identifying "professional" as their occupation accounted for 11.5% of the responses and ranks fifth in occupational choices. "Professional", like "farming", did not represent high percentages among the different groups.

Table 6 presents the occupations of respondents blocked on gender. The largest percentage of females (39.7%) were employed in the "service" industry. The category "Other" represented almost 24% (23.6.%) of the female respondents.

For males, "farming" was the dominate occupation (35.6%) followed by occupations in the category "other" (22.7%). Females employed in "farming" was minimal, 4.4%.

Table 6. Occupations of respondents by gender

Occupation	Male n=640	Female n=343
	Frequency Percentage	
Farming	228 35.6	15 4.4
Management	54 8.4	55 16.0
Professional	76 11.9	36 10.5
Service	94 14.7	136 39.7
Self Employed - Non Farmer	43 6.7	20 5.8
Other	145 22.7	81 23.6

"Professional" occupations were relatively the same for males and females, 11.9% and 10.5% respectively. Self employed respondents also had a similar percentage distribution, 6.7% and 5.8%, respectively.

A large difference was present in "service" occupations between the genders. Females accounted for more than twice the percentage of male respondents, 14.7% and 39.7% respectively.

The category "other" accounted for almost 25% of the respondent population, 22.7% for males and 23.6% for females. There were almost twice as many males indicating "other" as their occupation, 145 versus 81 respectively.

Motivation

Table 7 presents respondents identification of motivational factors influencing achievement of educational goals blocked on highest educational level. Respondents were asked to select the single most important motive for furthering their education. A combination of learning oriented and goal oriented statements were used to identify motivational patterns. Overall, the primary motivation was "self improvement" (43.3%) with a secondary reason "to improve current work performance (26.2%). Overall, 19.7% responded, "having no educational interest". The largest percentage having no educational interests was recorded by the "high school diploma or less" (32.4%).

Weak correlation coefficients are present in individual groups as well as in overall. This suggests that furthering education may or may not be attributed to educational level. However, respondents having an "Associate degree or some college" show a slightly strong correlational number as compared to the "High school diploma or less" group and "Bachelor or Graduate degree" groups.

Table 7. Respondents identification of motivational factors influencing achievement of educational goals by highest educational level

Motivational Factor	Group 1 n=285	Group 2 n=241	Group 3 n=225	Overall N=751
		Frequency		
		Percentage		
Have no educational interests	98	31	19	148
	32.4	12.9	8.4	19.7
Self Improvement	110	115	100	325
	38.6	47.7	44.4	43.3
Improve current work performance	61	67	69	197
	21.4	27.8	30.7	26.2
Train for another job in SW Iowa	5	4	3	12
	1.8	1.7	1.3	1.6
Train for another job outside of SW Iowa	2	2		4
	.7	.8		.5
To attain a degree	3	18	17	38
	1.1	7.5	7.6	5.1
Other	6	4	17	27
	2.1	1.7	7.6	3.6
Pearson Correlation	.077	.142	.073	.259
Approximate T	1.299	1.821	1.087	7.339

Note. Group definitions: Group 1- High school. degree and less; Group 2- Some college or Associate degree; Group 3- Bachelor or Graduate degree

Three hundred and twenty five (43.3%) out of 751 respondents reported self improvement as the reason for achieving further educational goals. The majority of respondents indicating "self Improvement" were from the "some college or Associate degree" group (47.7%). The "Bachelor or Graduate degree" group reported slightly less (44.4%) interest in enrolling for "self-improvement" purposes.

"Improving current work performance" accounts for 26.2% of all respondents. Within this category, 30.7% of the Bachelor or Graduate degree group indicated to "improve their current work performance". The some college or Associate degree group also ranked "improvement in performance" as second (27.8%). The high school degree or less group ranked "improvement of current work performance" at third (21.4%).

"Training for another job" or to "relocate outside southwestern Iowa" had minimal response 1.6% and .5%, respectively. No respondents in the Bachelor or Graduate degree group did not select "training for another job outside southwestern Iowa".

A total of 5.1% of respondents indicated that they would be interested in "obtaining a degree". Most of these respondents were from the Bachelor or Graduate degree group (7.6%); however, no significant difference was recorded between the group with some college or Associate degree (7.5%) and Bachelor or Graduate degrees.

Table 8 presents information regarding respondents identification of motivational factors influencing achievement of educational goal blocked on age. "self improvement" (43.1%) was the primary motivation for respondents to enroll in educational opportunities. "Self improvement" was rated number one through each of the age groupings.

Table 8. Respondent identification of motivational factors influencing achievement of educational goals by age

Motivational Factor	Group 1 n=39	Group 2 n=221	Group 3 n=327	Group 4 n=171	Overall N=758
			Frequency		
			Percentage		
Have no educational interests	3	31	55	63	152
	7.7	14.0	16.8	36.8	20.1
Self Improvement	17	82	148	80	327
	43.6	37.1	45.3	46.8	43.1
Improve current work performance	13	76	87	22	198
	33.3	34.4	26.6	12.9	26.1
Train for another job in SW Iowa	1	5	6		12
	2.6	2.3	1.8		1.6
Train for another job outside of SW Iowa		2	2		4
		.9	.6		.5
To attain a degree	5	16	16	1	38
	12.8	7.2	4.9	.6	5.0
Other		9	13	5	27
		4.1	4.0	2.9	3.6
Spearman Correlation	-.011	.145	-.250	-.131	
Approximate T	-.068	2.162	-4.652	-1.720	
P value	.946	.032	.000	.087	

Note. Group definitions: Group 1- Age 18-30; Group 2- Age 31-44; Group 3- Age 45-60; Group 4- Age 61-90

"Improving current work performance" was selected as first by 26.1% of the respondents. This was selected second by all groups except the 61-90 age group which selected "no educational interests" and accounted for 36.8%.

The third most commonly selected motivational factor was "having no educational interests". Except for the participants 18-30 and 61-90 this category was chosen third.

"To attain a degree" was chosen third by the 18-30 age group (12.8%). Participants between the ages 31-60 chose this category fourth.

The only positive correlation (.145) existed in the age group 31-44 regarding motivation and age. The least negative correlation was recorded by the 18-30 year participants (-.011). The most negative correlation was found in the participants 44-60 years of age (-.250); however, this group also had the largest number of respondents (327).

Figure 5 graphically represents identification of motivation blocked on gender. Both genders were more likely to indicate "self improvement" as their first selection with males indicating a stronger desire for "self improvement" (45.3% and 38.9%, respectively). Males indicated "no educational interests" (23.3%) and "improving work performance" (22.7%) differed only slightly as secondary and third responses.

As stated in figure 5, 38.9% of females chose "self improvement" as their primary motivation for continuing their education; however, a large percentage (32.4%) chose "improve work performance" as their primary motivation.

Small percentages for "training for a job within or outside southwestern Iowa" were indicated by both genders (1.0% and 4.2%, respectively). In addition, a small percentage of both genders indicated "attaining a degree" as their primary motivation (4.0% and 6.9%, respectively).

Barriers

Table 9 presents the frequencies and percentages of those respondents selecting the barriers affecting attainment of educational goals blocked on highest educational level. A large number of "not applicable" are reported. Overall, 43.3% did not respond to any of the barriers listed in the study.

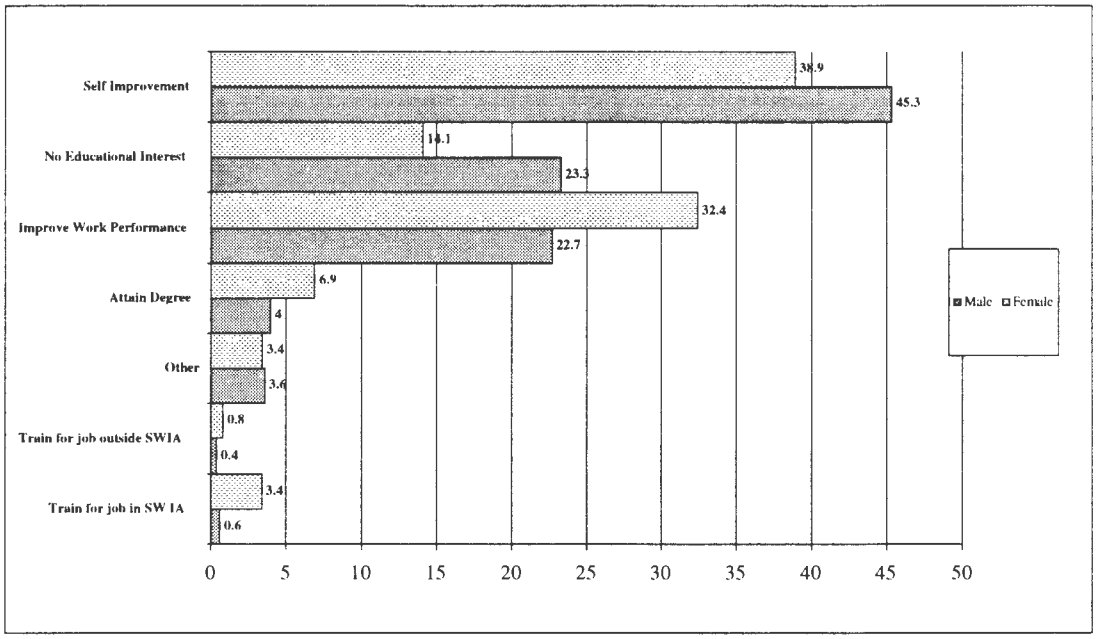


Figure 5. Motivation by gender

Within the did not respond group, 42.9% of the High school diploma or less group; 54.4% of the some college or Associate degree; and 54.4% of the Bachelor or Graduate degree group did not respond. In addition, 27.8% of the respondents indicated that this question did not apply because they had "reached their educational goals". The "not applicable" results were not calculated into the remaining frequencies and percentages.

