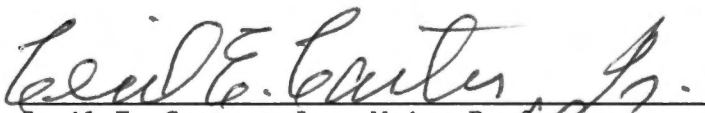
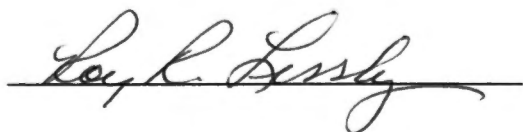


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I am submitting herewith a thesis written by Patricia Darnell Jones entitled "Selected Characteristics of Tennessee MANAGE Program Participants and Their Rating of the Program in Relation to Their Satisfaction With the Changes They Made After Participating in MANAGE." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Agricultural Extension.


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SELECTED CHARACTERISTICS OF TENNESSEE MANAGE PROGRAM
PARTICIPANTS AND THEIR RATING OF THE PROGRAM IN
RELATION TO THEIR SATISFACTION WITH THE
CHANGES THEY MADE AFTER PARTICIPATING
IN MANAGE

A Thesis
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ABSTRACT

The purposes of this study were to characterize MANAGE program participants by their personal characteristics, characteristics of their farm, how they benefitted from the program, what changes they made in their farming operation, how satisfied they were with those changes, and how they rated the usefulness of the information and assistance they received, and to determine the interrelationship among these variables.

As of October 1987, 681 farm families received intensive farm and financial planning assistance from farm Extension management specialists and plan implementation assistance from the County Extension staff. Four hundred fifteen participants later completed a Participation Evaluation survey which was administered by area farm management specialists. Data obtained included the participant's personal characteristics, farm operation characteristics, changes participants made in their farm operation, what the participants gained from the information, and the participant's rating of the information and assistance received as a participant in the Tennessee Agricultural Extension MANAGE program.

The data were processed for computer analysis and computations were made by the University of Tennessee Computing Center. The chi square test was used to determine the significance and strength of relationships between the dependent and independent variables. The .05 level of probability was chosen for determining significance.

Major findings included the following:

1. The MANAGE program participants' age ranged from 19 to 74 with the average being 42. Nearly 40 percent had completed high school, while about 30 percent attended college and another 30 percent graduated from college.

2. The majority of the participants either owned, rented or operated more than 200 acres.

3. About 35 percent of the participants indicated a need for a major change in their organizational plans. As a whole, the participants made an average of two changes each in their operation; the majority either improved crop and livestock production rates and/or reduced costs and/or they changed the quantity of certain enterprises.

4. About 80 percent of the participants were pleased with the results of the changes they made in their farm/family operation. Only in the case of those who left farming (8 participants) was the percentage of dissatisfied (approximately 50 percent) and satisfied (approximately 50 percent) participants equal.

5. The benefits which more than 60 percent of the participants reported to have received from the program were answers to their questions, increased planning capabilities, and a greater understanding of their financial situation. The average number of benefits each participant received was three.

6. There was a significant difference between the participants' age and whether or not they increased certain enterprises or sold real estate. Those who were age 35 or younger were more likely to increase their enterprises than those 46 or older; those who were 46 or older were more likely to have sold real estate than those who were 35 or younger.

7. There also was a significant relationship between the participants' educational level and whether or not they received a greater understanding of how debt affected farm business and whether they increased their planning capabilities. The college graduates were more likely to have increased their planning capabilities than the high school graduates, but the high school graduates were more likely to have received a greater understanding of how debt affected their farm business than were the college graduates.

8. More than 80 percent of the participants rated the program to be useful and more than 95 percent stated they would use the program again if needed. Neither the participants age, education, or farm size was found to be significantly related to how they rated the program.

Implications and recommendations also were included in the study.

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CHAPTER I

THE PROBLEM AND ITS SETTING

I. INTRODUCTION

Economics in the agricultural community have changed much in the past several years. As a result of these changes, many of Tennessee's farmers have experienced financial difficulties and related stress. Many of the farms which are still in operation are experiencing difficulties.

Skill in handling farming financial conflicts and making a multiplicity of decisions may be the most sought after ability among farmers today. Rural sociologists also have noted an increased demand to teach crisis and conflict management skills to insure a minimal stability level for farmers today and in the future. There has also been an increase in demand for more Extension education as well as educational short term programs and programs which would offer assistance to help the farmer make beneficial decisions without lengthy delay or great expense.

The University of Tennessee Agricultural Extension Service has developed and implemented a farm credit counseling program to disseminate information to farmers concerning farm credit problems. This program also provides advice and counseling regarding other financial problems. The program includes intensive assistance in family financial

management and stress management. The program, created by the Agricultural Financial and Family Act of 1986, is named MANAGE. It focuses on how to manage the farm business, farm credit, farm family finances and stress. The goal of MANAGE is to teach participants in the program to carefully analyze their individual situation and assist them in assessing their financial options in an effort to improve their quality of life. In addition, MANAGE provides the assistance necessary for Tennessee farm families to identify and evaluate alternatives available to the family, develop appropriate strategies to improve their financial future, determine farm and family goals and the opportunities for achieving them, and to cope with changes affecting family life. MANAGE educational programs can help farm families cope with current and projected economic environments.

Between April 1986 and October 1987, 681 Tennessee farm families were provided intensive farm and financial planning assistance. Area farm management specialists conducted over 400 group meetings and contacted over 7,000 producers with financial management information. A comprehensive financial analysis was completed for each farming operation. This included the long-run financial implications of a typical operating year for the business. A comparison of the financial implications of alternate plans was also made in an attempt to help families solve their financial problem. A toll-free MANAGE hotline was established exclusively for Tennessee farm families. The calls were answered by trained staff who understand farming and were interested in providing assistance to callers. The 95 counties were divided into 12 areas,

each area having a trained farm management specialist who was employed to help farm families deal with farm and financial planning. The program also had three state specialists to provide statewide leadership in farm and stress management and family economics.

Participants in the MANAGE program have been varied in their personal and farm characteristics. In general, one half of the families were experiencing serious financial strain and the other half were in moderately good shape. The participants have also been varied as to what they wanted to learn from the program, what they received, changes they made, their satisfaction with changes made, and in several other aspects that this study will examine later.

This study was concerned with characterizing the MANAGE participants by personal and farm characteristics, changes they made after participating in the program, and satisfaction with the changes made. Also of concern was the participants' rating of MANAGE and what benefits they stated they received as participants.

II. NEED FOR THE STUDY

Agricultural teaching, research and Extension are basic responsibilities of land grant universities. The primary purpose of the Tennessee Agricultural Extension Service is to provide educational information to farmers and homemakers, and to encourage adaption of the same.

Answers to the following questions were sought during this study. Did participants benefit from MANAGE information and if so, to what extent?

This study was needed to assist the Extension Service in evaluating MANAGE and to better identify appropriate management teaching tools for target audiences and for planning future educational programs. In an effort to do so, MANAGE participants were characterized by personal and farm characteristics, how they benefited from the program, and how they rated the program. Interrelationships among selected dependent and independent variables were also determined.

III. PURPOSE OF THE STUDY

The purposes of this study were to characterize MANAGE program participants by their personal characteristics, characteristics of their farm, how they benefited from the program, what changes they made in their farming operation, how satisfied they were with those changes, and how they rated the usefulness of the information and assistance they received and to determine the interrelationship among these variables.

The specific objectives of this study were:

1. To characterize MANAGE participants and their farm operation by their age, education, farm size, what benefits they received, changes they made, their satisfaction with the changes they made and their rating of MANAGE.
2. To determine relationships between participants age and the benefits they received from the program.
3. To determine relationships between participants educational level and the benefits they received from MANAGE.

4. To determine relationships between participants age and the changes which they made in their farm operation.

5. To determine relationships between participants educational level and changes they made in their farm operation.

6. To determine relationships between participants age and their satisfaction with changes they made in the farm operation.

7. To determine relationships between participants education and their satisfaction with changes they made in the farm operation.

8. To determine relationships between the personal and farm characteristics of MANAGE participants and their overall rating of the MANAGE program.

IV. LIMITATIONS

This study was limited to data obtained from the 1987 MANAGE program participant evaluation survey conducted by the University of Tennessee Agricultural Extension Service. As of October 1987, 681 farm families from across the state had participated in the program and 415 of them completed the survey. The number of participants varied from county to county.

V. METHOD OF INVESTIGATION

Population

The population of this study was 681 farm families from 95 counties in Tennessee who had completed the MANAGE program. The program was available to all farm families interested in assessing their

management strategies and alternatives in this period of economic uncertainty and financial stress. MANAGE is a continual program and has new participants continually. Between April 1986 and October 1987, 681 farm families had participated in MANAGE. Of the 681 families, 415 completed and mailed their evaluation survey to the Agricultural Economics and Resource Development section at the University of Tennessee; those 415 responses were used in this study.

Development of Survey Instruments

The 1986 Tennessee MANAGE Program Participant Evaluation survey was developed by the University of Tennessee Agriculture Extension specialist staff in Agricultural Economics and the Extension Education department. The survey was designed to be a tool to help evaluate the effectiveness of MANAGE.

Conducting the Survey

The survey was mailed by the 12 area farm management specialists located throughout the state to participants who had received intensive farm/family management assistance and information. The participants mailed the survey to the Agricultural Economics and Resource Development section after completion. If the participants did not return their completed survey by mail approximately 10 days after it was mailed to them, a letter was sent in addition to a second survey form requesting the participant to complete and to return it by mail. As of October 1987, all the population was surveyed and 415 completed the evaluation survey and returned it. The participants were kept anonymous and could

only be identified by a number which the area specialists issued each participant. Being able to return the survey by mail, and to remain anonymous, contributed to the greater than 60 percent response rate (2:9).*

Method of Analysis

The data were coded and processed for computer analysis. Computations were made using the University of Tennessee Computing Center facilities. Chi square (χ^2) test was used to determine strength of relationship between dependent and independent variables. The independent variables were participant age and education and the number of acres owned, rented and operated. The dependent variables were the changes the participant made, their satisfaction with those changes, how they benefited from MANAGE and their rating of the program. The .05 probability level was accepted as indicating a significant relationship between the variables.

VI. DEFINITION OF TERMS

1. MANAGE Program Participants. Farm family, either full or part-time who had participated in the intensive farm and financial planning program conducted by the University of Tennessee Agricultural Extension Service.

*Numbers in parenthesis refer to alphabetically numbered references in the Bibliography; numbers after colon refer to page numbers.

2. Personal Characteristics of the Participant and his Farming Operation. The age and educational background of the participant, and the number of acres owned, rented, and operated.

3. Farming Operation. Incorporates both the farming operation and the family unit management. Decisions which participants made may or may not affect both the farm operation and the family unit.

4. Changes. Some changes which participants made could be defined as a change category due to the depth of the change.

CHAPTER II

REVIEW OF LITERATURE

This chapter presents findings from literature concerned with the MANAGE program and its objectives. MANAGE is basically a young program and has limited written material pertaining directly to it. Other states have conducted a program similar to Tennessee's MANAGE program; however, the statistical analysis of data from studies of these programs has not been completed. Farm management educational courses have for many years been available to the farmers throughout the state, but the Tennessee MANAGE program itself has been available only since 1986. The University of Tennessee Department of Economics and Resource Development, the Agricultural Extension Service, Dr. Clark D. Garland, and the Office of the Dean of the Agricultural Extension Service (Dr. M. Lloyd Downen) all have written various articles on the MANAGE program, and some reports have been sent to the Governor and the General Assembly of Tennessee. This chapter summarizes information from articles, prepared and written by those mentioned above, which pertain to the origin of MANAGE, its objectives, the target audiences, and the scope of the program, the implementation procedures, and resources, and the results of the MANAGE program.

