

TRINITY VALLEY QUILTERS' GUILD: QUILTMaking  
PRACTICES AND MOTIVATIONS

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A DISSERTATION

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

IN THE GRADUATE SCHOOL OF

TEXAS WOMAN'S UNIVERSITY

COLLEGE OF ARTS AND SCIENCES

BY

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DENTON, TEXAS

MAY, 2003

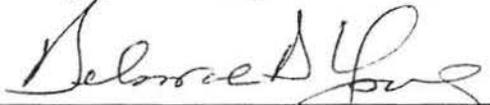
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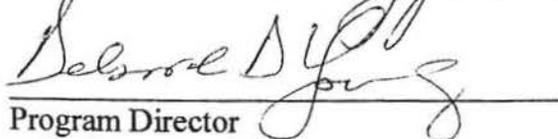
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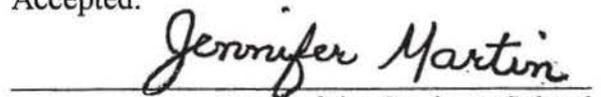
I am submitting herewith a dissertation written by Jane K. Kucko entitled "Trinity Valley Quilters' Guild: Quiltmaking Practices and Motivations." I have examined this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy with a major in Fashion and Textiles.

  
Deborah D. Young, Major Professor

We have read this dissertation  
and recommend its acceptance:

  
  
  
Program Director

Accepted:

  
Dean of the Graduate School

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## ACKNOWLEDGEMENTS

There are several people to sincerely thank for their support and guidance through the completion of this undertaking. I am forever grateful for my major professor, Dr. Deborah Young, for her dedication, time and commitment to this study. Her advice and instruction to this project were invaluable to its completion. Sincere appreciation is also extended to committee members Dr. Charles Riggs and Dr. Sheri Dragoo for their guidance and support. Dr. David Marshall is graciously thanked for his statistical assistance and expertise.

Gratitude is also extended to Dr. Michael McCracken for the granting of a sabbatical to begin my graduate studies and to Dr. Larry Adams for his continual support and encouragement. My colleagues, Drs. Linda Hughes, Priscilla Tate, Winn Horner, and Kathy McDorman are sincerely thanked for encouraging me to begin this endeavor and being there for me throughout the process. Your friendship and support has been very meaningful.

To my wonderful husband Dale, who gave unselfishly to this project and encouraged me throughout the years; I am proud of you and love you. To my dear parents, Joe and Marge Kolar; thank you for teaching me the value of education and your support throughout the years. To my family, Matt and Leslie; my brothers and sisters, Lorine, Mary, John, and Jim; and close family and friends, Tom, Mary, Tami, my nieces and nephews, the Caldwells, and the Starrs; I am truly blessed to have you in my life.

## ABSTRACT

### TRINITY VALLEY QUILTERS' GUILD: QUILTMAKING PRACTICES AND MOTIVATIONS

Jane Kucko

May 2003

The primary problem was to identify and describe the demographic characteristics, quiltmaking motivations, and quiltmaking practices of members of the Trinity Valley Quilters' Guild (TVQG). The study resulted in a demographic profile of TVQG members and their quiltmaking motivations, quiltmaking techniques, and quiltmaking practices.

The self-administered, mailed questionnaire was distributed to 382 members of Trinity Valley Quilters' Guild (TVQG) and resulted in a 66.5% return rate (n = 254). Findings indicated that participants were prevalently 51 years of age or older, female, white, non-Hispanic, grew up in the west south central part of the United States, had a high school education and were married. The majority of participants were raised in an urban setting and were retired. Participants most frequently reported Methodist as their religious affiliation and reported an U.S. annual household income of \$60,000 a year or more. The majority of participants participated in the quiltmaking process, learned to quilt between the ages of 50 to 59, and were self-taught.

Based upon the quiltmaking practices and techniques of the participants, four trends emerged. Participants predominantly utilized machine techniques and practices rather than

traditional hand techniques, purchased patterns and kits rather than created original designs, placed importance upon the visual impact and quality of assembly of a quilt rather than traditional techniques such as hand piecing or hand quilting, and predominantly participated in quilting individually rather than in groups. Additionally, the study determined that number of hours per week spent on quilting, number of quilts made, and amount of U.S. dollars on quilting could predict whether a participant was motivated to quilt for giving, creative expression, or relief and pleasure purposes.

There were three significant implications of the study. First, the participants overwhelmingly preferred machine techniques and practices over hand methods. Secondly, participants predominately learned to quilt later in life. These findings may be utilized by the quilting industry to tailor quilting patterns, products, and supplies to the current U.S. quilter. Third, the study resulted in a questionnaire that may serve as a model for subsequent research in collecting consistent data on U.S. quilters.

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## CHAPTER I

### INTRODUCTION

Quiltmaking is an art that is admired by people of various ages and cultures. Intricate stitches and combinations of pattern and color create admirable quilts that may provide warmth, commemorate a particular event, or serve as a representation of the people who made them. Whether for function, commemoration, or some other purpose, quiltmaking has been a significant part of American history since the late 18<sup>th</sup> century. Today, there is a significant interest in quiltmaking and collecting that has resulted in a thriving industry (Quilter's Newsletter, 2000).

Scholars have investigated why quiltmaking became a popular U.S. domestic activity since the 18<sup>th</sup> century. Four reasons emerged that explained the popularity of quiltmaking. Quiltmaking served as an educational tool for learning sewing skills (Gunn, 1991, 1988), it was a means of establishing oneself as a young woman prepared for domestic life (Brackman, 1990; Kiracofe, 1993), quiltmaking was a method to commemorate a special event or achievement (Clark, 1986; Goldsborough, 1994), and quiltmaking created functional objects that provided warmth (Mulholland, 1996). However, further research revealed that these reasons for quiltmaking concealed an underlying explanation as to why quiltmaking became a popular American activity. In

her work *For Purpose and Pleasure*, Fox (1995) stated that historically, women quilted for pleasure and enjoyment under the auspices of fulfilling domestic obligations.

During the 18<sup>th</sup> and 19<sup>th</sup> centuries, the maturation of quiltmaking paralleled the economic and industrial development of the United States particularly in the textile industry. Despite sources that claimed quiltmaking was a common activity for colonial women (Webster, 1929), recent research revealed that quiltmaking was not a popular activity until the late 18<sup>th</sup> century when the textile industry was developed (Brackman, 1983). Advancements in textile production allowed for the mass-production of cotton fabrics, a prevalent fabric founded in quilts; quiltmaking increased.

During the 19<sup>th</sup> century, women realized that quiltmaking was a traditional and acceptable mechanism for women to voice their opinions without being direct or intrusive on the male-dominated, public sphere (Davis, 1990). During the 19<sup>th</sup> century, when the United States faced concerns such as slavery and the Civil War, women created quilts that expressed their opposition or support for these issues.

By the turn of the 20<sup>th</sup> century, quiltmaking continued to be utilized as a means of expression on issues such as temperance, politics, and the right to vote (Brackman, 1990; Chinn, 1990; Shea & Crews, 1989). Women realized that quiltmaking was an effective means to create social change (Gunn, 1994).

Quiltmaking continued to be popular throughout the first four decades of the 20<sup>th</sup> century, despite significant economic perils such as the Depression Era. In fact, women continued quiltmaking during these difficult years as a means to ease the stress and create

a diversion from tough times (Gunn, 1988). During the 1920s through the 1940s, newspapers such as the *Omaha World Herald* published quilt patterns and developed competitions that were specifically designed to market products such as patterns, fabrics, and quilt kits to the consumer (Stehlik, 1990). Commercial companies produced and distributed quilt patterns and kits contributing to the quilting industry.

By the conclusion of World War II, women turned their attention to more modern thinking that included working outside the home. As a result, quilting declined (Crews & James, 1996). It was not until the bicentennial celebration in 1976 that the United States experienced a quilting revival. In an effort to create quilts of historical meaning to commemorate the bicentennial, individuals took classes that resulted in a revived interest that has not since declined (Crews & James, 1996).

Today, there are over 15 million individuals who participate in quilting in the United States (Quilter's Newsletter, 2000). According to Quilter's Newsletter (2000), between the years of 1997 and 2000, quilters spent nearly 2 billion dollars annually on quilting supplies (Quilter's Newsletter, 2000). These figures support the claim that quilting continues to be a viable and popular craft in the United States.

The history of U.S. quilting is socially and culturally rich with tradition. Recognizing the significance of quilting, scholars have published numerous studies on the history of quilting, the development of the industry, the documentation of quilts as historical artifacts, and semiotics in quilts. Gross (1980) presented an argument to scholars to go beyond these topics to include the documentation of the

quilter. The call for more serious quilt research blended with the interest in quilt history, contributed to the development and implementation of numerous state quilt projects (Cerny, 1993; Crews & James, 1996; Goldman & Wiebusch, 1991), and a compilation of demographic and psychographic data to describe the history of quilting for a particular group (Crews & Rich, 1995). Horton (1989) stated the importance and purpose of quilt projects:

When cataloged and analyzed, the data on tens of thousands of quilts gathered by quilt projects throughout the country will enable researchers to make more specific and more accurate interpretations of this body of work, arguably the most important and widespread form of American women's creative expression (p. 114).

The ultimate goal of scholars participating in quilt projects from across the United States has been to compare data from each state so that common and unique characteristics as well as the history of quilting in America can be revealed. As a result, any scholarly study that contributes to the collective data contained within quilt projects is valid. Thus, the current study created a demographic profile of quiltmakers from the Trinity Valley Quilter's Guild and, through the collection of psychographic information, revealed their quilting motivations and practices. There has not been any previous, formal study of this group. Although at a smaller scale than state quilt projects, this study contributed important information to the overall body of knowledge on U.S. quiltmakers.

## Statement of the Problem

The primary problem addressed in this investigation was to identify and describe the demographic characteristics, quiltmaking motivations, and quiltmaking practices of members of the Trinity Valley Quilters' Guild (TVQG). Specifically, the study sought to determine (a) a demographic profile of TVQG members including gender, age, racial or ethnic identification, marital status, education, residential background, employment status, occupation, and income; (b) quiltmaking motivations including commemorating people or events, creating heirlooms, relieving stress or difficult times, experimenting with new techniques or fabrics, entering quilt shows or competitions, satisfying the need for pleasure and/or creative expression, or participating in a fundraising project; and (c) quiltmaking practices including identifying first quilts, quilting individually or in groups, numbers of quilts made, years of participation in quiltmaking, factors negatively impacting the ability to practice quiltmaking, time spent quiltmaking, and common quiltmaking practices and techniques.

## Objectives of the Study

Based upon pertinent findings in the literature, results from various quilt projects, and the purpose of the study, the following hypotheses for this study were formulated:

- H1 The majority of members from the Trinity Valley Quilters' Guild will:
- (a) be 51 years of age or older,

- (b) be female,
- (c) be white, non-Hispanic,
- (d) have spent their adolescent years in the U.S. west south central region,
- (e) be raised in a rural area,
- (f) be high school educated or higher,
- (g) be currently married,
- (h) be Methodist,
- (i) be a full-time homemaker,
- (j) and have an annual household income of \$60,000.

Therefore, it was not expected that participants would vary according to age, gender, ethnicity, education, marital status, religion, occupation or income. Additionally, participants would have spent their adolescent years in the west south central region of the United States (Arkansas, Louisiana, Oklahoma and Texas), and would have been raised in a rural area.

H2 The majority of members from the Trinity Valley Quilters' Guild will participate fully or partially in the quiltmaking process such as quilting, piecing, and designing quilts. Therefore, it was expected that the majority of participants would be involved in some aspect of the quiltmaking process.

H3 The majority of members from the Trinity Valley Quilters' Guild will have learned to quilt between the ages of one and nine. Therefore, it was expected that participants would be of similar age when they learned quiltmaking.

H4 The majority of members from the Trinity Valley Quilters' Guild will have learned to quilt from (a) a female relative, or (b) their mother. Therefore, it was expected that a female relative or mother would have been the most influential figure who taught quilting to TVQG members.

H5 Members of the Trinity Valley Quilters' Guild will select hand piecing more frequently than machine piecing as one of the three most important characteristics that contribute to the quality and beauty of a quilt. Therefore, it was expected that participants would place higher importance on hand piecing than on machine piecing as one of the three most important characteristics that contributed to the quality and beauty of a quilt.

H6 Members of the Trinity Valley Quilters' Guild will select hand quilting more frequently than machine quilting as one of the three most important characteristics that contribute to the quality and beauty of a quilt. Therefore, it was expected that participants would place higher importance on hand quilting than on machine quilting as one of the three most important characteristics that contributed to the quality and beauty of a quilt.

H7 Members of the Trinity Valley Quilters' Guild will select the following three motivations as the three best reasons that explain why they are motivated to quilt:

- (a) satisfy the need for creative expression,
- (b) satisfy the need to socialize with others, and
- (c) create a gift for a special person.

Therefore, it was expected that TVQG members would have similar motivations to quilt because they considered quilting a means of creative expression, it was an opportunity to socialize with others, and it served as a mechanism to create gifts for a special person.

H8 Members of the Trinity Valley Quilters' Guild with differing types of employment status will exhibit significant differences in:

- (a) utilizing specific quilting techniques and practices,
- (b) holding membership in bees and guilds, and
- (c) attending TVQG meetings during 2001.

Therefore, it was expected that TVQG members who were retired would be more likely to utilize hand techniques and practices, hold memberships in bees and guilds, and attend TVQG meetings during 2001 than members who were employed outside the home and not employed outside the home.

In addition, answers to the following research questions were sought:

RQ1. Will the quilting practices and quilting techniques utilized by members of the Trinity Valley Quilters' Guild vary according to demographic profiles?

RQ2. Will the quilting practices and techniques utilized by members of the Trinity Valley Quilters' Guild vary according to quilting motivations?

RQ3. Will the quilting practices and quilting techniques utilized by members of the Trinity Valley Quilters' Guild vary according to why they are involved in quilting?

## Definition of Terms

The following terms were defined for the purposes of this study:

*Alliance for the American Quilt.* A nonprofit organization who sponsors the Quilters' Save Our Stories Project. The mission of the Alliance for the American Quilt is "to further the recognition of quilts; to preserve the history of quilts and quiltmakers; and to establish the Center for the Quilt, a place that actively communicates with people about quilts and their meaning" (Herman, 1993).

*Backing.* Sometimes referred to as lining, the backing is the "wrong" side of the quilt and assists in holding the batting in place. The backing can be a single piece of cloth, a combination of strips of cloth, or pieced sections of cloth reminiscent of the quilt top (Nelson, Pahl, Schneider, Soltys & Townswick, 1999).

*Block pattern.* The composition of shapes, either pieced or appliquéd, to create a design for one block to be used in a block arrangement (Valentine, 1994).

*Hand practices.* The customary way of participating in quiltmaking by executing various practices by hand or by creating original designs. Designing quilt block or top patterns, designing quilting patterns, and hand quilting for personal income are a few examples of hand practices. See also *quiltmaking practices*.

*Hand techniques.* The customary way of participating in quiltmaking by executing various techniques by hand. Hand piecing, hand appliquéd, hand quilting, and hand embroidery are examples of hand techniques. See also *quiltmaking techniques*.

*Machine practices.* The customary way of participating in quilting by executing various practices by machine or by purchasing patterns or quilt kits. Purchasing quilt block patterns, quilt top patterns, using templates for quilting patterns, and machine quilting for personal income are examples of machine practices. See also *quilting practices*.

*Machine techniques.* The customary way of participating in quilting by executing various techniques by machine. Machine piecing, machine appliqué, and machine quilting are a few examples of machine techniques. See also *quilting techniques*.

*Oral interview.* The verbal process of asking questions of a quilter (the informant) in order to reveal the quilter's quilt history, motivations and values in quilting (Herman, 1993).

*Patchwork.* The process of assembling and sewing together various shapes of individual pieces of cloth to form a patterned whole. Patchwork may be done in blocks or as an entire quilt top (Mullholland, 1996).

*Plain quilt.* A quilt made to fulfill the utilitarian need of warmth. Usually consisting of larger pieces of fabric as compared to fancy quilts and quilted in simple lines that outline the shapes or quilted in straight lines across the quilt (Bernick, 1994).

*Piecing.* The act of putting together individual pieces of fabric either by hand or machine to create a quilt block or wholecloth quilt (Soltys, 1997).

*Quilt.* “The joining together of 2 pieces of material [pieced, appliquéd or wholecloth] and a central filling [usually referred to as batting] by stitching the three layers together” (Irwin, 1984, p. 12). A quilt generally consists of a quilt top, batting, and backing. In the case of fancy quilts such as Baltimore Album quilts, the batting was eliminated to foster elaborate and tiny quilt stitches (Goldsborough, 1994).

*Quilters.* People who participate in quilting (Mulholland, 1996).

*Quilting.* The process of stitching through a quilt whether by hand or machine. The people who participate in quilting are called quilters (Mulholland, 1996).

*Quiltmaker.* An individual who participates in certain or all aspects of creating a quilt. (Chinn, 1990).

*Quiltmaking motivations.* The reason(s) a quiltmaker begins to create a quilt. Commemorating a special person, satisfying the need for pleasure, or fulfilling the need for creative expression are examples of quiltmaking motivations.

*Quiltmaking practices.* The customary way, whether individually or in groups, of participating in quiltmaking. Designing quilt patterns, purchasing quilt patterns, entering design competitions, and hand quilting for fundraising purposes are examples of quiltmaking practices. Number of quilts made, hours per week spent on quiltmaking and money spent on quiltmaking are other examples.

*Quiltmaking techniques.* The specific method(s) utilized to create a quilt. Piecing, quilting, appliquéd, and paper piecing are examples of quiltmaking techniques (Nelson, et

al, 1999). Quiltmaking characteristics, quilt styles and types and color selection are other examples of quiltmaking techniques.

*Quilt guild.* A formal social grouping of individuals specifically designed to foster quiltmaking. A quilt guild sponsors and promotes educational seminars, workshops, and lectures on quiltmaking. Guilds may also sponsor quilt shows, research, and philanthropic causes (Cerny, Eicher, & DeLong, 1993).

*Quilt top.* The top layer of a quilt. Also considered the “right side” of the quilt (Soltys, 1997).

*Quilters’ Save Our Stories project.* Sponsored by the Alliance for the American Quilt, the Quilters’ Save Our Stories project (Q.S.O.S.) is dedicated to recording the history of quiltmakers in the United States through an oral interview process (Herman, 1993).

*Quilting Bee.* Quilting bees are small, informal groups of individuals that gather to quilt, discuss quilting or other issues of the day (Cerny, Eicher, & DeLong, 1993).

*Sampler quilt.* The organization of a quilt block or blocks to create a composition for a quilt. The arrangement usually consists of similar fabrics, patterns, textures and color (Valentine, 1994).

*State quilt project.* A compilation of demographic and psychographic data that describes the history of quiltmaking for a particular group. State quilt projects generally include oral interviews with quiltmakers including documentation and photographs of actual quilts (Crews & Rich, 1995).

*Trinity Valley Quilters' Guild (TVQG)*. Founded in 1982, TVQG is a “non-profit organization devoted to the art of quilting and dedicated to sharing our time and skills (TVQG Membership Directory, p. 4).” Anyone interested in quilts can be a member of TVQG. In 2002, there were 382 members in the guild (TVQG Membership Directory, 2000-2001).

*Wholecloth*. Large pieces or one single piece of fabric used to create a quilt. Whereas patchwork quilts consist of small pieces joined to create a quilt top, wholecloth quilts consists of few pieces or one single unit of cloth (Maines, 1986).

#### Limitations of the Study

Participants of the study were limited to members of the Trinity Valley Quilters' Guild (TVGQ). Participants' quiltmaking motivations, reasons why participants were involved in quiltmaking, quiltmaking practices, and quiltmaking techniques were self-reported. Participants were surveyed during the spring, 2002, and information was limited to that collected through responses on the questionnaire.

#### Basic Assumptions

The following assumptions were made for the study:

1. The quiltmaking industry and interest in quilt scholarship would continue to increase.
2. The Trinity Valley Quilters' Guild would continue to be a viable guild with increasing membership.
3. Demographic data were measured by the questionnaire utilized in this study.

4. Quiltmaking motivations, reasons why participants were involved in quiltmaking, quiltmaking practices, and quiltmaking techniques were measured by the questionnaire utilized in this study.
5. Participants responded to the questionnaire truthfully.

## CHAPTER II

### REVIEW OF LITERATURE

Events occurring during the last two decades of the 20<sup>th</sup> century indicated an increased interest in quilting in the United States (Crews & Rich, 1995). This renewed interest in quilting has contributed to a thriving industry surrounding the activity and also has led to quilt collecting and scholarly research on quilts and quilting (Crews & James, 1996).

Over the past quarter century, quilt scholars around the country have focused on investigating the authentic history of quilting in the United States. By separating fact from fiction, results of research studies have revealed the multifaceted aspects of quilting including the role quilts have played in social and cultural development. Additional research projects have been conducted on why women quilt, the development of quilt patterns and techniques, quilting's impact upon the woman's movement and quilt culture (Brackman, 1983; Mulholland, 1996; Torsney & Elsley, 1994). Currently, research projects around the country are focused upon a particular type of investigation, state quilt projects that are designed to document demographic characteristics of quilters and their quilts in a particular state (Crews & James, 1996; Madden, 1990). The overall objective of state quilt projects is to collect demographic and psychographic data in order to learn the characteristics of U.S. quilters and to compare these characteristics from state to state. As quilt research continues to proliferate especially

through state quilt projects and focused academic investigations, the complete history of quilting and quilters in the United States will hopefully be revealed.

### Definitions of “Quilt”

The term of quilt can be used to describe either a product or a process. When used to describe a product, the term “quilt” is of Latin origin (*culcitra*) meaning “stuffed sock, mattress, or cushion” (Irwin, 1984). Irwin (1984) defined quilt as “the joining of two pieces of material and a central filling by stitching the three layers together” (p. 12). However, Irwin also acknowledged that this definition was limited and did not include all of the various techniques utilized historically and presently to create a quilt. Quilts constructed for utilitarian purposes were often tied—a more expedient, yet sufficient means of holding the three layers together (Farley & Hornback, 1997). The southern states did not require warmth so quiltmakers from this region usually did not include a central filling in their quilts (Berry, 1995).

When a term is used to describe a process, a wider variety of descriptions are revealed. Fox (1995), in her research on U.S. Quaker communities’, examined diaries written by Quakers of the 18<sup>th</sup> century that discussed Quaker quilting practices. Based upon these accounts, the term “quilt” was used to define the act of stitching whether it was for a bedcover or apparel (Fox, 1995). For example, oft-cited excerpts referred to a “dark brown quilt” which meant a petticoat to be worn under a woman’s dress. The term “bedquilt” referred to Irwin’s (1984) definition—a cover consisting of

three layers that has been stitched together. It was not until the 19<sup>th</sup> century that the term “quilt” came to mean a covering for the bed (Fox, 1995). For example, throughout the 19<sup>th</sup> and 20<sup>th</sup> centuries, quilts were made to ornament walls, served as protest mechanisms, and commemorated the death of family members (Herda, 2000; Kiracofe, 1993; Williams, 1994). But by the 1920s, quilts became commonly used as bedcovers. Nadine Bradley, home economist and writer for the *Omaha World Herald* during the 1920s, proclaimed, “because of the splendid quality of modern blankets, quilts as a warm covering have been discarded. Now they are used as cherished spreads for the bed” (Stehlik, 1990, p. 72).

Finally, the definition of the term quilt may be more broad and theoretical to encompass the human emotion often associated with quilting. Bernick (1994), in her research on Miriam Schapiro, a 20<sup>th</sup> century feminist who promoted quilting as a high art form, presented Schapiro’s definition of a quilt:

What is a quilt? Among other things, it is the history of women, a receptacle of passions, attitudes, largess, and anger. It is a reassembling process, which in itself may embody a solution to human problems. It is inspiration, a connection with self, the dogged will to make something extraordinary in the midst of family routine, a sense of wholeness, the wish to please, to succeed, pleasure in the act of working and knowing the power of ‘making’ (pp. 142-143).

Thus, according to Schapiro, a quilt was more than a utilitarian item. It also served as a quiltmaker’s expression of oneself, a historical artifact, a bestowed gift, and

provided self-fulfillment to the quilter (Bernick, 1994). Other definitions of quilts describe them as the single most “compelling” metaphor of beauty, domesticity, diversity and memory available (Frailberg, 1995) and as historical documents that represented a form of communication:

More than a notion! Quilts are trustworthy documents. Women’s diaries, letters and journals are wonderful to read. But they were produced by those relatively few women who were both literate and motivated to write. Quilts, on the other hand, carried the messages of a larger number of those strong individuals who were the backbone of growing America. They made their proclamations in the same wonderful manner as the Psalmist saw in Creation itself: ‘There is no speech, nor are there words; their voice is not heard; yet their voice goes out through all the earth, and their words to the end of the world’ (Clark, 1986, p. 75).

In general, scholars, in their written research, have used the word “quilt” freely as if everyone understood the meaning. However, the variation in techniques, patterns, and uses for quilts has been too diverse to make a formal, single definition. Ultimately, research on quilts has been as diverse as the quilts themselves, creating a need to understand the history of quilting in the United States to fully realize the various definitions of quilts and the role that they have played in America.

## The History of Quilting in the United States

The history of quilting in America has merged social, cultural, technological, religious, political, and economic factors into a dynamic story that has yet to be entirely revealed. Through research, quilt scholars continue to relevant information in order to more closely form a more accurate history. However, in order to understand quilting, a history of its evolution is required.

### *The Early Years*

While British immigrants to America in the 17<sup>th</sup> and 18<sup>th</sup> centuries would have been raised with excellent sewing and quilting skills, time spent on quilting took valuable time away from the domestic and agricultural chores required during colonization (Brackman, 1983; Gunn, 1988). Quilts dated from the 17<sup>th</sup> and 18<sup>th</sup> centuries were theorized to have been brought with families who immigrated to the United States (Brackman, 1983). Access to quilts through any other means such as importation would have proved too expensive. Additionally, the British tax system imposed upon the colonists prevented access to fabric and supplies required for quilting (Cord, 2000). In order to protect their textile industry from competition, England forbade colonists to grow cotton or wool during the 17<sup>th</sup> century resulting in extremely limited resources for quilting (Cord, 2000; Mulholland, 1996).

In the late 17<sup>th</sup> century, colonists rebelled against the English restrictions and traded with the East India Company (Mulholland, 1996). However, trading was an expensive venture and fabric supply was still limited. It was not until the late 18<sup>th</sup>

century when the American textile industry was strong that women had access to fabric that popularized quilting (Gunn, 1988). Brackman (1983) created a chronological index of pieced quilt patterns from the years of 1775-1825 that revealed that no U.S. – made quilt could be reliably dated prior to 1775. Weismann and Lavitt (1987) corroborated Brackman’s position through their research on early American quiltmakers.

### *Development of the U.S. Textile Industry*

As the United States became more settled and achieved its independence, the economy stabilized and a textile industry evolved, both of which influenced quilting. With the Industrial Revolution in full force, the textile industry increased production (Gunn, 1988; Maines, 1986). Availability of textiles meant affordable prices of fabrics and thus, apparel production increased. Scraps from apparel production became a popular source of fabric for quilting (Maines, 1986).

Despite the development of textile mills during this time, the United States was dependent upon England to learn the operations of a textile mill. Americans sent to England learned the tricks of the trade, however, it consumed time and slowed the production of large quantities of fabric. It was not until the 1840s that U.S. textile mills became skilled in production and availability of fabrics increased (Sloat, 1975). Ledgers of merchant stores validated that large quantities of fabrics were not available to the public until this date (Brackman, 1983; Maines, 1986; Sloat, 1975).

In 1857, the invention of aniline (synthetic dyes) and the screen printing process created fabrics with varied patterns, better dye retention, and light fastness. The

longevity of the fabric increased and quiltmakers began to purchase fabric for the sole purpose of quilting (Horton, 1988b; Maines, 1986). Additionally, the availability of the sewing machine, invented in 1856 by Isaac Merritt Singer and Elias Howe, freed women of the laborious time it took to sew a garment by hand. Producers of the machine hoped that women would use their newfound time for other activities such as quilting (Meyers, 1989).

Late 19<sup>th</sup> century publications such as *Godey's Lady's Book* promoted the use of the machine for sewing and quilting (Meyers, 1989). Charles Worth, American-born couture designer who practiced in France, gave his “stamp of approval” of this new technology by topstitching his hand-assembled garments by machine (Meyers, 1989). The status of the sewing machine initially caused an increase in the number of quilts pieced by machine, however, by the end of the 19<sup>th</sup> century, sewing machines were common- place. The status of owning a machine decreased and women returned to piecing quilts by hand (Meyer, 1989).

#### *Quilting as a Social Activity*

Advancement in technology was not the only factor that contributed to an increase in quilting in the United States. Society mandated that young girls learn to sew as preparation for married, domestic life (Fox, 1995, Gunn, 1988). By the mid-19<sup>th</sup> century, women and young girls exchanged ideas, learned from each other, and held quilting parties (Fox, 1995; Mulholland, 1996). Quilting evolved into an acceptable social activity which resulted in an increase in quilting (Brackman, 1992).

However, during the Civil War, socialization through quilting declined so that women could spend their time to support the war effort. Additionally, the price of cotton sharply increased to \$.40 to \$.50 per yard and few women were able to afford cotton for quilting (Gunn, 1994). However, at the conclusion of the war, in order to get a loan to rebuild a home or business, people had to have a guaranteed “cash crop” to serve as equity. Because cotton was in high demand, it became the cash crop (Horton, 1988b). As a consequence, cotton was in high demand and abundant. Women could again afford to purchase cotton for apparel and quilts (Horton, 1988).

When the war ended, quilting reemerged as a popular domestic and social activity. Textile mills across the eastern seaboard produced large quantities of cotton fabric in a variety of patterns and colors that created an affordable commodity (Horton, 1988). Quilting increased and women were interested in learning new techniques and patterns for quilting.

Nineteenth century women desired magazines that provided information and instruction on the latest decorative styles and trends (Gunn, 1984). There was a new emphasis upon making the home beautiful and consumers desired publications that presented ideas and instruction. *The Art Amateur*, *Peterson's Magazine*, *Godey's Lady's Book*, and *Harper's Weekly* were examples of some of the first publications that met the needs of female consumers (Gunn, 1991; Horton, 1989; Smith, 1986).

Perhaps the most significant publication was *The Ladies' Art Company* based in St. Louis, Missouri that appeared on the market in 1889 (Gunn, 1991). It was unique in

that it was a mail order catalog of patterns and tools specifically designed for quilting. While *Sears Roebuck* had published its catalog since 1872 and *Montgomery Ward* since 1887, *The Ladies' Art Company* was designed to meet the demands of the quilter (Smith, 1986). Other publications followed and quilting fabrics, patterns, and supplies were available to both urban and rural woman (Gunn, 1991). As a result, the regional characteristics of quilting that were previously identifiable decreased as the mass-production and publication of fabrics, patterns, and supplies homogenized the characteristics of quilts (Brackman, 1992).

By the end of the 19<sup>th</sup> century, cotton quilts had fallen out of favor (Gunn, 1984). A new look in quilting—the crazy quilt, had emerged. The crazy quilt was the random combination of silk, satin, and velvets adorned with intricate embroidery. The emphasis upon ornamentation of the crazy quilt merged with the Victorian desire for excessiveness in decoration (Gunn, 1984). Cotton fabrics were determined to be fabrics appropriate primarily to teach young girls quilting and sewing skills (Gunn, 1984).

### *Quilting in the 20<sup>th</sup> Century*

By the turn of the 20<sup>th</sup> century, women accessed fabric regardless of whether they lived in an urban or rural location. Families who lived in the east sent patterns and fabrics to relatives or friends who had migrated to the western frontier (Brackman, 1992). These factors, blended with the abundance of publications, fostered the growth of quilting at the cost of diminishing unique, regional characteristics.

During the early 20<sup>th</sup> century, women rejected the Victorian look of excessive ornamentation, which included the crazy quilt, and turned to the past for decorating ideas. The Colonial Revival became popular as women desired nostalgia to integrate into their homes. The patchwork quilt emerged as the popular style (Benberry, 1986; Stehlik, 1990). In response, quilt publications created patterns to meet the demand. Anne Orr designed patterns for *Good Housekeeping Magazine* and became one of the premier quilt pattern designers for the 20<sup>th</sup> century (Waldvogal, 1990). Newspapers such as the *Omaha World Herald* published weekly quilt patterns and sponsored quilt competitions (Stehlik, 1990).

By the 1930s, women needed something to keep their minds off of the depressed economy that plagued the country. Quilting was the favorite past time and Anne Orr's patterns such as *Colonial Wreath*, *Star of Bethlehem*, *Dresden Quilt*, and *American Wreath*, were popular (Waldvogal, 1990). *Grandmother's Flower Garden* was another popular pattern (Crews & James, 1996).