As presented in Table 10 the most frequently chosen barrier to educational goal attainment indicated by the respondents was "lack of time due to current employment" (34.8%). The some college or Associate degree group had the highest percentage of respondents (44.4%).

Table 9 . Barriers affecting achievement of educational goals by highest educational level

Barrier	Group 1 n=410	Group 2 n=292	Group 3 n=268	Total n=979
		Frequency Percentage		
Does Not Apply, Reached Educational Goals	78 19.0	65 22.3	126 47.0	272 27.8
Lack of Time Due to Current Employment	128 31.2	129 44.4	80 29.9	341 34.8
Lack of Time Due to Family Obligations	78 19.0	95 32.5	55 20.5	229 23.4
Lack of Financial Resources	101 24.6	91 31.2	50 18.7	244 24.9
Lack of Educational Opportunities within Commuting Distance	33 8.0	37 12.7	47 17.5	118 12.1
Lack of Spousal/Family Support	12 2.9	18 6.2	6 2.2	36 3.7
Unaware of Educational Opportunities in the area	19 4.6	11 3.8	6 2.2	36 3.7
Don't know where to begin to reach my educational goals	31 7.6	20 6.8	3 1.1	54 5.5

Note. Group definitions: Group 1- H.S. degree and below; Group 2- Some College and Associate Degree; Group 3- Bachelor/Graduate Degree

Table 10 . Barriers affecting achievement of educational goals by age

Barrier	Group 1 n=44	Group 2 n=264	Group 3 n=423	Group 4 n=249
		Frequency Percentage		
Does Not Apply, Reached Educational Goals	11 25.0	63 23.9	115 27.2	83 33.3
Lack of Time Due to Current Employment	22 50.0	116 43.9	174 41.1	30 12.1
Lack of Time Due to Family Obligations	17 38.6	107 40.5	87 20.6	19 7.6
Lack of Financial Resources	18 40.9	91 34.5	105 24.8	30 12.0
Lack of Educational Opportunities within Commuting Distance	9 20.5	37 14.0	57 13.5	15 6.0
Lack of Spousal/Family Support	3 6.8	13 4.9	16 3.8	4 1.6
Unaware of Educational Opportunities in the area	4 9.1	12 4.5	14 3.3	6 2.4
Don't know where to begin to reach my educational goals	4 9.1	20 7.6	20 4.7	9 3.6

Note. Group definitions: Group 1- 18-30; Group 2- 31-44; Group 3- 45-60; Group 4- 61-90

The primary barrier was "lack of time due to current employment" (34.9%). This barrier was the primary barrier in the age range 18-60. Respondents in the 61-90 group indicated that they had "reached their educational goals" (27.8%).

The secondary barrier was "does not apply, reached educational goals" (27.8%). The 45-60 age group indicated this barrier as their secondary barrier. Respondents ranging in age from 18-44 most often selected this barrier as their third choice.

Figure 6 presents the percentages of respondents indicating barriers in achieving their educational goals by gender. More than one-fourth of the respondents (27.8%) selected "does not apply, reached educational goals". Of the 27.8%, 28.5% were male and 26.4% were female.

The barrier "lack of time due to current employment" (34.8%) was selected most often by both genders. Females responded 35.8% and males 34.3%, respectively.

A noticeable gender difference existed in the "lack of financial resources" where females accounted for 32.6% and males 20.8%. Also, in the "lack of time due to family obligations" females again accounted for 30.8% and males 19.4%.

Identification of Educational Opportunities

Table 11 presents the percentages and frequencies of educational opportunities rated by gender. Ordinal categories were used for respondents to rank their level of interest of interest on the following scale: very interested, somewhat interested, and not at all interested. Males reported being "very interested" in the areas of educational opportunities that focused on agriculture such as: farm management (21%), marketing farm commodities (30.6%), sustainable farming practices (18%), applied biotechnology (21.1%) and basic trade skills (14.5%).

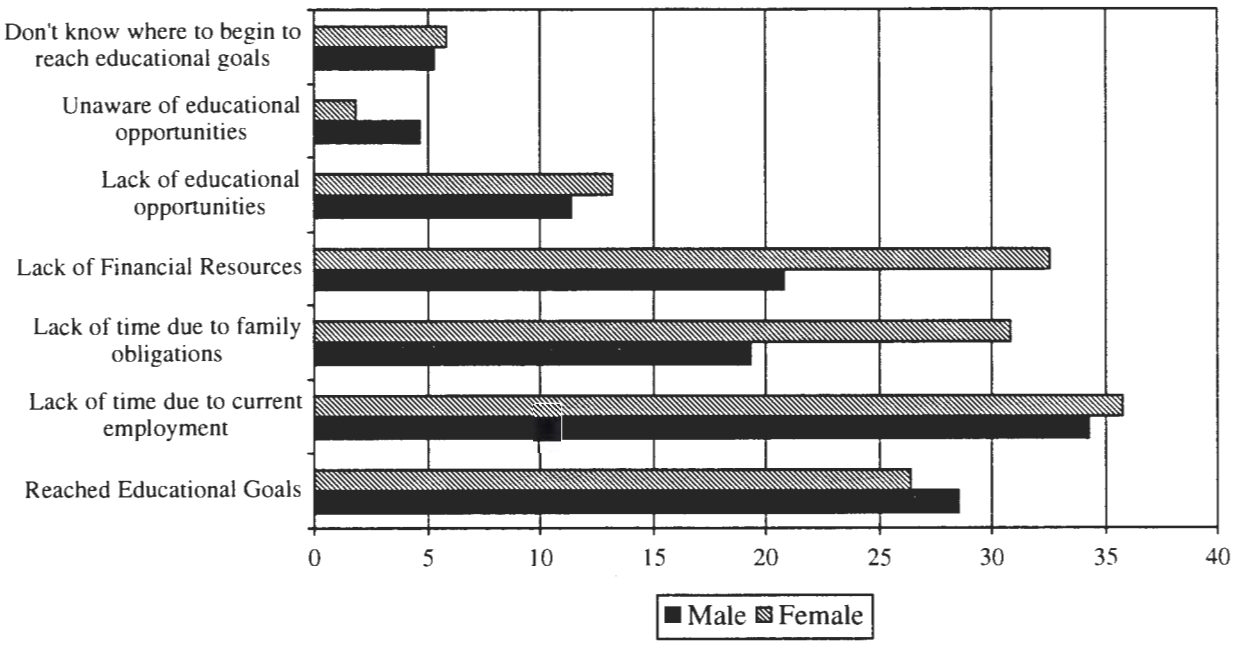


Figure 6. Barriers in achieving educational goals by gender (N=979)

Females indicated being "very interested" in business related educational opportunities such as:"computers" (43.1%, 44.1%, respectively), leadership skill development (25.4%), personal finance and debt management (27.7%), business management (26.2%), intergenerational communication (12.6%), managerial skills (26.3%), public policy (12.5%), successful teamwork (20.7%), resolving interconflict (21.3%), personnel management (24.3%), and grant writing strategies (18.1%).