I. ORIGIN OF THE MANAGE PROGRAM

The University of Tennessee Economic and Resource Development Department prepared a report to the Governor and the General Assembly which, in addition to other aspects of MANAGE, gave information regarding the program's origin. The report indicated that as directed by the General Assembly in April, 1986, the University of Tennessee Agricultural Extension Service had established and implemented a farm credit counseling program to disseminate information to farmers concerning farm credit problems and to provide advice and counseling regarding other financial problems. The program also included intensive assistance in family financial management and stress management (4:1).*

According to a report submitted by the Agricultural Extension Service, the University of Tennessee Agricultural Extension Service in cooperation with the state government, the Extension Service, United States Department of Agriculture and state agricultural leaders established the MANAGE program. Teaching improved management techniques has always been a key part of the University of Tennessee Agricultural Extension Service's overall educational program. Educational programs related to farm and financial management have been conducted for years, but even though numerous workshops have been held in Tennessee, it is obvious that Extension has not reached all the potential clientele and additional resources were needed; MANAGE was born out of that need to reach that population (5:2). The state agricultural leaders, the General Assembly and the Governor, the University of Tennessee Agricultural Extension Service all combined

contributed toward establishing the MANAGE program. All of these parties worked toward establishing a program which would meet the needs of the farming community. Federal funding for one year was awarded to supplement and complement the MANAGE program.

II. OBJECTIVES OF THE MANAGE PROGRAM

The University of Tennessee Agricultural Extension Service submitted a report written by Agricultural Economics and Resource Development specialists which enumerated what would ultimately be the objectives of MANAGE. Program objectives included the assistance necessary for Tennessee farm families to: (1) accurately assess their current financial status, (2) identify and evaluate alternatives available to the family, (3) develop appropriate strategies to improve their financial future, (4) determine farm and family goals and the opportunities for achieving them, and (5) to cope with changes and stress affecting family life.

Basically the farm management phase of the MANAGE program was directed at helping farm families to improve their financial positions through the development and application of intensive plans (5:1).

III. THE TARGET AUDIENCES AND THE SCOPE OF THE PROGRAM

MANAGE was targeted toward all farm families interested in assessing their management strategies and alternatives in a period of economic uncertainty and financial stress regardless of the age, educational background or the size of their farming operation.

According to a June 1988 progress report by the University of Tennessee Extension Service

The MANAGE program has been successful in reaching farm families with major financial problems. The average debt-to-asset ratio in a Tennessee survey was 23 percent as compared to 49 percent for all families who have participated in MANAGE. Approximately 27 percent of the families participating in the intensive portion of MANAGE had extreme financial problems and 24 percent of them had serious financial problems. Other families participated in the program to avoid trouble. All farm families, regardless of their financial position, can benefit from participating in the program. Approximately 12 percent of the participants were debt free. Special efforts have been made to keep the program from being labeled as only for farmers in deep financial trouble (4:2).

In that same progress report (June 1988) prepared by the University of Tennessee Agriculture Economics and Resource Development Department, findings regarding the scope of the MANAGE program also were given. The report indicated that

Over 1,800 farm families were provided intensive farm and financial management planning assistance. Area Farm Management Specialists conducted over 400 group meetings and contacted over 7,000 producers with financial management information. Over 5,000 MANAGE related programs were conducted with total contacts from all methods reaching over 151,000. Over 93,000 persons gained some knowledge about stress and 143 individuals sought mental health counseling.

Special efforts have made farm families aware of the benefits they can obtain from the MANAGE program. Over 3,700 releases were prepared for newspaper, newsletters, radio and television. A 20-minute video on how farm families have benefited from participation in the MANAGE program was prepared and distributed. An exhibit, publications and special fact sheets were also developed and utilized in the program. A toll-free MANAGE Hotline was established through an Extension Service, United States Department of Agriculture special grant. A public service announcement video for the hotline was distributed to all Tennessee television stations (4:1).

FINPACK (a computerized farm financial planning and analysis package) was used as a teaching tool in providing the intensive farm

and financial planning assistance. After the area farm management specialists worked with the farm families, the county staff assisted with the implementation of the farm plans. This follow-up was critical in improving the competitiveness and profitability of Tennessee agriculture, according to the progress report by the Extension Service in June, 1988 (4:2).

IV. IMPLEMENTATION PROCEDURES AND RESOURCES OF MANAGE

In the development of the program, the Agricultural Extension Service consulted with and obtained excellent advice from agricultural organizations and agencies of state government. Three state specialists provided statewide leadership in farm management, stress management and family economics. The farm management specialist also served as coordinator of the program. The 95 counties were divided into 12 areas. Twelve area farm management specialists were employed to help farm families deal with financial difficulties. They were out in the field serving every county in the state. The area farm management specialists received a week of intensive training and received a portable computer and other equipment that assisted them in doing the job. Another week of intensive training was conducted in March, 1987. All area specialists have a Master's degree. These procedures are described in a report to the Governor and the General Assembly (3:1).

A toll-free MANAGE hotline was established exclusively for Tennessee farm families. The calls were answered by trained staff

who understand farming and were interested only in providing assistance to farm families. Information was provided about farm financial management, stress management, family financial management, job training and emergency services. Referrals were made to appropriate agencies for follow-up and action. The hotline provided a ready source of information and assistance for farm families experiencing severe stress. More than 400 calls were received during a one year period.

The MANAGE program also utilized FINPACK, which is a computerized farm financial planning and analysis package. Even though FINPACK had been available before the MANAGE program, MANAGE provided the resources to utilize FINPACK to a greater extent of its potential. FINPACK is a set of three computer programs consisting of: (1) FINLRB--long range farm budgeting, (2) FINTRAN--transitional planning procedures, and (3) FINFLO--a monthly cash flow planning. When used together, the FINPACK programs provided a set of tools to aid the farm manager in the ongoing financial management and control of the business, provided feedback as to the accuracy of farm plans, and built a track record of year-to-year financial progress.

After receiving intensive information and assistance from the MANAGE program, the area farm management specialists requested the participants to complete the Participant Evaluation Survey (see appendix). The only way that the participants survey could be identified was by a number which the area specialists assigned to each farm family. Participants were to return the survey by mail to the Department of Agriculture Economics and Resource Development, Knoxville.

Both of these options, to return the survey by mail and to remain anonymous, contribute to the greater than 60 percent response rate (2:9).

V. RESULTS OF MANAGE

The participant evaluation survey data were used prior to this study in making various reports. This review gives an overview of some of the reports using the survey data. MANAGE was rated by more than 80 percent of the participants to be useful (1:4-10). The majority of the participants indicated they improved their planning capabilities. "Instead of just looking through the cracks at part of the operation, they looked at the whole farm as well as the parts" (1:4). Other ways that participants benefited from the program was they received answers to their questions and a greater understanding of their financial situation, as well as a greater understanding of alternatives for improving their financial situation and improving profitability. The number and percent of participants who reported to have received each of the program benefits are given and discussed later within this study.

Changes which the participants made also were discussed in the "Comments for the State Agricultural Leaders Meeting" (1:5). Some of the changes which were made by the participants were: one half of the families decided a major change in their farm plans was needed to achieve their goals; approximately 70 percent altered certain enterprises, either increased, decreased, or eliminated them from their

operation; approximately 5 percent sold land, 12 percent sold excess livestock or machinery and approximately 60 percent indicated they improved their production rates. Only about 2 percent of the families in this study reported to have left farming and only about 6 percent secured part-time employment off the farm. Number and percent of each of the potential changes which the participants could have made are given and discussed later in this study.

It is hoped that this review of related readings provided some understanding of the need for this study. Numbers and percents of participants are used to summarize the data. Relationships among variables also were emphasized in the study.

CHAPTER III

CHARACTERISTICS OF TENNESSEE MANAGE PROGRAM PARTICIPANTS AND THEIR FARMING OPERATION, CHANGES THEY MADE, SATISFACTION WITH CHANGES MADE, BENEFITS RECEIVED FROM PARTICIPATING AND OVERALL RATING OF MANAGE BY THE PARTICIPANTS

This chapter on characteristics of Tennessee MANAGE program participants and their farming operation is divided into four sections dealing with the first four tables of this study. Selected variables were discussed under subheadings within each section.

Section I presents findings regarding the personal and farm characteristics of MANAGE participants.

Section II presents findings regarding the type of action participants perceived as needed and whether or not they made selected managerial changes in their farm and/or family financial situation.

Section III presents findings regarding the participants' satisfaction with the changes that they made.

Section IV presents findings regarding the benefits that the participants stated to have received from MANAGE and the participants' overall rating of MANAGE.

I. CHARACTERISTICS OF TENNESSEE MANAGE PROGRAM PARTICIPANTS AND THEIR FARM OPERATION

This section presents findings regarding the characteristics of MANAGE participants and their farm operation through the use of the

six variables reported in Table I. Number and percents of participants are given for each variable.

Personal and Farm Characteristics of Participant

The first three variables in Table I deal with the personal characteristics of MANAGE participants with regard to their age and education. Age of the participants was broken down into three groups: (1) 35 years old or younger, (2) 36 to 45 years old, or (3) 46 years old or older.

Participant age. Just over 30 percent, the smallest group of the 415 participants surveyed, were 35 years old or younger. The largest group, 35.9 percent, or 149 participants, were 46 years old or older. The age bracket of 36 to 45 comprised the second largest group of approximately 34 percent of the participants. Participant age ranged from 19 to 74 with the overall average age being 42.

Participant education. Approximately 38 percent of the participants surveyed had obtained a high school education or less, 30 percent had attended college (or technical school), and approximately 32 percent of the participants were college graduates.

Combined age and education. When the age and education were considered together, results indicated that the largest group of participants, 102, were those who had graduated from college and who were age 45 or younger. Eight percent were age 46 or older and college graduates. The 46 or older category also had the greatest percentage

Table I. Characteristics of Tennessee MANAGE Program Participants and Their Farm Operation

Personal and Farm Characteristics of Participants	Number of Participants	Percent of Participants
PERSONAL CHARACTERISTICS		
Participant Age		
35-younger	128	30.8
36-45	138	33.3
46-older	149	35.9
TOTAL	415	100.0
Average Participant Age = 42		
Age Range = 19 to 74		
Participant Educational Level		
High school or less	155	37.4
Some college	125	30.1
College graduate	135	32.5
TOTAL	415	100.0
Combined Age and Education		
35-younger		
High school or less	39	9.4
Some college	38	9.1
College graduate	51	12.3
36-45		
High school or less	41	9.9
Some college	46	11.1
College graduate	51	12.3
46-Older		
High school or less	75	18.1
Some college	41	9.9
College graduate	33	7.9
TOTAL	415	100.0
FARM CHARACTERISTICS		
Number of Acres Owned		
50 or less	89	21.4
51-200	144	34.7
201 or more	182	43.9
TOTAL	415	100.0
Average Number of Acres Owned = 249		
Range of Acres Owned = 0 to 2,196		
Number of Acres Rented		
0	129	31.1
200 or less	142	34.2
201 or more	144	34.7
TOTAL	415	100.0
Average Number of Acres Rented = 245		
Range of acres Rented = 0 to 3,600		
Number of Acres Operated		
0 to 249	148	35.6
250 to 699	182	43.9
700 or over	85	20.5
TOTAL	415	100.0
Average Number of Acres Operated = 494		

(18) of participants whose education did not exceed high school graduation. Survey results indicated that as age increased so did the percentage of participants who had graduated from high school or less.