During the 1930s and 1940s, women began to quilt for others as a means to earn money. This type of small, home-based business was called a cottage industry (Benberry, 1986). The proliferation of this cottage industry contributed to the homogeneity of quilt styles as women were quilting to meet the desire of clients and not necessarily including their own culture or regional distinctions in their products (Benberry, 1986).

By the mid 20<sup>th</sup> century, the world turned its attention to conflicts in Europe and quiltmaking began to decline in the United States. One explanation for the decline was that women turned their attention to more modern thinking, and quilts represented an “old-fashioned” way of life (Gunn, 1990). Among the quilts that were made, patchwork quilts declined and women became more interested in producing wholecloth satin quilts with lace and trim primarily because women focused their attention to the bedroom, the one space in the home that could be designed for their privacy and solitude (Gunn, 1990). The modern boudoir became the most popular room in the home and the traditional piecework quilt was not complimentary of modern decor (Benberry, 1986; Gunn, 1990). *Good Housekeeping Magazine* published a collection of wholecloth quilt patterns designed by Anne Orr (Waldvogal, 1990). Women enjoyed Orr’s accompanying rhetoric that assisted them in creating a beautiful household and a pleasing boudoir (Waldvogal, 1990).

With the onset of World War II, women became focused upon the war effort. Having to enter the work force while the men were away, women of the mid-20<sup>th</sup> century did not have time for traditional domestic and social activities; quiltmaking declined (Crews & James, 1996). When the war concluded, women considered France as the fashion authority on trends for apparel and the home. Quiltmaking was not considered modern and with the additional responsibility of raising their new family, quiltmaking waned (Gunn, 1990).

### *The 20th Century Quilt Revival*

In 1976, the U.S. bicentennial resulted in the reemergence of quilting as a popular activity. Women who desired to commemorate the nation's birthday enrolled in classes to learn how to quilt (Crews & James, 1996; Houck, 1988). Quilting bees, quilt guilds, church groups, and other organizations came together to create quilts to celebrate the bicentennial (Houck, 1988). This important historical event contributed to a quilt revival that has not yet declined (Crews & James, 1996). Quilting continues to be popular today and as a result, the quilting industry is strong and annually constitutes a \$2 billion industry (Quilters' Newsletter, 2000).

## Why Women Quilt

Scholars have debated the principal reason why women made quilts. Did women as the primary makers of quilts, quilt for utilitarian purposes, or did women quilt as a means of creative expression? Research acknowledged that the functional characteristic of providing warmth was clearly reason for quilting. However, the preponderance of evidence indicated that women quilted for creative expression and pleasure under the auspices of fulfilling domestic obligations (Davis, 1990; Gross, 1980; Langellier, 1990).

Time spent on quilting for the sole purpose of pleasure would not have been conducive to the responsibilities of 19<sup>th</sup> century domestic life (Fox, 1985; Shea & Crews, 1989). Therefore, women justified the time spent on quilting by using the functional aspect of providing warmth for concealing authentic reasons—creative outlet and self-expression (Bernick, 1994; Davis, 1990; Shea & Crews, 1989). Women also created quilts as gifts for friends who moved away (Houck, 1988), as memorials for a friend or family member who died (Gunkel, 1996), and to commemorate a special event such as the Centennial in 1876 (McMorris, 1984).

However, the utilitarian characteristics cannot be ignored in explaining why women participated in quilting. Research on rural women documented that quilts were made to provide warm covers for their family (Folsom, 1993; Johnson, 1988; Shea & Crews, 1989). Since blankets were not readily available or affordable until the late 19<sup>th</sup> century, women found quilting a necessity (Mulholland, 1996). When women created quilts solely for function, usually the quick technique of making tied quilts and

wholecloth quilts were utilized (Johnson, 1988). Quilts made by Mennonite women were to be solely utilitarian and therefore, Mennonite women quilted in plain fashion with large stitches (Rake, 1999). Upon initial inspection, one may conclude that Mennonite women were not skilled at needlework. To the contrary, these women had excellent skills but quilting was utilitarian and not considered important enough to warrant the valuable commodity of time that intricate quilting required (Rake, 1999).

Langellier's (1990) study of quiltmakers from Maine found that the primary reason women quilted was to creatively express themselves. Similar findings were made by Shea and Crews (1989) in a study of Nebraska quiltmakers; Ayers (1986-87) in an informal study of members from the TVQG, and Madden (1990) in a study of Kansas quilters. Perhaps one of the most interesting reasons for quilting was reported by Gross (1980) in her study of Myrtle Mae Fortner's (1890-1966) diaries. Fortner authored the following poem:

I quilt with stitches small  
And know a century hence  
Posterity will gasp and say  
How neat (p. 31).

#### *Fulfilling Domestic Obligations of Women*

Quilting produces a functional object while providing creative self-expression and additionally fulfilling the obligations of being a woman. Young girls, particularly during the 19<sup>th</sup> century, were taught domestic skills in preparation for married and family

life. Being an excellent seamstress added value to a young girl and quiltmaking was as important as her dowry in being a “good choice” for a wife (Mulholland, 1996). Young women were expected to have made 10 to 12 quilts made prior to marriage; quilts were valuable assets to women (Berry, 1995; Johnson, 1988). Therefore, learning to sew was time well spent, and in the 19<sup>th</sup> century, learning to piece quilt tops was excellent practice for stitches utilized in the construction of apparel (Gunn, 1991; 1988).

While mid - to late - 20<sup>th</sup> century quiltmakers reported they learned to sew first and then quilt, young girls of the 19<sup>th</sup> century learned to piece quilts first in preparation for learning to sew (Mulholland, 1996). Until the mid-20<sup>th</sup> century, it was the woman’s responsibility to provide clothing for the family and to make the home aesthetically pleasing and comfortable. A beautiful home fostered an environment conducive to properly reared children who evolved into productive and reputable citizens (Gunn, 1991; McMorris, 1984). With this social change, quiltmaking shifted to coincide with the role of women. Roach (1986), defined the life cycle of a quiltmaker through the following stages.

1. *First stage (age 7 to 15)*. Learning to quilt. The quiltmaker learned the fundamental lessons on piecing and quilting. Simple patterns and techniques were utilized.

2. *Second stage (age 16-30)*. The Finer Points. During this phase, girls learned to refine quiltmaking skills in preparation for domestic life. Piecing and/or appliqué and quilting became more elaborate and challenging.

3. *Third stage (age 31-55). The Decline.* During this stage, the domestic lifestyle and responsibilities of the quiltmaker detracted from time required to make quilts. Quiltmaking during this period declined.

4. *Fourth stage (56-end of life).* This stage was described as “Full Intensity” where the quiltmaker has the time to dedicated to the production of quilts. Domestic or professional responsibilities were limited and quiltmaking increased. Quiltmaking served as a means of pleasure and creating quilts of sentimental and historic value.

*Social Aspects of Quiltmaking: The Bee, the Guild and the Critique Group*

Early in the 19<sup>th</sup> century, quiltmakers showed their work and shared ideas and techniques; quiltmaking increased as a social activity (Fox, 1995; Kiracofe, 1993; Ramsey, 1988). For many quilters, the underlying principle for quiltmaking was “solidarity” or in other words, each piece of fabric joined together also binds social relationships between the quiltmakers who put the quilt together (Cerny, 1991). Personal diaries, *Harper’s Weekly*, and *Godey’s Lady’s Book* referred to “quilting parties”, “quiltings” and “quilting frolics” (Fox, 1995). The term “quilting bee” did not appear in text until the middle of the 19<sup>th</sup> century (Fox, 1995). Brackman (1990) reported that the quilting bee was a social activity for Kansas’s women beginning in the 1850s. The quilting bee was an informal gathering of small groups of family and friends that provided an outlet for socialization. Women justified participation in a quilting bee by working on a quilt that functioned both as a warm cover and an item that added beauty to a home (Gunn, 1991; Johnson, 1988; McMorris, 1984).

In order to socialize in the context of quilting, women utilized a quilt frame to foster working as a group (Fox, 1995). Women gathered around the frame and quilted as they visited. In rural areas, quilting frames were frequently suspended from the ceiling with hooks in order to save space in a home (Lasansky, 1993). When women were ready to quilt, the frame was easily lowered with twine; quilt frames were lowered and raised until the women were done quilting (Lasansky, 1993). In the northeast, where farmhouses consisted of multiple rooms, a space dedicated to quilting may have existed. Quilt frames remained on the floor without causing disruption to the rest of the home (Fox, 1995).

An account from a small Kansas boy who recalled watching his mother quilt around the frame elaborated on the social aspect of quilting (Fox, 1995):

There was very little social life on the farm for the adults and older people. Sometimes the women would have quilting parties. When some woman had her quilt sewn together and had the lining fastened to the quilting frames ready for batting and top to be put on, she would let it be known that she would welcome help. . The women would gather around the four sides of the frames—often suspended from the ceiling—the batting would be spread on the lining, and then the top fastened loosely over it . . . A good fast group could finish a quilt in one day, including removing [it] from the frames . . . Needless to say, much visiting and gossiping accompanied the quilting party and a good lunch was always served (p. 10).

Other accounts of quilting around the frame reported small children lying underneath the frame while the women quilted. Young girls who observed the women would learn how to quilt. Threading the needle or serving refreshments were roles that young girls fulfilled while their mothers quilted and visited while quilting around the frame (Cooper & Allen, 1989).

For certain cultures, group quilting was done for other reasons than socialization. For example, Amish quilters worked in groups as a means of helping each other, quilting more expediently, and group prayer (Granick, 1989). Mennonite women frequently quilted in groups. The primary reason was to produce quilts quickly that were then sold to raise money for the church and missions (Rake, 1999).

By the early 20<sup>th</sup> century, quilting bees began to decline. Women began to consider quilting bees as old-fashioned and looked for new social activities. In documenting a quilting bee that occurred in the early 20<sup>th</sup> century in South Carolina, Horton (2000) concluded that the bee was the single quilting event for this group of women and served as a cultural experience rather than an afternoon of quilting. The detailed description of the bee that appeared in the social section of a local newspaper provided evidence that the bee was a theme for a party. This was one of the first accounts that portrayed quilting bees as old-fashioned.

Despite the decline of the bee in the early 20<sup>th</sup> century, this form of socialization did not entirely disappear particularly in rural areas. During the mid – 20<sup>th</sup> century, Cooper and Allen (1989) conducted oral interviews with quiltmakers throughout the

United States in an effort to document quilting bee activities. One account, dated 1975, by Mrs. James Webb of Clovis, New Mexico, reported the following quilting bee memory:

I remember standing in the doorway with my thumb in my mouth watching them. Sometimes I waited and waited for the women to go home because I was hungry. But it wasn't proper for a child to ask for food when there was company in the house. Dad was always proud of Mama on quilting days. When he came inside from work, he would see how busy she had been. He knew that she had a hard and lonely life; he was happy that she could enjoy quilting. When neighborhood women came over for the day, he was glad she could have a day with her friends and enjoy herself. He always spoke kindly to ever'one (p. 29).

The quilt guild, a formal system of socialization, evolved from the quilting bee in the late 20<sup>th</sup> century (Cerny, Eicher, & DeLong, 1993). Cerny (1991) described the modern quilt guild as an outgrowth of the quilting bee "where women could socialize within a setting in which the feminine culture dominates" (p. 33). The guild provided quiltmakers opportunities to learn about quiltmaking through lectures and workshops, exposure to a variety of viewpoints and techniques, and a forum for discussion (Cerny, Eicher, & DeLong, 1993).

Carow (1997) researched various groups of quilters throughout Massachusetts and discovered another type of group that de-emphasized the social characteristics of the bee or the guild. The new type of quiltmaking group was called a critique group. A critique

group was comprised of a small group of quiltmakers who gathered to specifically discuss quiltmaking. For example, whereas a bee and guild usually served some type of refreshment, a critique group intentionally limited refreshments to prevent the discussion from becoming too social (Carow, 1997). A critique group provided the following advantages to the quiltmaker (a) quality criticism of his/her work, (b) focused discussion upon quiltmaking, (c) defined time to improve quiltmaking skills, and (d) opportunity for inspiration for viewing others' work (Carow, 1997). While members of critique groups were also members of guilds, critique groups were specifically designed to provide serious analysis of personal work and served as a mechanism to enhance personal skill in quiltmaking.

Some groups of quiltmakers do not have a history of bees or guilds. For example, quiltmakers from the Blue Ridge Mountains did not quilt in groups. Johnson (1988) reported that distance between locations to hold group meetings were too great to foster group quilting. Additionally, the homes in this region were too small for group meetings. Roach (1986) reported that participation in quilting bees or guilds in the state of Louisiana had declined in the late 20<sup>th</sup> century. An increased demand on women's time, working outside the home, and technology such as television, became a diversion and contributed to the decline. Women today have devoted their diminished spare time to quiltmaking in a location of their choice rather than spend the time going to a social outing or meeting (Roach, 1986).

### *Quilting as Social Service*

With the rise of industrialism throughout the 19<sup>th</sup> century, sewing shifted from a useful practical skill for females to a socialization of “the cult of true womanhood” (Langellier, 1990). Nineteenth century women realized that quilting could be used effectively for social service. With the onset of the Civil War, women shifted their focus on quilting as a domestic activity to utilizing the practice in the war effort. Having to maintain all aspects of the home while the men were at war, quilting as a domestic activity declined (Gunn, 1994).

Women wanted to contribute to the war effort and therefore created United States Sanitary Commissions. The purpose of the commissions was to provide clothing, quilts, blankets, jams, jellies, and other sundries to men at battle. It was estimated that over 125,000 quilts of all types were donated to the work of the sanitary commissions. Sometimes the quilt would be cut in half and hemmed so that it fitted a cot and simultaneously increased the supply. Few of these quilts survived as they were heavily laundered, stained, or left on the road as soldiers made their way homeward (Gunn, 1994). The work of the sanitary commissions impacted the role of women and gave them strength and confidence. Women realized that there was strength in numbers and that they could attend to viable purposes other than those held in the domestic arena. The newly realized role of women was best described in the following quote from a successful, entrepreneur as reported by Gunn (1994):

It is possible, that one of the great benefits which is to grow out of this wicked rebellion, will be the discovery of the important fact that the young ladies of our country can be useful as well as ornamental members of society (p. 93).

As the 19<sup>th</sup> century progressed, women's roles in society continued to support participation in social movements, fundraising efforts, and working outside the home. Quilting groups throughout the 20<sup>th</sup> and 21<sup>st</sup> century continued to be formed for the purpose of serving a cause, raising money for the church, or civic enhancement (Horton, 2000). The *World Trade Center Quilt Project* is a current example of a non-profit organization being formed for the specific purpose of creating a quilt, to raise funds for the victims' family from the September 11, 2001 attack on America. This quilt was comprised of blocks made from quiltmakers from across the United States. Once compiled, the quilt will tour the country with the intention of raising funds for the victims' families (Leasure & Davis, 2001).

#### *Quilting as a Forum for Women*

As quilting increased throughout the 19<sup>th</sup> and 20<sup>th</sup> centuries, women discovered that quilting served as a voice on issues that they were not permitted to address publicly such as politics, religion, and morality. Quilting emerged as a means for women to voice opinions on issues otherwise reserved for the public sphere (Davis, 1990).

Davis (1990), in her research on the social boundaries of quiltmakers, stated that public and private spheres of society influenced the development of quilting for women.

Davis defined the public and private spheres in the following manner:

The public sphere of business, politics and professional life was defined as the male sphere. The private sphere of love, the emotions and domesticity was defined as the sphere of women. The public sphere was the males' exclusive domain, whereas the private sphere was seen as presided over by females for the express purpose of providing a place of renewal for men, after their rigorous activities in the harsh, competitive public sphere (p. 6).

While the members of the public sphere were rewarded monetarily, women of the private sphere were expected to find their reward through the appreciation from family and the pride in a maintained and beautiful home (Davis, 1990).

During this time, because women recognized that they were bound by social norms, they discreetly entered the male sphere through quilting (Clark, 1986; Davis, 1990). "Quilting provided an effective camouflage for this mild female rebellion because it so perfectly fit many of the Victorian feminine virtues, especially selflessness and nurturance to the family and the creation of objects for her domestic domain . . . (Davis, 1990, p. 30)." Susan B. Anthony, the leader of the suffrage movement, was said to have gone to quilting parties and quilting bees to speak to women on the topic (Davis, 1990). The quilting bee and parties were a safe haven where women could orally discuss

their viewpoints on topics that were otherwise reserved for the public sphere (Cerny, 1991).

In quilting circles, women created quilts that symbolically represented their position on certain issues. As women realized the powerful role of the quilt as a vehicle for expression, a pattern language developed. Women were not only judged by the quality of their work, but also the complexity of the design and the message integrated into the quilt (Mulholland, 1996). Issues that were reflected in quilts included the Civil War, the temperance movement, the right to vote, and gender issues such as the suffrage movement (Davis, 1990).

There are several examples of quilts that served as a voice for women. Late 19<sup>th</sup> century quilter named Eliza H. Bell created a quilt to mark the election of Benjamin Harrison to the Presidency of the United States in 1889. Upon initial inspection, the quilt appeared to be a commemorative quilt—a quilt that marked the presidential election. However, women did not yet have the right to vote. In that regard, Bell’s quilt also exemplified a political quilt—making her vote known in a way acceptable to the public and private spheres (Clarke, 1986).

Protest quilts were created to represent women on issues such as the Civil War, woman’s suffrage, and prohibition. Protest quilts continue to be made throughout the 20<sup>th</sup> century for social causes such as AIDS and the environment (Williams, 1994). The *Secession Quilt*, made in 1860 by Jemima Cook of South Carolina, is one example of a protest quilt. The quilt was characterized by the word “Secession” predominately placed

in the center and was decorated with symbolism that promoted the division between the states. This example demonstrated the quiltmaker's opinion on Secession and attempted to create change through protest (Williams, 1994).

Another example of a protest quilt was the *Crusade Quilt* designed by Frances Willard of Ohio in 1878. The quiltmaker spearheaded the compilation of a variety of quilt blocks that were signed by over 3,000 women in support of the temperance movement. This quilt also served as a commemorative quilt in that it was presented to the head of the Ohio chapter of the temperance movement, Eliza Thompson (Williams, 1994).

Protest quilts have continued to be made throughout the 20<sup>th</sup> century. Perhaps the most famous was the AIDS Memorial quilt, also known as the NAMES Quilt. Although this quilt remembered the thousands of victims of AIDS, it also served to protest the perceived reduction of government funding for research that could assist in the development of a cure. Conceptualized by gay activist Cleve Jones in 1985, the *AIDS Memorial Quilt* was comprised of a variety of panels of different fabrics and sizes. There were over 10,800 blocks with either a single, few, or several hundred names per block. Today, the AIDS quilt consumes such large areas that it can no longer be seen in its entirety. Portions of the quilt toured throughout the United States to remember those who died and to advocate continued research for a cure (Williams, 1994).

## Factors That Influenced Quilting Techniques, Patterns, and Fabrics

Today, the quilting industry offers a multitude of fabrics, patterns, and techniques that are available through retail establishments, quilt shows, on-line vendors, and mail-order catalogs. The primary limitation to a quilter is not the availability of resources as much as it may be the budget to afford the variety available.

Fabrics and patterns for quilting were not readily available or accessible until the late 19<sup>th</sup> century when the textile industry had matured. Until this time, scarcity of supplies influenced the type of fabrics, patterns, and techniques utilized in quilting. Additionally, the cultures of various groups as well as religious beliefs were influential. Technological advances in mass media such as mail-order catalogs and publication of patterns provided a mechanism for newspapers and magazines to promote quilting.

Although patterns and techniques varied, plain-woven cotton was the predominate fabric used in quilting throughout the 19<sup>th</sup> and 20<sup>th</sup> centuries (Stonuey & Crews, 1988). Cotton fabric was soft, generally affordable, and washable. For a short period of time, trends in quilting like the crazy quilts of the Victorian era or the wholecloth quilts of the early 20<sup>th</sup> century, popularized other fabrics such as satin, silk, and velvet (Gunn, 1994; McMorris, 1984). However, cotton was and currently is the primary fabric used for quilting (Houck, 1988; Quilters' Newsletter, 2000; Stonuey & Crews, 1988).

### *The Influence of the Scarcity and Abundance Theory*

In what Maines (1986) referred to as the scarcity and abundance theory, quiltmakers were dependent upon availability and accessibility of fabrics in order to create quilts. This theory explained why certain fabrics, patterns, and techniques were utilized throughout the history of quilting in the United States. For example, prior to the 19<sup>th</sup> century, few citizens owned more than one outfit of clothing because of the lack of available fabrics and therefore, high costs of apparel. The scarcity of fabric dictated clothing and quilt styles. The clothing style during the 18<sup>th</sup> century in colonial America was more peasant-like rather than fitted. This style embraced the concept of “reuse”. The reuse concept stated that after an article of clothing was worn out, the garment should be dismantled and utilized for some other item such as curtains or quilts. In the late 18<sup>th</sup> century, whole-cloth quilts were more popular than pieced quilts because of the reuse concept. It was much easier and expedient to dismantle a garment and utilize the large pieces to create a wholecloth quilt rather than cut up the fabric into small pieces only to have to reassemble them. Life in the 18<sup>th</sup> century left little time for piecing quilts (Maines, 1986).

Another example of the scarcity and abundance theory were the fabrics used by late 18<sup>th</sup> century and early 19<sup>th</sup> century quiltmakers from South Carolina. South Carolina quiltmakers had the economic resources to purchase fabric, however, until fabrics were available in the mid-19<sup>th</sup> century, the quiltmakers resorted to imported wool blankets

from England, silk from France, and palampores from India (Horton, 1989; Kiracofe, 1993).

At times of scarcity, such as the Civil War when cotton was not in supply, patchwork quiltmaking declined (Gunn, 1994; Maines, 1986). Quiltmakers reverted to other sources of fabric such as clothing items that could be dismantled and turned into wholecloth quilts. Wholecloth quilts required less fabric than pieced quilts.

Fabric availability was contingent upon the development of the textile industry. Until fabrics were readily available in the 1840s, quiltmakers had to be resourceful in finding fabric that could be utilized in their quilts. Quilts during this period were usually made from 2-3 colors because of the limited supply (Horton, 1989). Apparel that was worn or out of date served as sources for fabric. For example, one excerpt from the *Godey's Ladies Book* (1841) explained how out of date fashions should be used for quiltmaking:

The fashion plate, in one respect, affords us much gratification. It shows that tight sleeves for ladies' dresses have become fashionable, and will, for a time, again exhibit the beautiful contour of a lady's arm. We should rejoice to see each draggling bishop sleeve made up into a bed quilt (p. 47).

When fabrics became more available and accessible, quiltmaking increased and patterns changed. People could afford to own more than one garment. The style of apparel also changed from the peasant style of the 18<sup>th</sup> century to fitted garments that required more cutting and fitting that resulted in fabric scraps. These scraps were readily

available and were easily utilized to piece quilts (Maines, 1986). Wholecloth quilts declined because women had access to smaller pieces of fabric at little or no cost.

During the period of 1845-55, a famous style of quilt evolved—the Baltimore Album Quilt. This pattern of quilt, made by women of wealth in the city of Baltimore, was an intricately appliquéd and exquisitely stitched commemorative quilt (Goldsborough, 1994). Appliqued quilts required abundant fabric because the technique placed fabric scraps on top of another piece. The accessibility of fabric made this style of quilt feasible.

Quiltmakers of the late 19<sup>th</sup> century had access to quantities of varied fabric for apparel and the scraps that remained after garment construction were pieced into quilts (Horton, 1989). Women would display their fabric “collection” through the variety of fabrics used in pieced and patchwork patterns (Maines, 1986). The mosaic and crazy quilt styles became popular because of their utilization of thousands of individual pieces of fabric (Horton, 1989; McMorris, 1984). Whereas most quilts were pieced with the fast and simple running stitch, the mosaic style required an “over and over” stitch because it was pieced utilizing a template method. A template, usually of paper ensured precision piecing. The over and over stitch securely held the pieces together and then the templates were removed. This process took more time and was usually associated with women of means because of the extra time this technique consumed (Gunn, 1988).

Southwest locations such as New Mexico did not have easy access to fabrics for quilting until the 1960s. Regardless of economic status, quiltmakers in New Mexico

would not have been able to conveniently purchase fabrics until the mid 20<sup>th</sup> century. Southwestern quilts were frequently composed of flour and sugar sacks particularly during the Depression Era (Lasansky, 1993). The quiltmakers would save the thread from the feed sacks to be used in the piecing of the quilts. This demonstrated how important being resourceful was. Lasansky (1993) in her study of New Mexico quiltmakers, reported excerpts from oral interviews conducted with quiltmakers.

Yvonne Didde of New Mexico stated:

The one store we would buy at would have flour stacked maybe five or six feet high and maybe a short wall eight or ten feet. If there was a particular print that my grandmother wanted we moved flour until we got to the [right] sacks (p. 106).

Because of the limited supply of fabric, New Mexican quilts were of similar color, texture and pattern. Also, quilters of this region made their own batting.

They used cotton from their crops or reused cotton mattresses. As Loyce Sage of New Mexico stated: "We just pulled the cotton out of an old mattress that had got lumpy and carded the batts and used them for quilts (Lasansky, 1993, p. 105)."

Roach (1986) in her study of 20<sup>th</sup> century rural Louisiana quiltmakers stated that accessibility of resources was the primary influence, not the skill level of the quiltmaker, that determined the types of quilts made in Louisiana. As in New Mexico, Louisiana women did not have access to fabrics particularly in the rural areas until the mid 20<sup>th</sup> century. Fabric scraps from clothing and feed sacks were common sources for their quilts; patterns were similar and limited (Roach, 1986). Quilt scholars have supported

the scarcity and abundance theory as a significant influence upon quiltmaking (Gunn, 1991; Horton, 1989; Valentine, 1994).

### *Cultural Factors that Influenced Quiltmaking*

As quiltmaking became a popular domestic skill, it simultaneously became a part of the female culture. Not only was quiltmaking considered a domestic activity; it became a mechanism for women to record their history, values, and family life. For example, the African American population during slavery in the United States was a particular group who had a quilt culture. Slaves were required to sew apparel and participate in quiltmaking. Sewing garments and producing quilts for the plantation owner was a common domestic chore. The African American culture valued the family and viewed collective quiltmaking as a means of working together. With the slave trade separating families, quiltmaking amongst African American families created a permanent document of their family history. Not having access to fine cotton fabrics, African American quiltmakers also used feed sacks as a primary source for their quilts. Common patterns included *Bowtie*, *Trip Around the World*, *Flower Garden*, *Bear Paw* and *Nine Patch* (Ramsey, 1988).

Women, who were part of the migration westward during the mid 19<sup>th</sup> century, experienced a change in the culture from their lives in the east. While sewing and needlework were important part of a woman's culture in the east, those women who migrated westward soon discovered that needlework and quiltmaking were not necessary skills during the trip westward. Although quilt folklore revealed stories of women who

created quilts while crossing the Oregon Trail, research from diaries of women who made the journey report no evidence of quiltmaking during their travel (Brackman, 1992).

Traveling westward during the summer (and passable months) did not require warmth. Spending time and money on quiltmaking was a waste of a valuable commodity needed for other activities. Even if fabric had been available, women were busy with trail life and did not have time for quiltmaking. Because the ride in the wagon was rugged, it was nearly impossible to sew. Additionally, women usually walked the trail to spare the horse team their weight. In contrast to the women of Baltimore where quilting was an important component of their culture, women on the trails of the westward movement found no value in using the skills they once learned back east (Brackman, 1992).

Fleming (1974) presented a model for studying artifacts such as furniture and the decorative arts. The premise for the model was that in order to fully understand the object being studied, it must be evaluated in the culture in which it was made. Valentine (1994) stated that Fleming's model should be utilized in the study of quiltmaking so that cultural characteristics and influences are revealed.

Several quilt scholars have revealed cultural influences upon quiltmaking as a consequence of Fleming's (1974) model. Nickols (1993) in her research on mid-19<sup>th</sup> century cotton feed sacks, revealed that the women utilized feed sacks in order to be resourceful. For many women, both urban and rural, purchasing fabric for the sole use of producing a quilt was rare and considered misuse of hard-earned money. It was not a

question of availability or access of fabrics. The culture of middle class households designated their financial resources to purchase food, clothing, and necessary items required for daily living (Nickols, 1993).

The feed sacks, which were produced in a variety of patterns and textures, provided a source of fabric for quilts (Johnson, 1988; Nickols, 1993). Manufacturers of the feed sacks recognized their use and were entrepreneurial in creating interesting patterns and colors that women liked (Johnson, 1988; Lasansky, 1993; Nickols, 1993). Floral, geometric, checked, calico, and striped patterns were available through feed sacks (Nickols, 1993).

Feed sacks were considered a valuable fabric source for quilts because of reported accounts of women exchanging them at quilting bees (Nickols, 1993). Additionally, because of the similar size, appearance, and texture, feed sack quilts were distinctive (Johnson, 1988). Quilts constructed of this fabric source were comprised of basic patterns that were pieced in simple blocks such as *Log Cabin*, *Churn Dash*, and *Trip Around the World* (Nickols 1993; Lasansky, 1993).

Quiltmakers of the Blue Ridge Mountains also utilized feed sacks as a source of fabric. Culture influenced this fabric choice more than the scarcity and abundance theory. Quiltmakers of this area viewed quilts as functional items and part of their domestic chores. Women justified the purchasing of feed sacks because they contained a food source whereas it was difficult to justify purchasing fabrics for the sole purpose of quilting. Quilts of the Blue Ridge Mountains were often considered plain because of

the simple quilt stitches. Tying quilts was also common because stitching took too much time and they needed the quilt for bed cover. In addition to feed and flour sacks, cotton scraps, socks, and old blankets were other fabric sources for quiltmaking (Johnson, 1988).

### *Religious Influences Upon Quiltmaking*

Quiltmaking has historically and currently been connected to various church groups, in particular the Lutheran and Methodist denominations (Crews & James, 1996; Roach, 1986; and Shea & Crews, 1989). During the 19<sup>th</sup> century, women from the same church would gather to create quilts for fundraising or charitable causes (Rake, 1999). Church groups across the United States currently exist for similar purposes of 19<sup>th</sup> century quiltmakers. However, just because women quilted in conjunction with their church, did not mean that there were religious influences upon quiltmaking in all denominations. In studying religious influences upon quiltmaking, three religious groups emerged as having specific beliefs that influenced their quiltmaking skills. These included the Scotch-Irish Calvinists, Mennonites, and the Amish religious groups.

During the colonization of the United States, the Scotch-Irish culture immigrated to the New World in search of a better life. This culture believed that quiltmaking resulted in a utilitarian item. In part, this belief stemmed from economics—quilts were less expensive to produce from scraps than purchasing blankets. Therefore, quiltmaking became another domestic chore. However, Calvinistic religious beliefs also influenced quiltmaking practices. The church's doctrine discouraged excessiveness; elaborate

patterns, and decoration were discouraged which resulted in quilts with simplistic designs. Quilts made by Calvinist quiltmakers generally consisted of repetition of the same block, prints of similar hue and value, and simple block patterns such as *Money Wrench*, *Fan*, *Churn Dash*, and *Varied Nine-Patch* (Valentine, 1994).

Mennonite quiltmakers held similar beliefs to the Calvinists. They also believed that a quilt was purely utilitarian and therefore should not be elaborate. The styles of quilts made by this religious group were simple in pattern and comprised of larger stitches that were faster to make. Because of the utilitarian nature of quilts, time spent on intricate stitching was considered wasteful (Rake, 1999).

The Amish communities that were settled in Pennsylvania and Ohio during the mid-19<sup>th</sup> century were equally skilled in quiltmaking. Due to their religious beliefs, however, the Amish did not accept the appliqué technique utilized by other quiltmakers. To the Amish, placing fabric on top of fabric for ornamental purposes was wasteful and worldly (Boyton, 1985). Ornamentation and wastefulness were not acceptable to the Amish doctrine (Faubion, 1993; Folsom, 1993).

In keeping with their canon, the Amish created quilts as functional rather than decorative items (Faubion, 1993). The Amish community justified the intricate stitches that characterized their quilts as functional rather than decorative. To create pattern with intricate pieces and/or stitches would mean spending valuable time on an object that may warrant public admiration or the feeling of being “proud”. The Amish rejected the detailed stitching as ornamentation claiming that it contributed to the stabilization of

holding the three layers together, therefore enhancing the quality and function of the quilt (Boynton, 1985, Faubion, 1993; Folsom, 1993). Amish quilts are famous for their large sections of fabrics, saturated colors, and black contrasts (black showed soil less and therefore required less laundering prolonging the life of the quilt) (Folsom, 1993).

The colors found in Amish quilts were the same as found in their apparel—pink, blue-green, green, blue and purple. Patterns of Amish quilts were *Amish Center Diamond*, *Center Diamond*, *Sunshine and Shadows*, and the *Bars* pattern (Boynton, 1993; Faubion, 1993). Quilting was completed in intricate stitches that revealed a rich overall design.