Males indicated the following educational opportunities has being "somewhat interested" more often than females. These educational opportunities are: computers (33.8%, 31.2%, respectively), farm management (27.1%), starting your own business (19.8%), precision farming or site farming (23.6%), marketing farm commodities (21.6%), sustainable

Table 11. Percentage and frequencies of educational opportunities by gender (N=877) Male/Female

Topic	Very Interested	Somewhat Interested	Not At All Interested
Introduction to computers	30.1/43.1	33.8/27.0	16.3/17.8
Advanced computer training	32.7/44.1	31.2/26.6	16.4/17.0
Farm management	21.0/11.2	27.1/26.6	31.8/53.5
Leadership skill development	20.2/25.4	34.8/37.6	24.9/24.8
Starting your own business	16.6/14.7	19.8/18.8	43.4/53.9
Precision farming/site farming	14.3/5.4	23.6/17.8	42.1/64.3
Personal finance/debt mgmt.	25.3/27.7	33.2/38.6	21.3/21.5
Marketing farm commodities	30.6/18.5	21.6/18.9	28.0/50.3
Sustainable farming practices	18.0/13.3	29.3/22.7	32.8/51.7
Organic farming practices	9.4/8.1	23.9/18.5	46.6/61.1
Business Management	23.1/26.2	37.1/38.7	19.6/23.0
Inter-generational communication	8.3/12.6	35.0/38.2	36.2/36.5
Managerial skills	24.9/26.3	33.5/34.2	21.5/27.3
Public Policy	10.0/12.5	31.1/28.4	38.8/46.6
Applied biotechnology	21.1/9.4	26.9/21.8	31.9/56.4
Successful teamwork	20.5/20.7	38.8/45.8	20.5/21.1
Resolving Interconflict	14.9/21.3	32.9/38.3	32.0/28.0
Personnel management	22.5/24.3	34.9/38.7	22.5/24.9
Basic trade skills	14.5/7.4	30.7/15.8	34.8/64.3
Grant writing strategies	12.3/18.1	18.1/25.1	49.3/44.5

farming practices (29.3%), organic farming practices (23.9%), public policy (31.1.%), applied biotechnology (26.9%), and basic trade skills (30.7%).

Females indicated the following educational opportunities as being more "somewhat interested" in then males: leadership skill development (37.6%), personal finance and debt management (38.6%), business management (38.7%), inter-generational communication (38.2%), managerial skills (34.2%), successful teamwork (45.8%), resolving interconflict (38.3%), personnel management (38.7%), and grant writing strategies (25.1%).

Overall, males indicated has being "not at all interested" more than females in: leadership skill development (24.9%) and grant writing strategies (49.3%).

Table 12 provides the percentages and frequencies of respondent's interest in educational opportunities by highest educational level. Ordinal categories were used for respondents to rank their level of interest of interest on the following scale: very interested, somewhat interested, and not at all interested.

Business related educational opportunities emerged in the top five across all the groups for the categories "very interested" and "somewhat interested". Interestingly, agricultural related subjects were strongly identified as being "not at all interested" across all groups.

Six out of 10 respondents rated introduction to computers and advanced computer training in the "somewhat interested" or "very interested" categories. Nearly 43% (42.8%) of the respondents in the some college or Associate degree group ranked introduction to computers in the "very interested" category. Almost 46.5% of these same respondents indicated being "very interested" in advanced computer training.

Table 12. Percentage and frequency of educational opportunities by highest educational level

Educational opportunity	Group 1 VI[a]	SI	NI	n	Group 2 VI	SI	NI	n	Group 3 VI	SI	NI	n
					Frequency / Percentage							
Introduction to computers	115 / 32.2	109 / 30.5	35 / 9.8	259	115 / 42.8	88 / 32.7	35 / 13.0	269	74 / 29.6	78 / 31.2	79 / 31.6	231
Advanced computer training	82 / 23.2	98 / 27.8	75 / 21.2	255	124 / 46.3	80 / 29.9	33 / 12.3	237	116 / 45.3	84 / 32.8	37 / 14.5	237
Farm management	60 / 17.0	77 / 21.9	117 / 33.2	254	53 / 20.0	76 / 28.7	105 / 39.6	234	40 / 15.9	74 / 29.4	119 / 47.2	233
Leadership skill development	48 / 13.7	115 / 32.8	90 / 25.6	253	70 / 26.6	103 / 39.2	59 / 22.4	232	72 / 28.3	95 / 37.4	68 / 26.8	235
Starting own business	44 / 12.9	58 / 17.0	142 / 41.5	244	50 / 19.2	51 / 19.6	128 / 49.2	229	40 / 16.1	58 / 23.4	131 / 52.8	229
Precision farming	29 / 8.4	70 / 20.3	148 / 42.9	247	39 / 14.8	58 / 22.1	135 / 51.3	232	28 / 11.2	60 / 23.9	144 / 57.4	232
Personal finance	72 / 20.7	113 / 32.5	65 / 18.7	250	84 / 31.6	99 / 37.2	52 / 19.5	235	71 / 28.2	94 / 37.3	68 / 27.0	233

[a]Scale: VI=Very interested, SI=Somewhat interested, NI=Not at all interested.

Table 12. Continued

Educational opportunity	Group 1 VI	Group 1 SI	Group 1 NI	n	Group 2 VI	Group 2 SI	Group 2 NI	n	Group 3 VI	Group 3 SI	Group 3 NI	n
					Frequency / Percentage							
Market farm commodities	86 24.4	67 19.0	102 28.9	255	78 29.2	50 18.7	108 40.4	236	68 26.8	65 25.6	102 40.2	235
Sustainable practices	45 13.0	88 25.4	116 33.4	249	46 17.4	73 27.5	115 43.4	234	51 20.0	76 29.8	109 42.7	236
Organic farming	19 5.5	65 18.8	163 47.2	247	21 8.0	65 24.7	146 55.5	232	38 15.0	59 23.3	137 54.2	234
Business management	62 17.9	124 35.8	62 17.9	248	78 291	115 42.9	44 16.4	237	68 27.0	91 36.1	74 29.4	233
Inter communications	16 4.8	109 32.5	112 33.4	237	34 13.1	83 32.0	111 42.9	228	34 13.5	111 44.0	88 34.9	233
Managerial skills	67 19.2	107 30.7	77 22.1	251	74 28.0	95 36.0	64 24.2	233	77 30.6	93 36.9	63 25.0	233
Public policy	21 6.2	86 25.2	136 39.9	243	38 14.4	81 30.8	113 43.0	232	33 13.1	93 36.9	107 42.5	233
Applied biotechnology	56 16.3	78 22.7	112 32.6	246	44 16.7	74 28.1	114 43.3	232	48 18.9	67 26.4	120 47.2	235

Table 12. Continued

Educational opportunity	Group 1 VI	Group 1 SI	Group 1 NI	n	Group 2 VI	Group 2 SI	Group 2 NI	n	Group 3 VI	Group 3 SI	Group 3 NI	n
					Frequency / Percentage							
Successful teamwork	53 15.4	132 38.4	61 17.7	246	59 22.6	111 42.5	60 23.0	230	66 26.0	112 44.1	57 22.4	235
Resolving conflict	33 9.7	106 31.2	103 30.3	242	51 19.2	97 36.6	86 32.5	234	63 24.6	98 38.3	76 29.7	237
Personnel management	65 18.8	107 30.9	76 22.0	248	70 26.3	103 38.7	62 23.3	235	66 26.1	105 41.5	63 24.9	234
Basic trade skills	43 12.4	87 25.1	118 34.1	248	35 13.3	66 25.1	131 49.8	232	26 10.3	70 27.8	137 54.4	233
Grant writing strategies	31 9.0	50 14.6	164 47.8	245	44 16.7	53 20.2	135 51.3	232	48 19.1	74 29.5	110 43.8	232

Three out of 10 respondents (29.6%) who possessed a Bachelor or Graduate degree were very interested in introduction to computers. This same group also showed a stronger interest in advanced computer training (45.3%) Almost 8% more respondents who possessed a high school diploma or less were very interested in a beginning computer course (32.2.%) and advanced computer training (23.2%).

Other business related educational opportunities selected as being "very interested" were: managerial skills, personal finance, personnel management, successful teamwork, and leadership skill development. On average, these subject areas were selected at least 2 out of 10 times as being "very interested".

Subject areas rated being "somewhat interested" in were: personal finance, leadership skill development, managerial skills, successful teamwork, and personnel management. At least three out of 10 respondents indicated these areas as "somewhat interesting".

Farm management, precision farming, organic farming, public policy, applied biotechnology, and basic trade skills were some of the more noteable areas in which "no interest at all" was shown. At least 4 out of 10 respondents indicated "not interested at all" in most areas.

Tables 13-16 reveal the level of interest in educational opportunities by age. Business related subjects were rated as being "very interested" or "somewhat interested" across all ages. Communication subjects were rated as "somewhat interested" by respondents with ages ranging from 31-60. More often than not agricultural related topics were rated as "not at all interested" across the age spectrum.