Farm Characteristics

The second division of Section I presents findings regarding three variables which attempt to characterize the MANAGE participants' farming operation as to the number of acres owned, rented and operated. Numbers and percents of participants are used to help describe the operation.

Number of acres owned. The majority, approximately 44 percent, of the participants surveyed owned more than 200 acres of land. Almost 35 percent owned between 51 and 200 acres while 21 percent owned 50 acres or less. The average number of acres owned by the participant was 249, while the number of acres owned ranged from 0 to 2,196.

Number of acres rented. As the number of acres rented increased so did the percentage of participants who rented more acres of land. Thirty one percent reported renting zero acres. While nearly 70 percent of the participants surveyed rented acreage; approximately 35 percent rented more than 201 acres and 34 percent rented 200 or less acres. The average number of acres rented by participants was 245. The total number of acres that the participants rented ranged from 0 to 3,600.

Number of acres operated. The combination of acres owned and acres rented is here referred to as acres operated. Approximately 44 percent of the participants operated between 250 and 699 acres, while 35 percent operated from 0 to 250 acres and only about 21 percent operated 700 or more acres. The average number of acres operated by the participant was 494.

II. TYPE OF ACTION PARTICIPANT PERCEIVED AS NEEDED AND WHETHER SELECTED CHANGES WERE MADE

The purpose of Section II (Table II) is to present findings regarding the changes made by the program participants in their farming operation. The first variable reveals what the participant perceived to be an acceptable or needed type of action to pursue. The second variable deals with the changes (and categories of changes) participants made in their farm operation after participating in MANAGE. The number and percent of participants responding to each course of action and selected change is used to summarize the data.

Type of Action Participant Perceived to be Needed

MANAGE participants were surveyed as to what they perceived to be an acceptable course of action for the future operation of their farm. In this subsection, participants' response to the five possible courses of action options is presented. Participants were asked to select only one of the following five possibilities: (1) make major changes such as refinancing, dropping and/or adding enterprises and/or

Table 11. Number, Percent and the Type of Action Perceived as Needed and Whether Participant Made Selected Changes

Type of Action and Changes Made After MANAGE	Number of Participants*	Percent of Participants
TYPE OF ACTION		
Make Major Changes Such as Refinancing, Dropping and/or Adding Enterprises and/or Making Selected Changes Like Those Listed Below	145	34.9
Continue as is With Minimal Changes	59	14.2
Continue as is but Improve Production Rates and/or Reduce Costs	137	33.0
Change the Size of Existing Enterprises	58	14.0
Other	16	3.9
TOTAL	415	100.0
SELECTED CHANGES MADE		
Improved Crop and Livestock Production Rates and/or Reduced Costs		
No	172	41.5
Yes	242	58.5
TOTAL	414	100.0
Rescheduled Debt		
No	367	88.6
Yes	47	11.4
TOTAL	414	100.0
Refinanced with Another Lender		
No	392	94.7
Yes	22	5.3
TOTAL	414	100.0
Decreased or Eliminated Certain Enterprises		
No	304	73.4
Yes	110	26.6
TOTAL	414	100.0
Increased Certain Enterprises		
No	256	61.8
Yes	158	38.2
TOTAL	414	100.0
Sold Real Estate		
No	390	94.2
Yes	24	5.8
TOTAL	414	100.0
Sold Machinery, Equipment or Livestock		
No	365	88.2
Yes	49	11.8
TOTAL	414	100.0
Became Employed Part-Time off the Farm		
No	388	93.7
Yes	26	6.3
TOTAL	414	100.0
Left Farming		
No	406	98.1
Yes	8	1.9
TOTAL	414	100.0
Gained Better Control of Family Living Expenses		
No	375	90.5
Yes	39	9.4
TOTAL	414	100.0
Other		
No	354	85.5
Yes	60	14.5
TOTAL	414	100.0

*Missing one observation, total should be 415.

making selected changes was acceptable among approximately 35 percent of the participants; (2) to continue as is with minimal changes was acceptable to 14.2 percent of the participants; (3) to continue as is but improve production rates and/or reduce costs was reported by 33 percent of the participants; and (4) change the size of the existing enterprise was reported by 14 percent. Less than 4 percent stated that (5) other possible courses of action plans were acceptable. In summary, continuing as is but with an improvement in production rates and/or costs, and making major operational changes was selected by almost 70 percent of the participants to be the acceptable future course of action for their farming operation. Findings regarding changes participants made are presented in the following section.

Select Changes Made

According to the MANAGE survey, there were 11 selected managerial changes which participants could check as having made one or more of. There were three changes which more than one-fourth of the participants made: to improve crop and livestock production rates and/or reduce costs was selected by 242 (58.5 percent) of the participants; to increase certain enterprises was selected by 158 (38.2 percent) of the participants; and to decrease or eliminate certain enterprises was selected by 110 (26.6 percent) of the participants. There were two changes which more than 10 percent (but not more than 25 percent) of the participants made: approximately 12 percent rescheduled their debt and also 12 percent sold machinery equipment or livestock. Almost 10 percent of the participants reported to have gained a better control

of their family living expenses. Changes which less than 9 percent of the 415 survey participants stated to have made were to refinance with another lender (5.3 percent), to have sold real estate (5.8 percent), to have secured part-time off the farm employment (6.3 percent), and to have left farming (1.9 percent). Also, approximately 15 percent of the participants reported they made a change other than the ones indicated above.

In summary, the maximum percentage of participants who did make one or more of the changes was 58.5. The maximum percentage of those who did not make one or more of the changes was 98.1. In 10 of the 11 changes, a greater proportion of the participants did not make the changes as opposed to those who did make the change. Only in the case when participants were asked if they improved their crop and livestock production rates and/or reduced cost did the number of those who reported they made the change exceed those who said they did not.

Finally, Table II indicates in the first division, that 145 participants (35 percent) stated that a major change was needed in their operation. In the second portion of the table, 785 major changes were actually made by the participants. The average number of changes made by the 414 responding participants was approximately 2; 58.5 percent stated they improved crop and livestock production rates and/or reduce costs.

III. PARTICIPANT SATISFACTION WITH THE CHANGES MADE IN THE FARMING OPERATION

The purpose of Section III is to present findings regarding participants' satisfaction with managerial changes made in the farming operation financial situation. Number, percent and valid percent (which is calculated not on the total number of participants but rather the total number of participants who made the change in question) of participants are given for each of the selected changes. Table III presents findings regarding participants' satisfaction or dissatisfaction with the changes made as being either very displeased, displeased, pleased, or very well pleased. To indicate if the participants did not make the change, the term missing is used. Also, not all of the participants who made a particular change responded to how well satisfied they were with the changes thus the number of respondents may vary. In addition, some participants rated a particular change but did not originally indicate they made the change.

The change which approximately 60 percent of the participants made was to improve crop and livestock production rates and/or reduce costs. Of that 60 percent, almost 99 percent were satisfied (pleased and very well pleased) with how the change had affected their financial situation; less than 2 percent were dissatisfied (displeased and very displeased).

To increase certain enterprises was a change which approximately 40 percent (158 participants) made. Of those 158 participants, more than 99 percent were satisfied with the results of the change; less

Table III. Number and Percent of MANAGE Participants in Regard to Their Satisfaction With Changes Made

Satisfaction With Changes Made	Number of Participants	Percent of Participants	Valid Percent Participants
Improved Crop and Livestock Production Rates and/or Costs			
Very displeased	1	0.2	.5
Displeased	2	0.5	0.8
Pleased	157	37.8	65.1
Very well pleased	81	19.5	33.6
Not a change	174	41.9	Missing
TOTAL	415	100.0	100.0
Rescheduled Debt			
Very displeased	0	0.0	0.0
Displeased	2	0.5	4.3
Pleased	34	8.2	73.9
Very well pleased	10	2.4	21.8
Not a change	369	88.9	Missing
TOTAL	415	100.0	100.0
Refinanced with Another Lender			
Very displeased	0	0.0	0.0
Displeased	0	0.0	0.0
Pleased	12	2.9	54.5
Very well pleased	10	2.4	45.5
Not a change	393	94.7	Missing
TOTAL	415	100.0	100.0
Decreased or Eliminated Certain Enterprises			
Very displeased	1	0.2	0.9
Displeased	1	0.2	0.9
Pleased	67	16.1	61.5
Very well pleased	40	9.6	36.7
Not a change	306	73.7	Missing
TOTAL	415	100.0	100.0
Increased Certain Enterprises			
Very displeased	0	0.0	0.0
Displeased	1	0.2	0.6
Pleased	87	21.0	55.1
Very well pleased	70	16.9	44.3
Not a change	257	61.9	Missing
TOTAL	415	100.0	100.0
Sold Real Estate			
Very displeased	3	0.7	12.5
Displeased	0	0.0	0.0
Pleased	14	3.4	58.3
Very well pleased	7	1.7	29.2
Not a change	391	94.2	Missing
TOTAL	415	100.0	100.0
Sold Machinery, Equipment or Livestock			
Very displeased	2	0.5	4.1
Displeased	2	0.5	4.1
Pleased	26	6.3	53.1
Very well pleased	19	4.6	38.8
Not a change	365	88.2	Missing
TOTAL	415	100.0	100.0
Became Employed Part-time Off the Farm			
Very displeased	2	0.5	7.4
Displeased	6	1.0	22.2
Pleased	11	2.7	40.7
Very well pleased	8	1.9	29.7
Not a change	388	94.0	Missing
TOTAL	415	100.0	100.0
Left Farming			
Very displeased	2	0.5	25.0
Displeased	2	0.5	25.0
Pleased	4	1.0	50.0
Very well pleased	0	0.0	0.0
Not a change	407	98.1	Missing
TOTAL	415	100.0	100.0
Gained Better Control of Family Living Expenses			
Very displeased	0	0.0	0.0
Displeased	2	0.5	5.0
Pleased	23	5.5	56.0
Very well pleased	16	3.9	39.0
Not a change	374	90.1	Missing
TOTAL	415	100.0	100.0
Other			
Very displeased	1	0.2	1.7
Displeased	3	0.7	5.0
Pleased	37	8.9	61.7
Very well pleased	19	4.6	31.7
Not a change	355	85.5	Missing
TOTAL	415	100.0	100.0

than 1 percent were dissatisfied (displeased or very displeased) with the results of the change. Decreased or eliminated certain enterprises, a change made by 109 (approximately 26 percent) participants also rated to be satisfactory among more than 97 percent of those 110 participants, and rated as unsatisfactory among less than 2 percent of those participants.

The three previously mentioned changes (to improve crop and livestock production rates and/or reduce costs, increase certain enterprises, decreased or eliminated enterprises) accounted for about 60 percent (408 of 689 changes indicated by the 415 participants) of all changes. They were made by a greater proportion of participants who rated the impact the changes had upon their financial situation as being satisfactory rather than unsatisfactory. Rescheduled debt, refinanced with another lender, and gained better control of family living expenses were all changes which were rated as being satisfactory by more than 95 percent of the participants and unsatisfactory by less than 5 percent of the participants who made the change. Sold real estate, sold machinery, equipment or livestock, securing part-time off the farm employment, and other were all rated as being a satisfactory change by about 70 percent or more of the participants and dissatisfactory by no more than 24 percent.

Out of the 11 changes that the MANAGE participants were surveyed to indicate how well pleased they were with the change (in terms of the impact the change had upon their financial situation), only in one case was the number of unsatisfied and satisfied participants equivalent;

that being the case of participants who left farming. After participating in the program, 8 of the participants left the farming operation, 4 were satisfied with the change, 4 were not (2 displeased, 2 very displeased).