#### *Mass-Media & Marketing Influences Upon Quiltmaking*

Until the availability of the mass media, quiltmakers were dependent upon their own designs or the exchange of patterns through church gatherings and quilting bees (Smith, 1986). Based upon research on quilt block collections, Smith (1986) discovered women would frequently designed quilt blocks to study shapes and compositions prior to creating the quilt. Quilt blocks were shared with others, were further developed for quiltmaking, or the simply became a design experience and never integrated into a quilt. Peddlers, who had made quilt block patterns out of perforated tin, served as a source of quilt patterns during the 19<sup>th</sup> century by selling them door to door (Smith, 1986).

Smith (1986) stated that there were three significant events that influenced the development of the mass media that resulted in the proliferation of quilt patterns and supplies. First, the invention of paper created an economically feasible source for

publications. Paper, which was a by-product of wood pulp, was a more inexpensive and accessible ingredient than was cotton or linen. Secondly, the first linotype machine, invented in the mid 1880s replaced the tedious process of handset print. Finally, Aaron Montgomery Ward published his mail-order catalog in 1872 followed by *Sears Roebuck* in 1887 (Smith, 1986). The catalogs sold patterns and supplies for quilting. *The Ladies Art Company* was one of the first mail order catalogs that marketed quilting supplies (Gunn, 1991). Other publications quickly followed including *The Ladies Art Company*, the *Modern Art Company*, the *Farm and Fireside Magazine*, and *Ladies Home Journal* (Smith, 1986). *Good Housekeeping Magazine* published the nationally known collection of quilt patterns designed by Anne Orr that began in 1922 and continued until the 1940s when quilting declined (Waldvogel, 1990).

In the late 19<sup>th</sup> century, the U.S. economy was strong and the phrase “culture of consumption” was coined to describe the country’s wealth (Abrahams & Pannabecker, 2000). It was a period when the consumer could afford to readily purchase a variety of goods that contributed to a high standard of living. Manufacturers took advantage of the strong economic climate and marketed products specifically geared towards quilters.

For example, the tobacco companies during the 19<sup>th</sup> century recognized that their cigar products were gaining in popularity (Abrahams & Pannabecker, 2000). The tobacco companies recognized that the success of their product would increase if they ventured into the private sphere. In order to attract women through this appropriate venue, cigar producers wrapped the cigar and packages in beautiful silk ribbons

(Abrahams & Pannabecker, 2000). Cigar quilts emerged as a popular style of quilt. Women would display their assortment of cigar ribbons in a quilt just as they did with their apparel in the crazy quilt. Both the cigar and crazy quilt styles served as a representation of wealth and social status (Abrahams & Pannabecker, 2000; Gunn, 1991).

During the 1930s, Hubert Ver Mehren, owner of a button and pleating company in the United States, also recognized the demand for quilt patterns. As a consequence, he published several quilt pattern books and founded the *Home Art Studios*. Ver Mehren was described by quilt scholar Cuesta Benberry as was one of the most original designers of his time (Miller, 2000).

The *Home Arts Studio* utilized fictitious women to promote Ver Mehren's quilt patterns to women—the predominate gender of quiltmakers. The term *Home Art Studio* appeared as the name of the pattern business and a woman named Mary Jacobs (Ver Mehren's wife's maiden name) was listed as the owner. However, Mary Jacobs had no role in the business. Additionally in 1933, Ver Mehren published *Hope Winslow's Quilt Book* that contained a collection of quilt patterns that became very popular. The book contained a photograph of "Hope Winslow" who Miller recently discovered was fictitious. The person depicted in *Hope Winslow's Quilt Book* is theorized to be Ver Mehren's younger sister, however this has not been confirmed (Miller, 2000).

Another example of a business strategically marketing their business towards the interest in quilting occurred in the June/July 1983 issue of *Bride's Magazine*. *Bride's Magazine* published an article of a recently renovated home presented as the

“perfect” cottage for a newly wedded couple (Faubion, 1993). *Bride’s Magazine*, realizing the popularity of quilting in Lancaster County, Pennsylvania, contacted a local merchant about designing a quilt for the article. The merchant responded and designed an “Amish” quilt of beautiful appliqué. However, due to religious beliefs, the Amish did not appliqué quilts. After the article was published, the merchant who designed the quilt experienced an increased interest in the quilt pattern and people from across the nation inquired as to how to order the quilt. The Amish, wanting to respond to the economic potential, hired the Hmong women who had settled in the area after the Vietnam War to produce similar appliqué quilts. The Hmong women were highly skilled at needlework and created the quilts on behalf of the Amish.

## Demographic Influences Upon of Quiltmakers

While there is evidence of men who were quiltmakers, the preponderance of literature regarding demographics pertained to female quiltmakers (Stehlik, 1990). However, it is important to acknowledge that men have quilted. Perhaps one of the most famous quilt designers of the late 20<sup>th</sup> and early 21<sup>st</sup> century is Michael James, professor and quiltmaker with the University of Nebraska (Shaw, 1995).

In 1989, Cooper and Allen (1989) published a book entitled *The Quilters: Women and Domestic Art*. Inspired by the 1971 quilt exhibition sponsored by the Whitney Museum of Art in New York, Cooper and Allen wrote a compilation of oral interviews of quiltmakers from their home states of New Mexico and Texas. The book became a famous text within quilt culture and served as the basis for the Broadway production called “Quilters”.

Based upon Cooper & Allen’s findings from the interviews, the demographics of quilters from Texas and New Mexico have similar characteristics to the demographics from quiltmakers from across the United States. Cooper and Allen (1989) reported the following characteristics for the quiltmakers:

The average age of the women who had made these quilts was seventy-three years old. Most of the women making fine, traditional quilts were themselves pioneer-settlers of the land, or had come as children with their parents to homestead in the last quarter of the nineteenth century. The quilters still worked out of piece bags

containing scraps their mothers and grandmothers had placed there. The quilts were a compendium of family history, each person symbolized by a bit of textile (p. 17).

The authors acknowledged that their research was not based upon grounded methodology (Cooper & Allen, 1989). However, the demographics revealed from the oral interviews coincide with formal studies of quiltmakers in states such as Maine (Langellier, 1990); Louisiana (Roach, 1986); Nebraska (Shea & Crews, 1989; Crews & James, 1996); and Texas (Ayers, 1987-88). Similar demographics that were found from these studies included (a) the majority of quiltmakers, while they learned to quilt at a young age, did not become productive quiltermakers until they were at least the age of 50 when domestic responsibilities decreased; (b) the preponderance of quiltmakers were active in a church with Methodist and Lutheran being the most common dominations for quiltmakers, (c) quiltmakers were predominately female, (d) quiltmakers were generally from rural areas, however, urban quiltmakers have been on the rise since the 1976 quilt revival; (e) quiltmakers preferred traditional quilting patterns and techniques rather than contemporary style quilts and machine quilting, and (f) quiltmakers viewed their quilts as a means of self-expression and a record of themselves that become family heirlooms.

Interpretation of demographic research conducted on quiltmakers have focused upon the following three areas (a) education, (b) social and economic status, and (c) regional and cultural characteristics. These demographics have been identified primarily

because research revealed that previously believed generalizations of quiltmakers were not accurate. Examples of contradictions included (a) skills and techniques utilized in quiltmaking should not be associated with education level, but rather the amount of time a quiltmaker had to dedicate to the process; (b) quiltmaking occurred in all social and economic levels, and (c) regional or cultural characteristics were not prevalent in quiltmaking.

### *Educational Influences*

In 1839, Godey's Lady Book published an article entitled *Learning vs. Housewifery* that discussed rationale for women to become educated as illustrated in the following quote: "The opinions of modern schoolmen appear to be much divided on the question whether females should be taught the sciences, Natural Philosophy, Chemistry, Mathematics, Astronomy, etc." (Godey's Lady Book, 1989, p. 95)."

The article provided rationale for women to study these subjects as a means to become a better housewife. For example, the article explained that if a woman learned geometry, she would be better trained to cut and assemble pieces for a garment. Chemistry could offer a woman important "chemical affinities" to be able to produce a good cup of coffee (Godey's Lady Book, 1989, p. 95). The article (author unknown) stated it was not clear as to how subjects such as astronomy and geology would be "much practical advantage to the sex, though the former may give some tolerable hints relative to the formation of a bedquilt (Godey's Lady Book, 1989, p. 95)."

As evidenced in the relationship between quilting and being a good domestic wife in the 19<sup>th</sup> and early 20<sup>th</sup> century, this argument reinforced that education was presumed not necessary for women unless it directly related to their domestic skills and life in the private spheres (Davis, 1990). Where women of wealth and place in society were often sent to private schools for their education, it centered upon domestic life and needlework (Gunn, 1984; McMorris, 1984). Shea & Crews (1989) reported that most women of the early 20<sup>th</sup> century had achieved a high school or lower level of education because it was not a requirement for serving as wife and mother.

Ramsey (1988) and Crews and James (1996) reported similar findings in their study of quiltmakers. The older the woman, generally, the less educated they were. However, as educational standards changed, women received higher levels of education. Quiltmakers of the mid to late 20<sup>th</sup> century and presently can no longer be generalized as having minimal formal education (Crews & James, 1996).

These findings, merged with quiltmakers being predominately rural, has lead to a myth that quiltmakers of the 19<sup>th</sup> and early 20<sup>th</sup> century did not hold jobs outside of the home and were not business savvy. Evidence revealed that education was not a requirement for women from the 19<sup>th</sup> and 20<sup>th</sup> centuries. However, Horton (1987) concluded that educational standards required for women to hold occupations such as teaching were not as stringent during the 19<sup>th</sup> and 20<sup>th</sup> centuries. Horton (1987) stated that many quiltmakers maintained careers in education and were well read although not formally educated beyond the secondary level. Shea and Crews (1989) in their study of

Nebraska quiltmakers reported similar findings. Women did work outside the home during the late 19<sup>th</sup> and early 20<sup>th</sup> centuries in areas associated with the private sphere such as teachers or dressmakers.

Gunn (1994) researched the U.S. Sanitary Commissions that evolved during the Civil War. Women on the home front became business entrepreneurs and learned that they had business skills and a place outside of the private sphere. Ledgers and business documents revealed that women were well versed in the daily operations of business and had the ability to manage and run an entrepreneurial venture. Their work as businesswomen contributed to the woman realizing they had business skills, abilities to make a difference in the world and influenced the growth of the suffrage movement.

Ramsey (1988) stated that the skill and techniques utilized in quiltmaking should not be associated with education level, but rather, with the amount of time women could spare from their job or responsibilities in domestic life. For example, quilts made by women who had a career may have been quilted quickly, with large stitches or tied, and of a style such as wholecloth that was more expedient to create. Time, not education, was often the cause of the technique, style, and quality of the quiltmaking (Horton, 1987; Ramsey, 1988).

Gross (1980) researched two women who were quiltmakers and pattern designers in the late 19<sup>th</sup> and early 20<sup>th</sup> century. Jeannette Dean Throckmorton (1883-1959) was a medical doctor who quilted and designed patterns later in her life because her career did not permit the time to quilt while she practiced. Myrtle Mae Fortner (1890-1966)

operated her own business of building and managing apartment houses and became a quiltmaker after she retired.

In a study of Nebraska quiltmakers, Crews and James (1996) reported that levels of education increased as the 20<sup>th</sup> century evolved. For example, of the 143 quiltmakers born between 1870-1919, only 11% had received a college or technical school education, 24% had completed high school, and 64% had a grade school level of education. From 1946-1989, of the 247 quiltmakers surveyed, 22% had received a college or technical school education, 37% had completed high school, and 40% completed grade school. However, between 1970-1989, of the 487 quiltmakers studied nearly 48% had received a college or technical school education. Thirty-nine percent had graduated from high school, and 12% had finished elementary school. Quiltmaker's Newsletter (2000), reported in their study of dedicated quiltmakers (N = 1,104, 696) that 74% "had attended college or beyond". These findings indicated that quiltmakers of the mid-to late 20<sup>th</sup> century were well educated.

### *Social and Economical Influences*

Throughout history, quiltmaking reached across all social and economic classes (Langellier, 1990). However, depending upon fabric availability, accessibility, and financial resources, women selected varied resources for quiltmaking (Maines, 1986). Women of lower economic and social status would use materials at hand such as feed sacks or used articles of clothing (Gunkel, 1996; Lasansky, 1993). Women of high social and economic status would purchase fabric for the sole use of quiltmaking.

Direnc (1996) presented her findings from analysis of literary works. Numerous accounts of quilting inferred that plain quilts of simple patterns were associated with quiltmakers of low social and economic status. Quilts that were comprised of fine quilting, detailed patterns, or appliqué were frequently linked with women of social status and wealth (Direnc, 1996). For example, the Baltimore Album quilts required purchased fabrics as well as exceptional quilting skills (Goldsborough, 1994). In order to learn the skills required to create this style of quilt, women attended schools where a needle art education was compulsory; only women of wealth and social standing received such an education (Torsney & Elsley, 1994).

Church (1983) researched stenciled quilts. Stenciling (the application of paint through the use of a template) was a popular technique during the late 19<sup>th</sup> century. The technique required paints, dyes, and large pieces of fabric and consequently stenciled quilts were predominately found in wealthy states of the northeast region of the United States. Stenciled quilts, because of their expense, were rare finds. The Dallas Museum of Art is the only U.S. museum known to have a stenciled quilt in the collection.

Gunn (1991) reported that during the late 19<sup>th</sup> century, the availability of fabrics to all social classes increased. In what is called the “democratization” of clothing, all classes of women wore the same style of clothing. In order to encourage women of all social and economic status to own multiple ensembles, the fashion cycle was expedited. The increase in fabric scraps were integrated into pieced quilts and the ability to judge a person’s social or economic status decreased.

Torsney & Elsely (1994) presented an alternative viewpoint and concluded that quilting, despite claims that it was egalitarian, was based upon economics and social class. A quilter's social class and economic status was revealed by the virtue of the pattern, technique, and amount of detail and time that was spent on making the quilt (Ramsey, 1988; Torsney & Elsely, 1994).

Quilter's Newsletter (2000), surveyed dedicated quilters and reported that the average annual income for this group was \$74,806. Crews and James (1996) in their study of Nebraska quilters, and Goldman and Wiebusch (1991) in their study of Indiana quilters, reported a variety of demographics, however, economic levels of quilters were excluded. A definitive reason cannot be concluded, however, research reported that quilters placed more value on workmanship and self-expression, over the cost of the materials or any monetary value associated with quilting (Roberts, 1994).

In what is called "quilt-value", Roberts (1994) reported that this theory was more important than any social or economic association to quilting. Raised in a socialist home, Roberts (1994) challenged the Marxist's user-value theory that stated all objects must have a function in order to be a commodity in the work place. She contended that quilters placed higher value on the humanistic qualities of quilts rather than any socio-economic value. Langellier (1990) reported a similar viewpoint in her study of quilt guilds and bees. Guilds and bees disbanded social and economic boundaries and

served as a means for women of various economic and social statuses to merge for the purpose of quilting.

### *Ethnic and Regional Characteristics*

State quilt projects have collected ethnic and regional characteristics for particular groups. For example, Shea and Crews (1989) determined that Nebraska quiltmakers were primarily German, English, and Czech. The Amish communities have been extensively studied and their quilting characteristics were associated with the regions where they predominately settled—Pennsylvania and Ohio (Faubion, 1993; Folsom, 1993). Chinn (1990) stated that in order to identify ethnic and regional characteristics of quilting, more than one group must be studied. For example, the African American quiltmakers were diverse and did not conform to one aesthetic style. Chinn (1990) and Crews and James (1996) revealed that social factors were more influential to regional characteristics of quilting than ethnicity. Examples of quilting from various groups supported this claim. While regional characteristics developed, ethnicity played a minor role.

In her study of Baltimore quiltmakers, Goldsborough (1994) reported the unambiguous characteristics of Baltimore Album quilts made exclusively in this area for a short span of time (1845-1855). Baltimore album quilts were distinctly identified by appliqué technique, floral and organic themes, and intricate pattern and quilting. Baltimore album quilts evolved in Baltimore because this region had access to a variety of fabric, quiltmakers were well educated in the needle arts, and quiltmakers had the

financial ability to purchase the required supplies. However, women from Baltimore were not of one ethnic group. The social climate, access to education in the needle arts, and availability of time were the primary factors in the development of the Baltimore album quilt style.

The album quilts were in sharp contrast to the plain quilts created by the women of the Blue Ridge Mountains. Johnson (1988) studied this particular region and reported characteristics unique to residence of the Blue Ridge Mountains. Quilt blocks were simple, geometric in shape, plainly quilted and fulfilled need for warmth. The most popular fabric sources for this region were cotton scraps, feed and seed bags, and worn clothing including socks. Old blankets and quilts were utilized as filling material. Johnson (1988) reported that economic factors contributed to the styles of Blue Ridge quilts, however, the distinct qualities of Blue Ridge quiltmakers were unique to the region and have remained unaltered by other quilting groups, traditions, or styles. However, the Blue Ridge quiltmakers are comprised of a variety of ethnic groups and were therefore influenced more by their culture and economics than by their ethnicity.

The Amish community has been extensively studied and the simple designs, bright colors, and intricate quilting have been associated with the regions where they settled--primarily Pennsylvania and Ohio (Faubion, 1993; Folsom, 1993; Granick, 1989). However, Amish religious beliefs were more influential to quilting than regional characteristics or ethnicity. The Hmong women, who produced appliquéd quilts attributed to the Amish, did so based upon the demands of the public and as a source of

income. The ethnicity of the Hmong women did not influence the Amish style of the quilt.

Herda (2000), reported that quilting in Tonga had increased since World War II. It is not clear from whom the women from this Pacific island learned to quilt. Some scholars speculated that women from Tonga might have learned quilting from religious groups such as Mormons or Catholic nuns working for missions. The characteristics of Tonga quilts are westernized and were not associated with their ethnicity or region.

Since the late 19<sup>th</sup> century, the publication of magazines and patterns, availability of fabrics and supplies, group quilting, and cottage industries contributed to the homogeneity of quilting in America (Benberry, 1986; Brackman 1983; Horton, 1987; Smith, 1986; Waldvogal, 1990). Quilters from across the United States had access to the similar information and supplies. Quilting as a social activity merged cultural and ethnic influences and were no longer significant factors in quilting styles or practices (Valentine, 1994).

## Quilt Scholarship

Fox (1995) in her book, *For Purpose and Pleasure: Quilting Together the Nineteenth Century America* stated the following: In Colonial America, the quilt was often already on the frame when family and friend arrived to stitch together its multiple layers (p. 9).” As previously discussed, Marie Webster (1929) famous quilt-pattern designer and author of *Quilts: Their Story and How to Make Them*, claimed the commonality of quilting at this time. However, quilt scholarship proved to the contrary—quilting in colonial America was rare and no American-made quilt can be authentically dated until after 1775 (Brackman, 1983).

A recent example of quilt scholarship that has not been corroborated was found in Tobin & Dobard’s *Hidden in Plain View: A Secret Story of Quilts and the Underground Railroad* (1999). The book received national acclaim for presenting “the code” for interpreting messages found in quilts that assisted African Americans in their escape from slavery. In a keynote address to the *American Quilt Study Group* (AQSG) held in October 2000 in Lincoln, Nebraska, MacDowell (2000) criticized the work of Tobin & Dobard (1999) and stated that the findings had not been validated. MacDowell based her criticism on: (a) the authors did not affirm that their findings were based upon theory in a direct and clear manner, and (b) that it was solely based on an oral interview conducted with one individual; reliability of the research was questioned (MacDowell, 2000).

In the keynote address, MacDowell (2000) made a plea for quilt scholars to utilize reliable and valid methods of research. The history of quilting in the United States is rich, but also contains elements of folklore (Horton, 1989). In an effort to tell the accurate and complete story of the history of quilting in the United States, accurate research is required (MacDowell, 2000).

### *The Evolution of Quilt Scholarship*

Madden (1990) in research on Kansas quilters, claimed that quilts had become valuable and therefore there was increased interest in conducting valid research on quilting. Bernick (1994) stated that the popularity of quilt collecting was removing quilts from their “social matrix” (p. 137). In order to fully understand quilting in America, it must be studied in the context in which it was created (Crews & James, 1996). In response to capturing the history of quilts before becoming displaced, quilt scholarship evolved.

Madden (1990) also reported that factors that contributed to the development of quilt research included (a) historians concentrating upon the daily lives of people, (b) scholars launching the acceptance of material goods of our society as authentic, historical data; and (c) researchers in the fields of anthropology, art, and folklore accepting social material products as historical artifacts.

Although valid research is critical to quilt scholarship, myth and folklore have a place in quilt genre. According to Gunn (1992), “myths and folklore support the ideals, goals and values of every society and help make them palatable to the next generation”

(p. 193). However, myths must be carefully analyzed to separate fact from fiction. While myths give clues to the historical accuracy of an event or artifact and represent the values of a particular culture, they can also be misconstrued to be fact (Gunn, 1992).

Perhaps the most famous example of early quilt research was the 1971 quilt exhibition at the Whitney Museum of Art that established quilts as a credible historical document. The exhibition was the first of its kind to proclaim quilts as valid historical sources of women's history (Bernick, 1994). The proclamation, however, brought with it unfortunate consequences. Bernick claimed that the exhibition, while meritorious for transforming quilts from hobby status to a viable art form, established a poor standard for scholarship. The quilts in the exhibition were labeled according to state and date only, and even though many of the quiltmaker's were known, none were listed in the exhibition or supporting materials. Horton (1987) revealed a similar example of poor scholarship. In her study of the *Frank C. Brown Quilt Collection*, an extensive collection of quilts, the methods used to document the artifacts and quiltmakers resulted in a lack of information that was lost forever. While Horton credited Brown for his attempt to reveal quilting history, his lack of methodology could not be utilized as a model for similar projects.

By the 1980s, the quilt revival in the United States was strong and Americans accepted that many of the quilt stories believed to be true were actually folklore or myth (Gunn, 1992). This accelerated the acceptance of quilt scholarship as a viable and needed form of research.

In response to the need for valid quilt documentation, two significant developments occurred during the 20<sup>th</sup> century. The first development was the formation of *The American Quilt Study Group* (AQSG) in 1980. AQSG had the following mission: “To develop a responsible and accurate body of information regarding the history of quilting in America. Such information gives women access to their own history in creative art” (Lasansky, 1991). The AQSG hold annual meetings where quilt scholars from across the United States gather to share their research. The second significant development was the establishment of state quilt projects with the intention of documenting quilters in a particular state in order to document the history of quilting in the United States.

#### *Purposes of State Quilt Projects*

In 1980, and in commemoration of the state’s sesquicentennial, the *Texas Quilt Search* was created in an effort to document Texas quilts. The *Texas Quilt Search* eventually led to the *Texas State quilt project*—the second of its kind to occur (Kentucky was the first) (Bresenhan & Puentes, 1990). The initial goal was to trace the artistic and cultural aspects of Texas quilters. The long-term goal was to maintain an on-going record of quilting in Texas. The commitment to reveal the truth in quilting in America has transformed into over 40 states currently participating in state quilt projects (Lasansky, 1991).

Horton (1989) stated that the overall purposes of state quilt projects were to catalogue and analyze thousands of quilts and their makers in order to find accurate

interpretations of this work—the most important and pervasive form of creative manifestation for women. Crews and Rich (1995) stated that the purposes of these projects were to gather information in the context in which the quilts were made in order to tell the story of quilting in the United States. Furthermore, quilt research needs to be comprehensive and consistent so that cross-comparisons between states can be made.

While various state quilt projects' purpose statements have varied, they shared common goals. For example, Crews and James (1996) stated the following purpose for their research on Nebraska quiltmakers:

The purpose of this research was to develop a comprehensive profile of Nebraska quiltmakers during each of four time periods (1870-1919, 1920-1945, 1946-1969 and 1970-1989) and to broaden and deepen our understanding of Nebraska quiltmakers and their quilting practices and motivations and how they changed overtime (p. 8)

Madden (1990) in her study of Kansas quiltmakers, stated the following purpose of the state quilt project:

To heighten public awareness of quilts as examples of Kansas folk art; to document the lives of Kansas quilt makers and their work; to collect data and establish a repository at the Kansas State Historical Society; to promote the art of quilting through public programs; and to promote the conservation and preservation of quilts (p. 3).

Roberson (1987) in her study of North Carolina quiltmakers, stated the following purpose of the state quilt project:

To determine the kinds of quilts that have been made in the states over the years and the circumstances under which they had been made. We also wanted to learn about the lives of the quiltmaker as well as about our quilts (p. 149).

### *Components of State Quilt Projects*

State quilt projects were generally comprised of questionnaires that collected demographic and psychographic data and documentation of the quilt. Oral interviews of the quiltmaker were frequently incorporated into state quilt projects. The demographic and psychographic information was gathered to determine a profile of a particular group. The oral interviews gathered qualitative data that revealed quilting motivations and techniques (Crews & James, 1996; Horton, 1988; Roberson, 1987). The photograph of the quilt and quilt maker provided a permanent record. The ultimate goal of state quilt projects was to compile a repository of quilt history so cross-comparisons between states can be made and the story of quilting in America can be revealed.

However, although significant strides have been made through state quilt projects and similar research endeavors, inconsistency remains in methodology, the type of data gathered from state to state, and accessibility of information. For example, in their study of Nebraska quiltmakers, Crews and James (1996) included only those quilts that were actually made in the state. Conversely, Goldman and Wiebush (1991) in their study of

Indiana quiltmakers included those quilts that were made somewhere else, but relocated to the state through migration, gifts, or other mechanisms. Other factors that were inconsistent through state quilt projects included (a) some projects utilizing both oral interviews and self-administered questionnaires for data collection versus other projects utilizing one or the other, and (b) the nature of the questions, whether oral or written, varying from state to state. These factors, blended with inconsistency in implementation, reinforced the need for consistency in research methodology. Despite these challenges, the results of state quilt projects have established a wide collection of oral interviews and photo archives of U.S. quiltmakers and their quilts.

Horton (1988a) acknowledged the need for appropriate practices and documentation. In response, Horton developed brochures for the American Quilt Study Group (AQSG) on how to properly conduct an oral interview. Additionally, Herman (1993) in his work with the national Quilters' Save Our Stories Project (QSOS), has developed specific guidelines for the collection of data on U.S. quiltmakers. Projects require time, training, money, and assistance from experts to properly conduct the research (Stouney & Crews, 1988; Crews & James, 1996). Goldsborough (1994) stated that research required the interdisciplinary collaboration between a variety of individuals with expertise in woman's studies, art history, material culture, and folk art specialists in order to fully reveal the history of quilting.

North Carolina conducted a state project from 1985-86 (Roberson, 1987) where they documented over 10,000 quilts. Based upon the experience, the following recommendations for quilt project research were made:

1. *Clearly define the goal.* Whereas some states included only quilts that are made in their state (Crews & James, 1996), other state projects included quilts brought into the state by residents (Houck, 1988; Allen & Tuckhorn, 1995).

2. *Document the methodology.* All components of the project must be documented. Notations, records of interviews, the process followed and the method of analysis are critical to the success of the project.

3. *Utilize proper training.* All participants in the projects must be trained in order to properly implement the research.

4. *Seek assistance from experts.* The integration of experts assisted in the ability for participants to learn how to conduct an oral interview, scribe a document, record necessary information about a quilt and assist in the photography process. Professional experts such as textiles historians, members of the American Quilters Study Group, and professional photographers were integrated to train volunteers. Crews and James (1996) utilized similar procedures.

5. *Take your time.* Quilt projects are planned over time. The North Carolina project was conceptualized in 1978 and implemented in 1985-86.

6. *Promote the project.* Projects are dependent upon the participation of the community. Promotion of the project encouraged participation and also made the purpose known to the citizens.

7. *Seek funding.* The costs of state projects have varied, however, financial support is required for training of volunteers, space to conduct the research, printing and photography costs. State historical societies, the national endowment for the arts and humanities and local, civic groups have sponsored quilt projects.

State quilt projects were designed to collect as much information as possible regarding the history of the quiltmakers, their demographics, and quilting techniques and motivations. Despite the inconsistencies in methodology, the efforts of these projects had value. Ultimately the results of state quilt projects have the potential to achieve the following universal goal:

When catalogued and analyzed, the data on tens of thousands of quilts gathered by quilt projects throughout the country will enable researchers to make more specific and more accurate interpretations of this body of work, arguably the most important and widespread form of American women's creative expression (Horton, 1989, p. 114).

## Summary

Quiltmaking is a multi-faceted activity. Quilts were functional and aesthetic objects that have provided warmth, served as mechanisms for young girls to learn sewing skills required for domestic life, provided camouflage for women to become active in causes and activities that were reserved for the public sphere, have served as a means to commemorate an historical event or person, and have served as a means of voice and protest.

A universal definition of “quilt” is unknown. The combination of its utilitarian and construction components blended with its social and cultural complexities has posed too many aspects to be integrated into one definition. Quiltmaking has evolved through history based upon social, cultural, economic, religious, and political climates of the times. Technological advances in the areas of the textile industry and the printing press provided widespread access to fabric, patterns, and quiltmaking techniques. As a consequence, women of urban and rural areas had access to the same fabrics and patterns; distinctive regional and ethnic characteristics declined.

The social aspect of quiltmaking evolved into quilting bees and groups that crossed boundaries between economic and social classes. Women learned that they had new power as a group and could use quiltmaking, an acceptable domestic activity, as a means to socialize, work on social causes, and express their voices on issues that were normally reserved for the male-dominated public sphere. Women also learned that

quilting for others was a means of raising money for personal use or as fund-raising for churches or missions. Quiltmaking increased throughout the 19<sup>th</sup> and early 20<sup>th</sup> century.

At the conclusion of World War II, women shifted their focus to modern thinking and newfound activities such as working outside the home and raising their families. Quiltmaking—considered an “old-fashioned” way of thinking, declined. However, with the celebration of the nation’s 200<sup>th</sup> birthday, women who desired to commemorate the event, enrolled in classes to learn how to make quilts. Quiltmaking increased and has evolved into a thriving industry that has yet to decline (Crews & James, 1996).

The quilt revival fostered an interest in quiltmaking from a historical and social perspective. Scholars, in an effort to reveal an accurate history of quiltmaking in the United States, turned their attention to the study of quilts.

During the 1970s, scholars acknowledged that quilts were historical documents that required proper research and documentation (Madden, 1990). Quilt scholarship evolved with formal methodology and state quilt projects emerged. Scholars desired to separate myth from fact and quilt scholarship focused upon documenting the history of quiltmaking in America with specific emphasis upon the quiltmaker (Brackman, 1992; Gunn, 1992).

However, valid and reliable methodology for such research needs to be developed in order to collect consistent information. This is a necessary step so that cross-comparisons between quiltmakers from the United States can be made.

Quilting is an important aspect of American culture. Through formal research, the accurate story of U.S. quiltmakers will be told.

## CHAPTER III

### PROCEDURE

The purpose of this study was to identify and describe the demographic characteristics, quilting motivations, and quilting practices for members of the Trinity Valley Quilters' Guild (TVQG). The following aspects were addressed:

(a) a demographic profile of TVQG members including gender, age, racial or ethnic identification, marital status, education, residential background, employment status, occupation, and income; (b) quilting motivations including commemorating people or events, creating heirlooms, relieving stress or difficult times, experimenting with new techniques or fabrics, entering quilt shows or competitions, satisfying the need for pleasure and/or creative expression, or participating in a fundraising project; and (c) quilting practices including identifying first quilts, quilting individually or in groups, numbers of quilts made, years of participation in quilting, factors negatively impacting the ability to practice quilting, time spent quilting, and common quilting practices and techniques.

The procedure for this study was divided into six sections as follows:

(a) research design, (b) selection of sample, (c) research instrument, (d) pilot test, (e) collection of the research data, and (f) statistical analysis of data.

## Research Design

This study utilized a descriptive research design. Data were collected in order to test hypotheses and to determine the demographics, quilting motivations, and quilting practices for TVQG members. All variables in the study were defined based upon a thorough review of the related research and literature. The sampling error was controlled through utilizing the entire TVQG population as the sample. The non-response error was controlled by (a) facilitating a high response rate through a follow-up mailing, and (b) encouraging participation through announcements at the TVQG meetings and in the *TVQG Newsletter*. The measurement error was controlled by using a research instrument that was based upon valid and reliable instruments utilized in state quilt projects across the U.S. (Cerny, Eicher, & DeLong, 1993; Crews & James, 1996; Crews & Rich, 1995; Stonuey & Crews, 1988) and the Quilters' Save Our Stories procedures developed by Herman (1993). The Quilters' Save Our Stories project is a national effort to collect oral interviews of quilters' and their history from across the United States (Herman, 1993).

## Selection of the Sample

The population for this study was 382 members of TVQG. The sample consisted of the entire population of TVQG members as of March 15, 2002 and as listed in the 2001-2002 membership set of mailing labels. This ensured that all members of TVQG had an equal opportunity to participate in the study.

## The Research Instrument

A questionnaire was designed for data collection using Salant & Dillman (1994) guidelines. The self-administered, mail questionnaire was developed in order to elicit responses from TVQG members as it pertained to demographics, quilting motivations, and quilting practices.