Table 13. Percentage and frequencies of educational opportunities rated by age (18–30 years)

Topic	Very interested	Somewhat interested	Not at all interested
	(frequency/percentage)		
Introduction to computers (n=43)	13/30.2	19/44.2	8/18.6
Advanced computer training (n=44)	24/54.5	11/25.0	6/13.6
Farm management (n=44)	17/38.6	6/13.6	18/40.9
Leadership skill development (n=44)	17/38.6	21/47.7	3/6.8
Starting your own business (n=44)	19/43.2	11/25.0	11/25.0
Precision farming/site farming (n=44)	10/22.7	12/27.3	19/43.2
Personal finance (n=44)	26/59.1	11/25.0	4/9.1
Marketing farm commodities (n=44)	17/38.6	7/15.9	17/38.6
Sustainable farming practices (n=44)	15/34.1	9/20.5	17/38.6
Organic farming practices (n=44)	5/11.4	13/29.5	23/52.3
Business management (n=44)	21/47.7	15/34.1	5/11.4
Intergenerational comm. (n=44)	8/18.2	19/43.2	14/31.8
Managerial skills (n=44)	17/38.6	18/40.9	6/13.6
Public policy (n=44)	12/27.3	11/25.0	18/40.9
Applied biotechnology (n=44)	11/25.0	14/31.8	16/36.4
Successful teamwork (n=44)	16/36.4	16/36.4	9/20.5
Resolving interconflict (n=44)	14/31.8	14/31.8	13/29.5
Personnel management (n=44)	18/40.9	17/38.6	6/13.6
Basic trade skills (n=43)	8/18.6	11/25.6	21/48.8
Grant writing strategies (n=44)	11/25.0	10/22.7	20/45.5

Table 14. Percentage and frequencies of educational opportunities rated by age (31–44 years)

Topic	Very interested	Somewhat interested	Not at all interested
	(frequency/percentage)		
Introduction to computers (n=220)	102/40.6	77/30.7	41/16.3
Advanced computer training (n=224)	116/45.5	80/31.4	28/11.0
Farm management (n=221)	60/23.8	62/24.6	99/39.3
Leadership skill development (n=221)	63/25.0	103/40.9	55/21.8
Starting your own business (n=219)	50/20.0	59/23.6	110/44.0
Precision farming/site farming (n=220)	33/13.1	60/23.9	127/50.6
Personal finance (n=221)	77/30.6	99/39.3	45/17.9
Marketing farm commodities (n=222)	72/28.5	48/19.0	102/40.3
Sustainable farming practices (n=220)	37/14.7	74/29.5	109/43.4
Organic farming practices (n=220)	24/9.6	65/25.9	131/52.2
Business management (n=221)	74/29.4	109/43.3	38/15.1
Intergenerational comm. (n=218)	22/8.8	102/41.0	94/37.8
Managerial skills (n=220)	73/29.1	97/38.6	50/19.9
Public policy (n=221)	25/9.9	89/35.3	107/42.5
Applied biotechnology (n=220)	45/17.9	57/22.7	118/47.0
Successful teamwork (n=220)	52/20.7	120/47.8	48/19.1
Resolving interconflict (n=221)	48/19.0	99/39.3	74/29.4
Personnel management (n=219)	61/24.4	106/42.4	52/20.8
Basic trade skills (n=221)	27/10.7	76/30.2	118/46.8
Grant writing strategies (n=220)	39/15.5	60/23.9	121/48.2

Table 15. Percentage and frequencies of educational opportunities rated by age (45–60 years)

Topic	Very interested	Somewhat interested	Not at all interested
	(frequency/percentage)		
Introduction to computers (n=332)	148/38.2	120/31.0	64/16.5
Advanced computer training (n=333)	156/40.2	119/30.7	58/14.9
Farm management (n=329)	56/14.6	109/28.4	164/42.7
Leadership skill development (n=328)	93/24.3	139/36.3	96/25.1
Starting your own business (n=317)	57/15.3	84/22.6	176/47.3
Precision farming/site farming (n=326)	41/10.8	87/22.8	198/52.0
Personal finance (n=326)	98/25.7	142/37.3	86/22.6
Marketing farm commodities (n=331)	105/27.2	87/22.5	139/36.0
Sustainable farming practices (n=330)	64/16.6	106/27.5	160/41.6
Organic farming practices (n=328)	37/9.7	78/20.4	213/55.6
Business management (n=330)	98/25.5	136/35.3	96/24.9
Intergenerational comm. (n=316)	41/11.1	133/35.8	142/38.3
Managerial skills (n=330)	108/28.1	133/34.5	89/23.1
Public policy (n=323)	46/12.2	115/30.4	162/42.9
Applied biotechnology (n=326)	67/17.6	96/25.2	163/42.8
Successful teamwork (n=326)	83/21.8	159/41.7	84/22.0
Resolving interconflict (n=327)	67/17.5	143/37.4	117/30.6
Personnel management (n=331)	97/25.1	146/37.8	88/22.8
Basic trade skills (n=327)	56/14.7	89/23.3	182/47.6
Grant writing strategies (n=322)	60/15.9	86/22.8	176/46.7

Table 16. Percentage and frequencies of educational opportunities rated by age (61–90 years)

Topic	Very interested	Somewhat interested	Not at all interested
	(frequency/percentage)		
Introduction to computers (n=143)	43/20.9	63/30.6	37/18.0
Advanced computer training (n=138)	29/14.4	53/26.4	56/27.9
Farm management (n=136)	22/11.1	49/24.6	65/32.7
Leadership skill development (n=136)	20/10.1	52/26.1	64/32.2
Starting your own business (n=132)	11/5.6	14/7.2	107/54.9
Precision farming/site farming (n=131)	14/7.2	28/14.4	89/45.9
Personal finance (n=136)	28/14.1	55/27.6	53/26.6
Marketing farm commodities (n=139)	41/20.3	40/19.8	58/28.7
Sustainable farming practices (n=135)	29/14.6	47/23.7	59/29.8
Organic farming practices (n=131)	12/6.2	36/18.6	83/42.8
Business management (n=133)	19/9.7	70/35.7	44/22.4
Intergenerational comm. (n=130)	13/6.7	54/28.0	63/32.6
Managerial skills (n=133)	24/12.2	47/24.0	62/31.6
Public policy (n=130)	11/5.7	46/23.8	73/37.8
Applied biotechnology (n=133)	26/13.3	52/26.5	55/28.1
Successful teamwork (n=132)	28/14.4	65/33.3	39/20.0
Resolving interconflict (n=131)	20/10.3	47/24.2	64/33.0
Personnel management (n=133)	26/13.3	48/24.5	59/30.1
Basic trade skills (n=132)	14/7.2	48/24.6	70/35.9
Grant writing strategies (n=133)	14/7.1	21/10.7	98/50.0

Personal finance (59.1%) received the highest percentage of "very interested" between the ages 18-30 years. This group also indicated strong combined interest in beginning and advanced computer related training, almost 84.5%. Slightly more than 43% indicated being "very interested" in learning how to start their own business. This group indicated being somewhat interested in leadership skill development (47.7%), inter-generational communication (43.2%), managerial skills (40.9%), and personnel management (38.6%). About half of the age group, 18-30, indicated "not interested at all" in organic farming practices (52.3%), basic trade skills (48.8%), precision farming (43.2%), grant writing strategies (45.5%), farm management (40.9%), and public policy (40.9%).

Nearly 86% of respondents in the 31-44 age group indicated being "very interested" in beginning and advanced computer training. Personal finance (30.6%), business management (29.4%), and managerial skills (29.1%) also were rated as being "very interested". About 40% of this group indicated business management (43.3%), personnel management (42.4%), inter-generational communication (41.0%), leadership skill development (40.9%), and resolving interpersonal conflict (39.3%) as being "somewhat interested". About half of this group indicated being "not at all interested" in organic farming practices (52.2%), precision farming (50.6%), grant writing strategies (48.2%), applied biotechnology (47.0%), and basic trade skills (46.8%).

Beginning and advanced computer training received the largest combined percentage (78.4%) of respondents in the age group 45-60 as being "very interested". Other areas in the "very interested" category included marketing farm commodities (27.2%), personal finance (25.7%), and business management (25.5%). Personal finance and business management were again selected as having a "somewhat interested" level. About 30% of the respondents

also chose inter-generational communication (35.8%), resolving interconflict (37.4%), and personnel management (37.8%) as being "somewhat interested" in obtaining additional education. An average of almost 52% of respondents indicated agricultural based subjects as being "not at all interested". Starting your own business (47.3%) and grant writing strategies (46.7%) received "not at all interested" as well.