IV. BENEFITS RECEIVED FROM PARTICIPATING IN THE MANAGE PROGRAM AND AN OVERALL RATING OF THE PROGRAM

This section presents findings regarding the benefits participants reported to have received from participating in MANAGE, and an overall rating of the program by the participants. When surveyed as to what they gained from participating in MANAGE, there were eight possible participant responses. They were: (1) answers to questions, (2) increased planning capabilities, (3) greater understanding of the financial situation, (4) greater understanding of alternatives for improving their financial situation, (5) greater understanding of how debt affects farm business, (6) increased awareness of other available help, (7) greater understanding of family living expenses, and (8) did not gain anything. Participants were asked to indicate all of the responses which applied to their own experience of participating in MANAGE.

According to data in Table IV, only 7 (1.7 percent) participants indicated that they gained nothing from their experience of participating in MANAGE. Whereas, in contrast, more than 40 percent of the participants stated to have received 3 or 4 of the 7 listed program benefits. The benefit which the highest proportion, 64.6 percent, of

Table IV. Program Benefits Received From Participating in MANAGE and the Overall Rating of MANAGE by the Participants

Program Benefits	Number of Participants	Percent of Participants
Answers to Questions		
No	148	35.7
Yes	267	64.3
TOTAL	415	100.0
Increased Planning Capabilities		
No	147	35.4
Yes	268	64.5
TOTAL	415	100.0
Greater Understanding of Financial Situation		
No	166	40.0
Yes	249	60.0
TOTAL	415	100.0
Greater Understanding of Alternatives for Improving Financial Situation		
No	192	46.3
Yes	223	53.7
TOTAL	415	100.0
Greater Understanding of How Debts Affect Farm Business		
No	292	70.4
Yes	123	29.6
TOTAL	415	100.0
Increased Awareness of Other Available Help		
No	302	72.8
Yes	113	27.2
TOTAL	415	100.0
Greater Understanding of Family Living Expenses		
No	361	87.0
Yes	54	13.0
TOTAL	415	100.0
Did Not Gain Anything		
No	408	98.3
Yes	7	1.7
TOTAL	415	100.0
Total Number of Benefits Received		
2 or less	164	39.5
3 to 4	169	40.7
5 to 7	82	19.8
TOTAL	415	100.0
Average Total Number of Benefits Received = 3		
Overall Rating of MANAGE by Participants		
Very useful	196	47.2
Useful	150	36.1
Somewhat useful	59	14.2
Not useful	5	1.2
Unsure	5	1.2
TOTAL	415	100.0
Would Utilize MANAGE Again		
No	17	4.0
Yes	398	96.0

the participants reported to have received was an increase in their planning capabilities. Two hundred sixty-seven (64.3 percent) participants reported they obtained answers to their questions, while 60 percent reported they increased understanding of their financial situation. Almost 54 percent of the participants reported greater understanding of the alternatives for improving their financial situation. In each of these cases, the number of participants who received the benefit in question exceeded the number and percent of those who reported they did not.

In three instances the number of participants who reported not to have received benefits exceeded those who did receive benefits. Those who did not advance in their understanding of how debt affects farm business totaled 292 participants (70.4 percent), those who did not experience an increase in their awareness of other available help totaled 302 participants (72.8 percent), and 361 participants (87.0 percent) reported not to have increased in their understanding of their family living expenses.

Finally, Table IV indicates that about 20 percent of the participants reported receiving 5 to 7 of the 7 program benefits of MANAGE, 41 percent reported receiving 3 to 4 of the 7 benefits and about 40 percent reported receiving 2 or less of the potential benefits. An average of 3 benefits was reported by MANAGE participants. Over 83 percent of the participants rated the overall MANAGE program as useful or very useful. Also 96 percent of the participants stated they would use MANAGE again if there was a need.

Chapter Summary

The average age of the 415 MANAGE participants was 42. The percent of participants in each of the three educational categories was approximately equal with the slight majority receiving a high school education or less. As the age of the participant increased so did the percentage of those whose educational level did not exceed high school graduation. The average number of acres owned by the participants was 249, the average number of acres rented was 245, and the average number of acres operated was 494.

As a result of information and assistance received in the MANAGE program, approximately 35 percent of the participants indicated that a major change in their operation would be an acceptable type of action for future planning. However, the participants, as a whole, made an average of approximately two changes in their operation. To improve crop and livestock production rates and/or reduce costs was a change which almost 60 percent of the participants made. Approximately 30 percent of the participants changed certain enterprises of their farming operation by either increasing them or they decreased or eliminated them. In each of these cases, the percentage of participants who were satisfied with the results of the change (in terms of the impact the change had upon their financial situation) was greater than the percentage who were dissatisfied with the results. To leave farming was a change which less than 2 percent of the participants made. However, this case also had the highest percent of dissatisfied

individuals who had made the change. Fifty percent of the participants were dissatisfied with leaving farming, 50 percent were satisfied. Ten of the 11 selected changes that the participants made produced a greater percentage of satisfied participants rather than those dissatisfied. In no case was the percentage of individuals who were dissatisfied with the results of the change greater than those who were satisfied.

The MANAGE program was given an overall rating of being useful, or very useful, by more than 80 percent of the participants who benefited from the program in an average of three different ways. More than 60 percent stated that they had received answers to their questions, increased in their planning capabilities, and advanced in their understanding of their financial situation. Less than 2 percent reported to have gained nothing from participating in the program and rated it to be not useful.

CHAPTER IV

RELATIONSHIPS BETWEEN PERSONAL CHARACTERISTICS OF MANAGE PARTICIPANTS AND BENEFITS RECEIVED FROM PARTICIPATING IN THE PROGRAM, CHANGES MADE AND SATISFACTION WITH THE CHANGES MADE, AND RELATIONSHIPS BETWEEN PARTICIPANTS' RATING OF THE PROGRAM AND THEIR PERSONAL AND FARM CHARACTERISTICS

This chapter presents findings regarding relationships between MANAGE participants personal characteristics, and benefits they received from participating in MANAGE, changes they made in their farm/family operation, and their level of satisfaction with the changes they made (in terms of the impact the change had upon their financial situation). Also studied were relationships between participants rating of MANAGE and their personal and farm characteristics. The chi square test was used to determine strengths of relationship between dependent and independent variables. Data were summarized in seven tables. Each table constitutes a section as follows: (1) Section I presents data regarding relationships between participants age and program benefits received, (2) Section II presents data regarding participants education and program benefits received, (3) Section III presents data regarding participants age and the changes they made, (4) Section IV presents data regarding participants education and

changes they made, (5) Section V presents data regarding participants age and their satisfaction with the changes made, (6) Section VI presents data regarding participants education and satisfaction with changes made, and (7) Section VII presents data regarding participants rating of MANAGE and their personal and farm characteristics.

I. RELATIONSHIPS BETWEEN PARTICIPANTS AGE AND THE PROGRAM BENEFITS RECEIVED FROM PARTICIPATING IN MANAGE

Findings regarding the relationships between participants age and the program benefits they stated to have received from MANAGE are presented in this section. The total number and percent of participants are given for each variable in addition to the chi square value and probability level. Chi square values which achieved the .05 probability level were chosen as being statistically significant, as presented in Table V.

There were four program benefits which over 50 percent of the 415 participants reported to have received. The four benefits were: answers to questions, increased planning capabilities, greater understanding of financial situation, and a greater understanding of alternatives for improving their financial situation. Of these four program benefits, the range of participants who were age 35 or younger and also stated to have received the program benefits in question was 71 (55.5 percent) to 86 (67.8 percent); the range of those who were in the older category, 46 or older, and stated to have received the benefits was 77 (51.7 percent) to 93 (62.4 percent). In 3 of these 4 program benefits, a

Table V. Relationships Between Age and Benefits Participants Stated to Have Received From Participating in the MANAGE Program

Program Benefits and Whether Participants Stated to Have Received Them	Age					
	35-Younger		36-45		46-Older	
	Number of Participants	Percent of Participants	Number of Participants	Percent of Participants	Number of Participants	Percent of Participants
Answers to Questions						
No	45	35.2	47	34.1	56	37.6
Yes	83	64.8	91	65.9	93	62.4
TOTAL	128	100.0	138	100.0	149	100.0
Statistic $\chi^2 = 0.41$; $p = 0.82$						
Increased Planning Capabilities						
No	42	32.8	43	31.2	62	41.6
Yes	86	67.8	95	68.8	87	58.4
TOTAL	128	100.0	138	100.0	149	100.0
Statistic $\chi^2 = 3.97$; $p = 0.14$						
Greater Understanding of Financial Situation						
No	57	44.5	52	37.7	57	38.3
Yes	71	55.5	86	62.3	92	61.7
TOTAL	128	100.0	138	100.0	149	100.0
Statistic $\chi^2 = 1.59$; $p = 0.45$						
Greater Understanding of Alternatives for Improving Financial Situation						
No	56	43.8	64	46.4	72	48.3
Yes	72	56.2	74	53.6	77	51.7
TOTAL	128	100.0	138	100.0	149	100.0
Statistic $\chi^2 = 0.58$; $p = 0.75$						
Greater Understanding of How Debt Affects Farm Business						
No	88	68.6	99	71.7	105	70.5
Yes	40	31.3	39	28.3	44	29.5
TOTAL	128	100.0	138	100.0	149	100.0
Statistic $\chi^2 = 0.29$; $p = 0.87$						

Table V. (Continued)

Program Benefits and Whether Participants Stated to Have Received Them	Age					
	35-Younger		36-45		46-Older	
	Number of Participants	Percent of Participants	Number of Participants	Percent of Participants	Number of Participants	Percent of Participants
Increased Awareness of Other Available Help						
No	99	77.3	99	71.7	104	69.4
Yes	29	22.7	39	28.3	45	30.2
TOTAL	128	100.0	138	100.0	149	100.0
Statistic $\chi^2 = 2.10$; $p = 0.35$						
Greater Understanding of Family Living Expenses						
No	109	85.2	121	87.7	131	87.9
Yes	19	14.8	17	12.3	18	12.1
TOTAL	128	100.0	138	100.0	149	100.0
Statistic $\chi^2 = 0.55$; $p = 0.76$						
Did Not Gain Anything						
No	125	97.7	135	97.8	148	99.3
Yes	3	2.3	3	2.2	1	0.7
TOTAL	128	100.0	138	100.0	149	100.0
Statistic $\chi^2 = 1.46$; $p = 0.48$						
Total Number of Benefits Received						
2 or less	50	39.0	53	38.4	61	40.9
3 to 4	54	42.2	56	40.6	59	39.6
5 to 7	24	18.8	29	21.0	29	19.5
TOTAL	128	100.0	138	100.0	149	100.0
Statistic $\chi^2 = 0.42$; $p = 0.98$						

greater percentage of those in the 35 or younger category reported to have received the benefits than the percentage of those in the 46 or older category. In none of these instances did the probability achieve the .05 level; thus, there were no significant relationships established. Program benefits the participants reported to have received did not differ significantly as to age of the participants.

In other program benefits which the participants responded to, (i.e., greater understanding of how debt affects farm business, increased awareness of other available help, greater understanding of family living expenses, and did not gain anything from MANAGE), there were no significant relationships established between age of the participants and whether or not they reported to have experienced these benefits. In three of these four cases, there was again a greater percentage of the younger participants who reported to have received the benefits, or did not benefit, than the percentage of older participants. Only in the case of those who increased in their awareness of other available help was there a greater percentage of older participants (29, 22.7 percent) than younger participants (45, 30.2 percent) who received the benefit. Neither was the total number of benefits received significantly related to the age of the participants; none of these meet the .05 level of probability.