The questionnaire was designed based upon two factors: (a) similar research projects, and (b) oral interviews of TVQG quiltmakers. Similar research projects utilized in the design of the questionnaire included those conducted by Cerny, Eicher, and Delong, (1993); Crews and James, (1996); Crews and Rich, (1995); and Stonuey and Crews, (1988). These studies were selected because they were based upon similar research goals, and they modeled themselves after state quilt projects that have developed similar questionnaires.

The second factor in developing the instrument was based upon emerging trends and themes in quilting that were a result of conducting oral interviews with members from the TVQG. The qualitative research method of conducting oral interviews referred to as the Quilters' Save Our Stories project was utilized for this study (Herman, 1993). The oral interviews occurred during the Trinity Valley Quilters' Guild Show held May 18-20, 2001 at the Amon Carter Exhibition Hall in Fort Worth, Texas. During the course of the TVQG show, 30 interviews of TVQG members were conducted. These factors contributed to the reliability and validity of the questionnaire developed for this study.

For this purpose of this study, 10 oral interviews from the Quilters' Save Our Stories project were randomly selected and utilized in the process of defining emerging themes and trends that pertained to the membership of the TVQG. The themes and trends that emerged were TVQG members (a) participated in quilting as a means of creativity, self-expression, and to create an heirloom for family members, (b) learned to quilt early in life but did not consistently participate in quilting until later in life when time was more readily available, (c) placed a higher value of hand techniques over machine techniques, and (d) preferred traditional techniques, colors, and patterns. Another trend that emerged was that TVQG members were active members of a church.

### *The Questionnaire*

The questionnaire contained six sections entitled: (a) Why are you involved in quilting?, (b) When and why did you learn to quilt?, (c) What are your quilting practices?, (d) What do you look for in a quilt and what are your quilting techniques?, (e) Why are you a member of TVQG?, and (f) What about you?. The first section consisted of six questions designed to elicit information as to why TVQG members were involved in quilting, their quilting activities, and what motivated a TVQG member to quilt. The six questions (Q 1 through Q 6) included the following items: (a) reasons for being involved in quilting, (b) quilting activities, (c) whether or not a TVQG member presently participated in the quilting process, (d) quilting motivations, (e) whether or not a TVQG member ever made a quilt for a special event, and (f) whether or not a TVQG member ever made a quilt for a special person.

All of the questions for the first section were direct-response with the exception of Q1 and Q4. For Q1, participants were asked to select and rank three reasons that explained why they were involved in quilting. For Q4, participants were asked to select and rank three reasons that explained what motivated them to quilt.

The second section of the questionnaire was designed to elicit information regarding the participants' age, when they learned to quilt, and who was involved in teaching them quilting. The five questions (Q7 through Q11) included the following items (a) at what age the participant learned to quilt, (b) what the primary motivation was to learn to quilt, (c) who was most influential in teaching them quilting, (d) whether or not the participant ever taught quilting to a family member or friend, and (e) if they had taught quilting, to indicate to whom. All of the questions for the second section were direct-response with the exception of Q9 where participants were asked to select and rank no more than three people who were influential in teaching them quilting.

The third section of the questionnaire was designed to elicit information regarding participants' quilting practices. The 11 questions (Q12 through Q22) included the following items pertaining to each participant: (a) information regarding the first quilt made, (b) whether participants usually quilted individually or in groups, (c) the type of group participants quilted with (if applicable), (d) how many quilts a participant made, (e) decades participants participated in quilting, (f) factors that affected participants' time for quilting, (g) the type of factor, if applicable, (h) the average number of hours per week participants participated in quilting during 2001, (i) if participants were

unable to participate in quilting during 2001, to record the reason, (j) quilting practices, and (k) approximately how much money participants spent on quilting during 2001.

All of the questions for this section were direct-response with the exception of Q12, Q18, Q20, and Q22. For Q12, participants were asked to record the pattern and name of their first quilt made including the year started and completed. For Q18, a Likert-type scale was utilized to determine how significant a factor was in negatively impacting participants' time for quilting, and for Q20, participants were asked to record the reason they did not participate in quilting during 2001 (if applicable). A Likert-type scale was also utilized for Q21 where participants were asked to indicate how frequently they utilized a particular quilting practice, and Q22 required participants to record an estimated amount of money spent on quilting during 2001.

The fourth section of the questionnaire was designed to elicit information pertaining to the participants' perceived quality and beauty of a quilt and their quilting techniques. This section consisted of eight questions (Q23 through Q30) and included the following items: (a) the perceived quality and beauty of a quilt, (b) quilting techniques, (c) quilt styles, (d) quilt types, (e) color preferences, (f) color palettes, (g) fabric types and, (h) sources of quilting fabrics and supplies.

The questions in this section included the selection and ranking of choices (Q23 and Q27) and Likert-type scale responses (Q 24 through Q26, and Q28 through Q30). For Q23, participants were asked to select and rank the three most important characteristics that

contributed to the perceived quality and beauty of a quilt. For Q27, participants were asked to select and rank the three most important reasons for their color selection for a quilt. A Likert-type scale was utilized for Q24 where participants were asked to indicate how frequently they utilized a particular quilting technique, Q25 where participants were asked to indicate how frequently they created a particular style of quilt, and Q26 where participants were asked to indicate how frequently they created a particular type of quilt. A Likert-type scale was also utilized for Q28 through Q30 where participants were asked to indicate how frequently they utilized particular (a) color palettes, (b) fabric types, and (c) sources for quilting supplies.

The fifth section of the questionnaire was designed to determine why participants were members of TVQG. This section (Q31 through Q37) consisted of seven direct response questions that included: (a) why participants were members of TVQG, (b) length of membership, (c) whether or participants were charter members of TVQG, (d) whether or not participants were members of other guilds or bees, (e) number of TVQG meetings attended during 2001, (f) number of TVQG bee meetings attended during 2001, and (g) number of workshops and/or seminars attended during 2001.

The sixth and final section of the questionnaire was designed to elicit demographic information about each participant. The section (Q38 through Q49) consisted of 12 direct response questions that included: (a) gender, (b) age, (c) racial or ethnic identification, (d) marital status, (e) highest level of education, (f) where the participant lived the longest, (g) length of time at present residence, (h) whether the participant was raised in a rural or

urban environment, (i) occupation, (j) annual household income, and (k) religious affiliation. The dissertation committee prior to the administration of the pilot study evaluated the questionnaire. The questionnaire may be found in Appendix B.

### Pilot Test

The Quilters' Guild of Parker County (QGPC) was utilized as the pilot test sample. This was done so that all members of the Trinity Valley Quilters' Guild (TVQG) had the opportunity to participate in the formal study. Gay (1996) stated that a sample from another similar group could be utilized for the purpose of conducting a pilot study.

The 2001-2002 Membership Directory for QGPC was utilized as the population for the pilot study. All members who attended the February, 2002 QGPC monthly meeting were asked if they were willing to participate in the study. All members in attendance affirmed their participation. Any member of TVQG who was also a member of the Quilters' Guild of Parker County was removed from the list of participants for the pilot study. The population of QGPC, after removing names of individuals who are also members of TVQG, resulted in a population size of 89. All 89 members served as the sample for the pilot study in order to ensure that all members had an equal chance to participate. Each member received a cover letter with the questionnaire that explained the purpose of the research, the nature of the instrument, when the instrument should be returned, and the importance of their participation. The questionnaires were mailed to each member with a request to return the completed instrument by March 15<sup>th</sup>, 2002. A

follow-up mailing was distributed to those who had not responded by this date in order to ensure as much participation as possible. The follow-up mailing had a March 29<sup>th</sup>, 2002 deadline. A total of 65 questionnaires were returned, of which one was unusable. Therefore, the return rate consisted of 64 questionnaires yielding a 72.0% response rate. Pilot test responses were not part of the data analyzed for the main study.

The pilot instrument was identical to the questionnaire that was utilized in the study of TVQG members with the exception of Q31 through Q36. These questions were altered to (a) refer to QGPC rather than TVQG, and (b) the responses to Q32 were changed to account for the difference in the years that the QGPC had been in existence. Profile data of the pilot groups was analyzed using basic descriptive statistical methods. The pilot group ( $n = 64$ ) consisted of 92% female and 2% male quiltmakers. Thirty percent of participants were 50 years of age or younger, 31% were between the ages of 51 to 60, and 39% of the membership were 61 years of age or older. No member was older than 85 years of age. Ninety-seven percent of the participants listed white, non-Hispanic as their racial or ethnic identification. Regarding marital status, 81% of the participants were married, 8% were widowed, 6% were divorced, and 5% were separated. The highest levels of education attained by the participants ranged from some high school to obtaining a college education. Fifty-five percent of the participants reported that they had some high school or college, and 45% reported that they had a minimum of a vocation/technical degree or some college. Fifteen percent had a four-year baccalaureate degree from college. Ninety-four percent of the participants reported that they presently

participated in quilting, and 53% stated that they *desire to create a gift for a special person* as a primary motivation for them to make a quilt. Fifty-nine percent of the participants reported that *they just wanted to learn to quilt* as the primary reason that they learned quilting.

Based upon the analysis of all pilot test data, seven revisions were made to the questionnaire. The following changes were made prior to the distribution and mailing of the instrument to the 382 members of TVQG selected to participate in the main study.

1. Q1 through Q17 of the instrument consisted of direct response or Likert-type scale questions. Q18 was the first question to shift in the nature of the type of response. Beginning with Q18, participants were asked to respond to each quilting technique, motivation, or quilting practice listed in the choices of responses. In order to clarify that the participant should respond to each factor listed, the instructions for Q18 and subsequent, similar questions were clarified to include a direct statement that stated to respond to *each* factor listed. It was believed that this statement would more accurately describe the action required for the completion of the question.

2. Q19 requested that the participants record an average number of hours per week that they estimated they spent on quilting. Q22 requested that the participants record an average dollar amount that they estimated they spent on quilting fabric, patterns, workshops/seminars, magazine subscriptions, and equipment. In order to clarify that the participant should record a specific number rather than a range, the instructions were changed to state that the participant should record a specific estimated number of

hours (Q19) or specific estimated dollar amount (Q22). It was believed that this statement would more accurately describe the action required for the completion of the question.

3. Q29 was designed to elicit information regarding the most frequently utilized fabric types. The choice of responses for Q29 was changed to include conversation/novelty print as an option. This was based upon the number of participants who wrote in this category of fabric types in their response from the pilot study.

4. Q43 inquired as to where the participant lived the longest while growing up; the participants were asked to record the city, county, state, and country. The number of different cities, states, and counties became excessive and resulted in cumbersome data. As a consequence, the question was changed to ask each participant to record the U.S. region, as defined by the 2000 U.S. Census that they lived in the longest while growing up. It was believed that this information would gather similar data as originally intended in a more accurate and useful manner.

5. Q44 was designed to determine where the participant currently resided. Based upon analysis of this question from the pilot study, it was determined that the data is available by analyzing the current membership directory of TVQG. Therefore, the question was believed to be unnecessary to the main study and therefore eliminated.

6. Q47 (changed to Q46 for the main study instrument) requested participants record their usual occupation. Based upon several written-in responses, professional non-degreed was added as a possible response to the question. It was

believed that by adding this response, a more clear distinction between professional degreed and professional non-degreed would be achieved.

7. Q50 (changed to Q49 for the main study instrument) inquired as to the participants' religious affiliation. Based upon numerous write-in responses, Episcopalian and Latter Day Saint were added as possible responses.

#### Collection of Research Data

In order to encourage participation in the study, an announcement that preceded the distribution of the questionnaire appeared in the TVQG newsletter. The announcement explained the purpose of the research, and provided advanced notice of the questionnaire distribution (see Appendix D). TVQG members were informed of the eligibility of two, \$50 gift certificates that were randomly awarded to those participants who completed and return the questionnaire.

Collection of research data was in conjunction with the Tailored Design Method (TDM) for implementing group administration of self-administered surveys (Dillman, 2000). The TVQG meetings were held on the third Friday of each month. The self-administered questionnaire was initially distributed to all TVQG members who attended the April 17<sup>th</sup>, 2002 regularly scheduled meeting of the guild. Through utilizing a tracking number on each instrument, a record was maintained as to who received the questionnaire at the TVQG meeting. Those TVQG members who were unable to attend the April 17<sup>th</sup> meeting were mailed the instrument on Saturday, April 18<sup>th</sup>, 2002.

The purpose of this method of distribution was to motivate the participants to complete the questionnaire, establish rapport with as many members as possible, and to create identity between the researcher and the participants (Dillman, 2000). In order to ensure privacy, careful analysis of each question, and adequate time to complete the questionnaire without feeling the pressure to meet the agenda of a scheduled meeting, participants were asked to return the questionnaire by mail by May 3<sup>rd</sup>, 2002. This was in accordance with Dillman's (2000) TDM.

A complete implementation process was utilized in the collection of the research data. The sample ( $n = 382$ ) received a cover letter with the questionnaire that explained the purpose of the research, the nature of the instrument, when the instrument shall be returned, the confidentiality of the investigation, and the importance of participation (Appendix A). Details regarding the questionnaire were also discussed in the cover letter and participants were asked to return the questionnaire within fourteen days. On May 9<sup>th</sup>, 2002 all sample group members who had not returned the questionnaire, received a personal mailing asking for their participation (Appendix C). Another copy of the research instrument and a business reply envelope were included. A second announcement thanking members for their participation appeared in the June TVQG newsletter which was one month following the distribution of the questionnaire (Appendix D). The purpose of the announcement was to remind those participants who had not yet returned the instrument the importance of doing so. The timing of the

newsletter was such that it followed the recommendations for administering a mail questionnaire (Salant & Dillman, 1994).

### Statistical Analysis of Data

Frequency and percentage distributions were utilized to describe demographics, quiltmaking participation, age of when TVQG members learned to quilt, and from whom they learned to quilt. Additionally, frequency and percentage distributions were utilized to determine if participants selected hand piecing and hand quilting more frequently than machine piecing or machine quilting as two of the most important characteristics that contribute to the quality and beauty of a quilt. Frequency and percentage distributions were also utilized to determine why the majority of members of TVQG were motivated to quilt.

Chi-square contingency analyses were utilized to demonstrate differences in employment status and if (a) members of TVQG who were not employed outside the home, or retired utilized more time-consuming quiltmaking techniques and practices than those members who were employed outside the home, (b) membership in guild(s) and bee(s) other than TVQG significantly varied according to employment status, and (c) attendance at TVQG guild meetings significantly differed according to employment status. The chi-square test is a statistical test utilized to analyze whether or not differences in frequencies are statistically significant.

Chi-square contingency analyses were utilized to evaluate Research Question 1 in order to determine if quiltmaking practices and quiltmaking techniques utilized by members of TVQG significantly varied according to the participants' demographics. Research Question 2 was analyzed by chi-square contingency analyses and discriminant function analysis (DISCRIM) to determine if quiltmaking practices and quiltmaking techniques utilized by members of Trinity Valley Quilters' Guild significantly varied according to quiltmaking motivations. For the purposes of the analyses, three groups were formulated based upon the primary reasons participants were motivated to quilt. The chi-square analyses were utilized to determine significant differences between the participants based upon quiltmaking motivations. DISCRIM was utilized to determine significant differences between participants and the number of quilts made, hours per week spent on quiltmaking, and U.S. dollars spent on quiltmaking during 2001. DISCRIM is designed to study differences between groups and therefore, may result in a means to predict group membership based upon certain variables (Tabachnick & Fidell, 1996).

Research Question 3 was analyzed by chi-square contingency analyses and discriminant function analysis (DISCRIM) to determine if quiltmaking practices and quiltmaking techniques utilized by members of Trinity Valley Quilters' Guild significantly varied according why participants were involved in quiltmaking. For the purpose of the analyses, four groups were formulated based upon primary reasons why participants' were involved in quiltmaking. Chi-square contingency analyses were

utilized to determine significant differences between four groups of the participants based upon reasons why they were involved in quiltmaking. DISCRIM was utilized to determine significant differences between the groups and the number of quilts made, hours per week spent on quiltmaking, and U.S. dollars spent on quiltmaking during 2001. DISCRIM is designed to study differences between groups and therefore, may result in a means to predict group membership based upon certain variables (Tabachnick & Fidell, 1996).

All statistical tests were considered representative of significant results at the .05 probability level. The questionnaire included six questions intended to gather additional information not directly related to the purpose of this study. Therefore, Q2, Q10, Q11, Q30, Q36, and Q37 were not statistically analyzed.

### *Hypothesis 1*

The majority of members from the Trinity Valley Quilters' Guild will:

- (a) be 51 years of age or older,
- (b) be female,
- (c) be white, non-Hispanic,
- (d) have spent their adolescent years in the U.S. west south central region,
- (e) be raised in a rural area,
- (f) be high school educated or higher,
- (g) be currently married,
- (h) be Methodist,

- (i) be a full-time homemaker,
- (j) and have an annual household income of \$60,000.

Therefore, it was not expected that participants would vary according to age, gender, ethnicity, education, marital status, religion, occupation or income. Additionally, participants would have spent their adolescent years in the west south central region of the United States (Arkansas, Louisiana, Oklahoma and Texas), and would have been raised in a rural area.

*Data utilized.* The data tested was taken from responses to items on the questionnaire as follows:

- (a) Age/Question 39
- (b) Gender/Question 38
- (c) Racial or ethnic identification/Question 40
- (d) Residential status/Questions 43, and 44
- (e) Urban or rural environment information/Question 45
- (f) Education/Question 42
- (g) Marital status/Question 41
- (h) Employment status/Question 46
- (i) Religious affiliation/Question 49
- (j) Occupational information/Questions 46 and 47
- (k) Annual household income/Question 48

*Statistical tests employed.* Frequency and percentage distributions were calculated to determine the demographic profile of the sample.

*Hypothesis 2*

The majority of members from the Trinity Valley Quilters' Guild will participate fully or partially in the quilting process such as quilting, piecing, and designing quilts. Therefore, it was expected that the majority of participants would be involved in some aspect of the quilting process.

*Data utilized.* The data tested was taken from the response to the item on the questionnaire as follows:

Participation information/Question 3

*Statistical tests employed.* Frequency and percentage distributions were calculated to determine the number of TVQG members who partially or fully participate in the quilting process.

*Hypothesis 3*

The majority of members from the Trinity Valley Quilters' Guild will have learned to quilt between the ages of one and nine. Therefore, it was expected that participants would be of similar age when they learned quilting.

*Data utilized.* The data tested was taken from the response to the item on the questionnaire as follows:

Age information/Question 7

*Statistical tests employed.* Frequency and percentage distributions were calculated to determine the age at which members of the TVQG learned to quilt.

*Hypothesis 4*

The majority of members from the Trinity Valley Quilters' Guild will have learned to quilt from (a) a female relative or (b) their mother. Therefore, it was expected that a female relative or mother would have been the most influential figure who taught quiltmaking to TVQG members.

*Data utilized.* The data tested was taken from the response to the item on the questionnaire as follows:

The teachers of quiltmaking information/Question 9

*Statistical tests employed.* Frequency and percentage distributions were calculated to determine the most predominate figure who taught quiltmaking to TVQG members.

*Hypothesis 5*

Members of the Trinity Valley Quilters' Guild will select hand piecing more frequently than machine piecing as one of the three most important characteristics that contribute to the quality and beauty of a quilt. Therefore, it was expected that participants would place higher importance on hand piecing than on machine piecing as one of the three most important characteristics that contributed to the quality and beauty of a quilt.

*Data utilized.* The data tested was taken from the response to the item on the questionnaire as follows:

Importance of hand piecing/ Question 23

Importance of machine piecing/Question 23

*Statistical tests employed.* Frequency and distribution information was utilized to determine if TVQG members selected hand piecing more frequently than machine piecing as one of the three most important characteristics to the quality and beauty of a quilt.

*Hypothesis 6*

Members of the Trinity Valley Quilters' Guild will select hand quilting more frequently than machine quilting as one of the three most important characteristics that contribute to the quality and beauty of a quilt. Therefore, it was expected that participants would place higher importance on hand quilting than on machine quilting as one of the three most important characteristics that contributed to the quality and beauty of a quilt.

*Data utilized.* The data tested was taken from the response to the item on the questionnaire as follows:

Importance of hand quilting/ Question 23

Importance of machine quilting/ Question 23

*Statistical tests employed.* Frequency and distribution information was utilized to determine if TVQG members selected hand quilting more frequently than machine quilting as one of the three most important characteristics to the quality and beauty of a quilt.

### *Hypothesis 7*

Members of the Trinity Valley Quilters' Guild will select the following three motivations as the three best reasons that explain why they are motivated to quilt:

- (a) satisfy the need for creative expression,
- (b) satisfy the need to socialize with others, and
- (c) create a gift for a special person.

Therefore, it was expected that TVQG members would have similar motivations to quilt because they considered quilting a means of creative expression, it was an opportunity to socialize with others, and it served as a mechanism to create gifts for a special person.

*Data utilized.* The data tested was taken from the response to the item on the questionnaire as follows:

Creative expression information/Question 4

Satisfy the need to socialize with others/Question 4

Create a gift for special person/Questions 4.

*Statistical tests employed.* Frequency and distribution information was utilized to determine the most prevalent quilting motivations for the majority of the members of TVQG.

### *Hypothesis 8*

Members of the Trinity Valley Quilters' Guild with differing types of employment status will exhibit significant differences in:

- (a) utilizing specific quilting techniques and practices,
- (b) holding membership in bees and guilds, and
- (c) attending TVQG meetings during 2001.

Therefore, it was expected that TVQG members who were retired would be more likely to utilize hand techniques and practices, hold memberships in bees and guilds, and attend TVQG meetings during 2001 than members who were employed outside the home and not employed outside the home.

*Data utilized.* In order to respond to H8, a preliminary step to collapse the employment status variable into segments was conducted. For the purpose of the analysis, the segments of employed full-time and employed part-time were collapsed into one segment called employed outside the home, the segments of unemployed and full-time homemaker were collapsed into one segment called not employed outside the home, and the original retired segment remained unchanged. The responses *most of the time* and *some of the time* were collapsed into one segment meaning the participant did participate in the practice or technique. The response *never* remained as a separate segment. The purpose was to differentiate between those participants who participated in the quilting technique and practice versus those participants who never participated in the quilting technique and practice. The data tested was taken from responses to items on the questionnaire as follows:

Employment status/Questions 46

Employed full-time

Employed part-time

Quiltmaking techniques/Question 24

- Unemployed
- Retired
- Full-time homemaker
- Hand piecing
- Hand quilting
- Hand appliqué
- Hand embroidery
- Trapunto
- Machine piecing
- Machine appliqué
- Machine quilting
- Hired machine quilting
- Paper piecing
- Foundation piecing
- Machine embroidery
- Design quilt block patterns
- Design quilt top patterns
- Design quilting patterns
- Purchase quilt kits
- Purchase quilt block patterns
- Purchase quilt top patterns

Quiltmaking practices/Question 21

	Use templates for quilting patterns
Membership information/Question 34	Membership in guilds other than TVQG
	Membership in bees other than TVQG bee
Attendance record at guild meetings information/Question 35	Attendance record at meetings

*Statistical tests employed.* Chi-square contingency analyses were conducted to determine if participants who were retired utilized more labor and time intensive quilting techniques and practices than those participants not employed outside the home or who work outside the home. Chi-square contingency analyses were utilized to determine if TVQG members who were retired attended more meetings during 2001 than those TVQG members who were not employed outside the home or worked outside the home.

In addition, answers to the following research questions were sought:

RQ1. Will the quilting practices and quilting techniques utilized by members of the Trinity Valley Quilters' Guild vary according to demographic profiles?

In order to respond to RQ1, preliminary steps to collapse demographic variables into segments were conducted. The collapsing of variables occurred in response to the results of frequency analysis. Based upon this information, variables were collapsed in order to create meaningful segments that represented the number of participants for each demographic variable. For the purpose of analysis of RQ1, age was collapsed into eight

age ranges from the original 17 presented in the questionnaire. The age ranges of 15 to 20, 21 to 25, 26 to 30, 31 to 35, 36 to 40, 41 to 45 were collapsed into one segment of 45 years of age or younger, the age ranges of 46 to 50, 51 to 55, 56 to 60, 61 to 65, 66 to 70, 71 to 75 remained unchanged, and the age ranges of 76 to 80, 81 to 85, 86 to 90, 91 to 95, 96 to 100 and over 100 were collapsed into one segment of 76 years of age or older.

The education variable was collapsed from the original 12 segments into four levels of education. For analyses purposes, the education segments of some grade school, grade school, some high school or equivalent were collapsed in one segment called high school education or less, some college and vocational/technical degree were collapsed into one segment called some college or technical school, two year associates degree and four year bachelors degree were collapsed into one segment called college degree, and some graduate work, master degree, doctoral degree, and post-doctoral degree were collapsed into one segment called some graduate work or graduate degree.

For the analyses of RQ1, employment status was also collapsed in an identical manner as described for Hypothesis 8. Regarding occupation, the segments of blue collar/labor, craftsman/tradesman/skilled trade, fiber artist, and quilting teacher were collapsed into one segment called labor/craftsperson, the segments of homemaker, military, office/clerical, professional degreed, professional non-degreed, and full-time student remained as separate segments, the segments of salesperson, service position, upper/middle management, business owner, and quilt shop owner were collapsed into one segment called business, and the segments of home health care, caregiver, and

community volunteer were collapsed into one segment called service. Income was analyzed by collapsing the two segments of less than \$10,000 and \$10,000 to \$19,999 into one segment called \$19,999 or lower. All of the other original segments as listed in Q48 of the questionnaire remained the same.

Religion was collapsed from the original 23 segments into six. The segments of Christian, Bible church, no affiliation, Charismatic, and non-denominational were collapsed into one segment called nondenominational, the segments of Methodist, Lutheran, Presbyterian, and Protestant were collapsed into one segment called Protestant, the original segment of Baptist remained a separate segment, the segments of Catholic and Episcopalian were collapsed into one segment called Catholic/Episcopalian, the segments of Church of Christ and Disciples of Christ were collapsed into one segment called Church of Christ/Disciples, and the segments of Jewish, Latter Day Saints, Agnostic, Nazarene, Assembly of God, Christian Science, Unity, Unitarian, and Pentecostal were collapsed into one segment called miscellaneous.

Dependent variables were also collapsed into segments based upon the results from the frequency and distribution analysis. For the purpose of this study, the quilt individually or with others variable was collapsed into two segments consisting of (a) I usually participate in quilting by myself, and (b) I usually participate in quilting with others. The number of quilts made variable was collapsed from the original fourteen segments into eight. The original segments of 0 to 5, 6 to 10, 11 to 15, 16 to 20, 21 to 30, 31 to 40, and 41 to 50, remained as separate segments, and the segments of 51 to 60, 61 to

70, 71 to 80, 81 to 100, 101 to 125, and 126 to 150, and more than 150 quilts were collapsed into one segment of 51 or more quilts. Regarding number of hours per week spent on quilting variable, participants were asked to record a specific number indicating the estimated number of hours per week spent on quilting. Individual responses were collapsed into the segments of 0 to 5, 6 to 10, 11 to 15, 16 to 20, and 21 or more hours per week spent on quilting.

The quilting practices variable collapsed the responses of (1) most of the time, and (2) some of the time, into one segment. The purpose of this was to differentiate between those participants who participated in the practice versus those participants who never participated in the practice. This same method of collapsing the responses occurred for variables quilting techniques, quilt styles, quilt types, color palettes, and fabric types.

For the variable money spent on quilting during 2001, participants recorded an estimated dollar amount for each of the following categories: (a) fabric, (b) patterns, (c) workshops/seminars, (d) magazines, and (e) equipment. In order to analyze this variable, the estimated dollar amounts for each category were collapsed into one segment consisting of (a) annual U.S. dollars spent on quilting during 2001. For analysis purposes, the following U.S. dollar ranges were created: (a) \$1 to \$50, (b) \$51 to \$100, (c) \$101 to \$200, (d) \$201 to \$300, (e) \$301 to \$400, (f) \$401 to \$500, (g) \$501 to \$600, (h) \$601 to \$700, (i) \$701 to \$800, (j) \$801 to \$900, (k) \$901 to \$1000, (l) \$1001- \$2000, (m) \$2001 to \$3000, (n) \$3001 to \$4000, (o) \$4001 to \$5000 and (p) more than \$5000.

Regarding the quilting technique that was most important to contributing to the quality and beauty of a quilt variable, participants were asked to select their first, second, and third most important technique that contributed to the quality and beauty of the quilt. For the purpose of conducting the statistical analysis, only the first most important technique was analyzed. The original segments were collapsed in the following manner: (a) the techniques of hand piecing, hand appliqué, and hand quilting were collapsed into the segment called handwork, (b) the techniques of machine piecing, machine appliqué, machine quilting were collapsed into the segment called machine work, (c) the techniques of quality of piecing, appliqué, quilting, and binding were collapsed into the segment called quality, (d) the techniques of complexity of piecing, appliqué, and quilting were collapsed into the segment called complexity, (e) the technique of visual impact remained a separate segment, and (f) the techniques of originality of pattern, and quilting were collapsed into the segment called originality.

The participants were asked to select their first, second, and third most important reasons for selecting colors for a quilt. For the purpose of this analysis, only the first reason for selecting colors for a quilt was analyzed.

*Data utilized.* The data tested was taken from the responses to the items on the questionnaire as follows:

Quilting practices/Questions 13	Quilt individually or with others
Quilting practices/Question 14	Quilting groups
Quilting practices/Question 19	Hours per week spent on quilting

Quiltmaking practices/Question 21	Quiltmaking practices
Quiltmaking practices/Question 22	Money spent on quiltmaking
Quiltmaking techniques/Question 23	Quiltmaking characteristics
Quiltmaking techniques/Question 24	Quiltmaking techniques
Quiltmaking techniques/Question 25	Quilt styles
Quiltmaking techniques/Question 26	Quilt types
Quiltmaking techniques/Question 27	Reasons for color selection
Quiltmaking techniques/Question 28	Color palettes
Quiltmaking techniques/ Question 29	Fabric types
Demographic information/Question 39	Age
Demographic information/Question 42	Education
Demographic information/Question 45	Residential background—urban or rural
Demographic information/Question 46	Employment status
Demographic information/Question 47	Occupation
Demographic information/Question 39	Annual household income
Demographic information/Question 39	Religious affiliation

Demographic information such as gender, (Q38), racial or ethnic identification (Q40), marital status (Q41), region of U.S. where participants grew up (Q43), and how long participants lived at present residence (Q44) were not analyzed because the frequency tables revealed that the overwhelming majority of participants were from one category.

*Statistical tests employed.* In order to assess whether there were significant differences between demographics of TVQG members and prevalent quiltmaking practices and quiltmaking techniques, chi-square contingency analyses were conducted to determine if there were significant differences between demographic variables and the dependent variables of prevalent quiltmaking practices and quiltmaking techniques.

RQ2. Will the quiltmaking practices and quiltmaking techniques utilized by members of the Trinity Valley Quilters' Guild vary according to quiltmaking motivations?

In order to respond to RQ2, preliminary steps to collapse the quiltmaking motivations into three groups were conducted. Participants were asked to select their first, second, and third most important reason for being motivated to quilt. In order to ensure that each participant was a member of only one group, only the first reason was selected for the analysis. For the purpose of this study, the original ten motivations listed in the research instrument (Q4) were collapsed into three groups: (a) giving, (b) creative expression, and (c) relief and pleasure. The groups were formed as follows: (a) commemorate a special event, create a family heirloom, create a gift for a special person, and participate in a fundraising project were collapsed into one group called giving, (b) satisfy the need for creative expression, enter a quilt show or competition, and experiment with a new technique or fabric were collapsed into a second group called creative expression, and (c) satisfy the need for pleasure, relieve stress, depression or difficult times, and the satisfy the need to socialize with others were collapsed into a third group called relief and pleasure.

The segments from the variables of number of quilts made, hours spent on quilting, and the amount spent annually on quilting were also collapsed for the purpose of the analysis in the identical manner described in RQ1. All of the other dependent variables listed in RQ2 were collapsed in an identical manner as described in RQ1.

*Data utilized.* The data tested was taken from the responses to the items on the questionnaire as follows:

Quilting practices/Questions 13	Quilt individually or with others
Quilting practices/Question 14	Quilting groups
Quilting practices/Question 15	Number of quilts made
Quilting practices/Question 19	Hours per week spent on quilting
Quilting practices/Question 21	Quilting practices
Quilting practices/Question 22	Money spent on quilting
Quilting techniques/Question 23	Quilting characteristics
Quilting techniques/Question 24	Quilting techniques
Quilting techniques/Question 25	Quilt styles
Quilting techniques/Question 26	Quilt types
Quilting techniques/Question 27	Reason for color selection
Quilting techniques/Question 28	Color palettes
Quilting techniques/ Question 29	Fabric types
Quilting motivations/Question 4	Quilting motivations

*Statistical tests employed.* In order to analyze Research Question 2, discriminant function analysis (DISCRIM) with a post hoc follow-up, and chi-square contingency analyses were conducted. DISCRIM consisted of analyzing the three groups (giving, creative expression, and relief and pleasure) with the following variables: (a) number of quilts made, (b) hours per week spent on quilting, and (c) money spent on quilting in order to determine if membership to a group could be predicated by these variables. Also, chi-square contingency analyses were conducted to determine if there were significant differences between the three groups as defined by quilting motivations, and the quilting practices and techniques utilized by members of the Trinity Valley Quilters' Guild.