The 61-90 age group had a small percentage of respondents who indicated being "very interested" across all educational opportunity subject matter. However, at least 1.5% of respondents did indicate they were "very interested" in beginning and advanced computer traning (35.3%), sustainable farming practices (14.6%), successful teamwork (14.4%), and personal finance (14.1%). An average of 137 respondents selected these educational opportunities. A slightly stronger percentage of respondents indicated being "somewhat interested" in business management (35.7%), successful teamwork (33.3%), inter-generational communication (28.0%), personal finance (27.6%), and applied biotechnology (26.5%). The strongest response percentages are seen in the "not at all interested" category. Respondents in the 61-90 age group indicated "not at all interested" in starting your own business (54.9%), grant writing strategies (50.0%), precision farming (45.9%), organic farming practices (42.8%) and public policy issues (37.8%).

Correlations

Table 17 presents the educational opportunities correlations by age. Correlations for this study will adhere to the following order: low - greater than .01, medium - .000, and high - greater than -.01

Table 17. Educational opportunities by age (Correlation and T)

	Group 1 18-30		Group 2 31-44		Group 3 45-60		Group 4 61-90	
Educational Opportunity	Pearson's R	Approx T	Pearson's R	Approx T	Pearson's R	Approx T	Pearson's R	Approx T
Introduction to computers	-.089	-.570	-.081	-1.285	.151	3.004	.070	.998
Advanced computer training	-.231	-1.540	-.050	-.796	.189	3.777	.091	1.285
Farm Management	.044	.288	-.005	-.086	.189	3.755	.063	.891
Leadership Skill Development	-.079	-.511	-.040	-.640	.230	4.615	.067	.951
Starting your own Business	-.035	-.229	-.074	-1.176	.236	4.670	.087	1.211
Precision Farming	.006	.121	-.010	-.150	.212	4.223	.058	.806
Personal Finance	-.007	-.042	-.044	-.694	.213	4.238	.061	.851
Marketing Farm Commodities	.045	.294	-.021	-.337	.184	3.662	.038	.545
Sustainable Farming Practices	.060	.389	-.028	-.444	.174	3.465	.067	.940
Organic Farming Practices	.014	.093	-.018	-.286	.184	3.654	.065	.902
Business Management	.014	.089	.079	-1.254	.209	4.179	.101	1.419
Inter-generational Communication	-.086	-.558	-.071	-1.124	.212	4.159	.078	1.081
Managerial Skills	-.091	-.595	-.082	1.305	.204	4.086	.093	1.302
Public Policy	-.083	-.540	-.052	-.826	.212	4.213	.087	1.212
Applied Biotechnology	.032	.205	-.051	-.803	.172	3.403	.607	.942
Successful Teamwork	-.122	-.794	-.039	-.609	.192	3.809	.086	1.198
Resolving Interconflicts	-.176	-1.160	-.048	-.764	.050	3.935	.085	1.175
Personnel Management	-.116	-.760	-.070	-1.109	.228	4.585	.097	1.352
Basic Trade Skills	.009	.055	-.027	-.425	.205	4.080	.069	.963
Grant Writing Skills	-.060	-.386	-.078	-1.235	.220	4.377	.090	1.263

All correlations between age and educational opportunity are low and in some instances negative. Negative correlations are most likely a result of variable coding and a high number or not applicable responses.

The 18-30 age group responded positively to the top five areas, which are all agriculturally based. Sustainable farming practices had an insignificant correlation number of .060 for this group. Farm management and marketing farm commodities had equal correlations at .044 and .045, respectively.

Business management had the strongest correlation, .079, for respondents in the age range 31-44. Marketing farm commodities recorded the highest correlation. The remaining areas were: precision farming (-.010), organic farming (-.018), and basic trade skills (-.027).

Respondents in the 45-60 age range responded with lack of significant interest in strarting your own business (.236). Leadership skill development had the second highest correlation at .230, which is significant for this study. Other educational interests include personnel management (.228), grant writing strategies (.220), and personal finance (.213).

Personnel management produced the most significant correlation for respondents in the 61-90 age range. Advanced computer training also had a slightly significant correlation at .091. Grant writing strategies (.090), public policy (.087), and starting your own business (.087) each showed positive correlations with age.

Table 18 presents the correlations for educational opportunities by highest educational degree. Blocking on the highest educational level produced mixed correlation numbers. The top five subject areas each had insignificant correlations. However, only slightly negative correlations were calculated for the high school diploma or less respondents. Marketing farm commodities (-.081) had the strongest correlation followed by

Table 18. Educational opportunities by degree (Correlation and T)

	Group 1		Group 2		Group 3	
Educational Opportunity	Pearson's R	Approx T	Pearson's R	Approx T	Pearson's R	Approx T
Introduction to computers	-.135	-2.570	-.048	-.778	.069	1.088
Advanced computer training	-.126	-.2.377	-.010	-.163	.064	1.028
Farm Management	-.132	-2.486	-.077	-1.251	.127	2.027
Leadership Skill Development	-.101	-1.890	-.062	-1.007	.045	.710
Starting your own Business	-.122	-2.269	-.061	-.976	.078	1.226
Precision Farming	-.144	-2.703	-.076	-1.226	.103	1.628
Personal Finance	-.133	-2.501	-.094	-1.527	.094	1.498
Marketing Farm Commodities	-.081	-1.520	-.043	-.705	.172	2.766
Sustainable Farming Practices	-.109	-2.038	-.044	-.706	.147	2.371
Organic Farming Practices	-..100	-1.863	-.034	-.550	.106	1.686
Business Management	-.126	-2.346	-.070	1.150	.090	1.430
Inter-generational Communication	-.139	-2.557	-.053	-.853	.018	.284
Managerial Skills	-.124	-2.328	-.042	-.680	.079	1.252
Public Policy	-.158	-2.941	-.023	-.380	.043	.677
Applied Biotechnology	-.102	-1.896	-.052	-.834	.150	2.416
Successful Teamwork	-.132	-.2466	-.070	1.136	.049	.778
Resolving Interconflict	-.149	-2.770	-.053	-.865	-.010	-.157
Personnel Management	-.147	-2.761	.040	-.655	.023	.370
Basic Trade Skills	-.136	-2.537	-.037	-.591	.094	1.494
Grant Writing Skills	-.147	-2.747	-.056	-.906	.040	.631

organic farming practices (-.100), leadership skill development (-.101), applied biotechnology (-.102), and sustainable farming practices (-.109).

A slightly significant correlation existed in (.040) the some college or Associate degree group between personnel management and highest educational level. Negative correlations were recorded for the remaining top opportunities: advanced computer training (-.010), public policy (-.023), organic farming (-.034), and managerial skills (-.042).

Positive correlations on all educational opportunities are observed for the group who possessed Bachelor or Graduate degrees. Marketing farm commodities had the largest correlation of the group (.172). Biotechnology (.150), sustainable farming practices (.147), farm management (.127), and organic farming (.106) had low correlations.

Major Findings

The following statements summarize the major findings of this study:

1. The typical rural adult learner in Southwest Iowa was a male, between the ages of 54.52 and 72.31, was married, had a high school diploma, with no children under 18 residing at home. In addition, this person was most likely from the upper tier of counties in the twenty county area and has resided in that county for 36.17 years. This person was employed on a full time status in either the farming or service occupations.
2. A strong motivation exists for self improvement (43.3%) when choosing educational activities blocked on highest degree level. Respondents with an Associate degree and/or some college indicate (47.7%) readiness to further their education for self improvement. Respondents with Bachelor or Graduate degrees, even though not interested in pursuing additional degrees, indicate (44.4%)

willingness to continue education. Self improvement was the primary motivation for continued education when blocked on age which was established across all groups. Motivation can be predicted using any set of blocking variables.

3. Lack of time due to current employment was the prominent barrier for not pursuing additional education and was consistently present among the groups highest level of education, age, and gender.
4. Demographic findings revealed that farming was the major occupation; however, when levels of interest in educational opportunities are identified the respondents were not interested in agricultural based subject. This finding is consistent in among all groupings in (highest educational level attained, gender, and age). There is strong interest in business related subject matter and a less but still prominent interest in communication subject areas.
5. Because of the large number of "not applicables" and no answer the correlational studies are not consistent with percentage levels of interest in educational opportunities.

CHAPTER V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

Education has played an important role in the survival of rural America for the past 50 years (ERS). At the beginning of the century communities relied on themselves to provide their needs to remain viable and sustain their economic growth. Most everything could be purchased and grown locally. Agriculture was the backbone of all community development efforts, as agriculture was definitely the lifeblood of their existence (McCannon and Crom, 1988). Education was on a different plateau. Education's purpose was to prepare people for careers within the community in agriculture and service type occupations (McCannon, 1986). A higher education degree was not seen as useful in the rural community except for professional positions such as doctors and dentists. These types of careers directly affected the community and were deemed necessary for community survival. Rural adults wanted education to fulfill two purposes: 1) to prepare children for life and 2) reemphasize the character, skills, and morale qualities learned at home.