Findings indicated that participant age was not significantly related to receiving any of the program benefits. Thus age was not a factor in whether or not the participants received benefits from MANAGE; the older participants were not any more, or less likely to have received any more or less benefits than the younger participants.

II. RELATIONSHIPS BETWEEN PARTICIPANTS EDUCATIONAL LEVEL AND PROGRAM BENEFITS RECEIVED

This section, Table VI, presents findings regarding the relationships between the participants educational level and the program benefits, if any, they reported to have received from MANAGE. Those which met the .05 level of probability were established as being significantly related.

In this section, there were two significant relationships established; one being between the participants educational level and increasing planning capabilities, and the other being between the participants educational level and an increasing understanding of how debt affects the farm operation. Approximately 56 percent of those who were high school graduates or less reported to have increased their planning capabilities, compared to 73 percent of those who were college graduates. Thus as the educational level increased, so did the percentage of participants who reported to have increased their planning capabilities. These differences were significant at the .05 level. The college graduates were more likely than those who were high school graduates to have indicated they increased their planning capabilities.

Approximately 37 percent of the participants who were high school graduates or less reported to have increased in their understanding of how debt affects the farm business compared to 22 percent of those who were college graduates. Thus, college graduates were not as likely

Table VI. Relationships Between Educational Level and Benefits that Participants Stated to Have Received From Participating in the MANAGE Program

Program Benefits and Whether Participants Stated to Have Received Them	Educational Level					
	High School or Less		Some College		College Graduate	
	Number of Participants	Percent of Participants	Number of Participants	Percent of Participants	Number of Participants	Percent of Participants
Answers to Questions						
No	60	38.7	44	35.2	44	32.5
Yes	95	61.3	81	64.8	91	67.8
TOTAL	155	100.0	125	100.0	135	100.0
Statistic $\chi^2 = 1.19$; $p = 0.55$						
Increased Planning Capabilities						
No	68	43.9	43	34.4	36	26.7
Yes	87	56.1	82	65.6	99	73.3
TOTAL	155	100.0	125	100.0	135	100.0
Statistic $\chi^2 = 9.42$; $p = 0.01$						
Greater Understanding of Financial Situation						
No	67	43.2	46	36.8	53	39.3
Yes	88	56.8	79	63.2	82	60.7
TOTAL	155	100.0	125	100.0	135	100.0
Statistic $\chi^2 = 1.24$; $p = 0.54$						
Greater Understanding of Alternatives for Improving Financial Situation						
No	75	48.4	54	43.2	63	46.7
Yes	80	51.6	71	56.8	72	53.3
TOTAL	155	100.0	125	100.0	135	100.0
Statistic $\chi^2 = 0.76$; $p = 0.68$						
Greater Understanding of How Debt Affects Farm Business						
No	98	63.2	88	70.4	106	78.5
Yes	57	36.8	37	29.6	29	21.5
TOTAL	155	100.0	125	100.0	135	100.0
Statistic $\chi^2 = 8.09$; $p = 0.02$						

Table VI. (Continued)

Program Benefits and Whether Participants Stated to Have Received Them	Educational Level					
	High School or Less		Some College		College Graduate	
	Number of Participants	Percent of Participants	Number of Participants	Percent of Participants	Number of Participants	Percent of Participants
Increased Awareness of Other Available Help						
No	113	72.0	90	72.0	99	73.3
Yes	42	27.1	35	28.0	36	26.7
TOTAL	155	100.0	125	100.0	135	100.0
Statistic $\chi^2 = 0.06$; $p = 0.97$						
Greater Understanding of Family Living Expenses						
No	134	86.5	110	88.0	117	86.7
Yes	21	13.5	15	12.0	18	13.3
TOTAL	155	100.0	125	100.0	135	100.0
Statistic $\chi^2 = 0.17$; $p = 0.92$						
Did Not Gain Anything						
No	151	97.4	125	100.0	132	97.8
Yes	4	2.6	0	0.0	3	2.2
TOTAL	155	100.0	125	100.0	135	100.0
Statistic $\chi^2 = 3.13$; $p = 0.21$						
Total Number of Benefits Received						
2 or less	67	43.2	46	36.8	51	37.8
3 to 4	59	38.1	54	43.2	56	41.5
5 to 7	29	18.7	25	20.0	28	20.7
TOTAL	155	100.0	125	100.0	135	100.0
Statistic $\chi^2 = 1.51$; $p = 0.83$						

as those who were high school graduates or less to have indicated they increased their understanding of how debt affects the farm business.

Survey results, as reported in Table VI, also presents other findings regarding relationships between the participants educational level and other benefits they reported to have received from MANAGE.

Participants who had high school or less education tended to be less likely than those who attended or graduated from college to have benefited by receiving answers to their questions, increasing planning capabilities, gaining a greater understanding of their financial situation, and gaining a greater understanding of alternatives for improving their financial situation. However, only the benefit of increased planning capabilities was significant. Participants who attended or graduated from college were more likely than other participants to have increased their planning capabilities.

In the case of those who reported to have increased in their awareness of other available help, or increased in their understanding of family living expenses, or did not gain anything, there was almost no difference in the percentage of participants indicating these benefits regardless of education. Of course, there was no significant relationships established in these instances. However one benefit (i.e., greater understanding of how debt affects farm business) was indicated by a significantly higher percent of participants who had high school or less education than those who attended or graduated from college.

In summary of the findings recorded in Table VI, education and whether the participants increased in their planning capabilities,

the college graduates were more likely to have increased their planning abilities than those who were high school graduates. Education and whether the participants increased in their understanding of the effects that debt has on the farm business were also significantly related. High school graduates were more likely to have increased in their understanding of farm debt than those who attended or graduated from college. These were the only two significant relationships established. The other six variables previously mentioned and the participants education were not significantly related.

III. RELATIONSHIPS BETWEEN THE PARTICIPANTS AGE AND THE CHANGES WHICH WERE MADE IN THE FARMING OPERATION

In this section, Table VII, findings regarding which changes the participants made in their farming operation, in relation to their age, are presented. Two significant relationships are verified by the chi square test results. Those two relationships are participants age and whether they increased certain enterprises, and age and whether they sold real estate.

When participants age and whether they increased certain enterprises were studied together, findings were that in each of the three age categories a greater portion of the participants did not increase enterprises as opposed to those who did increase enterprises. Approximately 46 percent of the 35 year old (or younger) participants, 40 percent of the 36 to 45 year old participants, and 30 percent of the

Table VII. Relationships Between Participant Age and Whether Selected Changes Were Made After Participating in MANAGE

Changes and Whether Made	Age					
	35 or Younger		36-45		45 or Older	
	Number of Participants	Percent of Participants	Number of Participants	Percent of Participants	Number of Participants*	Percent of Participants
Improved Crop and Livestock Production Rates and/or Reduced Costs						
No	63	49.2	53	38.4	56	37.8
Yes	65	50.8	85	61.6	92	62.2
TOTAL	128	100.0	138	100.0	148	100.0
Statistic $\chi^2 = 4.50$; $p = 0.12$						
Rescheduled Debt						
No	115	89.8	124	89.9	128	86.5
Yes	13	10.2	14	10.1	20	13.5
TOTAL	128	100.0	138	100.0	148	100.0
Statistic $\chi^2 = 1.07$; $p = 0.59$						
Refinanced With Another Lender						
No	121	94.5	129	93.5	142	95.9
Yes	7	5.5	9	6.5	5	4.1
TOTAL	128	100.0	138	100.0	148	100.0
Statistic $\chi^2 = 0.87$; $p = 0.65$						
Decreased or Eliminated Certain Enterprises						
No	89	69.5	104	75.4	111	75.0
Yes	39	30.5	34	24.6	37	25.0
TOTAL	128	100.0	138	100.0	148	100.0
Statistic $\chi^2 = 1.45$; $p = 0.45$						
Increased Certain Enterprises						
No	69	53.9	83	60.1	104	70.3
Yes	59	46.1	55	39.9	44	29.7
TOTAL	128	100.0	138	100.0	148	100.0
Statistic $\chi^2 = 8.03$; $p = 0.02$						

Table VII. (Continued)

Changes and Whether Made	Age									
	35 or Younger				36-45				45 or Older	
	Number of Participants	Percent of Participants	Number of Participants	Percent of Participants	Number of Participants	Percent of Participants	Number of Participants	Percent of Participants	Number of Participants	Percent of Participants
Sold Real Estate										
No	126	98.4	126	91.3			138	93.2		
Yes	2	1.6	12	8.7			10	6.8		
TOTAL	128	100.0	138	100.0			148	100.0		
Statistic $\chi^2 = 6.58$; $p = 0.04$										
Sold Machinery, Equipment or Livestock										
No	115	89.8	126	91.3			124	83.8		
Yes	13	10.2	12	8.7			24	16.2		
TOTAL	128	100.0	138	100.0			148	100.0		
Statistic $\chi^2 = 4.37$; $p = 0.11$										
Became Employed Part-Time Off the Farm										
No	118	92.2	130	94.2			140	94.5		
Yes	10	7.8	8	5.8			8	6.4		
TOTAL	128	100.0	138	100.0			148	100.0		
Statistic $\chi^2 = 0.76$; $p = 0.68$										
Left Farming										
No	126	98.4	133	96.4			147	99.3		
Yes	2	1.6	5	3.6			1	0.7		
TOTAL	128	100.0	138	100.0			148	100.0		
Statistic $\chi^2 = 3.41$; $p = 0.18$										
Gained Better Control of Family Living Expenses										
No	111	86.7	126	91.3			138	93.2		
Yes	17	13.3	12	8.7			10	6.8		
TOTAL	128	100.0	138	100.0			148	100.0		
Statistic $\chi^2 = 3.55$; $p = 0.17$										

*Missing one observation, total should be 149.

46 or older participants reported that they increased certain enterprises. These differences were significant at the .05 level. As age increased, the percentage of those who increased enterprises decreased. The younger participants were more likely to increase enterprises than the older participants.

When age and whether participants sold real estate were studied together, findings were that in each age category, a greater portion of the participants reported not to have sold real estate than those who did. Approximately 2 percent of the 35 year old or younger participants, 9 percent of those 36 to 45 years old, and 7 percent of those age 46 or older all reported to have sold real estate. These differences were significant at the .05 level. The younger participants, age 35 or less, were less likely to have sold real estate than those who were older.

Also of interest but not statistically significant were relationships between participant age and whether they improved their crop and livestock production rates and/or reduced costs, rescheduled their debt, refinanced with another lender, decreased or eliminated certain enterprises, sold machinery, equipment or livestock, became employed part-time off the farm, left farming, or gained better control of their family living expenses. When age and each of these variables were studied together, only in the case where there was an improvement in crop and livestock production rates was the percentage of participants from each age category who made the change greater than those who did not make the change. In the remaining seven variables, a greater

proportion of the participants from each category reported not to have made the change in question as opposed to those who did make the change. Although not significant, in four of the changes, improved crop and livestock rates, rescheduled debt, decreased/eliminated enterprises, and sold machinery, equipment and livestock, a greater portion of the 46 or older age category made the change compared to the 35 year old or younger category. Although not significant, in four other changes, refinanced with another lender, secured part-time employment, left farming, and gained better control of living expenses, a greater percentage of the younger participants made the change as opposed to the 46 year old or older participants who made the change in question.