RQ3. Will the quilting practices and techniques utilized by members of the Trinity Valley Quilters' Guild vary according to why they are involved in quilting?

In order to respond to RQ3, preliminary steps to collapse the reasons why participants were involved in quilting (Q1) were collapsed into four groups (a) enjoyment, (b) sense of accomplishment, (c) creative, and (d) connect with the past. Participants were asked to select their first, second, and third most important reason for being involved in quilting. In order to ensure that each participant was a member of only one group, only the first reason was selected for the analysis. The four groups were collapsed as follows: (a) the segment personal enjoyment formed the group called enjoyment, (b) sense of accomplishment, and source of personal income were collapsed into one segment called sense of accomplishment, (c) self expression, and fulfill the desire

for creativity were collapsed into one segment called creative, and (d) the final segment of a way to connect to the past formed the fourth group. For the purposes of analyzing RQ3, all of the dependent variables were collapsed in an identical manner to RQ1 and RQ2.

*Data utilized.* The data tested was taken from the responses to the items on the questionnaire as follows:

Quiltmaking practices/Questions 13	Quilt individually or with others
Quiltmaking practices/Question 14	Quiltmaking groups
Quiltmaking practices/Question 15	Number of quilts made
Quiltmaking practices/Question 19	Hours per week spent on quiltmaking
Quiltmaking practices/Question 21	Quiltmaking practices
Quiltmaking practices/Question 22	Money spent on quiltmaking
Quiltmaking techniques/Question 23	Quiltmaking characteristics
Quiltmaking techniques/Question 24	Quiltmaking techniques
Quiltmaking techniques/Question 25	Quilt styles
Quiltmaking techniques/Question 26	Quilt types
Quiltmaking techniques/Question 27	Reasons for color selection
Quiltmaking techniques/Question 28	Color palettes
Quiltmaking techniques/ Question 29	Fabric types
Involvement information/Questions 1	Why involved in quiltmaking

*Statistical test employed.* In order to analyze Research Question 3, discriminant function analysis (DISCRIM) with a post hoc follow-up, and chi-square contingency

analyses were conducted. DISCRIM consisted of analyzing the four groups (enjoyment, sense of accomplishment, creative, and connect with the past) with the following variables: (a) number of quilts made, (b) hours per week spent on quilting, and (c) money spent on quilting, in order to determine if membership to a group could be predicted by these variables. Also, chi-square contingency analyses were conducted to determine if there were significant differences between the four groups as defined by why participants were involved in quilting, and the quilting practices and quilting techniques utilized by members of the Trinity Valley Quilters' Guild.

## CHAPTER 4

### ANALYSIS OF DATA

The primary problem addressed in this investigation was to identify and describe the demographic characteristics, quilting motivations, and quilting practices of members of the Trinity Valley Quilters' Guild (TVQG). Specifically, the study sought to determine (a) a demographic profile of TVQG members including gender, age, racial or ethnic identification, marital status, education, residential background, employment status, occupation, and income; (b) quilting motivations including commemorating people or events, creating heirlooms, relieving stress or difficult times, experimenting with new techniques or fabrics, entering quilt shows or competitions, satisfying the need for pleasure and/or creative expression, or participating in a fundraising project; and (c) quilting practices including identifying first quilts, quilting individually or with others, numbers of quilts made, years of participation in quilting, factors negatively impacting the ability to practice quilting, time spent quilting, and common quilting practices and techniques. Information regarding participants' demographics, quilting motivations, and quilting practices was obtained through responses to a self-administered, mailed questionnaire. The questionnaire for the study can be found in Appendix B.

Data were analyzed to determine if participants' (a) demographics, (b) participation in the quilting process, (c) who taught them quilting,

(d) quilting characteristics, (e) prevalent quilting motivations, and (f) quilting practices and techniques would vary according to employment status. Additionally, the data were analyzed to determine if the quilting practices, techniques, motivations, and colors used by the participants would vary according to (a) demographics, (b) quilting motivations, and (c) why participants were involved in quilting.

### Description of the Sample

Data were collected through the use of a self-administered, mail questionnaire. The questionnaire was based upon questions gleaned from similar research projects as well as from trends that emerged from qualitative data collection results after oral interviews of members of TVQG. The questionnaire was distributed to every member of TVQG ( $N = 382$ ) as defined by the set of membership labels for TVQG as of March 15, 2002. Participation was voluntary, and subjects were informed of the confidentiality of the study and their rights as human subjects. Information was limited by the ability of the subjects to understand and respond to items on the questionnaire, and to the information elicited by the questionnaire. From the 382 questionnaires that were distributed, participants returned 259, five of which were unusable, resulting in 254 usable questionnaires and a 66.5 % return rate.

### *Reasons Why Participants Were Involved in Quilting*

The first section of the questionnaire was entitled “Why are you involved in quilting?” and was designed to elicit information regarding why participants were

involved in quilting, and what motivated them to quilt. Questions examined possible reasons why participants were involved in quilting, whether or not participants had made quilt(s), and reasons why participants were motivated to quilt. This section also asked participants to indicate if they had ever made a quilt for a special event or person, and if so, to indicate the type of special event and person. For the purpose of this study, Q2 within the first section of the questionnaire was not analyzed.

*Why participants were involved in quilting.* For Q1, participants indicated a first, second, and third reason that explained why they were involved in quilting (see Table 1). The three reasons that emerged as the most frequent responses for why the participants were involved in quilting were *personal enjoyment*, *sense of accomplishment*, and *fulfill the desire for creativity*. *Personal enjoyment* was selected by 92.1% of the participants, *sense of accomplishment* was selected by 72.8%, and *fulfill the desire for creativity* was selected by 61.0% of the participants as the first, second, or third reason that explained why participants were involved in quilting (see Table 1). Only 5.1% of the participants selected *source of personal income* as a reason for why they were involved in quilting.

*Quilting participation.* For Q3, participants were asked *do you presently or have you ever made quilts?* (see Table 2). Specifically, participants were asked whether they had participated fully or partially in the quilting process such as quilting, piecing, or designing quilts. The majority of participants (95.3%) had participated fully or partially

Table 1

*Most Prevalent Reasons for Being Involved in Quilting*

Reason for being involved	1 <sup>st</sup> Reason		2 <sup>nd</sup> Reason		3 <sup>rd</sup> Reason		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Personal enjoyment	172	67.50	34	13.40	28	11.00	234	92.10
Sense of accomplishment	20	7.90	100	39.40	65	25.60	185	72.80
Self-expression	7	2.80	35	13.80	52	20.50	94	37.00
Fulfill desire for creativity	43	16.90	55	21.70	57	22.40	155	61.00
Connect present with the past	9	3.50	21	8.30	37	14.60	67	26.40
Source of personal income	1	.04	4	1.60	8	3.10	13	5.10

*n* = 254

Table 2

*Participants Current Involvement In Quilting*

Involvement	<i>n</i>	%
Yes, I presently make quilts.	242	95.30
I have made quilts but presently do not.	10	3.90
No, I have never made a quilt.	1	.04

*n* = 254

in the quilting process. Ten participants (3.9%) reported that they had made quilts in the past, but presently did not. Only one participant (.04%) reported never making a quilt. If a participant had not presently or ever made a quilt, they were instructed to proceed to the demographic section of the questionnaire (the sixth and final section). The intent of the question was to ensure that all participants who completed the entire questionnaire had fully or partially participated in the quilting process. As a result, responses for the remaining questions in the questionnaire did not equal 254.

*Quilting motivations.* For Q4, participants reported their first, second, and third reasons that explained what motivated them to quilt (see Table 3). The three most frequently reported reasons for being motivated to quilt included *create a gift for a special person*, *satisfy the need for creative expression*, and *satisfy the need for pleasure*.

Sixty-three percent of the participants selected *create a gift for a special person* as their first, second, or third reason that explained what motivated them to quilt. The second most prevalent reason participants gave was *satisfy the need for creative expression* (51.2%). *Satisfy the need for pleasure* was selected by 37.0% of the participants, and *create a family heirloom* was indicated by 36.2% of the participants as their first, second, or third reason that explained what motivated them to quilt. The reason that received the least responses from the participants was *participate in a fundraising project* (5.5%).

*Quilting for special events.* For Q5, participants indicated all special events for which they had made a quilt, hence, the number of responses is greater than the

Table 3

*Best Reasons That Motivated Participants to Quilt*

Quilting motivation	1 <sup>st</sup> Reason		2 <sup>nd</sup> Reason		3 <sup>rd</sup> Reason		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Commemorate a special event	10	3.90	14	5.50	18	7.10	42	16.50
Create a family heirloom	37	14.60	28	11.00	27	10.60	92	36.20
Create a gift for a special person	62	24.40	63	24.80	35	13.80	160	63.00
Relieve stress, depression or difficult times	18	7.10	26	10.20	28	11.00	72	28.30
Experiment with a new technique or fabric	11	4.30	29	11.40	30	11.80	70	27.60
Enter a quilt show or competition	1	.04	5	2.00	14	5.50	17	7.90
Satisfy the need for pleasure	43	16.90	30	11.80	21	8.30	94	37.00
Satisfy the need to socialize with others	4	1.60	23	9.10	25	9.80	52	20.50
Satisfy the need for creative expression	67	26.40	27	10.60	36	14.2	130	51.2
Participate in a fundraising project	0	0.00	3	1.20	11	4.3	14	5.5

*n* = 254

response rate for this question. The three most frequently reported special events for which participants made quilts included *birth of baby* (78.0%), *Christmas* (63.4%), and *birthdays* (44.5%) (see Table 4). Other popular special events for which quilts were made included *social causes* (36.2%), *weddings* (33.9%), and *graduations* (27.2%).

*Quiltmaking for special persons.* The last question in this section, Q6, inquired as to whether or not participants had made quilts for special persons(s) (see Table 5). The two most frequently reported special persons for whom participants had made quilts were *family member* (92.9%) and *friend* (65.0%).

#### *When and Why Participants Learned to Quilt*

The second section of the questionnaire, “When and why did you learn to quilt?” was designed to elicit information regarding the participants’ age when they learned to quilt, why they learned to quilt, and who taught them quiltmaking. For the purposes of this study, Q10 and Q11 within the second section of the questionnaire were not analyzed.

*Age.* Table 6 illustrates the various ages of the participants when they learned to quilt in response to Q7. The three most frequently reported age ranges were 50 to 59 years of age (28.0%), 40 to 49 years of age (19.7%), and 30 to 39 years of age (14.2%). Fourteen participants (5.5%) learned to quilt between the ages of 1 to 9. Two participants (.08%) learned to quilt between the ages of 70 to 79. No participant was older than 79 years of age when they learned to quilt.

Table 4

*Special Events for Which Quilts Have Been Made*

Special Event	<i>n</i>	%
Anniversary	42	16.50
Birth of Baby	198	78.00
Birthday	113	44.50
Celebration of recovery from illness	2	.08
Christmas	161	63.40
Church programs	1	.04
Family/multigenerational quilt	3	1.20
Graduation	69	27.20
Historical event	36	14.20
Memorial quilt	34	13.40
Mother's day	1	.04
Mourning quilt	2	.08
Quilt show/exhibition	3	1.20
Retirement	19	7.50
Social Cause	92	36.20
TVQG anniversary	1	.04
Wedding	86	33.90
Never made a quilt for a special event	19	7.50

*n* = 254

Table 5

*Special Persons for Whom Quilts Have Been Made*

Special Person	<i>n</i>	%
Babies in hospital	4	1.60
Business Colleague	21	8.30
Civic Leader	8	3.10
Doctor	12	4.70
Doctor's wife	1	.04
Family Member	234	92.90
Friend	165	65.00
Friend's baby	2	.08
Godchild	1	.04
Missionaries	3	1.20
Nurse	1	.04
Pastor	21	8.30
Spouse's work associates	2	.08
Teacher	22	8.70
Tour guide	1	.04
I have never made a quilt for a special person	8	3.10

*n* = 254

Table 6

*Age Participants Learned to Quilt*

Age in Years	<i>n</i>	%
1 – 9	14	5.50
10 – 19	22	8.70
20 – 29	27	10.60
30 – 39	36	14.20
40 – 49	50	19.70
50 – 59	71	28.00
60 – 69	30	11.80
70 – 79	2	.08
80 – 89	0	0.00
90 – 99	0	0.00

*n* = 254

*Why participants learned to quilt.* For Q8, participants indicated the one best reason that motivated them to learn to quilt (see Table 7). *Just wanted to learn to quilt* was reported by 57.5% of the participants as the primary reason they were motivated to learn to quilt. The second most frequently reported reason was *had newfound time to learn to quilt* (11.8%). The other reasons were somewhat evenly distributed throughout the remaining number of participants. Only 5.5% of the participants reported that a *friend/family member wanted me to learn to quilt* as their one best reason for why they were motivated to learn to quilt.

*Who taught participants to quilt.* For Q9, participants indicated the first, second, and/or third most influential person(s) who taught them quilting (see Table 8). Not all participants had three most influential people who taught them quilting; some participants chose only one or two individuals. The three most frequently selected persons who were most influential in teaching participants quilting were *self-taught*, *teacher of a class/workshop*, and *friend*.

*Self-taught* was indicated by 62.6% of the participants as the first, second, or third most influential person who taught them quilting, while *teacher of a class or workshop* was selected by 59.8%, and *friend* was selected by 44.1% of the participants. Only 3.5% of the participants indicated that a *church group* was the first, second, or third most influential person who taught them quilting.

Table 7

*Best Reason Why Participants Learned to Quilt*

Reason	<i>n</i>	%
Fellowship	2	.08
Friend/family member wanted me to learn to quilt	14	5.50
Had new-found time to learn to quilt	30	11.80
Helped my wife finish a quilt in time for a show	1	.04
I love quilts	2	.08
I saw a beautiful quilt	1	.04
Inherited scraps/and or quilt tops	1	.04
Just wanted to learn to quilt	146	57.50
Loved fabric and creativity	2	.08
Natural progression for a person who sews and does crafts	2	.08
To complete personal wedding quilt	5	2.00
To make and create quilted apparel	1	.04
Took a class for fun	1	.04
Wanted quilts but could not afford to buy them	3	1.20
Wanted to commemorate a special event	6	2.40
Wanted to continue a family tradition	11	4.30
Wanted to make a heirloom for a grandchild	9	3.50
Wanted to make a quilt for a friend's baby	3	1.20
Wanted to make a quilt for my first baby	3	1.20
Was a way to get through a difficult time	12	4.30

*n* = 254

Table 8

*Most Influential Individuals Who Taught Quiltmaking*

Person who taught quiltmaking	1 <sup>st</sup> Influential		2 <sup>nd</sup> Influential		3 <sup>rd</sup> Influential		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Bee members	0	0.00	2	.08	4	1.60	6	2.40
Church group	2	.08	2	.08	5	2.00	9	3.50
Female relative, not mother	20	7.90	26	10.20	10	3.90	56	22.00
Friend	32	12.60	50	19.70	30	11.80	112	44.10
Guild members	0	0.00	0	0.0	2	.08	2	.08
Male relative	0	0.00	0	0.0	0	0.00	0	0.00
Mother	40	15.70	7	2.80	7	2.80	54	21.30
Self-taught	82	32.30	52	20.50	25	9.80	159	62.60
Senior citizens at center	0	0.00	1	.04	0	0.00	1	.04
Spouse	1	.04	0	0.00	0	0.00	1	.04
Teacher of class/workshop	73	28.70	53	20.90	26	10.20	152	59.80

*n* = 254

### *Participants' Quiltmaking Practices*

In order to determine the quiltmaking practices of the participants, the third section of the questionnaire, entitled "What are your quiltmaking practices?," inquired about the participants first quilt made, whether or not they quilted individually or with others, with whom they quilt, how many quilts they have participated in making, in what decades they had participated in quiltmaking, factors that affected their time for quiltmaking, and how many hours per week they participated in quiltmaking. Furthermore, participants indicated reasons they were unable to participate in quiltmaking, how frequently they participated in specific quiltmaking practices, and approximately how many U.S. dollars were spent on quiltmaking during 2001.

*Quilt patterns and quilt names.* For Q12, participants were asked to write in the name of the quilt pattern of the first quilt they made either by themselves or with others. *Sampler* was the most frequently indicated quilt pattern (15.4%), and *Log Cabin* was the second most frequently indicated pattern for participants' first quilt (11.0%). In total, there were 63 different quilt patterns that were utilized by participants in their first quilts (see Table 9). Also for Q12, participants recorded the name of their first quilt (the personal title given to the quilt). Forty-nine participants chose to record the name of their first quilt (see Table 10). There was no duplication of quilt names in the responses.

*Years started and completed first quilt.* For Q12, participants also indicated the year they started (see Table 11), and completed (see Table 12) their first quilt. Seventy-

Table 9

*Pattern Name for First Quilt Made*

Quilt Pattern	<i>n</i>	%
Appliqué	9	3.50
Attic Windows	1	.04
Autumn Leaves	2	.08
Baskets	1	.04
Bear Paw	2	.08
Bow Tie	3	1.20
Broken Dishes	1	.04
Card tricks	1	.04
Cathedral Window	4	1.60
Celtic	1	.04
Churn Dash	2	.08
Cowboy quilt	1	.04
Crazy quilt	1	.04
Delectable Mountain	1	.04
Double Wedding Ring	1	.04
Dresden Plate	1	.04
Drunkard's Path	1	.04
Fans	1	.04
Four-patch	2	.08
Good Morning Glory	3	1.20
Goose in Pond	1	.04
Grandmother's Flower Garden	3	1.20
Half square triangles	1	.04
Hawaiian	1	.04

Table 9 (continued).

Quilt Pattern	<i>n</i>	%
Hole in Barn Door	1	.04
Hope of Hartford	1	.04
Interlocking squares	1	.04
Irish Chain	3	1.20
LeMoyne Star	3	1.20
Log Cabin	28	11.00
Lone Star	6	2.40
Lover's Knot	2	.08
Mexican Star	1	.04
Nine Patch	14	5.50
Ohio Star	2	.08
Patchwork	1	.04
Pinwheel	4	1.60
Rail Fence	13	5.10
Roads	1	.04
Royal Cross	1	.04
Sampler	39	15.40
Schoolhouse	1	.04
Shoo Fly	1	.04
Sister's Choice	1	.04
Snowball	1	.04
Square blocks	8	3.10
Square in a square	1	.04
Stack and whack	1	.04

Table 9 (continued).

Quilt Pattern	<i>n</i>	%
Stars	5	2.00
Storm at Sea	1	.04
String	5	2.00
Sunbonnet Sue or Little Dutch Girl	4	1.60
Texas Trellis	1	.04
Texas Twister	1	.04
Tree of Life	1	.04
Trip Around the World	6	2.40
Tumbling Blocks	1	.04
Twist	1	.04
Victorian blocks	1	.04
Williamsburg cross-stitch	1	.04
Windmill	1	.04
Yo Yo	1	.04

*n* = 254

Table 10

*Name of First Quilt Made*

Name of Quilt	<i>n</i>	%
13 Star Vexar	1	.04
4 Samples	1	.04
About 1,000 Cats in the Attic Window	1	.04
Autumn 9 Patch	1	.04
Bicentennial	1	.04
Bright Morning Star	1	.04
Celebration of Stars by Marti Michelle	1	.04
Celtic Spring	1	.04
Ceremony	1	.04
Childhood Memories	1	.04
Circle of Friends	1	.04
Colorado Log Cabin	1	.04
Cross-stitched Sunflowers	1	.04
Dolly's Quilt	1	.04
Double Pastel Therapy	1	.04
Earth Tones	1	.04
Eleanor Burn's First Block Party	1	.04
Fuzzy Cat	1	.04
Gordon	1	.04
Happy 70 <sup>th</sup> Birthday	1	.04
Mary Ellen Hopkin's "It's Okay"	1	.04
May You Always See Rainbows	1	.04
Monsoon	1	.04
My First Quilt	3	1.20

Table 10 (continued).

Name of Quilt	<i>n</i>	%
My Lover's "Not"	1	.04
No Red Flowers	1	.04
Pamela's Kitties	1	.04
Paul's Quilt	1	.04
Pioneer	1	.04
Province Rail Fence	1	.04
Puppies and Bones	1	.04
Purple Heart	1	.04
River Run	1	.04
Robbie's Clowns	1	.04
Roving Retirees	1	.04
Sampler in Blue	1	.04
Sesame Street	1	.04
Southwest Splendor	1	.04
Star Spangled Heart	1	.04
Stars and Squares	1	.04
Stars and Stripes	1	.04
Ups & Downs in Sahjioa "C"	1	.04
Vest—Jungle Magic	1	.04
Wild Hearts	1	.04

*n* = 254

Table 11

*Year Started First Quilt*

Year Started First Quilt	<i>n</i>	%
1928	1	.04
1929	1	.04
1930	0	0.00
1931	1	.04
1932	0	0.00
1933	1	.04
1934	0	.04
1935	1	.04
1936	0	0.00
1937	0	0.00
1938	0	0.00
1939	0	0.00
1940	2	.08
1941	0	0.00
1942	0	0.00
1943	1	.04
1944	0	0.00
1945	0	0.00
1946	1	.04
1947	0	0.00
1948	1	.04
1949	1	.04
1950	0	0.00
1951	0	0.00

Table 11 (continued).

Year Started First Quilt	<i>n</i>	%
1952	0	0.00
1953	1	.04
1954	0	0.00
1955	2	.08
1956	1	.04
1957	1	.04
1958	0	0.00
1959	1	.04
1960	0	0.00
1961	2	.08
1962	1	.04
1963	1	.04
1964	2	.08
1965	1	.04
1966	1	.04
1967	1	.04
1968	2	.08
1969	1	.04
1970	6	2.40
1971	1	.04
1972	4	1.60
1973	3	1.20
1974	2	.08
1975	4	1.60
1976	3	1.20

Table 11 (continued).

Year Started First Quilt	<i>n</i>	%
1977	1	.04
1978	4	1.60
1979	4	1.60
1980	9	3.50
1981	8	3.10
1982	10	3.90
1983	5	2.00
1984	8	3.10
1985	9	3.50
1986	6	2.40
1987	10	3.90
1988	10	3.90
1989	13	5.10
1990	13	5.10
1991	3	1.20
1992	7	2.80
1993	5	2.00
1994	8	3.10
1995	9	3.50
1996	6	2.40
1997	8	3.10
1998	11	4.30
1999	9	3.50

*Table 11 (continued).*

Year Started First Quilt	<i>n</i>	%
2000	6	2.40
2001	5	2.00
2002	3	1.20

*n* = 254

Table 12

*Year Completed First Quilt*

Year Completed First Quilt	<i>n</i>	%
1928	1	.04
1929	0	0.00
1930	0	0.00
1931	0	0.00
1932	0	0.00
1933	0	0.00
1934	0	0.00
1935	1	.04
1936	0	0.00
1937	1	.04
1938	0	0.00
1939	0	0.00
1940	1	.04
1941	0	0.00
1942	0	0.00
1943	2	.08
1944	0	0.00
1945	0	0.00
1946	0	0.00
1947	0	0.00
1948	1	.04
1949	0	0.00
1950	0	0.00
1951	0	0.00

Table 12 (continued).

Year Completed First Quilt	<i>n</i>	%
1952	0	0.00
1953	0	0.00
1954	1	.04
1955	0	0.00
1956	0	0.00
1957	2	.08
1958	0	0.00
1959	1	.04
1960	0	0.00
1961	1	.04
1962	1	.04
1963	2	.08
1964	1	.04
1965	2	.08
1966	1	.04
1967	1	.04
1968	1	.04
1969	2	.08
1970	3	1.20
1971	1	.04
1972	3	1.20
1973	4	1.60
1974	3	1.20
1975	3	1.20
1976	4	1.60

Table 12 (continued).

Year Completed First Quilt	<i>n</i>	%
2000	8	3.10
2001	7	2.80
2002	6	2.40

*n* = 254

four different years were recorded to indicate the year the participants began and completed their first quilts. The most frequently reported years that participants began their first quilts were 1989 (5.1%) and 1990 (5.1%). The most frequently reported years that participants completed their first quilts were 1990 (5.1%) and 1994 (3.1%).

*Quiltmaking participation.* Q13 asked participants to indicate whether they participated in quiltmaking individually or with others (see Table 13). The most frequently selected response was *sometimes with others, but usually by myself* (55.1%). Eighty-four participants (33.1%) indicated *participate in quiltmaking by myself*. Only 4.7% of the participants indicated that they participated in quiltmaking *sometimes individually, but usually with others*. After Q13, participants were instructed to proceed to Q14 if they quilted with others, and proceed to Q15 if they did not.

For Q14, fifty-two percent of the participants indicated that they quilted with a *bee* (see Table 14). Quiltmaking with a *guild* was reported by 33.0%, and quiltmaking with *personal friends not associated with a formal group* was reported by 27.6% of the participants as a group with whom they quilted.

*Number of quilts made.* For Q15, participants indicated the number of quilts that they had fully or partially participated in the design, piecing, and/or quilting process. The results are reported in Table 15. The most frequently indicated number of quilts made by participants was 16 to 20 (14.6 %). The second most frequently reported number of quilts made was 21 to 30 (13.0%). Nine participants (3.5%) indicated that they had made more than 150 quilts.

Table 13

*Participation in Quiltmaking Individually or With Others*

Participation in quiltmaking	<i>n</i>	%
Participates in quiltmaking individually.	84	33.1
Participates in quiltmaking with others.	16	6.3
Sometimes with others, but usually individually.	140	55.1
Sometimes individually, but usually with others.	12	4.7

*n* = 254

Table 14

*With Whom Participants Usually Quilt*

Group Type	<i>n</i>	%
Bee	132	52.00
Guild	85	33.50
Church group		
Baptist	4	1.60
Christian	1	.04
Church of Christ	2	.08
Episcopalian	2	.08
General	3	1.20
Lutheran	1	.04
Methodist	14	5.50
Business colleagues	6	2.40
Personal friends (not associated with a formal group)	70	27.60

*n* = 254

Table 15

*Number of Quilts Made*

Number of Quilts	<i>n</i>	%
00 – 05	28	11.00
06 – 10	36	14.20
11 – 15	21	8.30
16 – 20	37	14.60
21 – 30	33	13.00
31 – 40	27	10.60
41 – 50	14	5.50
51 – 60	11	4.30
61 – 70	8	3.10
71 – 80	9	3.50
81 – 100	9	3.50
101 – 125	2	.08
126 – 150	3	1.20
More than 150	9	3.50

*n* = 254

*Decades participated in quilting.* Table 16 reports the decades in which participants participated in quilting as asked in Q16. The most frequently reported decade was 1991 to 2000 (90.2%). The second most frequently reported decade was 2000 to present (82.3%), and the third was 1981 to 1990 (57.9%).

*Factors that affect time for quilting.* For Q17, when asked if there were factors that affected their time for quilting, 77.2% of participants indicated *yes* (see Table 17). For Q18, participants indicated specific factors that negatively impacted their time to practice quilting. Several factors emerged as reasons that affected participants' time for quilting (see Table 18). There were 71.3% of the participants who indicated that *family obligations* limited their time, 63.8% indicated *volunteer obligations*, 61.0% reported *personal illness*, and 62.2% gave *employment obligations* as factors that limited time for quilting. Other factors that limited time for quilting included *illness in the family* (60.6%), *rearing children* (57.9%), and *taking care of parents* (57.9%).

*Hours per week spent on quilting.* For Q19, participants recorded how many hours per week they spent on quilting (see Table 19). The most frequently recorded amount was 10 hours per week (14.2%). The second most frequently recorded amount of hours per week spent on quilting was 31 to 40 (13.5%). One participant (.04%) indicated that they quilted 60 hours per week.

Table 16

*Participation in Quilting by Decades*

Decades	<i>n</i>	%
1900 – 1910	0	0.00
1911 – 1920	0	0.00
1921 – 1930	3	1.2
1931 – 1940	9	3.5
1941 – 1950	10	3.9
1951 – 1960	16	6.3
1961 – 1970	26	10.2
1971 – 1980	71	28.0
1981 – 1990	147	57.9
1991 – 2000	229	90.2
2001 – Present	209	82.3

*n* = 254

Table 17

*Factors that Limited the Amount of Time for Quilting*

Factors Limited Time for Quilting	<i>n</i>	%
Yes	196	77.2
No	55	21.7

*n* = 254

Table 18

*Significant Factors that Impacted Time for Quiltmaking*

Factor	Very Significant		Significant		Not Significant		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Church activities	1	.04	0	0.00	0	0.00	1	.04
Employment obligations	44	17.30	31	12.20	83	32.70	158	62.20
Exercise program	1	.04	0	0.00	0	0.00	1	.04
Family obligations	85	33.50	79	30.70	18	7.10	182	71.30
Gardening	0	0.00	2	.08	0	0.00	2	.08
Illness in Family	28	11.00	34	13.40	92	36.20	154	60.60
Lack of funds	1	.04	0	0.00	0	0.00	1	.04
Overwhelmed by getting started	1	.04	0	0.00	0	0.00	1	.04
Personal Illness	20	7.90	38	15.0	92	38.20	150	61.00
Poor space to work on quilts	0	0.00	1	.04	0	0.00	1	.04
Rearing children	24	9.40	12	4.70	11	43.70	47	57.90
Social Life	2	.08	3	1.20	0	0.00	5	2.00
Taking care of parents	18	7.10	11	4.30	118	46.50	147	57.90
Travel	2	.08	3	1.20	0	0.00	5	2.00
Volunteer Obligations	22	8.70	67	26.40	73	28.70	162	63.80
Writing books and articles	1	.04	1	.04	0	0.00	2	.08

*n* = 254

Table 19

*Number of Hours Per Week Spent Quiltmaking During 2001*

Hours	<i>n</i>	%
0	12	4.70
1	9	3.50
2	16	6.30
3	17	6.70
4	16	6.30
5	22	8.70
6	8	3.10
7	3	1.20
8	19	7.50
9	1	.04
10	36	14.20
12	8	3.10
14	5	2.00
15	18	7.10
16	7	2.80
18	1	.04
20	22	8.70
21 – 30	18	7.00
31 – 40	9	13.50
41 – 50	6	2.30
60	1	.04

*n* = 254

*Participation in quilting.* For Q20, if participants were unable to participate in quilting during 2001, they were asked to record the reason. Twenty-one participants (8.2%) indicated a specific reason (see Table 20). *Illness in the family* was selected by 2.4% of the participants, *carpal tunnel* was reported by 2.0%, and *death of family member* was indicated by 2.0% of the participants as a reason why they did not participate in quilting during 2001.

*Quilting practices.* For Q21, participants indicated how frequently they participated in specific quilting practices (see Table 21). The results indicated that quilting practices that were practiced most of the time were *create traditional quilts* (41.3%), *purchase quilt block patterns* (31.9%), and *purchase quilt top patterns* (31.5%). The three most frequently reported practices that were participated some of the time by the participants included *utilize templates for quilting patterns* (58.3%), *purchase quilt block patterns* (55.5%), and *display your quilts at shows* (51.2%). The three most frequently reported practices in which participants never participated were *sell your quilting patterns* (92.9%), *write books/articles on quilting* (89.4%), and *sell your quilt top patterns* (89.0%).