As the decade progressed, technology was introduced into agriculture and daily lives of rural residents. No longer did communities look within themselves for all their needs. Good transportation and communication enabled rural residents to "go to town" to do shopping, seek entertainment, and allowed young adults to further their education (McCannon and Crom, 1988). This technology infusion changed attitudes about the purpose of education. Pursuing higher education was no longer a luxury, it was now something attainable with little difficulty. Technology also changed the makeup of the communities. Instead of agriculture being the main theme of economic discussion, manufacturing and other

professions entered the discussion. A new attitude toward education was necessary to prepare individuals for careers in these new areas.

During this time community demographics changed dramatically. Farming began a slow decline from being the number 1 occupation to number 2. This decline was driven by technology, which allowed farmers to farm more land, thus eliminating the small farmer. These individuals began seeking employment outside of the agricultural industry. Manufacturing firms, small businesses, and healthcare industries moved into rural America due to availability of labor. These industries needed specialized skills to be taught in order to utilize the existing labor pool (Korsching and Borich, 1996).

Summary of Demographics

This section of the study was conducted to establish the demographic base of the current rural adult learner in Southwest Iowa. The typical adult learner was male, possessed a high school degree or less, was on average 55 years old, married, and had no children under the age of 18 residing at home. This individual was employed full time and most likely in the occupation of farming and was very satisfied with Southwest Iowa as a place to live, as indicated by the lack of interest in pursuing additional education to leave southwestern Iowa.

Summary of Motivational Factors

This section identified the motivational factors of rural adult learners in Southwest Iowa. Self-improvement was cited as the primary motivation for seeking further knowledge at all educational levels. This learning oriented motive was no surprise based on Maslow's Classification of Human Needs to fulfill self actualization.

However, 32.4 % of the individuals who possess a high school degree or less, average age 55.39, felt no need for further their education. Referring to the motivation by age Table 8 reveals individuals in 45-60 age group have goal oriented motives as their driving force.

This is reinforced with improve current work performance as the first choice of 26.6% of respondents. A small percentage of individuals, approximately 6%, have no interest in pursuing additional education.

As educational level increase, motives changed from learning oriented to goal oriented as demonstrated with current work performance having the second highest percentage in two out of three groups. One possible explanation is that this change in motive is due to a predominance of individuals in professional and service industries who see additional education a way to strengthen their skills and to advance in their occupation.

Respondents in the age range of 61-90 overwhelming selected self improvement as their primary motive. This possibly is due in part to the need to fulfill the socialization needs through affiliation and friendship that classes, meetings, and workshops provide.

Summary of Barriers to Participation

Barriers were identified as part of the focus group discussions. Barriers focused on situational and institutional classifications. Overall, 34.8% responded that "lack of time due to current employment" was the primary barrier to pursuing additional education. This corresponds to 76.6% of respondents working full time. "Lack of time due to current employment" accounted for two out of three groups when blocked on highest educational level. This same barrier also presented itself in three out of four age groups. Only the respondents over the age of 61 indicated that they had "reached their educational goals".

A majority of the responses were from females. In all but 2 cases, females responded with the highest response percentage. "Lack of time due to current employment", "lack of financial resources", and "lack of time due to family obligations" were the three most frequently selected barriers. Interestingly, in the survey childcare was provided as an example for lack of time due to family obligations. However, very few children under the age

of 18 reside in the household. One possible explanation is that family barriers, besides the ones discussed in the literature review, are involved in decisions related to pursuing additional education.

A very small percentage of respondents cited "being unaware of educational opportunities" or "lacking the knowledge of where to begin to reach educational goals". A possible explanation for this small percentage is the close proximity of strong community colleges and presence of the Extension Service in Southwest Iowa.

Summary of Educational Opportunities

Educational programming needs to be structured around the rural learner's needs and goals. This section of the study focused on the twenty main educational themes which emerged from the focus group discussions. Pearson's R Correlations were computed to determine the strength between the segmented groups and educational opportunities.

Males were predominately interested in educational opportunities such as computer training, personal finance/debt management, marketing farm commodities, and managerial skills. Because farming is the primary occupation of males, it is possible that they perceive these educational opportunities as a way of "improving their current work performance". Organic farming practices, public policy issues and intergenerational communications were selected less often.

Females identified computer training, personal finance/debt management, business management, and managerial skills as their most desired educational opportunities. These findings correspond to the most frequently chosen occupation of "Service". These individuals may look upon these types of opportunities to "improve work performance" and for "self development". Not surprising is the lack of interest in precision farming, basic trade

skills, and organic farming because of the small number of females choosing farming as their primary occupation.

Blocking on highest educational level revealed, the same subject interest theme as gender, however, was more evenly disbursed between the categories. As the level of education increased so did the percentage of interest level. Stronger percentages were reported in the "very interested" column as well as the "not interested at all" as educational level increased. Agriculturally related subject matter was rated as "not at all interested" regardless of the group most of the time. Computer training was of most interest to respondents.

Education on communication strategies, either interpersonal or resolving conflict appears to have an interest; however, was most dominate in the age group 45-60. Communication abilities are of concern to the entire sample but is of greater concern to respondents between 45 and 60 years of age.

The type of educational opportunities, blocked on age, mirrored the gender and highest educational level results. Business related opportunities was of higher interest level in 18-30 age group. This increased interest may be explained by these respondents starting in their careers and desiring education that will strengthen their business capabilities professionally as well as personally. As respondents become more established in their occupation the anxiety of not having a grasp of business may becomes less important but not so much that they do not feel additional education in this field would be of no value. Respondents ranging in age from 61-90 showed some interest in business and communications but overall had no educational interests.

Correlation figures, upon first inspection, appear to indicate that there is no correlation between age and level of educational interest. However, if compared to

percentage and frequency tables the correlations are inverted with the actual percentage level of interest. Negative correlations correspond with strong percentages indicating that there is a direct correlation. Positive correlations are a result of the interest levels being consistent among very interested, somewhat interested, and not interested, such as the case of respondents over the age of 61.

Recommendations

The following recommendations are offered based on the results of this study and on the review of literature.

1. Conduct a discrete analysis of the respondents who indicated they have no further educational interests. Rationale: This group accounts for 25% of the population that indicated on the survey that they did not have interest. This percentage does not account for the percentage who did not answer the question.
2. Initiate meetings and focus groups with private industry, agribusiness, and small business owners to further identify the types of business education offerings they feel would be relevant to them. Rationale: Business related education was identified as the most sought after educational opportunity. With a large percentage of respondents in the service, management, and professional occupations business related programming is very relevant. The possibility of establishing learning centers within the business industry would alleviate the lack of time due to current employment barrier.
3. Further study is necessary to develop a model which identifies the educational needs, alleviates the barriers and strengthens the motivation of the respondents to participate. Additionally the model needs to include a well developed marketing plan involving business, community colleges, and communities.

4. Complete a discrete analysis focusing on the delivery of the programming. A detailed study focusing on current and possible partnership arrangements, as outlined in the grant proposal, with community colleges, four-year institutions, Extension, and business needs to be conducted. Further study on the use of technology as the delivery mechanism needs to be explored with motivations and barriers related to that delivery type, as outlined in the grant proposal.

Conclusion

A significant number of people want additional education opportunities to help self improvement efforts and to improve current work performance. However, a significant number of people feel they have reached their educational goals or have no further interest in pursuing additional education.

The primary barrier cited by respondents is the lack of time due to current employment. Education providers need to access the needs of business as well as the participant and develop modules that fit both the employer as well as the employee. This maybe accomplished by establishing learning centers in large industrial areas or by developing learning agreements in which employers grant time for employees to pursue their education in order to retain them.

Educational institutions need to be innovative in the development of educational opportunities as well as how they meet the needs of the adult learner. Some possible ways include:

1. Develop agreements with business, community colleges, and Iowa State University to provide long term learning centers strategically placed in the southwestern Iowa area.
2. Establish frequent communications among business and industry, Extension, community colleges, Iowa State University, and rural learners.

3. Conduct town hall meetings to keep current on the educational needs of the participants.
4. Address barrier concerns by combining delivery methods that will allow greater access to educational opportunities.
5. Provide bi-annual meetings in permanent sites in the southwestern area to update participants and recruit new students.