In summary of the findings recorded in Table VII, participant age and whether or not selected managerial changes were made in the farming operation were significantly related in two instances. Findings were that the younger participants were more likely to increase certain enterprises than the older participants. Also, the younger participants were less likely to sell real estate than those who were older. The relationship between the other eight previously mentioned variables and the participants age were not significant.

IV. RELATIONSHIPS BETWEEN THE PARTICIPANTS EDUCATIONAL LEVEL AND THE CHANGES WHICH WERE MADE IN THE FARMING OPERATION

In this section, Table VIII, findings regarding relationships between the participants educational level and whether specified changes were made in the farming operation are presented.

Table VIII. Relationships Between Educational Level and Whether Selected Changes Were Made After Participating in MANAGE

Changes and Whether Made	Educational Level					
	High School or Less		Some College		College Graduate	
	Number of Participants*	Percent of Participants	Number of Participants	Percent of Participants	Number of Participants	Percent of Participants
Improved Crop and Livestock Production Rates and/or Reduced Costs						
No	69	44.8	47	37.6	56	41.5
Yes	85	55.2	78	62.4	79	58.5
TOTAL	154	100.0	125	100.0	135	100.0
Statistic $\chi^2 = 1.48$; p = 0.48						
Rescheduled Debt						
No	135	87.7	110	88.0	122	90.4
Yes	19	12.3	15	12.0	13	9.6
TOTAL	154	100.0	125	100.0	135	100.0
Statistic $\chi^2 = 0.60$; p = 0.74						
Refinanced With Another Lender						
No	146	94.8	114	91.2	132	97.8
Yes	8	5.2	11	8.8	3	2.2
TOTAL	154	100.0	125	100.0	135	100.0
Statistic $\chi^2 = 5.59$; p = 0.06						
Decreased or Eliminated Certain Enterprises						
No	114	74.0	92	73.6	98	72.6
Yes	40	26.0	33	26.4	37	27.4
TOTAL	154	100.0	125	100.0	135	100.0
Statistic $\chi^2 = 0.08$; p = 0.96						
Increased Certain Enterprises						
No	100	64.9	76	60.8	80	59.3
Yes	54	35.1	49	39.2	55	40.7
TOTAL	154	100.0	125	100.0	135	100.0
Statistic $\chi^2 = 1.06$; p = 0.59						

Table VIII. (Continued)

Changes and Whether Made	High School or Less		Educational Level		College Graduate	
	Number of Participants*	Percent of Participants	Number of Participants	Percent of Participants	Number of Participants	Percent of Participants
Sold Real Estate						
No	143	92.9	117	93.6	130	96.3
Yes	11	7.1	8	6.4	5	3.7
TOTAL	154	100.0	125	100.0	135	100.0
Statistic $\chi^2 = 1.68$; $p = 0.43$						
Sold Machinery, Equipment or Livestock						
No	135	87.7	114	91.2	116	85.9
Yes	19	12.3	11	8.8	19	14.1
TOTAL	154	100.0	125	100.0	135	100.0
Statistic $\chi^2 = 1.79$; $p = 0.41$						
Became Employed Part-Time Off the Farm						
No	147	95.5	116	92.8	125	92.6
Yes	7	4.5	9	7.2	10	7.4
TOTAL	154	100.0	125	100.0	135	100.0
Statistic $\chi^2 = 1.26$; $p = 0.53$						
Left Farming						
No	150	97.4	124	99.2	132	97.8
Yes	4	2.6	1	0.8	3	2.2
TOTAL	154	100.0	125	100.0	135	100.0
Statistic $\chi^2 = 1.27$; $p = 0.53$						
Gained Better Control of Family Living Expenses						
No	139	90.3	112	89.6	124	91.9
Yes	15	9.7	13	10.4	11	8.1
TOTAL	154	100.0	125	100.0	135	100.0
Statistic $\chi^2 = 0.42$; $p = 0.81$						

*Missing one observation, total should be 155.

Although not significant, a greater proportion of participants reported they did not make each of the following changes than those who said they did make the changes: improved crop and livestock production rates, rescheduled debt, refinanced with another lender, decreased or eliminated certain enterprises, increased certain enterprises, sold real estate, sold machinery, equipment or livestock, became employed part-time off the farm, left farming, or gained better control of family living expenses. Only in the instance, when there was an improvement in crop and livestock production rates and/or reduced costs, was the percentage of participants, from each educational level, who made the change greater than those who did not make the change.

Although not significant, in five of the changes, there was a greater portion of the college graduates, compared to the high school graduates, who made the change in question. Those changes were: to improve crop and livestock production rates, decrease or eliminate enterprises, increase enterprises, sell machinery, equipment or livestock, or to become employed part-time off the farm.

In five other changes, there was a greater portion of high school graduates, compared to college graduates, who made the changes in question. Those changes were: to reschedule debt, refinance with another lender, sold real estate, left farming, or gained better control of family living expenses. Here again, the differences between the participants education and these variables were not significant.

The range of participants who reported to have made any change in their operation was 0.8 percent (of those who left farming and

who had attended college) to 62.4 percent (of those who improved crop and livestock production rates and/or reduced costs, and who had attended college).

In summary of the findings regarding the participants educational level and whether the specified changes were made in their farming operation, none of the changes were significant at the .05 level in relation to education. However, half of the specified changes were made by greater portion of the college graduates compared to those who were high school graduates. Five of the changes were made by a greater portion of the high school graduates compared to those who were college graduates. College graduates were no more or less likely to make any change in their operation than high school graduates. Education was not a factor in decisions made about the farm operation.

V. RELATIONSHIPS BETWEEN PARTICIPANTS AGE AND THEIR SATISFACTION WITH CHANGES MADE AFTER PARTICIPATING IN MANAGE

In this section, Table IX, findings regarding the participants age and their satisfaction with the changes they made in their farming operation, after participating in MANAGE are presented. Relationships between the independent variable (i.e., the participants age) and the dependent variables (i.e., the participants satisfaction rating of changes made as being either very pleased, pleased, or displeased) were tested using the chi square test. The .05 probability level was accepted as significant.

Table IX. Relationships Between Participants' Age and Their Satisfaction With Changes Made After Participating in MANAGE

Satisfaction With Changes Made	Age					
	35 or Younger		36 to 45		45 or Older	
	Number of Participants	Percent of Participants	Number of Participants	Percent of Participants	Number of Participants	Percent of Participants
Improved Crop and Livestock Production Rates and/or Reduced Costs						
Very pleased	20	30.8	28	32.5	33	36.3
Pleased	45	69.2	57	66.3	55	60.4
Displeased	0	0.0	1	1.2	0	3.3
TOTAL	65	100.0	86	100.0	91	100.0
Statistic $\chi^2 = 3.55$; p = 0.46						
Rescheduled Debt						
Very pleased	1	7.7	5	33.3	4	21.1
Pleased	12	92.3	9	60.0	13	68.4
Displeased	0	0.0	1	6.7	2	10.5
TOTAL	13	100.0	15	100.0	19	100.0
Statistic $\chi^2 = 4.57$; p = 0.33						
Refinanced With Another Lender						
Very Pleased	3	42.9	4	40.0	4	57.1
Pleased	4	57.1	5	50.0	3	42.9
Displeased	0	0.0	1	10.0	0	0.0
TOTAL	7	100.0	10	100.0	7	100.0
Statistic $\chi^2 = 1.83$; p = 0.77						
Decreased or Eliminated Certain Enterprises						
Very pleased	13	33.3	15	42.8	12	33.3
Pleased	26	66.7	17	48.6	24	66.7
Displeased	0	0.0	3	8.6	0	0.0
TOTAL	39	100.0	35	100.0	36	100.0
Statistic $\chi^2 = 8.31$; p = 0.08						
Increased Certain Enterprises						
Very pleased	27	45.8	21	36.2	23	51.1
Pleased	31	52.5	34	58.6	22	48.9
Displeased	1	1.7	3	5.2	0	0.0
TOTAL	59	100.0	58	100.0	45	100.0
Statistic $\chi^2 = 4.80$; p = 0.31						

Table IX. (Continued)

Satisfaction With Changes Made	Age					
	35 or Younger		36 to 45		45 or Older	
	Number of Participants	Percent of Participants	Number of Participants	Percent of Participants	Number of Participants	Percent of Participants
Sold Real Estate						
Very pleased	0	0.0	3	20.0	4	40.0
Pleased	2	100.0	6	40.0	6	60.0
Displeased	0	0.0	6	40.0	0	0.0
TOTAL	2	100.0	15	100.0	10	100.0
Statistic $\chi^2 = 7.71$; $p = 0.10$						
Sold Machinery, Equipment or Livestock						
Very pleased	5	38.5	2	14.3	12	50.0
Pleased	7	53.8	8	57.1	11	45.8
Displeased	1	7.7	4	28.6	1	4.2
TOTAL	13	100.0	14	100.0	24	100.0
Statistic $\chi^2 = 8.01$; $p = 0.09$						
Became Employed Part-Time Off the Farm						
Very pleased	3	33.3	4	40.0	1	12.5
Pleased	4	44.4	2	20.0	5	62.5
Displeased	2	22.3	4	40.0	2	25.0
TOTAL	9	100.0	10	100.0	8	100.0
Statistic $\chi^2 = 3.80$; $p = 0.43$						
Left Farming						
Very pleased	0	0.0	0	0.0	0	0.0
Pleased	1	50.0	2	40.0	1	100.0
Displeased	1	50.0	3	60.0	0	0.0
TOTAL	2	100.0	5	100.0	1	100.0
Statistic $\chi^2 = 1.96$; $p = 0.37$						
Gained Better Control of Family Living Expenses						
Very pleased	5	29.4	6	42.9	5	50.0
Pleased	12	70.6	6	42.9	5	50.0
Displeased	0	0.0	2	14.2	0	0.0
TOTAL	17	100.0	12	100.0	10	100.0
Statistic $\chi^2 = 5.76$; $p = 0.22$						

When participants age was studied in relation to their satisfaction with the changes made in their operation (in terms of the impact the changes had upon their financial situation) a greater porportion of the participants were satisfied (i.e., pleased or very pleased) with the results of the specified change, than those who were dissatisfied with the results. In 9 of the 10 changes which participants made, there was no instance when the percentage of participants who reported to be displeased with the impact of the change was greater than those satisfied with the change. Those nine changes were: improved crop and livestock production rates and/or reduced costs, rescheduled debt, refinanced with another lender, decreased or eliminated certain enterprises, increased certain enterprises, sold real estate, sold machinery, equipment or livestock, became employed part-time off the farm, and gained better control of family living expenses. Even so, there were no significant relationships between these changes and the participants age.

The one case where the precentage of participants who reported to be displeased with the changes was greater than those pleased was those who left farming. There was a total of eight participants who left farming. Four reported to be displeased with the impact that the change had upon their financial situation. Fifty percent (1 participant) of the 35 year olds or younger, 60 percent (3 participants) of those age 36 to 45, and 0 percent of those age 46 or older reported to be displeased with the results of leaving farming. However these differences were not significant at the .05 level.

In summary of the findings regarding relationships between the participants age and their satisfaction with the changes they made in their farming operation, the differences were not significant. Excluding those who left farming, there was no instance where more than 11 percent of the 46 or older age participants or 23 percent of those age 35 or younger reported to be displeased with the results of the changes made in their operation. In instances where participants reported to be displeased with the changes, a greater proportion of those participants were age 36 to 45. Again, there were no significant relationships at the .05 level. The younger participants were no more or less likely to be pleased or displeased with the results of the changes they made than were the older participants.