*U.S. dollars spent on quilting.* For Q22, Table 22 reports the estimated amount of U.S. dollars that participants spent on quilting fabrics, patterns, workshops/seminars, magazines subscriptions, and equipment during 2001. Regarding fabric, 11.4% of the participants spent \$101 to \$200, 18.1% spent \$201 to \$300, and 11.0% spent \$401 to \$500. In regard to patterns, 41.7% of the participants spent \$1 to

Table 20

*Reasons Unable to Participate in Quilting During 2001*

Reasons for not Quilting	<i>n</i>	%
Busy with home life	4	1.60
Carpal tunnel	5	2.00
Death of family member	5	2.00
Illness in family	6	2.40
Volunteer obligations	1	.04

*n* = 254

Table 21

*Quiltmaking Practices Frequently Utilized*

Quiltmaking practice	Most of time		Some of time		Never	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Design quilt block patterns	13	5.10	129	50.70	95	37.40
Purchase quilt block patterns	81	31.90	141	55.50	22	8.70
Design quilt top patterns	32	12.60	115	45.30	92	36.20
Purchase quilt top patterns	80	31.50	118	46.50	43	16.90
Design quilting patterns	24	9.40	99	39.00	110	43.30
Use templates for quilting patterns	57	22.40	148	58.30	39	15.40
Purchase block of the month patterns	13	5.10	126	49.60	103	40.60
Purchase quilt kits	7	2.80	108	42.50	127	50.00
Create contemporary quilts	27	10.60	109	42.90	105	41.30
Create traditional quilts	105	41.30	121	47.60	20	7.90
Display your quilts at shows	46	18.10	130	51.20	70	27.60
Enter design competitions	1	.04	27	10.60	212	83.50
Hand quilt for personal income	4	1.60	13	5.100	223	87.80
Machine quilt for personal income	9	3.50	14	5.500	217	85.40
Hand quilt for fundraising	8	3.10	101	39.80	130	51.20
Machine quilt for fundraising	2	.08	48	18.90	191	75.20
Sell your quilt top patterns	5	2.00	10	3.90	226	89.00
Sell your quilting patterns	2	.08	2	.08	236	92.90
Write books/articles on quiltmaking	1	.04	12	4.70	227	89.40

*n* = 254

Table 22

*U.S. Dollars Spent on Quilting During 2001*

U.S. Dollars Spent	<i>n</i>	%
U.S. dollars spent on fabric		
1 – 50	14	5.00
51 – 100	25	9.80
101 – 200	29	11.40
201 – 300	46	18.10
301 – 400	20	7.80
401 – 500	28	11.00
501 – 600	9	3.50
601 – 700	3	1.10
701 – 800	13	5.10
801 – 900	1	.04
901 – 1,000	20	7.80
1000 – 2000	16	6.20
2001 – 3000	6	2.00
3001 – 4000	0	0.00
4001 – 5000	0	0.00
5001 or more	2	.08
U.S. dollars spent on patterns		
1 – 50	106	41.70
51 – 100	54	21.20
101 – 200	25	9.80
201 – 300	6	2.00
301 – 400	4	1.50
401 – 500	6	2.00

Table 22 (continued)

U.S. Dollars Spent	<i>n</i>	%
501 – 600	1	.04
601 – 700	1	.04
701 – 800	0	0.00
801 – 900	0	0.00
901-1,000	2	.08
U.S. dollars spent on workshops/seminars		
1 – 50	44	17.30
51 – 100	34	13.30
101 – 200	33	12.90
201 – 300	8	3.00
301 – 400	8	3.00
401 – 500	9	3.50
501 - 600	1	.04
601 – 700	0	0.00
701 – 800	0	0.00
801 – 900	0	0.00
901 – 1000	1	.04
More than 1000	2	.08
U.S. dollars spent on magazine subscriptions		
1 – 50	95	37.40
51 – 100	59	23.20
101 – 200	17	6.60
201 – 300	2	.08

Table 22 (continued).

U.S. Dollars Spent	<i>n</i>	%
U.S. dollars spent on equipment such as templates, rulers, frames, etc.		
1 – 50	88	34.60
51 – 100	60	23.60
101 – 200	31	12.20
201 – 300	18	7.00
501 – 600	5	1.90
901 – 1000	3	1.10
1001 – 2000	1	.04
2001 – 3000	0	0.00
3001 – 4000	1	.04
4001 – 5000	0	0.00
5001 – 6000	0	0.00
6001 – 7000	0	0.00
7001 – 8000	1	.04

*n* = 254

\$50 on patterns, and 26.3% spent \$51 to \$100. Concerning workshops/seminars, 17.3% of the participants spent \$1 to \$50 on workshops/seminars, 13.3% spent \$51 to \$100, and 23.5% spent \$101 to \$200. Regarding magazine subscriptions, 37.4% of the participants spent \$1 to \$50, and 23.2% spent \$51 to \$100 on this same category. Over 40% of the participants spent \$1 to \$50, and 28.8% spent \$51 to \$100 on equipment. One participant indicated spending \$7,001 to \$8,000 on quilting equipment during 2001.

### *Participants' Quilting Techniques*

The fourth section of the questionnaire was entitled, "What do you look for in a quilt and what are your quilting techniques?" The questions in this section investigated characteristics that contributed to the perceived quality and beauty of a quilt, and quilting techniques. Participants were also asked how frequently they created certain quilt styles, quilt types, and color palettes. For this purpose of this study, Q30 within the fourth section of the questionnaire was not analyzed.

*Perceived quality and beauty of a quilt.* For Q23, participants ranked the three most important characteristics that contributed to the quality and beauty of a quilt. Four characteristics that emerged as the most important were *initial visual impact*, *color scheme*, *quality of quilting*, and *quality of piecing* (see Table 23).

The majority of participants selected *initial visual impact* as the most important, second most important, and third most important characteristic that contributed to the quality and beauty of the quilt (56.3%). *Color scheme* was selected by 52.8% of the participants, and *quality of quilting* and *quality of piecing* were both selected by 45.7% of

Table 23

*Characteristics That Contributed to the Quality and Beauty of Quilts*

Characteristic	Most important		2 <sup>nd</sup> most important		3 <sup>rd</sup> most important		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Hand piecing	10	3.90	3	1.20	0	0.00	13	5.10
Hand appliqué	9	3.50	12	4.70	9	3.50	30	11.80
Hand quilting	40	15.70	19	7.50	15	5.90	74	29.10
Machine piecing	3	1.20	0	0.00	1	.04	4	1.60
Machine appliqué	1	.04	1	.04	0	0.00	2	.08
Machine quilting	0	0.00	2	.08	5	2.00	7	2.80
Quality of piecing	45	17.70	40	15.70	31	12.20	116	45.70
Quality of appliqué	7	2.80	16	6.30	11	4.30	34	13.40
Quality of quilting	8	3.10	51	20.10	57	22.40	116	45.70
Quality of binding	0	0.00	1	.04	7	2.80	8	3.10
Complexity of piecing	2	.08	5	2.00	6	2.40	13	5.10
Complexity of appliqué	1	.04	2	.08	3	1.20	6	2.40
Complexity of quilting	0	0.00	1	.04	13	5.10	14	5.50

Table 23 (continued).

Characteristic	Most important		2 <sup>nd</sup> most important		3 <sup>rd</sup> most important		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Color scheme	31	12.20	64	25.20	39	15.40	134	52.80
Initial visual impact	92	36.20	22	8.70	29	11.40	143	56.30
Originality of pattern	2	.08	11	4.30	14	5.50	27	10.60
Originality of quilting	0	0.00	0	0.00	6	2.40	6	2.40

*n* = 254

the participants as the most important, second most important, and third most important characteristics that participants believed important to the quality and beauty of a quilt.

*Quiltmaking techniques.* For Q24, participants indicated how frequently they participated in specific quiltmaking techniques. The participants were asked to indicate whether they used the technique most of the time, some of the time, or never in their quiltmaking practices. Two machine quiltmaking techniques that were most frequently utilized by the participants most of the time and some of the time included *machine piecing* (96.0%) and *machine quilting* (73.7%) (see Table 24). In contrast, hand techniques utilized by participants most of the time and some of the time included *hand piecing* (55.9%) and *hand quilting* (80.7%). The majority of participants never participated in *stack-n-whack* (64.2%), *machine embroidery* (68.9%), and *trapunto* (72.8%).

*Quilt styles and types.* For Q25, participants indicated how frequently they created specific quilt styles. As reported in Table 25, 90.1% of the participants indicated that they created *quilts of same block* most of the time or some of the time, 80.3% indicated that they created *sampler quilts*, 78.0% indicated *holiday quilts*, and 66.5% of the participants indicated that they created *themed quilts* most of the time or some of the time. In contrast, the majority of participants never created *mourning* (92.5%), *Hawaiian* (86.2%), or *wholecloth quilts* (78.7%).

For Q26, participants indicated how frequently they created specific types of quilts. Regarding *crib/baby quilts*, 90.5% of the participants indicated that they created

Table 24

*Most Frequently Utilized Quiltmaking Techniques*

Quiltmaking technique	Most of time		Some of time		Never	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Hand piecing	24	9.40	118	46.50	106	41.70
Machine piecing	202	79.50	42	16.50	8	3.10
Hand appliqué	76	29.90	136	53.50	37	14.60
Machine appliqué	21	8.30	123	48.40	106	41.30
Hand quilting	106	41.70	99	39.00	48	18.90
Machine quilting	69	27.20	118	46.50	63	24.80
Hired machine quilting	41	16.10	106	41.70	102	40.20
Paper piecing	7	2.80	157	61.80	87	34.30
English paper piecing	0	0.00	1	.04	0	0.00
Foundation piecing	4	1.60	140	55.10	104	40.90
Strip piecing	0	0.00	1	.04	0	0.00
Stack-n-whack	3	1.20	77	30.30	163	64.20
Embellishment	1	.04	3	1.20	0	0.00
Hand embroidery	36	14.20	155	61.00	56	22.00
Machine embroidery	11	4.30	59	23.20	175	68.90
Trapunto	3	1.20	59	23.20	185	72.80
Fused applications	4	1.60	144	56.70	99	39.00

*n* = 254

Table 25

*Frequency of Creating a Style of Quilt*

Quilt style	Most of time		Some of time		Never	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Art quilts	2	.08	0	0.00	0	0.00
Crazy quilts	5	2.00	88	34.60	152	35.90
Depression era quilts	1	.04	0	0.00	0	0.00
Hawaiian quilts	2	.08	26	10.20	219	86.20
Holiday quilts	7	2.80	191	75.20	50	19.7
Medallion quilts	0	0.00	2	.08	0	0.00
Miniatures quilts	0	0.00	1	.04	0	0.00
Mourning quilts	0	0.00	11	4.30	235	92.50
Pictorial quilts	5	2.00	95	37.40	147	57.90
Quilts of same block	58	22.80	171	67.30	22	8.70
Rag quilts	0	0.00	1	.04	0	0.00
Redwork quilts	0	0.00	1	.04	0	0.00
Reproduction quilts	1	.04	0	0.00	0	0.00
Sampler quilts	19	7.50	185	72.80	48	18.90
Story quilts	1	.04	1	.04	0	0.00
Themed quilts	12	4.70	157	61.80	78	30.70
Wholecloth quilts	2	.08	41	16.10	200	78.70

*n* = 254

this type, 81.5% reported *lap quilts*, and 81.5% of the participants indicated *wall hangings* as a quilt type they created most of the time or some of the time (see Table 26). In contrast, 71.7% of the participants never created *toys and collectibles*, 52.4% indicated they never created *miniature quilt types*, and 48.4% of the participants never created *king size quilts*.

*Reasons for color selection.* For Q27, participants indicated the most important, second most important, and third most important reason why they selected specific colors for a quilt. Three reasons emerged as the most frequently selected explanations as to why the participants selected color choices for their quilts (see Table 27). *Personal color preference* was selected by 94.5% of the participants, 63.8% indicated *to select the most appropriate colors for a theme*, and 45.7% of the participants indicated *coordinate with the home* as the most important, second most important, and third most important reason for color selections.

*Color palettes.* To further obtain information regarding color choices, Q28 required participants to indicate how frequently they utilized specific color palettes in their quilting. The majority of participants utilized *multiple colors in one quilt* most of the time (51.6%), and 44.5% utilized this color palette some of the time in their quilting practices (see Table 28). Five color palettes were reported by 90% or more of the participants as being utilized most of the time or some of the time in their quilting. These included *cool colors* (93.7%), *warm colors* (93.7%), *multiple colors in one quilt* (96.1%), *white or tan backgrounds* (90.2%), and *light colored backgrounds*

Table 26

*Frequency of Creating a Type of Quilt*

Quilt type	Most of time		Some of time		Never	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Single bed	16	6.30	161	63.40	64	25.20
Double bed	31	12.20	154	60.60	54	21.30
Queen size	63	24.80	133	52.40	47	18.50
King size	14	5.50	101	39.80	123	48.40
Crib/baby	47	18.50	183	72.00	21	8.30
Lap quilts	36	14.20	176	69.30	31	12.20
Wall hangings	36	14.20	171	67.30	43	16.90
Miniature	12	4.70	100	39.40	133	52.40
Apparel & accessories	21	8.30	115	45.30	110	43.30
Toys & collectibles	1	.04	61	23.60	182	71.70
Home decorations	9	3.50	153	60.20	82	32.30

*n* = 254

Table 27

*Most Important Reasons for Color Selections*

Reason	Most important		2 <sup>nd</sup> most important		3 <sup>rd</sup> most important		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Another person's color preference	6	2.40	55	21.70	44	17.30	105	41.30
Color mood & depth	0	0.00	2	.08	0	0.00	2	.08
Coordinate w favorite fabric	0	0.00	1	.04	1	.04	2	.08
Coordinate with home décor	10	3.90	49	19.30	57	22.40	116	45.70
Current color trends	1	.04	5	2.00	15	5.90	21	8.30
Existing fabric stash	1	.04	0	0.00	1	.04	2	.08
Keep in tradition of a certain quilt style	193	76.00	37	14.60	10	3.90	240	94.50
Personal color preference	9	3.50	40	15.70	43	16.90	92	36.20
Select the most appropriate colors for a theme	31	12.20	63	24.80	68	26.80	162	63.80
Visual Impact/Aesthetics	0	0.00	0	0.00	2	.08	2	.08

*n* = 254

Table 28

*Color Palettes Frequently Utilized*

Color palette	Most of time		Some of time		Never	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Cool colors	44	17.3	193	76.4	10	3.9
Warm colors	52	20.5	186	73.2	8	3.1
Pastel colors	23	9.1	181	71.3	41	16.1
Bright colors	62	24.4	152	59.8	35	13.8
Multiple colors in one quilt	131	51.6	113	44.5	5	2.0
One or two color quilts	9	3.5	165	65.0	71	28.0
White or tan backgrounds	81	31.9	148	58.3	21	8.3
Black backgrounds	5	2.0	105	41.3	139	54.7
Light color backgrounds	51	20.1	184	72.4	14	5.5
Medium color backgrounds	9	3.5	176	69.3	63	24.8
Dark color backgrounds	6	2.4	126	49.6	117	46.1

*n* = 254

(92.4%). In contrast, the majority of participants (54.7%) never utilized *black backgrounds* as a color palette.

*Fabric types.* For Q29, participants indicated how frequently they utilized specific fabric types in their quilting. Most of the time or some of the time, 95.2% of the participants reported that they utilized *florals* in their quilting, 88.1% indicated they utilized *calicos*, 74.4% reported *geometric prints*, and 64.9% of the participants indicated that they utilized *1930s reproductions* most of the time or some of the time in their quilting. In contrast, more than half of the participants indicated that they never utilized *velvets* (81.1%), *museum reproductions* (55.9%), and *civil war reproductions* (53.5%) in their quilting practices (see Table 29).

#### *Membership Profile of Participants*

The fifth section of the questionnaire was entitled, “Why are you a member of TVQG?” This section was designed to elicit information regarding reasons why participants were members of TVQG, how long they had been a member of the guild, how many guild and bee meetings they attended, whether or not they were members of bees or guilds other than TVQG, how many participants were charter members of TVQG, and how many workshops and/or seminars they attended during 2001. For the purposes of this study, Q36 and Q37 within the fifth section of the questionnaire were not analyzed.

*Reasons for being a member of TVQG.* For Q31, participants indicated the first, second, and third reasons for being a member of TVQG (see Table 30). The three most

Table 29

*Fabric Types Frequently Utilized by Participants*

Fabric type	Most of time		Some of time		Never	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
1930s reproductions	13	5.10	152	59.80	86	33.90
Batiks	18	7.10	128	5.00	102	40.20
Calicos	57	22.40	167	65.70	26	10.20
Civil war productions	6	2.40	105	41.30	136	53.50
Conversational/novelty prints	5	2.00	168	66.10	77	30.30
Denim	0	0.00	2	.08	0	0.0
Felt	0	0.00	1	.04	0	0.0
Flannels	8	3.10	149	58.70	91	35.80
Florals	42	16.50	200	78.70	8	3.10
Geometric prints	13	5.10	176	69.30	61	24.00
Hand-dyed fabrics	20	7.90	127	50.00	103	40.60
Laces	0	0.00	1	.08	0	0.00
Linen	0	0.00	1	.08	0	0.00
Metallics	1	.08	0	0.00	0	0.00
Mudcloth	0	0.00	1	.08	0	0.00
Museum reproductions	3	1.2	102	40.20	142	55.90
Plaids/checks	0	0.00	2	.08	0	0.00
Sateen/satin	0	0.00	1	.04	0	0.00
Silk ties	0	0.00	2	.08	0	0.00
Silks	1	.04	4	1.60	0	0.00
Solids	27	10.6	203	79.90	21	8.30
Upholstery	0	0.00	1	.04	0	0.00
Velvets	1	.04	40	15.70	206	81.10

Table 29 (continued).

Fabric type	Most of time		Some of time		Never	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Vintage fabrics	0	0.00	1	.04	0	0.00
Wool	0	0.00	1	.04	0	0.00

*n* = 254

Table 30

*Most Important Reasons for Being a Member of Trinity Valley Quilters' Guild*

Reason	1 <sup>st</sup> Reason		2 <sup>nd</sup> Reason		3 <sup>rd</sup> Reason		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Enhance my quilting skills	24	9.40	42	16.50	46	18.10	112	44.10
Have a venue for displaying my quilts	2	.08	6	2.40	13	5.10	21	8.30
Learn about quilting	45	17.70	31	12.20	11	4.30	87	34.30
Learn new quilting techniques	48	18.90	56	22.00	51	20.10	155	61.00
Participate in workshops	9	3.50	35	13.80	31	12.20	75	29.50
Socialize with other quilters	84	33.10	48	18.90	39	15.40	171	67.30
Support the art and craft of quilting	41	16.10	30	11.80	55	21.70	126	49.60

*n* = 254

frequently reported reasons for why participants were members of TVQG were *socialize with other quilters* (67.3%), *learn new quilting techniques* (61.0%), and *support the art and craft of quilting* (49.6%). In contrast, only 8.3% of the participants indicated *have a venue for displaying my quilts* as a first, second, or third most important reason for being a member of TVQG.

*Membership.* For Q32, participants indicated the length of time they had been members of TVQG. The most frequently reported length of time was 6 to 10 years (25.6%) (see Table 31). Forty-six or 18.1% of the participants reported that they had been members of TVQG 4 to 5 years. While 15.4% of the participants had been members of the guild one year or less, 11.4% had been members between 16 to 20 years. Twenty years was the maximum number of years a participant could report because TVQG celebrated its 20<sup>th</sup> anniversary during 2002. For Q33, participants indicated if they were charter members of TVQG. Eleven (4.3%) of the participants reported that they were charter members.

For Q34, participants indicated if they were members of any other guilds or bees other than TVQG. Concerning guilds, 24.4% of the participants were members of one other guild and 6.7% reported they were members of two other guilds. Regarding bees, 23.6% were members of one other bee, while 7.9% of the participants were members of two other bees.

For Q35, participants indicated how many TVQG meetings they attended during 2001. Approximately one-third (31.5%) of the participants reported that they had

Table 31

*Membership Information*

Membership Information	<i>n</i>	%
Length of time in TVQG		
0 – 1 years	39	15.40
2 – 3 years	45	17.70
4 – 5 years	46	18.10
6 – 10 years	65	25.60
11 – 15 years	29	11.40
16 – 20 years	29	11.40
Charter membership		
Hold charter membership	11	4.30
Are not charter members	242	95.30
Membership in a TVQG bee		
Yes	133	52.40
No	120	47.20
Membership in guilds other than TVQG		
1 guild	62	24.40
2 guilds	17	6.70
3 guilds	8	3.10
4 guilds	1	.04
5 guilds	1	.04
10 guilds	1	.04
Membership in bees other than TVQG Bee		
1 bee	60	23.60
2 bees	20	7.90
3 bees	6	2.40

Table 31 (continued).

Membership Information	<i>n</i>	%
4 bees	4	1.60
5 bees	1	.04
Number of TVQG meetings attended in 2001		
None	21	8.70
1 – 3	49	19.30
4 – 6	44	17.30
7 – 9	54	21.30
10 – 12	80	31.50
Number of TVQG bee meetings attended in 2001		
None	10	3.90
1 – 3	9	3.50
4 – 6	8	3.10
7 – 9	28	11.00
10 – 12	73	28.70
Number of workshops/seminars attended in 2001		
None	52	20.50
1 – 3	114	44.90
4 – 6	53	20.90
7 – 9	19	7.50
10 – 12	7	2.80
More than 12	6	2.40

*n* = 254

attended 10 to 12 meetings. In contrast, 8.7% had not attended any meetings, 19.3% attended 1 to 3, and 21.3% attended 7 to 9 TVQG meetings. For Q36, participants recorded the number of bee meetings they attended. While 44.9% of the participants indicated that they attended 1 to 3 meetings, 20.5% attended none, and 20.9% attended 4 to 6 TVQG bee meetings.

For Q37, participants recorded how many workshops/seminars sponsored by various groups such as guilds, retail stores, and quilt shows that they had attended. The most frequently reported number of workshops/seminars attended by participants was 1 to 3 (44.9%). The second most frequently reported number of workshops/seminars attended by participants was 4 to 6 (20.9%). The least frequently reported number of workshops/seminars attended by participants was more than 12 (2.4%).

### *Demographic Characteristics of Participants*

Demographic data were collected using the sixth section of the questionnaire entitled, "What about you?" The questions in this section pertained to age, gender, racial or ethnic identification, marital status, education, residential background including whether participants were raised in an urban or rural environment, employment status and occupation, annual household income for 2001, and religious affiliation.

*Gender and Age.* For Q38, participants reported their gender. The participants were 98.4% female and .04% male. For Q39, participants indicated their age from a selection of ranges. The largest number of participants were the ages of 66 to 70 (16.9%), 16.1% were 51 to 55, 16.1% were 61 to 65, and 14.6% of the participants were the ages of 71 to 75 (see Table 32).

Table 32

*Demographic Characteristics*

Demographic	<i>n</i>	%
Gender		
Female	250	98.40
Male	1	.04
Age		
15 – 20	0	0.00
21 – 25	0	0.00
26 – 30	0	0.00
31 – 35	2	.08
36 – 40	3	1.20
41 – 45	12	4.70
46 – 50	20	7.90
51 – 55	41	16.10
56 – 60	30	11.80
61 – 65	41	16.10
66 – 70	43	16.90
71 – 75	37	14.60
76 – 80	15	5.90
81 – 85	6	2.40
86 – 90	0	0.00
91 – 95	1	.04
96 – 100	0	0.00
Over 100	0	0.00

Table 32 (continued).

Demographic	<i>n</i>	%
<b>Racial or ethnic identification</b>		
White, Non-Hispanic	239	94.10
Hispanic	5	2.00
Native American	3	1.20
Black	0	0.00
Asian	0	0.00
Pacific Islander	0	0.00
Mixed Heritage	1	.04
<b>Marital status</b>		
Never married	4	1.60
Married	200	78.70
Divorced	12	4.70
Separated	0	0.0
Widowed	33	13.00
<b>Education</b>		
Some grade school	0	0.0
Grade school	0	0.0
Some high school	2	.08
High school or equivalent	39	15.40
Some college	72	28.30
Vocational/technical degree	17	6.70
2-year associate degree	18	7.10
4-year bachelors degree	41	16.10
Some graduate work	30	11.80
Master's degree	27	10.60

Table 32 (continued).

Demographic	<i>n</i>	%
Doctoral degree	4	1.60
Post doctoral degree	2	.08
Region where participants grew up		
New England <sup>a</sup>	3	1.20
Middle Atlantic <sup>b</sup>	14	5.50
East North Central <sup>c</sup>	15	5.90
West North Central <sup>d</sup>	25	9.80
South Atlantic <sup>e</sup>	10	3.90
East South Central <sup>f</sup>	7	2.80
West South Central <sup>g</sup>	157	61.80
Mountain <sup>h</sup>	7	2.80
Pacific <sup>i</sup>	5	2.00
England	2	.08
European countries	4	1.50
Wales/Scotland	1	.04
Ireland	1	.04
Germany	1	.04
Length of time at present residence		
0 – 2 years	24	9.40
3 – 5 years	34	13.40
6 – 9 years	34	13.40
10 – 12 years	25	9.90
13 – 15 years	11	4.30
More than 15 years	125	49.20

Table 32 (continued).

Demographic	<i>n</i>	%
Raised in urban or rural environment		
Urban	146	57.50
Rural	105	41.30
Employment status		
Employed full-time	28	11.20
Employed part-time	33	13.10
Unemployed	8	3.20
Retired	129	51.40
Full-time homemaker	53	21.1
Occupation		
Blue collar/labor	1	.04
Craftsman/tradesman/skilled trade	13	5.10
Homemaker (full time)	68	26.80
Military	1	.04
Office/clerical	25	9.80
Professional (degreed)	85	33.50
Professional (non-degreed)	20	7.90
Salesperson	8	3.10
Service position	6	2.40
Upper/middle management	10	3.90
Business owner	1	.04
Fiber artist	1	.04
Home health care	1	.04
Quilting teacher	3	1.20

Table 32 (continued).

Demographic	<i>n</i>	%
Caregiver to elderly parents	1	.04
Community volunteer	1	.04
Annual household income (reported in U.S. dollars)		
Less than 10,000	6	2.40
10,000 – 19,999	4	1.60
20,000 – 29,999	18	7.10
30,000 – 39,999	14	5.50
40,000 – 49,999	23	9.10
50,000 – 59,999	20	7.90
60,000 – 69,999	14	5.50
70,000 – 79,999	15	5.90
80,000 – 89,999	12	4.70
90,000 – 99,999	13	5.10
100,000 and over	55	21.70
Religious affiliation		
Agnostic	1	.04
Assembly of God	1	.04
Baptist	47	18.50
Bible Church	3	1.20
Catholic	34	13.40
Charismatic	2	.08
Christian Scientist	1	.04
Christian	4	1.60
Church of Christ	17	6.70
Disciples of Christ	9	3.50

Table 32 (continued).

Demographic	<i>n</i>	%
Episcopal	14	5.50
Jewish	2	.08
Latter Day Saint	0	0.00
Lutheran	11	4.30
Methodist	62	24.40
Nazarene	2	.08
No affiliation	2	.08
Non-denominational	1	.04
Pentecostal	1	.04
Presbyterian	10	3.90
Protestant	1	.04
Unitarian	1	.04
Unity	2	.08

*n* = 254

<sup>a</sup>Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut

<sup>b</sup>New York, New Jersey, and Pennsylvania

<sup>c</sup>Ohio, Indiana, Illinois, Michigan, and Wisconsin

<sup>d</sup>Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas

<sup>e</sup>Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, and Florida

<sup>f</sup>Kentucky, Tennessee, Alabama, and Mississippi

<sup>g</sup>Arkansas, Louisiana, Oklahoma, and Texas

<sup>h</sup>Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, and Nevada

<sup>i</sup>Washington, Oregon, California, Alaska, and Hawaii

*Racial or ethnic identification.* For Q40, participants indicated their racial or ethnic identification. The greatest percentage of participants were white, non-Hispanic (94.1%) (see Table 32). Other racial groups represented by the participants included Hispanic (2.0%), Native American (1.2%), and mixed heritage (.04%). No participants were members of the black, Asian, or Pacific Islander groups.

*Marital status.* For Q41, participants indicated their marital status. The greatest percentage of participants were married (78.7%) (see Table 32). Four participants (1.6%) were never married, and 12 participants (4.7%) were divorced. Thirteen percent of the participants were widowed (see Table 32).

*Education.* For Q42, participants indicated their highest level of education. The greatest percentage of participants had some college education (28.3%) (see Table 32). There were 15.4% of the participants who had high school or equivalent education, and 11.8% had some graduate work. In contrast, 10.6% of the participants had a master's degree. All participants had a least some high school or higher level of education.

*Residential background.* For Q43, participants indicated in what region they lived the longest while growing up. Regarding the participants' residential background, 61.8% lived in the west south central region of the United States the longest while growing up (see Table 32). The next largest group of participants lived in the west north central region of the United States the longest while growing up (9.8%). Although the percentage of participants that grew up in other regions was less than 6%, participants represented all regions of the United States as defined by the U.S. 2000 census. Nine participants (3.5%) lived the longest in European countries while growing up.

*Residential status.* For Q44, participants indicated how long they had lived at their current residence. The greatest percentage of participants lived at their current residence more than 15 years (49.2%), as contrasted to the participants who lived at their current residence between 3 to 5 years (13.4%), and 6 to 9 years (13.4%) (see Table 32). For Q45, participants indicated if they were raised in an urban or rural environment. There were more participants who were raised in an urban setting (57.5 %), as contrasted to 41.3% of the participants who were raised in a rural environment.

*Employment and occupation status.* For Q46, participants reported their employment status as *employed full-time, employed part-time, unemployed, retired, or full-time homemaker*. As indicated in Table 32, 78.7% of the participants were married, 13.0% were widowed, and 4.7% of the participants were divorced. Four participants (1.6%) were never married. For Q47, participants indicated their usual occupation. As reported in Table 32, 33.5% of the participants were degreed professionals, and 26.8% were full-time homemakers.

*Employment status and occupation.* For Q47, participants were asked to report their employment status. The greatest numbers of participants were retired (51.4%) and 11.2% were employed full-time. There were 13.1% of the participants who were employed part-time and 21.1% were full-time homemakers.

*Annual household income.* For Q48, participants indicated their annual household income for 2001. As reported in Table 32, 21.7% of the participants reported an annual household income \$100,000 or more during 2001. The next most frequently reported income range was \$40,000 to \$49,000 (9.1%). As indicated in Table 32, there

was representation for all categories of income levels as indicated in the questionnaire, however, 23.6% of the 254 participants chose not to answer the question regarding annual household income.

*Religious affiliation.* For Q49, participants indicated their religious affiliation. The greatest numbers of participants were Methodist (24.4%), 18.5% reported being Baptist, and 13.4% were Catholic. Twenty-six participants (10.2%) elected not to respond to this question.

### Testing of Hypotheses and Research Questions

Eight hypotheses and three research questions were designed for the study. The primary problem addressed in this investigation was to identify and describe the demographic characteristics, quiltmaking motivations, and quiltmaking practices of members of the Trinity Valley Quilters' Guild (TVQG). Hypotheses 1 through 7 were tested using descriptive and frequency analyses in order to address the primary problem of the study. Hypothesis 8 was analyzed utilizing chi-square contingency analyses to determine if the differences in frequencies were significant. Chi-square contingency analyses were utilized to analyze Research Question 1, and discriminant function analysis (DISCRIM), and chi-square contingency analyses were utilized to analyze Research Question 2 and Research Question 3.

#### *Hypothesis 1*

Frequency and percentage distributions were utilized to determine the demographic profile of the participants. The first hypothesis read as follows: The

majority of members from the Trinity Valley Quilters' Guild will (a) be 51 years of age or older, (b) be female, (c) be white, non-Hispanic, (d) have spent their adolescent years in the U.S. west south central region, (e) have been raised in a rural area, (f) be high school educated or higher, (g) be currently married, (h) be Methodist, (i) be a full-time homemaker, and (j) have an annual household income of \$60,000 or more. Therefore, it was not expected that participants would vary according to age, gender, ethnicity, education, marital status, religion, occupation, or annual household income. Additionally, participants would have spent their adolescent years in the west south central region of the United States (Arkansas, Louisiana, Oklahoma, and Texas), and would have been raised in a rural area.

Frequency and percentage distributions were examined to determine if participants' actual demographic profile was as predicted in Hypothesis 1. Results indicated that the demographic profile was as predicted with the exception of religious affiliation, employment status, being raised in an urban rather than rural environment, and annual household income (see Table 33). The majority of participants were not raised in a rural environment, were not full-time homemakers, and did not earn an annual household income of \$60,000 a year or more. Additionally, the majority of participants were not Methodist, even though Methodist was the most reported religious affiliation among all participants (27.2%). Based upon the fact that four of the demographic characteristics for the participants were not as predicted, Hypothesis 1 was rejected.

Table 33  
Prevalent Demographic Characteristics

Demographic	<i>n</i>	%
Age		
51 years of age or older	214	84.2
Gender		
Female	250	98.4
Racial or ethnic identification		
White non-Hispanic	239	94.0
Region where participants grew up		
West south central <sup>a</sup>	157	61.8
Residential setting		
Urban	146	57.4
Education		
High school or higher	250	98.4
Marital status		
Married	200	78.7
Employment status		
Full-time homemaker	53	2.08
Religion		
Methodist	62	24.4
Annual household income		
\$60,000 a year or more	109	42.9

*n* = 254

<sup>a</sup>Arkansas, Louisiana, Oklahoma, and Texas

### *Hypothesis 2*

Frequency and percentage distributions were utilized to determine if participants participated fully or partially in the quilting process. Hypothesis 2 read as follows: The majority of members from the Trinity Valley Quilters' Guild will participate fully or partially in the quilting process such as quilting, piecing, and designing quilts. Therefore, it was expected that the majority of participants would be involved in some aspect of the quilting process.

Frequency and percentage distributions were examined to determine if the majority of members of Trinity Valley Quilters' Guild participated fully or partially in the quilting process. As indicated previously in Table 2, 95.3% of the participants participated fully or partially in the quilting process. Based upon the fact that the majority of participants participated fully or partially in the quilting process as predicted, Hypothesis 2 was accepted.

### *Hypothesis 3*

Frequency and percentage distributions were utilized to determine the prevalent age that participants were when they learned to quilt. Hypothesis 3 read as follows: The majority of members of Trinity Valley Quilters' Guild will have learned to quilt between the ages of one and nine. Therefore, it was expected that participants would be of similar age when they learned quilting.