APPENDIX A

INSTRUMENT OF THE STUDY

Rural Development and Education Assessment for Southwest Iowa

IOWA STATE UNIVERSITY
University Extension
Ames, Iowa

November 1998

Community Satisfaction

A. Please use the following scale to evaluate your community as you see it today.

	Poor	Fair	Good	Very Good	Excellent
My community as a place for...					
1. A family to live	1	2	3	4	5
2. Single adults to live	1	2	3	4	5
3. Children to grow up	1	2	3	4	5
4. Shopping	1	2	3	4	5
5. Recreational activities	1	2	3	4	5
6. Individual growth and development	1	2	3	4	5
7. Employment opportunities	1	2	3	4	5
8. Quality education in public schools	1	2	3	4	5
9. Good neighbors	1	2	3	4	5
10. Quality healthcare	1	2	3	4	5

B. Below is a list of things people have said may threaten the future of small communities. Please indicate the degree to which you feel the following threaten or do not threaten your community's future.

	Doesn't Threaten	Somewhat Threatens	Severely Threatens
1. Lack of adult educational opportunities	1	2	3
2. Loss of family farms	1	2	3
3. Absence of community leadership	1	2	3
4. Closing of small businesses	1	2	3
5. Young adults moving out of the community	1	2	3
6. Differences between "town folk" and "farm folk".	1	2	3
7. Lack of well-paying jobs	1	2	3
8. Shortage of affordable housing	1	2	3
9. More corporate farming by absentee owners	1	2	3
10. Growing number of single parent families	1	2	3

Other comments regarding your community: _____

_____

_____

_____

_____

Community and Rural Development

A. Below is a list of various strategies used in community and rural development. Please indicate how valuable you feel each strategy would be to further develop your community/rural area.

	Value of Strategy				
	No Value				Very High Value
1. Create off-farm jobs for farmers and their spouses	1	2	3	4	5
2. Local businesses and elected officials work together to promote the community	1	2	3	4	5
3. Provide tax incentives to attract new businesses and industries	1	2	3	4	5
4. Promote alternative crops that require more labor	1	2	3	4	5
5. Seek industries that process agricultural produce locally	1	2	3	4	5
6. Create new uses for land, such as game reserves, hunting areas, or forestry.	1	2	3	4	5
7. Provide tax incentives to local businesses to encourage expansion and growth	1	2	3	4	5
8. Build more affordable housing	1	2	3	4	5
9. Sponsor leadership training programs	1	2	3	4	5
10. Encourage farmers and non-farmers to work together for the improvement of the community (economic development, education, etc)	1	2	3	4	5
11. Patronize locally owned businesses	1	2	3	4	5
12. Provide adequate financing for K–12 education	1	2	3	4	5
13. Create jobs through processing locally grown crops/produce	1	2	3	4	5
14. Work with neighboring communities to attract family medical practitioners	1	2	3	4	5
15. Invest in more recreational facilities for area youth and families	1	2	3	4	5
16. Provide more community and adult education opportunities in the community	1	2	3	4	5
17. Promote local tourism	1	2	3	4	5
18. Other (please specify) _____ _____	1	2	3	4	5

B. Of the above strategies, which do you consider to be three most valuable community development strategies in your area?

_____ _____ _____

C. Has your community used any of the above strategies in the past 2 years?

No..... 1 Yes..... 2 → **If yes, which ones?** _____ _____ _____

Other comments regarding community/rural development: _____

_____

_____

_____

Educational Opportunities

A. During the past 3 years, have you continued your education in any of the following ways?

	Yes	No
1. Long-distance education courses	1	2
2. Earning CEU credits	1	2
3. Degree credit courses	1	2
4. Self-initiated/self-directed study	1	2

If you responded yes to any of the above, what was the primary teaching method used in your courses/ studies? *(Please indicate all that apply.)*

- ❒ Traditional group instruction
- ❒ Printed materials
- ❒ Video instruction
- ❒ Computer based instruction
- ❒ Instruction via ICN (Iowa Cable Network System)
- ❒ Other _____

B. Please indicate the PRIMARY reason/motivation for your educational interests *(one response only).*

Have no educational interests	1 ➔	***(Please skip to Page 5)***
Self improvement	2	
Improve current work performance	3	
Train for another job in SW Iowa	4	
Train for another job outside of SW Iowa	5	
To attain a degree	6 ➔	**If yes, What degree?**
Other (please specify) _____	7	

- Associate 1
- Bachelors (major _____) 2
- Graduate (specify _____) 3

C. For many adults, there are numerous obstacles that keep them from achieving their educational goals. From the following please indicate the obstacles that have played a role in limiting your educational goals. *(Check all that apply.)*

- ❒ Does not apply, I have reached my educational goal. ***(Skip to next page.)***
- ❒ Lack of time due to current employment
- ❒ Lack of time due to family obligations (childcare, etc.)
- ❒ Lack of financial resources
- ❒ Lack of educational opportunities within commuting distance *(Please specify the maximum distance you are willing to commute one-way: _____ miles)*
- ❒ Lack of spousal/family support
- ❒ Unaware of educational opportunities in the area
- ❒ Don't know where to begin to reach my educational goals
- ❒ Other (please specify) _____

Of the above, which obstacle is/has been the biggest? _____

D. Overall, what is your perception of the educational opportunities in your area provided by...

	Very Negative				Very Positive	Don't Know
ISU Extension	1	2	3	4	5	6
Area community colleges	1	2	3	4	5	6
Local business and industry	1	2	3	4	5	6

E. Please indicate your level of interest in learning more about the following.

	Very Interested	Somewhat Interested	Not At All Interested
1. Introduction to computers	1	2	3
2. Advanced computer training (The Internet/World Wide Web)	1	2	3
3. Farm management	1	2	3
4. Leadership skill development	1	2	3
5. Starting your own business	1	2	3
6. Precision farming/site specific farming	1	2	3
7. Personal finance/debt management	1	2	3
8. Marketing farm commodities	1	2	3
9. Sustainable farming practices	1	2	3
10. Organic farming practices	1	2	3
11. Business management (basic accounting, profit and loss statements, budgeting, etc.)	1	2	3
12. Inter-generational communication	1	2	3
13. Managerial skills	1	2	3
14. Public policy–writing it, understanding it, etc.	1	2	3
15. Applied biotechnology (Bt corn, roundup soybeans, etc.)	1	2	3
16. Successful teamwork	1	2	3
17. Resolving interpersonal conflict	1	2	3
18. Personnel management`	1	2	3
19. Basic trade skills (welding, machinist training, etc.)	1	2	3
20. Grant writing strategies	1	2	3
21. Other (please specify) _____	1	2	3

F. If you are interested in any of the above, who would you be most comfortable learning that information from? *(One response only please.)*

- ❒ ISU Extension
- ❒ Area Community Colleges
- ❒ Local business and industry
- ❒ Combination of all three
- ❒ No preference
- ❒ None of the above

Technology

A. Do you have the following in your home?

	No	Yes	
Cable television	1	2	
Satellite television dish	1	2	
Videotape player	1	2	
Personal computer	1	2	*(If no, skip to Question B)*

Does your computer have a...

CD-ROM	1	2 →	**If yes, have you ever taken a course on CD-ROM?** Yes ..... 1 No 2
Modem	1	2 →	**If yes, what is your phone access fee** $_____ per month

Have you ever taken a course via the Internet/World Wide Web?
Yes ..... 1 No 2

What are the three primary uses of your computer at home? (Please check no more than 3 responses.)

- ❒ Record keeping and tax records
- ❒ Household budget planning
- ❒ Kids use it for homework assignments
- ❒ Use to communicate on e-mail
- ❒ Business analysis and decision making
- ❒ Use for personal correspondence
- ❒ Source of entertainment/games
- ❒ Other (please specify) _____

On average, how many hours do you spend on your home computer each week?

Less than 1 hour	1	5 to 9 hours	3
1 to 4 hours	2	10 or more hours	4

B. Have you ever...

	Yes	No
Attended a meeting or conference via the ICN (Iowa Cable Network System)?	1	2
Taken a class via ICN?	1	2

If you responded "yes" to either of the above questions, what is your reaction to the ICN?

Very Negative				Very Positive
1	2	3	4	5

C. Were you aware that it is possible to take certain college courses through the use of videotapes?

Yes ..... 1 → **If yes, have you ever taken a course using videotapes?**
Yes 1
No 2

No ..... 2 → **If no, would you be interested in taking a course using videotapes?**
Yes 1
No 2

Demographics

Finally, we need to ask a few questions about your background and past experiences. This information as with all information provided in this survey, will be used for statistical analysis only and will remain strictly confidential.