VI. RELATIONSHIPS BETWEEN PARTICIPANTS EDUCATIONAL LEVEL AND
THEIR SATISFACTION WITH CHANGES THEY MADE AFTER
PARTICIPATING IN MANAGE

This section, Table X, presents findings regarding the participants educational level and their satisfaction with the changes they made in their farming operation after participating in MANAGE.

When participants education was studied in relation to their satisfaction with the changes made in their operation (in terms of the impact the changes had upon their financial situation), although not significant, a greater proportion of the participants from each of the educational levels reported to be pleased with the changes they made in all change areas except left farming than those who were

Table X. Relationships Between Participants' Educational Level and Their Satisfaction With Changes Made After Participating in MANAGE

Satisfaction With Changes Made	Educational Level					
	High School or Less		Some College		College Graduate	
	Number of Participants	Percent of Participants	Number of Participants	Percent of Participants	Number of Participants	Percent of Participants
Improved Crop and Livestock Production Rates and/or Reduced Costs						
Very pleased	31	36.5	22	28.2	28	35.4
Pleased	52	61.1	55	70.5	50	63.3
Displeased	2	2.4	1	1.3	1	1.3
TOTAL	85	100.0	78	100.0	79	100.0
Statistic $\chi^2 = 1.95$; p = 0.75						
Rescheduled Debt						
Very pleased	6	33.3	2	13.3	2	14.3
Pleased	11	61.1	13	86.7	10	71.4
Displeased	1	5.6	0	0.0	2	14.3
TOTAL	18	100.0	15	100.0	14	100.0
Statistic $\chi^2 = 5.08$; p = 0.28						
Refinanced With Another Lender						
Very pleased	6	66.7	5	45.5	0	0.0
Pleased	3	33.3	6	54.5	3	75.0
Displeased	0	0.0	0	0.0	1	25.0
TOTAL	9	100.0	11	100.0	4	100.0
Statistic $\chi^2 = 8.73$; p = 0.07						
Decreased or Eliminated Certain Enterprises						
Very pleased	14	35.9	12	36.4	14	36.8
Pleased	23	59.0	21	63.6	23	60.6
Displeased	2	5.1	0	0.0	1	2.6
TOTAL	39	100.0	33	100.0	38	100.0
Statistic $\chi^2 = 1.80$; p = 0.77						
Increased Certain Enterprises						
Very pleased	27	47.4	20	40.8	24	42.9
Pleased	27	47.4	29	59.2	31	55.4
Displeased	3	5.3	0	0.0	1	1.8
TOTAL	57	100.0	49	100.0	56	100.0
Statistic $\chi^2 = 4.12$; p = 0.38						

Table X. (Continued)

Satisfaction With Changes Made	Educational Level					
	High School or Less		Some College		College Graduate	
	Number of Participants	Percent of Participants	Number of Participants	Percent of Participants	Number of Participants	Percent of Participants
Sold Real Estate						
Very pleased	4	33.3	2	22.2	1	16.7
Pleased	4	33.3	6	66.7	4	66.7
Displeased	4	33.4	1	11.1	1	16.6
TOTAL	12	100.0	9	100.0	6	100.0
Statistic $\chi^2 = 3.17$; $p = 0.53$						
Sold Machinery, Equipment or Livestock						
Very pleased	7	36.8	5	41.7	7	35.0
Pleased	8	42.1	6	50.0	12	60.0
Displeased	4	21.1	1	8.3	1	5.0
TOTAL	19	100.0	12	100.0	20	100.0
Statistic $\chi^2 = 2.99$; $p = 0.55$						
Became Employed Part-Time Off the Farm						
Very pleased	1	14.3	3	33.3	4	36.4
Pleased	2	28.6	5	55.6	4	36.4
Displeased	4	57.1	1	11.1	3	27.2
TOTAL	7	100.0	9	100.0	11	100.0
Statistic $\chi^2 = 4.41$; $p = 0.35$						
Left Farming						
Very pleased	0	0.0	0	0.0	0	0.0
Pleased	1	25.0	0	0.0	3	75.0
Displeased	3	75.0	0	0.0	1	25.0
TOTAL	4	100.0	0	100.0	4	100.0
Statistic $\chi^2 = 3.75$; $p = 0.15$						
Gained Better Control of Family Living Expenses						
Very pleased	7	46.7	5	35.7	4	33.3
Pleased	8	53.3	8	57.1	7	58.3
Displeased	0	0.0	1	7.2	1	8.4
TOTAL	15	100.0	14	100.0	12	100.0
Statistic $\chi^2 = 1.57$; $p = 0.81$						

displeased. In all changes, except for those who left farming, the total percentage of satisfied (pleased and very pleased) participants exceeded the percentage of those who were not satisfied (displeased) with the results of the changes they made. However, approximately 57 percent of the high school or less participants reported to be displeased with the results of securing part-time off the farm employment. These differences were not significant.

In the case of those who left farming, 75 percent of those who graduated from high school or less and 25 percent of the college graduates reported to be dissatisfied with the results of leaving farming, but these differences were not significant at the .05 level.

In 7 of the 10 changes a greater percentage of the high school graduates or less participants reported to be displeased with the results of the changes than the percentage of those who attended college or graduated from college. Those seven changes were: improved crop and livestock production rates; decreased or eliminated enterprises; increased enterprises; sold real estate; sold machinery, equipment or livestock; secured part-time off the farm employment; and left farming. Even so, there were no significant relationships between these changes and the participants educational level.

In summary, although not significant, a greater percentage of the high school or less graduates were dissatisfied with the change results than those who attended college or were college graduates. High school graduates who obtained part-time off-the-farm employment and those who left farming were the only two instances where there was a greater percentage of displeased participants than those pleased.

However, these differences were not significant. At least 60 percent of the participants at each educational level were pleased or very pleased with the results of the changes they made except those who became employed part-time off the farm and those who left farming. However, none of the relationships between the participants educational level and their satisfaction with the changes they made were significant at the .05 level. Therefore, the college graduates were no more or less likely to be pleased or displeased with the results of the changes they made in their operation than were the high school graduates.

VII. RELATIONSHIPS BETWEEN THE PARTICIPANTS RATING OF MANAGE AND THEIR PERSONAL AND FARM CHARACTERISTICS

This section presents findings (Table XI) regarding relationships between how the participants rated MANAGE and their personal (i.e., age and education) and farm (i.e., acres owned, rented and operated) characteristics.

Personal Characteristics

Age. When the participants rating of the MANAGE program was studied in regard to their age, findings were that approximately 40 percent of those 46 or older rated the program to be very useful compared to approximately 51 percent of those 35 or younger. Although not significant, a greater proportion of the older participants, 20.8 percent, rated the program as not useful or only somewhat useful, compared to

less than 15 percent of those 36 to 45 and those 35 or younger. Age was not significantly related to how participants rated the program. The younger participants were no more or less likely to rate MANAGE to be any more or less useful than were the older participants.

Educational level. Although not significant, a greater percentage, approximately 51 percent, of the college graduates rated MANAGE to be very useful compared to approximately 45 percent of those who were high school graduates, or less. Of those who rated the program as not useful or somewhat useful, 21 percent were high school graduates and 13 percent were college graduates. There were no significant relationships between the participants rating of the program and their educational level. The college graduates were no more or less likely to rate MANAGE to be any more or less useful than were the high school graduates.

Farm Characteristics

Number of acres owned. Of those who rated MANAGE to be very useful, 53 percent owned 51 to 200 acres, 50 percent owned 50 acres or less, and 42 percent owned more than 200 acres. Also, when the participants rating of MANAGE was studied in respect to the number of acres they owned, approximately 19 percent of those owning more than 200 acres rated the program to be not useful or somewhat useful compared to approximately 15 percent of those owning less than 50 acres or up to 200 acres. However, these differences were not significant; thus, those who owned less than 50 acres were no more or less likely to rate MANAGE to be any more or less useful than were those who owned more than 200 acres.

Number of acres rented. Survey results revealed that approximately 46 percent of the participants who rented more than 200 acres, 56 percent of those who rented less than 200 acres, and 40 percent of those who rented 0 acres all rated MANAGE to be very useful. Those who rated the program to be not useful or somewhat useful were approximately 17 percent of those renting more than 200 acres, 14 percent of those renting less than 200 acres, and 20 percent of those renting no land at all. However, these differences were not significant; thus, those who rented land were no more or less likely to rate MANAGE to be any more or less useful than were those who did not rent land.

Number of acres operated. Survey results also revealed that 50 percent of the participants who operated (acres owned and rented) less than 250 acres, 46 percent of those who operated between 250 and 699 acres, and 45 percent of those who operated 700 acres or more all rated MANAGE to be very useful. Of those who rated MANAGE to be not useful or somewhat useful were approximately 14 percent of those who operated less than 250 acres, 20 percent of those who operated between 250 and 700 acres, and 14 percent of those who operated more than 700 acres. However, these differences were not significant; thus, those who operated more than 700 acres were no more or less likely to rate MANAGE to be any more or less useful than those who operated less acreage.

In summary of these findings (Table XI the MANAGE program was rated to be useful or very useful by more than 80 percent (as noted in Table IV) of the participants with various characteristics. There

were no significant relationships between the program rating and the personal and farm characteristics of the participants. A participant with any one or more of the given characteristics were no more or less likely to rate MANAGE as being not useful or very useful than were participants with different given farm and personal characteristics.

Chapter Summary

The participants age did not relate significantly to whether or not they received benefits from MANAGE but the education did. College graduates were more likely to increase their planning abilities than the high school graduates, but the high school graduates were more likely to increase their understanding of how debt affected their farm business.

Participants age was significantly related to whether selected managerial changes were made in the farming operation. The younger (35 or younger) participants were more likely to increase certain enterprises and to sell real estate than the older participants (46 or older). In contrast, education and whether the participants made managerial changes were not significantly related. College graduates were no more or less likely to make any particular change in their operation than were the high school graduates.

Participants age and their satisfaction with the changes they made in their operation were not significant at the .05 level. In 6 of the 10 given changes which participants made, approximately 85 percent of the participants from each age category were satisfied with the results that the changes brought. A greater proportion of the participants

aged 36 to 45 were displeased with the changes they made than were the younger or older participants. But, since these variables (age and change satisfaction) did not differ significantly, the younger participants were no more or less likely to be pleased or displeased with changes they made than were the older participants.

When education was studied in regard to change satisfaction, although not significant, there was a greater percentage of high school graduates who were dissatisfied with 7 of the 10 changes, or change category, they made than were those who attended college or graduated from college. More specifically, they were dissatisfied with the results of obtaining part-time off the farm employment (57 percent) and leaving farming (75 percent). In 8 of the 10 given changes which participants made, at least 60 percent of the participants within each educational level were pleased or very pleased with the results of the changes in terms of the impact the change had upon their financial situation. However, there were no significant relationships at the .05 level between education and change satisfaction; therefore, college graduates were no more or less likely to be pleased or displeased with changes they made than were the high school graduates.

Finally, MANAGE was rated by more than 80 percent of the 415 participants to be useful or very useful. There were no significant relationships between the participants age or education and how they rated MANAGE, nor between the size of the participants operation and how they rated MANAGE. Participants with any one or more of the given characteristics were no more or less likely to give MANAGE a particular rating than were participants with different farm and/or personal characteristics.

CHAPTER V

SUMMARY OF MAJOR FINDINGS

I. PURPOSES AND SPECIFIC OBJECTIVES

Purposes

The purposes of this study was to determine relationships between the ratings participants gave the MANAGE program and selected variables including personal and farm characteristics, changes the participants made, and their satisfaction with the changes they made. This information may be useful toward targeting audiences for future educational programs as well as formulating objectives for future programs.