Frequency and percentage distributions were examined to determine if the majority of participants learned to quilt between the ages of one and nine. Only 5.5% of the participants learned to quilt between the ages of one and nine as previously reported

in Table 6. The most prevalent number of participants (28.0%) learned to quilt between the ages of 50 to 59. Based upon the fact that the majority of participants did not learn to quilt between the ages of one and nine as predicted, Hypothesis 3 was rejected.

#### *Hypothesis 4*

Frequency and percentage distributions were utilized to determine the most influential person who taught participants how to quilt. Hypothesis 4 read as follows: The majority of members from the Trinity Valley Quilters' Guild will have learned to quilt from (a) a female relative, or (b) their mother. Therefore, it was expected that a female relative or mother would have been the most influential figure who taught quilting to TVQG members.

Frequency and percentage distributions were examined to determine if the majority of participants learned to quilt from a female relative or their mother. As previously reported in Table 8, less than the majority of participants (43.3%) were taught by a female relative or mother. The most prevalent response was *self-taught* (62.6%). Based upon the fact that the majority of participants were not taught quilting by a female relative or their mother as predicted, Hypothesis 4 was rejected.

#### *Hypothesis 5*

Frequency and percentage distributions were utilized to determine whether or not hand piecing was selected more frequently than machine piecing in contributing to the quality and beauty of a quilt. Hypothesis 5 read as follows: Members of the Trinity Valley Quilters' Guild will select hand piecing more frequently than machine piecing as one of the three most important characteristics that contribute to the quality and beauty of

a quilt. Therefore, it was expected that participants would place a higher importance on hand piecing than on machine piecing as one of the three most important characteristics that contributed to the quality and beauty of a quilt.

Frequency and percentage distributions were examined to determine if participants selected hand piecing more frequently than machine piecing as one of the three most important characteristics that contribute to the quality and beauty of a quilt. As previously indicated in Table 23, *initial visual impact* (56.3%), *color scheme* (52.8%), *quality of piecing* (45.7%), and *quality of quilting* (45.7%) were the four most important characteristics reported by the participants. *Hand piecing* was reported by 5.1% of the participants and *machine piecing* was indicated by 1.6%. Although *hand piecing* was selected more frequently than *machine piecing*, it was not selected by participants as one of the three most important characteristics that contributed to the quality and beauty of a quilt as predicted. Hypothesis 5 was rejected.

#### *Hypothesis 6*

Frequency and percentage distributions were utilized to determine whether or not hand quilting was selected more frequently than machine quilting in contributing to the quality and beauty of a quilt. Hypothesis 6 read as follows: Members of the Trinity Valley Quilters' Guild will select hand quilting more frequently than machine quilting as one of the three most important characteristics that contribute to the quality and beauty of a quilt. Therefore, it was expected that participants would place higher importance on hand quilting than on machine quilting as one of the three most important characteristics that contributed to the quality and beauty of a quilt.

Frequency and percentage distributions were examined to determine if participants selected *hand quilting* more frequently than *machine quilting* as one of the three most important characteristics that contribute to the quality and beauty of a quilt. As previously indicated in Table 23, *initial visual impact* (56.3%), *color scheme* (52.8%), *quality of piecing* (45.7%), and *quality of quilting* (45.7%) were the four most important characteristics that contributed to the quality and beauty of a quilt as reported by the participants. *Hand quilting* was reported by 29.1% of the participants and *machine quilting* was indicated by 2.8%. Although *hand quilting* was selected more frequently than *machine quilting*, it was not selected by participants as one of the three most important characteristics that contributed to the quality and beauty of a quilt as predicted. Hypothesis 6 was rejected.

#### *Hypothesis 7*

Frequency and percentage distributions were utilized to determine the three best reasons that explained why TVQG members were motivated to quilt. Hypothesis 7 read as follows: Members of the Trinity Valley Quilters' Guild will select the following three motivations as the three best reasons that explain why they are motivated to quilt: (a) satisfy the need for creative expression, (b) satisfy the need to socialize with others, and (c) create a gift for a special person. Therefore, it was expected that TVQG members would have similar motivations to quilt because they considered quilting a means of creative expression, it was an opportunity to socialize with others, and it served as a mechanism to create gifts for a special person.

Frequency and percentage distributions were examined to determine if participants selected *satisfy the need for creative expression*, *satisfy the need to socialize with others*, and *create a gift for a special person* as the three best reasons why they were motivated to quilt. As previously indicated in Table 3, three reasons emerged that explained why TVQG members were motivated to quilt. The reasons were *create a gift for a special person* (63.0%), *satisfy the need for creative expression* (51.2%), and *satisfy the need for pleasure* (37.0%). While *create a gift for a special person* and *satisfy the need for creative expression* were selected as two of the three reasons why TVQG members were motivated to quilt, *satisfy the need to socialize with others* was not selected as one of the three reasons TVQG members were motivated to quilt as predicted. Therefore, Hypothesis 7 was partially accepted.

#### *Hypothesis 8*

Chi-square contingency analyses were utilized to determine if there were significant differences between employment status groups with respect to the use of specific quilting techniques and practices, membership in bees and guilds, and attendance at TVQG meetings. For the purposes of Hypothesis 8, the employment status categories were collapsed into three groups. Participants who were employed full-time and part-time were collapsed to form the *employed outside the home* group, participants who were unemployed and full-time homemakers were collapsed to form the *not employed outside the home* group, and participants who were retired were utilized as the *retired* group. Hypothesis 8 read as follows: Members of the Trinity Valley Quilters' Guild with differing types of employment status will exhibit significant differences in

(a) utilizing specific quilting techniques and practices, (b) holding membership in bees and guilds, and (c) attending TVQG meetings during 2001. It was expected that TVQG members who were retired would be more likely to utilize hand techniques and practices, hold memberships in bees and guilds, and attend TVQG meetings during 2001 than members who were employed outside the home and not employed outside the home.

*Hypothesis 8a*

Twenty-two 3 x 2 chi-square contingency analyses were conducted to investigate whether there were any significant differences in the use of hand techniques and practices compared to machine techniques and practices between the three employment status groups. Regarding quilting techniques, the obtained statistics showed significance with regard to *machine appliqué*,  $X^2 (df = 2, n = 246) = 11.6, p < .00$ ; *machine quilting*,  $X^2 (df = 2, n = 247) = 9.0, p < .01$ ; and *fused applications*,  $X^2 (df = 2, n = 245) = 6.0, p < .04$ . Retired participants were less likely to respond yes to *machine appliqué*, *machine quilting*, and *fused applications* than participants who were not employed outside the home, or were employed outside the home (see Tables 34, 35, and 36).

Table 34

*Participation in Machine Appliqué According to Employment Status*

Machine appliqué	Employed outside		Not employed		Retired	
	the home		outside the home			
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	43	17.5	41	16.6	60	24.4
No	18	7.3	19	7.8	65	26.4
Column total	61	24.8	60	24.4	125	50.8

$X^2 (df = 2, n = 246) = 11.6, p < .00$

Table 35

*Participation in Machine Quilting According to Employment Status*

Machine quilting	Employed outside		Not employed		Retired	
	the home		outside the home			
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	49	20.0	52	21.0	85	34.0
No	12	4.7	8	3.1	41	17.0
Column total	61	24.7	60	24.3	125	51.0

$X^2 (df = 2, n = 247) = 9.1, p < .01$

Table 36

*Participation in Fused Applications According to Employment Status*

Fused applications	Employed outside the home		Not employed outside the home		Retired	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	43	17.5	41	16.6	60	24.5
No	18	7.3	19	7.6	65	26.5
Column total	61	24.8	60	24.2	125	51.0

$X^2 (df = 2, n = 245) = 6.0, p < .04$

Regardless of employment status, participants were evenly distributed with respect to the hand techniques of *hand piecing*,  $X^2 (df = 2, n = 245) = 3.4$ , ns; *hand appliqué*,  $X^2 (df = 2, n = 246) = 1.5$ , ns; *hand embroidery*,  $X^2 (df = 2, n = 244) = 5.5$ , ns; *hand quilting*,  $X^2 (df = 2, n = 250) = 3.2$ , ns; and *trapunto*,  $X^2 (df = 2, n = 244) = .27$ , ns. Regardless of employment status, participants were evenly distributed with respect to the machine techniques of *machine piecing*,  $X^2 (df = 2, n = 242) = 1.1$ , ns; *hired machine quilting*,  $X^2 (df = 2, n = 246) = 2.9$ , ns; *paper piecing*,  $X^2 (df = 2, n = 249) = 3.2$ , ns; *foundation piecing*,  $X^2 (df = 2, n = 246) = 2.5$ , ns; *stack-n-whack*,  $X^2 (df = 2, n = 241) = 3.2$ , ns; and *machine embroidery*,  $X^2 (df = 2, n = 242) = 4.0$ , ns.

Regarding quiltmaking practices, the obtained statistics showed significance for *purchased quilt block patterns*,  $X^2 (df = 2, n = 234) = 7.8$ ,  $p < .04$ , and *designed quilting patterns*,  $X^2 (df = 2, n = 230) = 6.4$ ,  $p < .04$ . Retired participants were less likely to respond yes to *purchased quilt block patterns* and *designed quilting patterns* than participants who were employed outside the home or not employed outside the home (see Tables 37 and 38).

Regardless of employment status, the participants were evenly distributed with respect to *design quilt block patterns*,  $X^2 (df = 2, n = 234) = 4.6$ , ns; *design quilt top patterns*,  $X^2 (df = 2, n = 237) = 2.0$ , ns; *purchase quilt top patterns*,  $X^2 (df = 2, n = 239) = .56$ , ns; *use templates for quilting patterns*,  $X^2 (df = 2, n = 241) = .97$ , ns; *purchase block of the month patterns*,  $X^2 (df = 2, n = 240) = 4.9$ , ns; and *purchase quilt kits*,  $X^2 (df = 2, n = 239) = 2.1$ , ns. Because there were three significant differences in the use of hand techniques compared to machine techniques, and only two significant differences in the

Table 37

*Participation in Purchase Quilt Block Patterns According to Employment Status*

Purchase quilt block patterns	Employed outside the home		Not employed outside the home		Retired	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	60	25.0	54	22.4	105	43.6
No	1	0.0	4	1.6	17	17.4
Column total	61	25.0	58	24.0	122	51.0

$$X^2 (df = 2, n = 241) = 7.8, p < .02$$

Table 38

*Participation in Design Quilting Patterns According to Employment Status*

Design quilting patterns	Employed outside the home		Not employed outside the home		Retired	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	34	14.9	35	15.2	52	22.6
No	23	10.0	21	9.1	65	28.2
Column total	57	24.9	56	24.3	117	50.8

$$X^2 (df = 2, n = 230) = 6.4, p < .04$$

use of hand practices and machine practices when employment status was the dimension, Hypothesis 8a was rejected.

#### *Hypothesis 8b*

Two 3 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between memberships in *bees(s)* and *guild(s)* other than TVQG with respect to employment status. Regarding membership in *bee(s)* and *guild(s)*, the obtained statistics showed no significant differences between employment groups when membership in *bee(s)*,  $X^2 (df = 2, n = 250) = 11.9$ , ns; and *guild(s)*,  $X^2 (df = 2, n = 250) = 2.9$ , ns; were the relevant dimensions. Regardless of employment status, participants were evenly distributed regarding membership is in *bee(s)* and *guild(s)* other than TVQG. Because there were no significant differences between memberships in *bee(s)* and *guild(s)* other than TVQG when employment status was the dimension, Hypothesis 8b was rejected.

#### *Hypothesis 8c*

A 3 x 2 chi-square contingency analysis was utilized to determine if there was a significant difference between the numbers of TVQG meetings attended during 2001 with respect to employment status. Regarding number of TVQG meetings attended, the obtained statistic showed no significance,  $X^2 (df = 2, n = 246) = 10.0$ , ns. Regardless of employment status, the numbers of TVQG meetings attended during 2001 were evenly distributed among the participants. Since there were no significant differences between employment groups when attendance at TVQG meetings was the relevant dimension, Hypothesis 8c was rejected.

### *Research Question 1*

Chi-square contingency analyses were utilized to determine if quilting practices and techniques differed significantly among participants indicating different demographic profiles. The first research question read as follows: Will the quilting practices and quilting techniques utilized by members of the Trinity Valley Quilters' Guild vary according to demographic profiles? Therefore, it was expected that participants' responses regarding quilting practices including quilting individually or with groups, hours per week spent on quilting, specific quilting practices utilized, money spent on quilting, and the quilting techniques including quilting techniques that were important to contributing to the quality and beauty of a quilt, specific quilting techniques utilized, quilt styles made, quilt types made, color selections made, color palettes utilized, and fabric types utilized would vary according to (a) age, (b) education, (c) residential setting, (d) employment status, (e) occupation, (f) religious affiliation, and (g) annual household income. The demographics factors of gender, racial or ethnic identification, marital status, region where participants grew up, and how long participants lived at present residence were not analyzed because the frequency tables revealed that the overwhelming majority of participants were from one category.

In regard to participants' responses regarding quilting practices, techniques, quilt types and styles, color palettes, and fabric types, the options *most of the time* and *some of the time* were collapsed into one segment. The original option of *never* remained a separate option. As a result, responses differentiated between those participants who

participated and those who never participated in the quilting practice, technique, quilt type or style, color palette, and fabric type.

#### *Research Question 1a*

The demographic variable of age was investigated for Research Question 1a. The age variable was collapsed into eight ranges of 45 years of age or younger, 46 to 50, 51 to 55, 56 to 60, 61 to 65, 66 to 70, 71 to 75, and 76 years of age or older.

An 8 x 2 chi-square contingency analysis was utilized to determine if there were significant differences between the eight age groups with regard to the quilting practice of *quilting individually or with others* (Q13). The obtained statistic showed no significance,  $X^2 (df = 7, n = 249) = 6.3$ , ns. Regardless of age, participants were evenly distributed with regard to *quilting individually or with others*.

Five 4 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between the eight age groups with regard to the quilting practice of *quilting with a group* (Q14). The obtained statistics showed no significance for quilting with a *bee*,  $X^2 (df = 7, n = 180) = 11.1$ , ns; *guild*,  $X^2 (df = 7, n = 180) = 4.1$ , ns; *church group*,  $X^2 (df = 7, n = 152) = 53.0$ , ns; *friends not associated with a formal group*,  $X^2 (df = 7, n = 110) = 9.4$ , ns; or *business colleagues*,  $X^2 (df = 7, n = 174) = 9.5$ , ns. Regardless of age, participants were evenly distributed with regard to *quilting with a group*.

An 8 x 5 chi-square contingency analysis was utilized to determine if there were significant differences between age groups with regard to the quilting practice of the number of hours per week spent on quilting (Q19). For the purpose of the analysis,

hours per week were collapsed into five segments that consisted of 0 to 5, 6 to 10, 11 to 15, 16 to 20, and 21 or more hours per week spent on quilting. The obtained statistic showed no significance,  $X^2 (df = 28, n = 243) = 24.7$ , ns. Regardless of age, participants were evenly distributed with regard to the number of hours per week spent on quilting.

Nineteen 8 x 2 chi-square analyses were utilized to determine if there were significant differences between age groups with regard to specific quilting practices (Q21). The obtained statistics showed significance with regard to *design quilt block patterns*,  $X^2 (df = 7, n = 235) = 14.2, p < .04$ ; *purchase quilt block patterns*,  $X^2 (df = 7, n = 242) = 20.1, p < .00$ ; *design quilt top patterns*,  $X^2 (df = 7, n = 237) = 17.4, p < .01$ ; *design quilting patterns*,  $X^2 (df = 7, n = 231) = 15.8, p < .02$ ; *machine quilt for personal income*,  $X^2 (df = 7, n = 239) = 21.1, p < .00$ ; *hand quilt for fundraising*,  $X^2 (df = 7, n = 238) = 15.7, p < .02$ ; and *machine quilt for fundraising*,  $X^2 (df = 7, n = 240) = 17.2, p < .02$ . Participants in the age group 45 years or younger were more likely to respond yes to *design quilt block patterns* than participants from other age groups (see Table 39). Participants in the age group 76 or older were less likely to respond yes to *purchase quilt block patterns*, *design quilt top patterns*, and *design quilting patterns* as contrasted to participants from other age groups (see Tables 40, 41 and 42). Participants in the age group 45 years or younger and 46 to 50 were more likely to respond yes to *machine quilt for personal income* than participants from other age groups (see Table 43). Participants who were of the age 61 to 65, 66 to 70, and 71 to 75 were more likely to respond yes to *hand quilt for fundraising* than participants from other age groups (see Table 44).

Table 39

*Design Quilt Block Patterns According to Age*

Design quilt block patterns	45 or younger		46 to 50		51 to 55		56 to 60		61 to 65		66 to 70		71 to 75		76 or older	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	13	5.5	9	3.9	31	13.3	20	8.5	22	9.3	21	8.9	16	6.8	8	3.3
No	3	1.3	10	4.1	9	3.9	10	4.1	19	8.0	19	8.0	15	7.0	10	4.1
Column total	16	6.8	19	8.0	40	17.2	30	12.6	41	17.3	40	16.9	31	13.8	18	7.4

$\chi^2 (df = 7, n = 235) = 14.2, p < .04$

Table 40

*Purchase Quilt Block Patterns According to Age*

Purchase quilt block patterns	45 or younger		46 to 50		51 to 55		56 to 60		61 to 65		66 to 70		71 to 75		76 or older	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	15	6.3	20	8.3	39	16.1	28	11.5	38	15.7	39	16.1	28	11.5	13	5.3
No	2	1.0	0	0.0	1	0.0	2	1.0	3	1.2	2	1.0	6	2.5	6	2.5
Column total	17	7.3	20	8.3	40	16.1	30	12.5	41	16.9	41	17.1	34	14.0	19	7.8

$X^2 (df = 7, n = 242) = 20.1, p < .00$

Table 41

*Design Quilt Top Patterns According to Age*

Design quilt top patterns	45 or younger		46 to 50		51 to 55		56 to 60		61 to 65		66 to 70		71 to 75		76 or older	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	10	4.0	12	4.8	29	12.0	25	10.2	25	10.2	25	10.2	22	9.2	5	2.0
No	6	2.3	8	3.2	12	4.8	5	2.0	16	6.3	16	6.3	19	7.3	13	5.2
Column total	16	6.3	20	8.0	41	16.8	30	12.2	41	16.5	41	16.5	41	16.5	18	7.2

$\chi^2 (df = 7, n = 237) = 17.4, p < .01$

Table 42

*Design Quilting Patterns According to Age*

Design quilting patterns	45 or younger		46 to 50		51 to 55		56 to 60		61 to 65		66 to 70		71 to 75		76 or older	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	10	4.4	9	4.0	26	11.3	21	9.0	18	7.8	21	9.0	12	5.2	4	1.8
No	5	2.1	10	4.4	14	6.0	9	4.0	21	9.0	20	8.6	18	7.8	13	5.6
Column total	15	6.5	19	8.4	40	17.3	30	13.0	40	16.8	41	17.6	30	13.0	17	7.4

$\chi^2 (df = 7, n = 231) = 15.8, p < .02$

Table 43

*Machine Quilt for Personal Income According to Age*

Machine quilt for income	45 or younger		46 to 50		51 to 55		56 to 60		61 to 65		66 to 70		71 to 75		76 or older	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	4	1.7	5	2.2	4	1.7	4	1.7	6	2.5	0	0.0	0	0.0	0	0.0
No	12	5.0	15	6.2	37	15.4	26	11.1	35	14.6	41	17.1	32	13.3	18	7.5
Column total	16	6.7	20	8.4	41	17.1	30	12.8	41	17.1	41	17.1	32	13.3	18	7.5

$X^2 (df = 7, n = 239) = 21.1, p < .00$

Table 44

*Hand Quilt for Fundraising According to Age*

Hand quilt for fundraising	45 or younger		46 to 50		51 to 55		56 to 60		61 to 65		66 to 70		71 to 75		76 or older	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	2	1.0	8	3.3	15	6.3	11	4.5	26	11.0	20	8.5	18	7.5	8	3.4
No	13	5.4	12	5.0	26	11.0	19	8.0	15	6.3	21	8.8	14	5.9	10	4.1
Column total	15	6.4	20	8.3	41	17.3	30	12.5	41	17.3	41	17.3	32	13.4	18	7.5

$X^2 (df = 7, n = 238) = 15.7, p < .02$

In contrast, participants who were of age 45 or younger, 46 to 50, and 56 to 60 were more likely to respond yes to *machine quilting for fundraising* than participants from other age groups (see Table 45).

Regardless of age, participants were evenly distributed regarding *purchase quilt top patterns*,  $X^2 (df=7, n=239) = 6.6$ , ns; *use templates for quilting patterns*,  $X^2 (df=7, n=243) = 6.5$ , ns; *purchase block of the month*,  $X^2 (df=7, n=240) = 6.2$ , ns; *purchase quilt kits*,  $X^2 (df=7, n=241) = 9.1$ , ns; *create contemporary quilts*,  $X^2 (df=7, n=239) = 12.2$ , ns; *create traditional quilts*,  $X^2 (df=7, n=244) = 8.0$ , ns; *display quilts at shows*,  $X^2 (df=7, n=245) = 3.1$ , ns; *enter design competitions*,  $X^2 (df=7, n=239) = 5.7$ , ns; *hand quilt for personal income*,  $X^2 (df=7, n=239) = 4.1$ , ns; *sell quilt top patterns*,  $X^2 (df=7, n=240) = 9.73$ , ns; *sell quilting patterns*,  $X^2 (df=7, n=239) = 3.9$ , ns; and *write books and articles on quilting*,  $X^2 (df=7, n=239) = 7.2$ .

An 8 x 16 chi-square contingency analysis was utilized to determine if there were significant differences between age groups with regard to the quiltmaking practice of the amount of U.S. dollars spent by participants on quiltmaking during 2001 (Q22). For the purpose of the analysis, responses to how many dollars were spent on the separate categories of fabric, patterns, workshops/seminars, magazine subscriptions, and equipment were collapsed to represent the total amount of U.S. dollars spent on quiltmaking during 2001. The collapsed categories resulted in the ranges of total dollars spent of \$1 to \$50, \$51 to \$100, \$101 to \$200, \$201 to \$300, \$301 to \$400, \$410 to \$500, \$501 to \$600, \$601 to \$700, \$701 to \$800, \$801 to \$900, \$901 to \$1000, \$1001- \$2000, \$2001 to \$3000, \$3001 to \$4000, \$4001 to \$5000, and more than \$5000.

Table 45

*Machine Quilt for Fundraising According to Age*

Machine quilt for fundraising	45 or younger		46 to 50		51 to 55		56 to 60		61 to 65		66 to 70		71 to 75		76 or older	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	5	2.0	7	2.8	11	4.6	9	3.6	10	4.3	3	1.4	4	1.5	0	0.0
No	11	4.6	13	5.4	30	12.7	21	8.7	31	13.0	38	15.9	29	12.1	18	7.4
Column total	16	6.6	20	8.2	41	17.3	30	12.3	41	17.3	41	17.3	33	13.6	18	7.4

$X^2 (df = 7, n = 238) = 15.7, p < .02$

The obtained statistic showed no significance,  $X^2 (df = 105, n = 235) = 6.3, ns$ .

Regardless of age, participants were evenly distributed regarding the amount of U.S. dollars spent on quilting.

An 8 x 6 chi-square contingency analysis was utilized to determine if there were significant differences between age groups with regard to beliefs about the quilting techniques that were most important to contributing to the quality and beauty of a quilt (Q23). For the purpose of the analysis, the original options were collapsed into the six segments consisting of *hand work*, *machine work*, *quality*, *complexity*, *visual impact*, and *originality*. The obtained statistic showed significance with regard to *hand work*, *quality*, and *visual impact*,  $X^2 (df = 35, n = 246) = 53.7, p < .02$ . Participants in the age group 76 or older were more likely to indicate *hand work* and *quality* as the most important techniques contributing to the quality and beauty of a quilt than participants from other age groups. The age group 71 to 75 was more likely to indicate *hand work* and *visual impact* as the most important techniques contributing to the quality and beauty of a quilt. Conversely, participants in the age groups of 45 or younger, 46 to 50, 51 to 55, 56 to 60, 61 to 65, and 66 to 70 were more likely to indicate *visual impact* as the most important technique to the quality and beauty of a quilt (see Table 46).

Seventeen 8 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between the age groups with regard to specific quilting techniques utilized by the participants (Q24). The obtained statistics showed significance with regard to *hand piecing*,  $X^2 (df = 7, n = 245) = 19.1, p < .00$ ;

Table 46

*Most Important Characteristics to the Quality and Beauty of a Quilt According to Age*

Characteristic	45 or younger		46 to 50		51 to 55		56 to 60		61 to 65		66 to 70		71 to 75		76 or older	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Hand work	2	1.0	1	0.0	6	2.6	4	1.6	9	4.0	13	5.3	13	5.3	8	3.3
Machine work	1	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	2	1.0	0	0.0
Quality	2	1.0	7	3.0	8	3.3	8	3.3	11	4.5	8	3.3	7	3.0	8	3.3
Complexity	0	0.0	2	1.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Visual impact	12	5.0	10	4.2	24	9.8	18	7.5	20	8.2	21	8.6	13	5.3	4	1.6
Originality	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	1	0.0	0	0.0
Column Total	17	7.0	20	8.2	40	15.7	30	12.4	41	16.7	42	17.2	36	14.6	20	8.2

$X^2 (df = 35, n = 246) = 53.7, p < .02$

*hand quilting*,  $X^2$  ( $df = 7$ ,  $n = 250$ ) = 20.1,  $p > .00$ ; *machine appliqué*,  $X^2$  ( $df = 7$ ,  $n = 246$ ) = 15.1,  $p < .03$ ; and *fused applications*,  $X^2$  ( $df = 7$ ,  $n = 244$ ) = 14.2,  $p < .05$ . Participants in the age group 76 or older were more likely to respond yes to utilizing *hand piecing* while participants of the ages 45 or younger and 46 to 50 were less likely to respond yes to utilizing *hand piecing* than participants from other age groups (see Table 47). Participants in the age groups of 56 to 60, 61 to 65, 66 to 70, 71 to 75, and 76 or older were more likely to respond yes to utilizing *hand quilting* than participants from all other age groups (see Table 48). Participants in the age group of 76 or older were less likely to respond yes to utilizing *machine appliqué* as compared to participants from all other age groups (see Table 49). Participants in the age group of 76 or older were less likely to respond yes to utilizing *fused applications* than participants from all other age groups (see Table 50).

Table 47

*Hand Piecing According to Age*

Hand piece	45 or younger		46 to 50		51 to 55		56 to 60		61 to 65		66 to 70		71 to 75		76 or older	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	5	2.0	6	2.5	22	8.9	20	8.1	24	9.7	25	10.2	21	8.5	17	6.9
No	12	4.9	14	5.9	18	7.4	10	4.0	17	6.9	17	6.9	14	5.9	3	1.3
Column total	17	6.9	20	8.4	40	16.3	30	12.1	41	16.6	42	17.1	36	14.4	20	8.2

$X^2 (df = 7, n = 246) = 19.1, p < .00$

Table 48

*Hand Quilting According to Age*

Hand quilt	45 or younger		46 to 50		51 to 55		56 to 60		61 to 65		66 to 70		71 to 75		76 or older	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	10	4.0	11	4.4	32	12.8	24	9.6	36	14.4	36	14.4	32	12.8	21	8.4
No	7	2.9	9	3.7	9	3.7	6	2.4	5	2.0	7	2.9	4	1.6	1	0.0
Column total	17	6.9	20	8.1	41	16.5	30	12.0	41	16.4	43	17.3	36	14.4	22	8.4

$\chi^2 (df = 7, n = 250) = 20.1, p < .00$

Table 49

*Machine Appliqué According to Age*

Machine appliqué	45 or younger		46 to 50		51 to 55		56 to 60		61 to 65		66 to 70		71 to 75		76 or older	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	12	4.8	14	5.7	28	11.4	19	7.7	25	10.1	17	6.9	21	8.5	7	2.8
No	5	2.0	6	2.4	13	5.3	11	4.8	15	6.1	26	10.5	14	5.7	13	5.3
Column total	17	6.8	20	8.1	41	16.7	30	12.5	40	16.2	43	17.4	35	14.2	30	8.1

$\chi^2 (df = 7, n = 246) = 15.1, p < .03$

Table 50

*Fused Applications According to Age*

Fused applications	45 or younger		46 to 50		51 to 55		56 to 60		61 to 65		66 to 70		71 to 75		76 or older	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	11	4.5	14	5.8	27	11.0	21	8.6	22	9.1	22	9.1	24	9.8	5	2.0
No	6	2.5	6	2.5	14	5.8	9	3.6	19	7.7	21	8.6	10	4.1	13	5.3
Column total	17	7.0	20	8.3	41	16.8	30	12.2	41	16.8	43	17.7	34	13.9	18	7.3

$\chi^2 (df = 7, n = 244) = 14.2, p < .05$

Regardless of age, participants were evenly distributed regarding *machine piecing*,  $X^2 (df=7, n=249) = 5.3$ , ns; *hand appliqué*,  $X^2 (df=7, n=246) = 4.6$ , ns; *machine quilting*,  $X^2 (df=7, n=248) = 8.6$ , ns; *hired machine quilting*,  $X^2 (df=7, n=246) = 4.8$ , ns; *paper piecing*,  $X^2 (df=7, n=248) = 7.4$ , ns; *foundation piecing*,  $X^2 (df=7, n=245) = 6.4$ , ns; *stack-n-whack*,  $X^2 (df=7, n=241) = 1.4$ , ns; *hand embroidery*,  $X^2 (df=7, n=244) = 2.3$ , ns; *machine embroidery*,  $X^2 (df=7, n=244) = 3.2$ , ns; and *trapunto*  $X^2 (df=7, n=245) = 7.2$ , ns.

Nine 8 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between age groups with regard to the quilting technique of what quilt styles were made by the participants (Q25). The obtained statistic showed significance with regard to *mourning quilts*,  $X^2 (df=7, n=244) = 15.9$ ,  $p < .02$ . Participants in the age group of 56 to 60 were more likely to respond yes to making *mourning quilts* than participants from all other age groups (see Table 51).

Regardless of age, participants were evenly distributed regarding the quilt styles including *sampler*,  $X^2 (df=7, n=249) = 9.2$ , ns; *wholecloth*,  $X^2 (df=7, n=240) = 8.1$ , ns; *quilts of same block*,  $X^2 (df=7, n=249) = 8.7$ , ns; *pictorial*,  $X^2 (df=7, n=244) = 6.5$ , ns; *themed*,  $X^2 (df=7, n=245) = 12.4$ , ns; *holiday*,  $X^2 (df=7, n=245) = 4.9$ , ns; *crazy*,  $X^2 (df=7, n=243) = 10.4$ , ns; and *Hawaiian*,  $X^2 (df=7, n=245) = 6.6$ , ns.

Eleven 8 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between age groups with regard to the quilting technique of what types of quilts were made by the participants (Q26). The obtained statistics

Table 51

*Mourning Quilts Made According to Age*

Mourning quilts	45 or younger		46 to 50		51 to 55		56 to 60		61 to 65		66 to 70		71 to 75		76 or older	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	0	0.0	2	1.0	2	1.0	5	2.0	1	0.0	1	0.0	0	0.0	0	0.0
No	17	6.9	18	7.3	37	15.2	25	10.3	39	16.0	42	17.3	34	14.0	21	9.0
Column total	17	6.9	20	8.3	39	16.2	30	12.3	40	16.0	43	17.3	34	14.0	21	9.0

$\chi^2 (df = 7, n = 244) = 15.9, p < .02$

showed significance with regard to *crib/baby*,  $X^2 (df = 7, n = 248) = 13.9, p < .05$ ; and *toys/collectibles*,  $X^2 (df = 7, n = 240) = 14.7, p < .04$ . Participants in the age group of 45 or younger were less likely to respond yes to making *crib/baby* quilt types than participants from all other age groups (see Table 52). Participants in the age group of 46 to 50 were more likely to respond yes to making *toys/collectibles* than participants from all other age groups (see Table 53).

Regardless of age, participants were evenly distributed regarding *single bed*,  $X^2 (df = 7, n = 238) = 8.1, ns$ ; *double bed*,  $X^2 (df = 7, n = 236) = 7.5, ns$ ; *queen size*,  $X^2 (df = 7, n = 240) = 9.6, ns$ ; *king size*,  $X^2 (df = 7, n = 235) = 9.2, ns$ ; *lap*,  $X^2 (df = 7, n = 240) = 7.9, ns$ ; *wall hanging*,  $X^2 (df = 7, n = 247) = 2.5, ns$ ; *miniature*,  $X^2 (df = 7, n = 242) = 6.4, ns$ ; *apparel and accessories*,  $X^2 (df = 7, n = 243) = 7.4, ns$  and *home décor*,  $X^2 (df = 7, n = 243) = 7.4, ns$ .