A. Your age (as of last birthday)? _____ years

B. Your sex?

Male 1
Female 2

C. Your county of residence? _____ County

D. How long have you lived in this county? _____ years

E. What is your zip code? _____

F. Your highest level of formal education attained?

Less than 9th grade 1
9th to 12th grade, no diploma 2
High school graduate (includes equivalency) 3
Some college, no degree 4
Associate degree 5
Bachelor's degree 6
Graduate or professional degree 7

G. How many children...

Under the age of 12 live in your household? ..... _____
Age 13–18 years ..... _____

H. Your present employment status? ***(Please circle only what you consider your primary status.)***

Employed or self-employed on a **full-time** basis	1
Employed or self-employed on a **part-time** basis	2
Retired	3
Full-time homemaker	4
Student	5
Unemployed	6

Please list your primary occupation

Occupation _____

Community where employed _____

Miles traveled to work (one-way) _____ miles

Overall satisfaction with your present employment situation ***(circle your answer)***

Very satisfied	1	Somewhat dissatisfied	3
Somewhat satisfied	2	Very dissatisfied	4

I. To be answered if you are presently married:

What is your spouse's present employment status? ***(Please circle only your spouse's primary status.)***

Employed or self-employed on a **full-time** basis	1
Employed or self-employed on a **part-time** basis	2
Retired	3
Full-time homemaker	4
Student	5
Unemployed	6

Please list your spouse's primary occupation

Occupation _____

Community where employed _____

Miles traveled to work (one-way) _____ miles

Spouse's overall satisfaction with his/her present employment situation ***(circle your answer)***

Very satisfied	1	Somewhat dissatisfied	3
Somewhat satisfied	2	Very dissatisfied	4

Any additional comments:

Thank you for completing this survey. Please place in the envelope provided and mail.

APPENDIX B

PRE-NOTIFICATION CARD

Dear Mr. or Ms.:

You have been randomly chosen as one of 2,000 households in Southwest Iowa to participate in a "Rural Development through Education" Project.

In a few days, you will be receiving a survey we would like you to complete. The survey is confidential and results will be used in group form.

Your participation is important and beneficial to the people of Southwest Iowa. Please watch your mail for the survey. Thank you!

H. R. Crawford
Iowa State University

Bob Ramsey
SW Area Extension Director

APPENDIX C

PILOT LETTER TO SURVEY PARTICIPANTS

October 29, 1998

Dear Mr. / Mrs.

This is your opportunity to provide input on rural development and education needs in Southwest Iowa. Please take some time to complete the enclosed questionnaire. The information you provide is very important in planning future educational programs in your area.

Your household is one of 2,000 selected to participate in the survey. Although you are under no obligation to complete the questionnaire, we need your response to make effective and well-informed decisions regarding educational opportunities in Southwest Iowa. The enclosed questionnaire will take approximately 30 minutes to complete. Be assured all information you provide will be strictly confidential. The number on the return envelope is to help monitor returns only. You name will not be associated with the questionnaire or any findings.

Please complete and mail your questionnaire by November 18. Seal it in the postage-paid envelope and place it in the mail.

If you have any questions about the survey, you may call Margie Hanson at Iowa State University (515) 294-4800, or Bob Ramsey at the Southwest Area Extension Office (712) 769-2600.

We thank you for your assistance with the project and invite you to look for the findings resulting from it.

Sincerely,

Harold R. Crawford
Professor, Agricultural Education and Studies
Iowa State University
004 Curtiss
Ames, Iowa 50011

APPENDIX D

REMINDER POSTCARD TO PARTICIPANTS

Dear Southwest Iowa Resident:

A few days ago we sent you a survey about rural development and education needs in Southwest Iowa. The survey is being conducted in order to better plan future educational programs in your area.

If you have already returned the questionnaire, thank you for your help. If you have not yet returned it, would you please do so in the next few days? We need everyone's response for the study to be successful.

Thank you for your assistance with this project.

Sincerely yours,

H.R. Crawford
Iowa State University

APPENDIX E

SECOND LETTER TO PARTICIPANTS

IOWA STATE UNIVERSITY 74
OF SCIENCE AND TECHNOLOGY

Department of Agricultural Education and Studies
201 Curtiss Hall
Ames, Iowa 50011-1050
Administration and Graduate Programs 515 294-5904
Research and Extension Programs 515 294-5872
Undergraduate Programs 515 294-6924

December 8, 1998

Dear

Last month we sent you a questionnaire about rural development and education needs in Southwest Iowa. Our records show that we have not received your completed questionnaire. If you have already completed and returned the questionnaire please disregard this letter, and thank you for your response.

As one of 2,000 selected to participate in the survey, you are under no obligation to complete the questionnaire. However, to ensure the survey is representative of Southwest Iowa it is important we hear from everyone who receives a questionnaire.

Please take a few minutes to read and respond to this survey. In case you have misplaced the original questionnaire, a replacement is enclosed. Most persons complete it in approximately 30 minutes. Be assured all information you provide will be strictly confidential. The number on the return envelope is to help monitor returns only. Your name will not be associated with the questionnaire or any findings.

Please place the completed questionnaire in the enclosed postage-paid envelope and place it in the mail by **December 18, 1998**.

If you have questions about the survey, you may call Margie Hanson at Iowa State University (515) 294-4800 or Bob Ramsey at the Southwest Area Extension Office (712) 769-2600.

We thank you for your assistance with this project and invite you to look for the findings resulting from it.

Sincerely,

Harold R. Crawford
Professor, Agricultural Education and Studies

APPENDIX G

SOUTHWEST IOWA COUNTY AND STATE COMPARISONS - 1995 CENSUS DATA

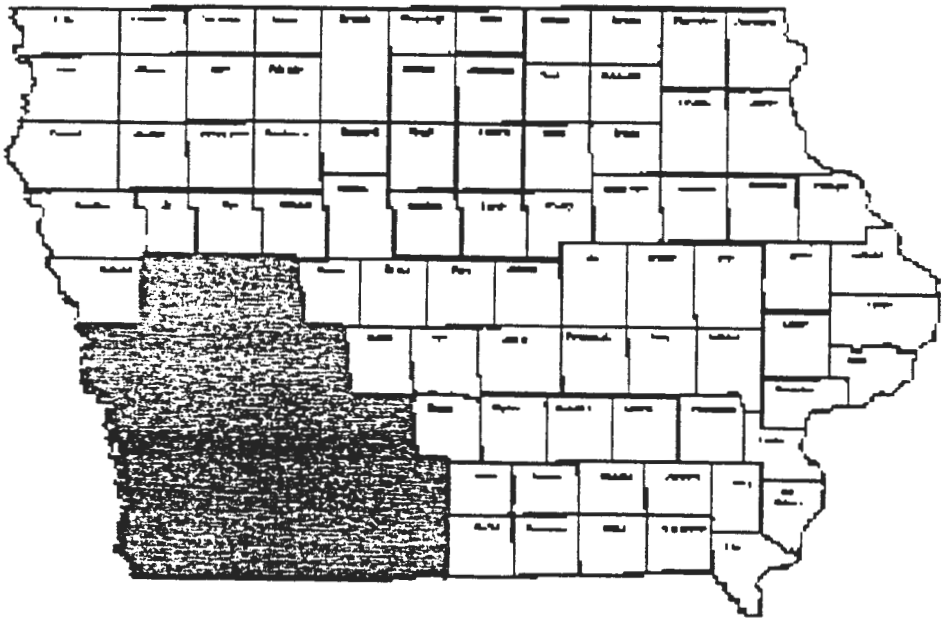
Southwest Iowa county and state comparisons - 1995 census data

Counties	Population (1995)	# of Farms	X Size of Farm Acres	Land Value $/Acre	Per Capita Income	Per Capita Income Rank
Adair	8,826	900	383	937	16,417	86
Adams	4,500	670	392	957	14,911	93
Audubon	6,875	780	355	1,441	17,755	71
Carroll	21,603	1,180	295	1,665	20,941	16
Cass	15,047	920	375	1,260	18,339	62
Clarke	8,136	710	368	723	14,186	96
Crawford	16,461	1,280	344	1,435	18,646	99
Decatur	8,177	720	450	583	12,854	99
Fremont	8,097	610	508	1,239	16,569	84
Guthrie	11,406	1,030	351	1,306	17,811	69
Harrison	15,115	950	440	1,265	16,784	81
Madison	13,490	1,080	321	1,113	18,456	58
Mills	13,802	580	455	1,302	20,548	27
Montgomery	11,939	640	403	1,146	19,499	39
Page	16,676	960	339	1,020	19,351	41
Pottawattamie	83,701	1,430	388	1,339	19,653	43
Ringgold	5,373	740	453	692	13,784	97
Shelby	13,089	1,080	336	1,369	18,305	63
Taylor	7,152	800	414	806	13,152	98
Union	12,416	710	360	840	17,129	77
20 SW county total	301,341	17,770	7,740	22,438	327,961	
20 SW county average	15,067	889	387	1,122	16,398	
State average	28,705	1010	332	1,455	20,898	
Percent of Difference	52%	88%	117%	77%	78%	

APPENDIX G

TWENTY COUNTY AREA OF IOWA

Project Area – Southwest Iowa



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