Specific Objectives

The specific objectives of this study were:

1. To characterize MANAGE participants and their farming operation by their age, education, farm size, what benefits they received, changes they made, their satisfaction with the changes they made and their rating of MANAGE.
2. To determine relationships between participants age and the benefits they received from the program.
3. To determine relationships between participants educational level and the benefits they received from MANAGE.
4. To determine relationships between participants age and the changes which they made in their farm operation.

5. To determine relationships between participants educational level and the changes which they made in their farm operation.

6. To determine relationships between participants age and their satisfaction with changes they made in their farm operation.

7. To determine relationships between participants education and their satisfaction with changes they made in their farm operation.

8. To determine relationships between the personal and farm characteristics of MANAGE participants and their overall rating of the MANAGE program.

II. METHOD OF INVESTIGATION

A total of 681 Tennessee farm families participated in this early phase of MANAGE program and 415 completed the participants evaluation. The information and findings of data for this study were obtained through a survey of the MANAGE participants. The participants in MANAGE were from 88 counties throughout the state. The MANAGE survey was completed by participants after they received intensive financial management assistance and information.

The data were coded and processed for computer analysis. Computations were made using the University of Tennessee Computing Center facilities. The chi square (X^2) statistical test was used to determine the strength of the relationship between dependent and independent variables. The chi square values which achieved the .05 probability level were accepted as indicating a significant relationship between the variables.

III. MAJOR FINDINGS

Selected Characteristics of Participants and Their Farm Operation

The average age of Tennessee MANAGE program participants was 42, and their ages ranged from 19 to 74. The greatest percentage, 35.9, of the 415 participants, were age 46 or older. The greatest percentage, 37.4, of the participants were high school graduates or less. The average number of acres owned by the participants was 249, the average number of acres rented was 245 and the average number of acres operated was 494.

Selected Characteristics of Participants in Terms of the Type of Action They Perceived as Needed and Selected Changes They Made

Approximately 35 percent of the participants perceived that a major change was needed in their farming operation. The change (or change category) which nearly 60 percent of the participants made was to improve crop and livestock production rates and/or reduce costs. This was the only instance where the percentage of participants who made the change was greater than the percentage of those who did not make the change. Approximately 65 percent altered the size of certain of their farm enterprises, either by increasing, decreasing or eliminating them. Each participant made an average of two changes.

Characteristics of Participants Regarding Their Satisfaction With The Changes They Made

Participants were overwhelmingly satisfied (being either pleased or very pleased) with the changes they made, except those who left farming or obtained a part-time off the farm job. Only in the instance where the participants left farming was the percentage of dissatisfied and satisfied participants equal; 50 percent satisfied, 50 percent dissatisfied. Eight of the 415 participants left farming after participating in MANAGE.

Characteristics of Participants Regarding Benefits They Received From MANAGE

Each participant received an average of three benefits from MANAGE. There were four benefits which 50 percent or more of the participants stated to have received from the program. They were: answers to their questions; increased planning capabilities; a greater understanding of their financial situation; and an increase in their understanding of alternatives for improving their financial situation. More than 83 percent of the participants rated the overall MANAGE program as useful or very useful. Less than 3 percent rated MANAGE to be only somewhat or not useful. Ninety-six percent stated they would utilize the program again if needed.

Selected Characteristics of Participants and Benefits They Received From MANAGE

There were no significant relationships between the participants age and the benefits they received but there were with the educational

level and benefits received. College graduates were more likely than high school graduates to increase their planning abilities. High school graduates were more likely than college graduates to increase their understanding of how debt affected their farm business.

Selected Characteristics of Participants and Changes

They Made After Participating in MANAGE

There were two significant relationships between age and what changes participants made in their operation. Findings were that the younger participants were more likely to increase certain enterprises than the older participants. Also, the younger participants were less likely to sell real estate than those who were older. There were no significant relationships between participants educational level and the changes they made in their operation. College graduates were no more or less likely to make any change in their operation than were high school graduates.

Selected Characteristics of Participants and Their

Satisfaction With Changes That Were Made

The participants age and their satisfaction with the changes they made were not significantly related. In instances where participants reported to be displeased with the changes, a greater percentage of those participants who were 36 to 45. The younger participants were no more or less likely to be pleased or displeased with the results of the changes they made than were the older participants.

When considering education and participants satisfaction with changes they made, 60 percent of the participants at each educational level were pleased with the results of 8 of the 10 given changes which they made. However, none of the relationships between the participants educational level and their satisfaction with the changes they made were significant at the .05 level. Therefore the college graduates were no more or less likely to be pleased or displeased with the results of the changes they made in their operation than were the high school graduates.

Selected Characteristics of Participants and Their Operation and Their Rating of MANAGE

Neither the participants age, education, the number of acres they owned, rented or operated was significantly related to how they rated the program. The program was rated by more than 80 percent (Table IV) of the participants, with various farm and personal characteristics, to be useful. A participant with any one or more of the given characteristics was no more or less likely to rate MANAGE as being not useful or very useful than participants with different given farm and personal characteristics.

IV. IMPLICATIONS AND RECOMMENDATIONS

The 415 MANAGE program participants in this study made a total of 785 changes in their farming operation after participating in the program. Approximately 35 percent of the 415 participants indicated that a major change in the plans of their farming operation would be

acceptable. More than 90 percent of the participants were satisfied with the impact the change had upon their financial situation. There were 681 farm families who participated in MANAGE between April 1986 and October 1987; a substantial number of families within a one and one-half year period. Based on these findings and other findings summarized in this study, the findings would seem to imply a continuing need to reach farm families in an effort to help them analyze their financial situation and assist them in identifying beneficial alternatives to their situation, as well as helping them formulate farming operation goals. Considering both the MANAGE program's objectives and the findings of this study it would seem important for MANAGE to continue to be made available to Tennessee's farm families in the same capacity as it has since April 1986.

V. RECOMMENDATIONS FOR FURTHER STUDY

1. A survey which would indicate if the participants were pleased with changes they made up to one year after MANAGE should be made to determine if MANAGE has long term effects. This determination would help in the formulation of objectives in other educational programs.

2. Development of a tool that would make analysis between more than two variables would aid to determine significant relationships between the variables.

3. Similar studies should be conducted on future MANAGE program participants to aid in evaluating the program and investigate potential changes that would be needed in the program.

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APPENDIX

Participant Evaluation
of the Tennessee Agricultural Extension Service
MANAGE Program

Card No. 1
(1)



County No. (2) (3) (4)

Year (5)

Farm No. (6) (7) (8)

- (9) 1. Would you please rate the usefulness of the information and assistance you received as a participant in the Extension MANAGE program. (Check only one)
- a. _____ very useful
 - b. _____ useful
 - c. _____ somewhat useful
 - d. _____ not useful
 - e. _____ unsure
2. What did you gain from information you received as a participant in the MANAGE program? (Check all that apply)
- (10) a. _____ Answers to questions.
 - (11) b. _____ Increased planning capabilities.
 - (12) c. _____ Greater understanding of our financial situation.
 - (13) d. _____ Greater understanding of alternatives for improving our financial situation.
 - (14) e. _____ Greater understanding of how debt affects farm business.
 - (15) f. _____ Increased awareness of other help available.
 - (16) g. _____ Greater understanding of family living expenses.
 - (17) h. _____ Did not gain anything.
- (18) 3. As a result of information and assistance received in the MANAGE program, acceptable plans for the future indicated the need to take action best described by one of the following statements: (Check only one)
- a. _____ Make major changes such as refinancing, dropping and/or adding enterprises and/or making changes like those indicated in question #4, below - see items "a" thru "i")
 - b. _____ Continue with about the same type and size of crop and livestock enterprises, production rates and/or costs.
 - c. _____ Continue with the same enterprises but improve production rates and/or reduce costs.
 - d. _____ Change the size of existing enterprises.
 - e. _____ Other, please specify _____

4. As a result of information and assistance received in the MANAGE program, please indicate whether or not you have made the following changes. (Check all that apply)

- (19) a. _____ Improved crop and livestock production rates and/or reduced costs.
- (20) b. _____ Rescheduled debt.
- (21) c. _____ Refinanced with another lender.
- (22) d. _____ Decreased or eliminated certain enterprises.
- (23) e. _____ Increased certain enterprises.
- (24) f. _____ Sold real estate.
- (25) g. _____ Sold machinery, equipment or livestock.
- (26) h. _____ Became employed part-time off the farm.
- (27) i. _____ Left farming.
- (28) j. _____ Gained better control of family living expenses.
- (29) k. _____ Other, please specify _____

5. For each change checked in question number 4, please indicate below how well pleased you are with the change in terms of the impact the change had upon your financial situation. (Rate each change by checking whether you were: "very well pleased," "pleased," "displeased," "very displeased.")

		Very Well Pleased	Pleased	Dis- pleased	Very Displeased
(30)	a. Improved crop and livestock production rates and/or reduced costs.	_____	_____	_____	_____
(31)	b. Rescheduled debt.	_____	_____	_____	_____
(32)	c. Refinanced with another lender	_____	_____	_____	_____
(33)	d. Decreased or eliminated certain enterprises	_____	_____	_____	_____
(34)	e. Increased certain enterprises.	_____	_____	_____	_____
(35)	f. Sold real estate.	_____	_____	_____	_____
(36)	g. Sold machinery, equipment or livestock.	_____	_____	_____	_____
(37)	h. Became employed part-time off the farm.	_____	_____	_____	_____
(38)	i. Left farming.	_____	_____	_____	_____
(39)	j. Gained better control of family living expenses.	_____	_____	_____	_____
(40)	k. Other, please specify	_____	_____	_____	_____

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6. How did you learn about the MANAGE program? (Please check all that apply)

- (41) a. _____ Television, radio and/or newspaper.
- (42) b. _____ Extension newsletter.
- (43) c. _____ Family, friend and/or neighbor.
- (44) d. _____ Personal contact by Extension Agents.
- (45) e. _____ Lender.
- (46) f. _____ Referred by another farmer.
- (47) g. _____ Other please specify _____

7. For each method of learning about the MANAGE program checked in question number 6 above, please indicate below how useful the method was in helping you decide to participate in the MANAGE program. (Rate usefulness for each method used by checking either "very useful," "useful," "not very useful," or "not useful at all.")

		Very Useful	Useful	Not Very Useful	Not Useful At All
(48)	a. Television, radio, newspaper.	_____	_____	_____	_____
(49)	b. Extension newsletter.	_____	_____	_____	_____
(50)	c. Family, friend and/or neighbor.	_____	_____	_____	_____
(51)	d. Personal contact by Extension Agent.	_____	_____	_____	_____
(52)	e. Lender.	_____	_____	_____	_____
(53)	f. Referred by another farmer.	_____	_____	_____	_____
(54)	g. Other, please specify	_____	_____	_____	_____

(55-56) 8. In the space provided below please write any comments, suggestions, and/or criticisms you have regarding the MANAGE program.

- (54) 9. If needed, would you utilize the MANAGE program again?
- a. _____ yes
- b. _____ no
- (58) 10. What is the highest level of education completed by the farm operator?
(Check only one)
- a. _____ Less than high school
- b. _____ High school graduate.
- c. _____ Some college or technical school.
- d. _____ College graduate.
- (56-63) 11. How many acres of land do you own?
- _____ acres owned.
- (64-68) 12. How many acres do you rent?
- _____ acres rented.
- (69-70) 13. What is the age of the farm operator?
- _____ years old?

Thank you, that completes the questionnaire. The information you have provided will help Extension to do a better job. It is important we have your response to each of the above questions, will you please check your responses to each question. Thank you.

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