An 8 x 5 chi-square contingency analysis was utilized to determine if there were significant differences between age groups with regard to participants' quiltmaking technique of most important reasons for color selection (Q27). The obtained statistic showed no significance,  $X^2 (df = 28, n = 248) = 39.2, ns$ . Regardless of age, participants were evenly distributed with regard to the most important reason for color selection.

Eleven 8 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between age groups with regard to the quiltmaking technique of color palette usage (Q28). The obtained statistics showed significance with regard to *black backgrounds*,  $X^2 (df = 7, n = 246) = 22.1, p < .00$ ; and *light backgrounds*  $X^2 (df = 7,$

Table 52

*Crib/Baby Quilts Made According to Age*

Crib/baby	45 or younger		46 to 50		51 to 55		56 to 60		61 to 65		66 to 70		71 to 75		76 or older	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	13	5.3	20	8.0	39	15.7	25	10.1	39	15.7	40	16.2	30	12.0	22	8.8
No	4	1.5	0	0.0	2	1.0	5	2.0	2	1.0	3	1.2	4	1.5	0	0.0
Column total	17	6.8	20	8.0	41	16.7	30	12.1	41	16.7	43	17.4	34	13.5	22	8.8

$\chi^2 (df = 7, n = 248) = 13.9, p < .05$

Table 53

*Toys/Collectibles Made According to Age*

Toys/ collectibles	45 or younger		46 to 50		51 to 55		56 to 60		61 to 65		66 to 70		71 to 75		76 or older	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	2	1.0	9	3.8	8	3.5	11	4.5	7	3.0	6	2.5	8	3.5	8	3.5
No	15	6.2	10	4.2	33	13.8	19	7.7	32	13.3	34	13.9	25	10.2	13	5.4
Column total	17	7.2	19	8.0	41	17.3	30	12.2	39	16.3	40	16.4	31	13.7	21	8.9

$X^2 (df = 7, n = 240) = 14.7, p < .04$

$n = 246$ ) = 15.6,  $p < .02$ . Participants in the age groups of 66 to 70, 71 to 75, and 76 or older were less likely to respond yes to utilizing *black backgrounds* in their quiltmaking than participants from all other age groups (see Table 54). Participants in the age group of 45 or younger were less likely to respond yes to utilizing *light color backgrounds* as compared to participants from all other age groups (see Table 55).

Regardless of age, participants were evenly distributed regarding *cool colors*,  $X^2$  ( $df = 7, n = 245$ ) = 6.0, ns; *warm colors*,  $X^2$  ( $df = 7, n = 243$ ) = 10.5, ns; *pastels*,  $X^2$  ( $df = 7, n = 242$ ) = 10.3, ns; *bright colors*,  $X^2$  ( $df = 7, n = 246$ ) = 1.0, ns; *multiple colors*,  $X^2$  ( $df = 7, n = 246$ ) = 4.7, ns; *one or 2 colors*,  $X^2$  ( $df = 7, n = 242$ ) = 5.7, ns; *white or tan backgrounds*,  $X^2$  ( $df = 7, n = 247$ ) = 2.5, ns; *medium backgrounds*,  $X^2$  ( $df = 7, n = 245$ ) = .86, ns; and *dark backgrounds*,  $X^2$  ( $df = 7, n = 246$ ) = 13.0, ns.

Twelve 8 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between age groups with regard to the quiltmaking technique of fabric type utilization (Q29). The obtained statistics showed significance with regard to *solid*,  $X^2$  ( $df = 7, n = 248$ ) = 18.4,  $p < .01$ ; and *calico* fabric types,  $X^2$  ( $df = 7, n = 247$ ) = 21.0,  $p < .00$ . Participants in the age group of 45 years of age were less likely to respond yes to utilizing *solid* and *calico* fabrics in quiltmaking as compared to participants from all other age groups (see Tables 56 and 57).

Regardless of age, participants were evenly distributed regarding *florals*,  $X^2$  ( $df = 7, n = 247$ ) = 5.6, ns; *geometric prints*,  $X^2$  ( $df = 7, n = 247$ ) = 10.7, ns; *conversational/novelty*,  $X^2$  ( $df = 7, n = 247$ ) = 8.7, ns; *civil war reproductions*,  $X^2$  ( $df = 7, n = 244$ ) = 7.5,

Table 54

*Black Backgrounds Utilized According to Age*

Black backgrounds	45 or younger		46 to 50		51 to 55		56 to 60		61 to 65		66 to 70		71 to 75		76 or older	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	10	4.0	9	3.6	22	9.0	19	7.7	21	8.6	11	4.5	12	4.8	4	1.6
No	6	2.5	11	4.5	18	7.4	11	4.5	20	8.1	32	13.0	23	9.3	17	7.0
Column total	16	6.5	20	8.1	40	16.4	30	12.1	41	16.7	41	17.5	35	14.0	21	8.6

$X^2 (df = 7, n = 246) = 22.1, p < .00$

Table 55

*Light Colored Backgrounds Utilized According to Age*

Light colored backgrounds	45 or younger		46 to 50		51 to 55		56 to 60		61 to 65		66 to 70		71 to 75		76 or older	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	12	5.0	20	8.3	39	15.9	28	11.2	40	16.2	40	16.2	34	14.0	20	8.2
No	4	2.0	0	0.0	1	0.0	2	1.0	1	0.0	3	1.2	1	0.0	1	0.0
Column total	16	7.4	20	8.3	40	15.9	30	12.2	41	16.2	43	17.7	35	14.0	21	8.3

$X^2 (df = 7, n = 246) = 15.6, p < .02$

Table 56

*Solid Fabrics Utilized According to Age*

Solid fabrics	45 or younger		46 to 50		51 to 55		56 to 60		61 to 65		66 to 70		71 to 75		76 or older	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	11	5.0	19	7.6	36	15.0	28	11.2	38	15.3	40	16.2	35	14.2	20	8.1
No	6	2.4	1	0.0	4	1.6	2	1.0	3	1.2	3	1.2	1	0.0	1	0.0
Column total	17	7.4	20	7.6	40	16.6	30	12.2	41	16.5	43	17.4	36	14.2	21	8.1

$\chi^2 (df = 7, n = 248) = 18.4, p < .01$

Table 57

*Calicos Utilized According to Age*

Calicos	45 or younger		46 to 50		51 to 55		56 to 60		61 to 65		66 to 70		71 to 75		76 or older	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	10	4.0	18	7.4	37	15.0	24	9.7	36	14.7	40	16.3	34	13.7	22	9.0
No	6	2.4	2	1.0	3	1.2	6	2.4	5	2.0	3	1.2	1	0.0	1	0.0
Column total	16	6.4	20	8.4	40	16.2	30	12.1	41	16.7	43	17.5	35	13.7	23	9.0

$\chi^2 (df = 7, n = 247) = 21.0, p < .00$

ns; *1930s reproductions*,  $X^2 (df = 7, n = 244) = 7.5$ , ns; *museum reproductions*,  $X^2 (df = 7, n = 244) = 5.8$ , ns; *batiks*,  $X^2 (df = 7, n = 245) = 13.3$ , ns; *hand dyed*,  $X^2 (df = 7, n = 247) = 8.5$ , ns; *flannels*;  $X^2 (df = 7, n = 245) = 5.9$ , ns; and *velvets*,  $X^2 (df = 7, n = 244) = 10.6$ , ns.

### *Research Question 1b*

The demographic variable of education was investigated for Research Question 1b. The education variable was collapsed into four categories that consisted of high school education or less, some college or technical education, college degree, and graduate work or graduate degree.

A 4 x 2 chi-square contingency analysis was utilized to determine if there were significant differences between the four levels of education with regard to the quiltmaking practices of *quiltmaking individually or with others* (Q13). The obtained statistic showed no significance,  $X^2 (df = 3, n = 250) = 1.2$ , ns. Regardless of education, participants were evenly distributed between *quiltmaking individually or with others*.

Five 4 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between the four levels of education with regard to the quiltmaking practice of *quiltmaking with a group* (Q14). The obtained statistic showed significance regarding quiltmaking with *personal friends*,  $X^2 (df = 3, n = 182) = 7.9$ ,  $p < .04$ . Participants who had some college or technical school were more likely to respond yes to quiltmaking with *personal friends* than participants from any other level of education (see Table 58). The obtained statistics showed no significance for quiltmaking

Table 58

*Quiltmaking with Personal Friends According to Education*

Quiltmaking with personal friends	High school or less		Some college or technical school		College degree		Some graduate work or graduate degree	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	6	3.3	40	22.0	8	4.4	16	8.8
No	23	12.6	43	23.6	18	9.9	28	15.4
Column total	29	15.9	83	45.6	26	14.3	44	24.2

$\chi^2 (df = 3, n = 182) = 7.9, p < .04$

with a *bee*,  $X^2 (df= 3, n = 182) = 4.3$ , ns; *guild*,  $X^2 (df= 3, n = 182) = 1.1$ , ns; *church group*,  $X^2 (df= 3, n = 181) = 16.9$ , ns; or *business colleagues*,  $X^2 (df= 3, n = 182) = 5.7$ , ns. Regardless of education, participants were evenly distributed with regard to quiltmaking with a *bee*, *guild*, *church group* or *business colleagues*.

A 4 x 5 chi-square contingency analysis was utilized to determine if there were significant differences between the levels of education with regard to the quiltmaking practice of the number of hours per week spent on quiltmaking (Q19). For the purposes of the analysis, hours per week were collapsed into five segments as described in Research Question 1a. The obtained statistic showed significance with regard to high school education or less,  $X^2 (df= 12, n = 244) = 45.09$ ,  $p < .00$ . Participants indicating a high school education or less were more likely to spend more hours per week on quiltmaking than participants with an educational status of some college or technical school, college degree, and some graduate work or a graduate degree (see Table 59). Conversely, participants who indicated some college or technical school, a college degree, or some graduate work or graduate degree were more likely to spend fewer hours per week on quiltmaking.

Nineteen 4 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between levels of education with regard to specific quiltmaking practices (Q21). The obtained statistic showed significance with regard to *hand quilt for personal income*,  $X^2 (df= 3, n = 239) = 11.5$ ,  $p < .00$ . Participants who

Table 59

*Hours Spent Per Week on Quilting According to Education*

Hours per week	High school or less		Some college or technical school		College degree		Some graduate work or graduate degree	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
0 to 5	7	3.0	46	18.8	14	5.7	23	9.4
6 to 10	7	3.0	35	14.3	4	1.6	21	8.5
11 to 15	7	3.0	10	4.1	7	3.0	7	3.0
16 to 20	6	2.4	10	4.1	9	3.6	5	2.0
21 hours or more	13	5.3	4	1.6	5	2.0	4	1.6
Column total	40	16.7	105	42.9	39	15.9	60	24.5

$X^2 (df = 12, n = 244) = 45.0, p < .00$

indicated a high school education or less were more likely to respond yes to *hand quilt for personal income* than participants with any other level of education (see Table 60).

Regardless of education, participants were evenly distributed regarding *design quilt block patterns*,  $X^2 (df=3, n=243) = 6.1$ , ns; *purchase quilt block patterns*,  $X^2 (df=3, n=240) = 7.5$ , ns; *design quilt top patterns*,  $X^2 (df=3, n=231) = 1.5$ , ns; *purchase quilt top patterns*,  $X^2 (df=3, n=240) = 7.5$ , ns; *design quilting patterns*,  $X^2 (df=3, n=231) = 1.5$ , ns; *use templates for quilting*,  $X^2 (df=3, n=243) = 5.2$ , ns; *purchase block of the month patterns*,  $X^2 (df=3, n=241) = 1.0$ , ns; *purchase quilt kits*,  $X^2 (df=3, n=241) = 4.5$ , ns; *create contemporary quilts*,  $X^2 (df=3, n=240) = 1.1$ , ns; *create traditional quilts*,  $X^2 (df=3, n=245) = 3.8$ , ns; *display your quilts*,  $X^2 (df=3, n=245) = 1.1$ , ns; *enter design competitions*,  $X^2 (df=3, n=239) = .20$ , ns; *machine quilt for personal income*,  $X^2 (df=3, n=239) = 7.4$ , ns; *hand quilt for fundraising*,  $X^2 (df=3, n=238) = 6.3$ , ns; *machine quilt for fundraising*,  $X^2 (df=3, n=240) = 2.2$ , ns; *sell your quilt top patterns*,  $X^2 (df=3, n=240) = 1.3$ , ns; *sell quilting patterns*,  $X^2 (df=3, n=239) = 1.9$ , ns; and *write books/articles on quilting*,  $X^2 (df=3, n=239) = 3.0$ , ns.

A 4 x 16 chi-square contingency analysis was utilized to determine if there were significant differences between levels of education with regard to the quilting practice of the amount of U.S. dollars spent by participants on quilting during 2001 (Q22). For the purpose of the analysis, responses to how many dollars were spent on the separate categories of fabric, patterns, workshops/seminars, magazine subscriptions, and equipment were collapsed to represent the total amount of U.S. dollars spent on

Table 60

*Hand Quilt for Personal Income According to Education*

Hand quilt for personal income	High school or less		Some college or technical school		College degree		Some graduate work or graduate degree	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	7	2.9	8	3.3	0	0.0	2	1.0
No	32	13.4	90	37.7	39	16.3	61	25.4
Column Total	39	16.3	98	41.0	39	16.3	63	26.4

$X^2 (df = 3, n = 239) = 11.5, p < .00$

quiltmaking during 2001 as described in Research Question 1a. The obtained statistic showed no significance,  $X^2 (df = 45, n = 237) = 46.8$ , ns. Regardless of levels of education, participants were evenly distributed regarding the amount of U.S. dollars spent on quiltmaking.

A 4 x 6 chi-square contingency analysis was utilized to determine if there were significant differences between levels of education with regard to beliefs about the quiltmaking techniques that were most important to contributing to the quality and beauty of a quilt. The original options pertaining to the most important technique were collapsed into six segments as described in Research Question 1a. The obtained statistic showed significance with regard to *hand work* and *visual impact*,  $X^2 (df = 15, n = 247) = 28.07$ ,  $p < .02$ . Participants with an educational level of high school or less and some college or technical school were more likely to indicate *hand work* as the most important technique contributing to the quality and beauty of a quilt than participants indicating college degree and some graduate work or graduate degree. Participants indicating some college or technical school were more likely to indicate *quality* as the most important technique to the quality and beauty of a quilt than participants indicating high school or less, a college degree, or some graduate work or graduate degree. Participants indicating some college or technical school, a college degree, and some graduate work or a graduate degree were more likely to indicate *visual impact* as the most important technique to the quality and beauty of a quilt (see Table 61).

Table 61

*Participants' Most Important Characteristic to the Quality and Beauty of a Quilt According to Education*

Characteristic	High school or less		Some college or technical school		College degree		Some graduate work or graduate degree	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Hand work	15	6.2	26	10.7	4	1.6	12	4.8
Machine work	0	0.0	4	1.6	0	0.0	0	0.0
Quality	4	1.6	32	13.0	9	3.7	14	6.0
Complexity	0	0.0	0	0.0	0	0.0	0	0.0
Visual impact	21	9.0	40	16.2	25	10.2	36	15.0
Originality	0	0.0	1	0.0	0	0.0	1	0.0
Column total	40	16.8	106	41.9	38	15.5	63	25.8

$\chi^2 (df = 15, n = 247) = 28.0, p < .02.$

Seventeen 4 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between levels of education with regard to specific quilting techniques (Q24). The obtained statistics showed significance with regard to *hand embroidery*,  $X^2 (df=3, n=245) = 10.2$ , and *machine embroidery*,  $X^2 (df=3, n=243) = 8.9$ . Participants indicating high school or less, or some college or technical school were more likely to respond yes to utilizing *hand embroidery* than participants from all other levels of education (see Table 62). Participants indicating some graduate work or graduate degree were less likely to respond yes to utilizing *machine embroidery* than participants with any other level of education (see Table 63).

Regardless of levels of education, participants were evenly distributed with regard to *hand piecing*,  $X^2 (df=3, n=246) = .05$ , ns; *machine piecing*,  $X^2 (df=3, n=250) = 3.7$ , ns; *hand appliqué*,  $X^2 (df=3, n=247) = .34$ , ns; *machine appliqué*,  $X^2 (df=3, n=247) = 2.9$ , ns; *hand quilting*,  $X^2 (df=3, n=251) = 2.9$ , ns; *machine quilting*,  $X^2 (df=3, n=248) = .52$ , ns; *hired machine quilting*,  $X^2 (df=3, n=247) = .37$ , ns; *paper piecing*,  $X^2 (df=3, n=249) = 3.1$ , ns; *foundation piecing*,  $X^2 (df=3, n=246) = .85$ , ns; *stack-n-whack*,  $X^2 (df=3, n=241) = 5.6$ , ns; *trapunto*,  $X^2 (df=3, n=245) = 3.3$ , ns; and *fused applications*,  $X^2 (df=3, n=245) = 3.3$ , ns.

Nine 4 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between levels of education with regard to the quilting technique of what quilt styles were made by the participants (Q25). The obtained statistics showed no significance. Regardless of levels of education, participants were

Table 62

*Hand Embroidery According to Education*

Hand embroidery	High school or less		Some college or technical school		College degree		Some graduate work or graduate degree	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	36	14.6	85	35.1	29	11.8	40	16.2
No	5	2.0	18	7.3	10	4.0	22	9.0
Column Total	41	16.6	103	42.4	39	15.8	62	25.2

$$X^2 (df = 3, n = 245) = 10.2, p < .01$$

Table 63

*Machine Embroidery According to Education*

Machine embroidery	High school or less		Some college or technical school		College degree		Some graduate work or graduate degree	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	14	5.8	35	14.4	12	4.9	9	3.7
No	25	10.3	68	28.0	26	10.7	54	22.2
Column Total	39	16.1	103	42.4	38	15.6	63	25.9

$X^2 (df = 3, n = 243) = 8.9, p < .03$

evenly distributed with regard to the quilt styles made including *sampler*,  $X^2$  ( $df = 3$ ,  $n = 250$ ) = 4.7, ns; *wholecloth*,  $X^2$  ( $df = 3$ ,  $n = 241$ ) = 1.2, ns; *quilts of same block*,  $X^2$  ( $df = 3$ ,  $n = 249$ ) = .93, ns; *pictorial*,  $X^2$  ( $df = 3$ ,  $n = 245$ ) = 2.3, ns; *themed*,  $X^2$  ( $df = 3$ ,  $n = 245$ ) = .80, ns; *holiday*,  $X^2$  ( $df = 3$ ,  $n = 246$ ) = 1.1, ns; *crazy*,  $X^2$  ( $df = 3$ ,  $n = 243$ ) = 5.0, ns; *Hawaiian*,  $X^2$  ( $df = 3$ ,  $n = 245$ ) = 5.7, ns; and *mourning*,  $X^2$  ( $df = 3$ ,  $n = 244$ ) = 1.2, ns.

Eleven 4 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between levels of education with regard to the quilting technique of what types of quilts were made by the participants (Q26). The obtained statistics showed significance with regard to *single bed*,  $X^2$  ( $df = 3$ ,  $n = 239$ ) = 10.5,  $p < .01$ ; *double bed*,  $X^2$  ( $df = 3$ ,  $n = 237$ ) = 14.2,  $p < .00$ ; *queen size*,  $X^2$  ( $df = 3$ ,  $n = 241$ ) = 11.1,  $p < .01$ ; and *king size*,  $X^2$  ( $df = 3$ ,  $n = 236$ ) = 8.1,  $p < .04$ . Participants indicating high school education or less were more likely to respond yes to making *single bed*, *double bed*, *queen size*, and *king size* quilts than participants indicating some college or technical school, college degree or some graduate work or graduate degree (see Tables 64, 65, 66 and 67).

Regardless of levels of education, participants were evenly distributed regarding *crib/baby*,  $X^2$  ( $df = 3$ ,  $n = 249$ ) = 2.7, ns; *lap quilts*,  $X^2$  ( $df = 3$ ,  $n = 241$ ) = 1.3, ns; *wall hangings*,  $X^2$  ( $df = 3$ ,  $n = 248$ ) = 2.8, ns; *miniature quilts*,  $X^2$  ( $df = 3$ ,  $n = 243$ ) = 3.8, ns; *apparel and accessories*,  $X^2$  ( $df = 3$ ,  $n = 244$ ) = 2.2, ns; *toys and collectibles*,  $X^2$  ( $df = 3$ ,  $n = 241$ ) = 7.0, ns; and *home decorations*,  $X^2$  ( $df = 3$ ,  $n = 242$ ) = 2.7, ns.

Table 64

*Single Bed Quilts Made According to Education*

Single bed quilts	High school or less		Some college or technical school		College degree		Some graduate work or graduate degree	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	32	13.2	78	32.4	21	8.5	45	18.6
No	6	2.5	24	10.3	18	7.4	15	7.1
Column Total	38	15.7	102	42.7	39	15.9	60	25.7

$X^2 (df = 3, n = 239) = 10.5, p < .01$

Table 65

*Double Bed Quilts Made According to Education*

Double bed quilt	High school or less		Some college or technical school		College degree		Some graduate work or graduate degree	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	39	17.0	77	32.5	24	10.1	43	18.1
No	1	0.0	23	9.7	14	5.9	16	6.7
Column Total	40	17.0	100	42.2	38	16.0	59	24.8

$X^2 (df = 3, n = 237) = 14.2, p < .00$

Table 66

*Queen Size Quilts Made According to Education*

Queen size quilts	High school or less		Some college or technical school		College degree		Some graduate work or graduate degree	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	37	16.2	84	34.7	24	10.0	50	20.8
No	2	1.0	20	8.4	13	5.3	11	4.6
Column Total	39	17.2	104	42.1	37	15.3	61	25.4

$$X^2 (df = 3, n = 241) = 11.1, p < .01$$

Table 67

*King Size Bed Quilts Made According to Education*

King size bed quilts	High school or less		Some college or technical school		College degree		Some graduate work or graduate degree	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	24	10.2	53	22.4	14	6.0	23	9.7
No	14	6.0	48	20.3	24	10.2	36	15.2
Column Total	38	16.2	101	42.7	38	16.2	59	24.9

$$X^2 (df = 3, n = 236) = 8.1, p < .04$$

A 4 x 5 chi-square contingency analysis was utilized to determine if there were significant differences between levels of education with regard to participants' quiltmaking techniques of most important reasons for color selection (Q27). The obtained statistic showed no significance,  $X^2 (df = 12, n = 249) = 10.8$ , ns. Regardless of levels of education, participants were evenly distributed with regard to the most important reason for color selection.

Eleven 4 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between levels of education with regard to the quiltmaking technique of color palettes usage (Q28). The obtained statistics showed significance with regard to *one or two colors*,  $X^2 (df = 3, n = 243) = 10.9$ ,  $p < .01$ . Participants indicating a high school education or less, or some college or technical school were more likely to respond yes to utilizing *one or two colors* in their quiltmaking than those participants from any other level of education (see Table 68).

Regardless of levels of education, participants were evenly distributed regarding *cool colors*,  $X^2 (df = 3, n = 246) = .65$ , ns; *warm colors*,  $X^2 (df = 3, n = 244) = 2.6$ , ns; *pastel colors*,  $X^2 (df = 3, n = 247) = 1.9$ , ns; *bright colors*,  $X^2 (df = 3, n = 247) = 1.9$ , ns; *multiple colors*,  $X^2 (df = 3, n = 247) = .13$ , ns; *white or tan backgrounds*,  $X^2 (df = 3, n = 248) = .85$ , ns; *black backgrounds*,  $X^2 (df = 3, n = 247) = .02$ , ns; *light backgrounds*,  $X^2 (df = 3, n = 247) = 4.6$ , ns; *medium backgrounds*,  $X^2 (df = 3, n = 246) = .34$ , ns; and *dark backgrounds*,  $X^2 (df = 3, n = 247) = .49$ , ns.

Table 68

*One or Two Color Quilts Made According to Education*

One or two color quilts	High school or less		Some college or technical school		College degree		Some graduate work or graduate degree	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	30	12.3	80	33.0	21	8.6	41	17.0
No	10	4.1	21	8.6	19	7.8	21	8.6
Column Total	40	16.4	101	41.6	40	16.4	62	25.6

$$X^2 (df = 3, n = 243) = 10.9, p < .01$$

Twelve 4 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between levels of education with regard to the quilting technique of fabric type utilization (Q29). The obtained statistics showed no significance. Regardless of education, participants were evenly distributed regarding the fabric types of *solids*,  $X^2 (df = 3, n = 249) = .47$ , ns; *calicos*,  $X^2 (df = 3, n = 248) = 5.6$ , ns; *florals*,  $X^2 (df = 3, n = 248) = 2.9$ , ns; *geometric prints*,  $X^2 (df = 3, n = 248) = 2.1$ , ns; *conversational/novelty prints*,  $X^2 (df = 3, n = 248) = .86$ , ns; *civil war reproductions*,  $X^2 (df = 3, n = 245) = 3.1$ , ns; *1930s reproductions*,  $X^2 (df = 3, n = 249) = 4.7$ , ns; *museum reproductions*,  $X^2 (df = 3, n = 245) = .51$ , ns; *batiks*,  $X^2 (df = 3, n = 246) = 1.8$ , ns; *hand-dyed fabrics*,  $X^2 (df = 3, n = 248) = 1.8$ , ns; *flannels*,  $X^2 (df = 3, n = 246) = 3.2$ , ns; and *velvets*,  $X^2 (df = 3, n = 245) = 3.0$ , ns.

#### *Research Question 1c*

The demographic variable of residential status was investigated for Research Question 1c. A 2 x 2 chi-square contingency analysis was utilized to determine if there were significant differences between residential status with regard to *quilting individually or with others* (Q13). The obtained statistic showed no significance,  $X^2 (df = 1, n = 249) = .87$ , ns. Regardless of residential status, participants were evenly distributed between *quilting individually or with others*.

Five chi-square contingency analyses were utilized to determine if there were significant differences between residential status with regard to the quilting practice of *quilting with a group* (Q14). The obtained statistics showed no significance for quilting with a *bee*,  $X^2 (df = 1, n = 182) = 2.5$ , ns; *guild*,  $X^2 (df = 1, n = 182) = .01$ , ns;

*church group*,  $X^2 (df = 1, n = 181) = .41$ , ns; *friends not associated with a formal group*,  $X^2 (df = 1, n = 182) = .58$ , ns; or *business colleagues*,  $X^2 (df = 1, n = 182) = .22$ , ns.

Regardless of residential status, participants were evenly distributed with regard to quiltmaking with a group.

A 2 x 5 chi-square contingency analysis was utilized to determine if there were significant differences between residential status with regard to the quiltmaking practice of the number of hours per week spent on quiltmaking (Q19). For the purpose of the analyses, hours per week were collapsed into segments as described in Research Question 1a. The obtained statistics showed no significance,  $X^2 (df = 4, n = 243) = 1.5$ , ns.

Regardless of residential status, participants were evenly distributed with regard to the number of hours per week spent on quiltmaking.

Nineteen 2 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between residential status with regard to specific quiltmaking practices (Q21). The obtained statistics showed significance for *machine quilt for fundraising*,  $X^2 (df = 1, n = 238) = .15$ ,  $p < .01$ . Participants who were raised in an urban setting were more likely to respond yes to *machine quilt for fundraising* than those participants raised in a rural setting (see Table 69).

Regardless of residential status, participants were evenly distributed regarding *design quilt block patterns*,  $X^2 (df = 1, n = 234) = .51$ , ns; *purchase quilt block patterns*,  $X^2 (df = 1, n = 241) = .20$ , ns; *design quilt top patterns*,  $X^2 (df = 1, n = 236) = 1.6$ , ns;

Table 69

*Machine Quilt For Fundraising According to Residential Status*

Machine quilt for fundraising	Urban		Rural	
	<i>n</i>	%	<i>n</i>	%
Yes	36	15.2	13	5.4
No	103	43.2	86	36.2
Column Total	139	58.4	99	41.6

$X^2 (df = 1, n = 238) = 5.7, p < .01$

*purchase quilt top patterns*,  $X^2 (df = 1, n = 238) = .32$ , ns; *design quilting patterns*,  $X^2 (df = 1, n = 230) = 1.0$ , ns; *use templates for quilting patterns*,  $X^2 (df = 1, n = 241) = .08$ , ns; *purchase block of the month patterns*,  $X^2 (df = 1, n = 239) = .19$ , ns; *purchase quilt kits*,  $X^2 (df = 1, n = 239) = .21$ , ns; *create contemporary quilts*,  $X^2 (df = 1, n = 238) = .15$ , ns; *create traditional quilts*,  $X^2 (df = 1, n = 243) = .88$ , ns; *display quilts at shows*,  $X^2 (df = 1, n = 243) = .06$ , ns; *enter design competitions*,  $X^2 (df = 1, n = 237) = .08$ , ns; *hand quilt for personal income*,  $X^2 (df = 1, n = 237) = 3.6$ , ns; *hand quilt for fundraising*,  $X^2 (df = 1, n = 236) = .11$ , ns; *machine quilt for fundraising*,  $X^2 (df = 1, n = 238) = .57$ , ns; *sell your quilt top patterns*,  $X^2 (df = 1, n = 238) = .84$ , ns; *sell your quilting patterns*,  $X^2 (df = 1, n = 237) = 1.7$ , ns; and *write books/articles on quilting*,  $X^2 (df = 1, n = 237) = 1.9$ , ns.

A 2 x 16 chi-square contingency analysis was utilized to determine if there were significant differences between residential status with regard to the quilting practice of the amount of U.S. dollars spent by participants on quilting during 2001 (Q22). For analysis purposes, the original segments of U.S. dollars were collapsed into one segment as described in Research Question 1a. The obtained statistic showed no significance,  $X^2 (df = 15, n = 236) = 7.0$ , ns. Regardless of residential status, participants were evenly distributed regarding amount of U.S. dollars spent on quilting.

A 2 x 6 chi-square contingency analysis was utilized to determine if there were significant differences between residential status with regard to beliefs about the quilting techniques that were most important to contributing to the quality and beauty of a quilt (Q23). For analysis purposes, the original options pertaining to the most important techniques were collapsed into six segments as described in Research Question

1a. The obtained statistic showed significance with regard to *visual impact*,  $X^2$  ( $df = 5$ ,  $n = 246$ ) = 11.1,  $p < .05$ . Participants who were raised in an urban environment were more likely to indicate *visual impact* as the most important technique that contributes to the quality and beauty of a quilt than participants raised in a rural environment (see Table 70).

Seventeen 2 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between residential status with regard to specific quilting techniques utilized by the participants (Q24). The obtained statistics showed significance with regard to *hand piecing*,  $X^2$  ( $df = 1$ ,  $n = 245$ ) = 4.3,  $p < .03$ ; *hand appliqué*,  $X^2$  ( $df = 1$ ,  $n = 246$ ) = 3.9,  $p < .04$ ; *machine quilting*,  $X^2$  ( $df = 1$ ,  $n = 246$ ) = 7.8,  $p < .00$ ; and *fused applications*,  $X^2$  ( $df = 1$ ,  $n = 243$ ) = 8.9,  $p < .02$ . Participants who were raised in a rural environment were more likely to respond yes to utilizing *hand piecing* and *hand appliqué* than those participants raised in an urban environment (see Tables 71 and 72). Conversely, participants raised in an urban environment were more likely to respond yes to utilizing *machine quilting* and *fused applications* than participants raised in a rural environment (see Tables 73 and 74).

Regardless of residential status, participants were evenly distributed regarding *machine piecing*,  $X^2$  ( $df = 1$ ,  $n = 249$ ) = .70, ns; *machine appliqué*,  $X^2$  ( $df = 1$ ,  $n = 246$ ) = 2.3, ns; *hand quilting*,  $X^2$  ( $df = 1$ ,  $n = 250$ ) = .49, ns; *hired machine quilting*,  $X^2$  ( $df = 1$ ,  $n = 246$ ) = 1.5, ns; *paper piecing*,  $X^2$  ( $df = 1$ ,  $n = 248$ ) = .39, ns; *foundation piecing*,  $X^2$  ( $df =$

Table 70

*Most Important Characteristic to the Quality and Beauty of a Quilt According to Residential Status*

Characteristic	Urban		Rural	
	<i>n</i>	%	<i>n</i>	%
Hand work	27	11.2	30	12.3
Machine work	4	1.5	0	0.0
Quality	31	13.0	28	11.4
Complexity	3	1.2	0	0.0
Visual impact	79	32.1	42	17.3
Originality	1	0.0	1	0.0
Column Total	145	59.0	101	41.0

$\chi^2 (df = 5, n = 246) = 11.1, p < .05$

Table 71

*Hand Piecing According to Residential Status*

Hand piecing	Urban		Rural	
	<i>n</i>	%	<i>n</i>	%
Yes	72	29.4	67	27.3
No	69	28.1	37	15.1
Column Total	131	57.5	104	42.4

$\chi^2 (df = 1, n = 245) = 4.3, p < .03$

Table 72

*Hand Appliqué According to Residential Status*

Hand appliqué	Urban		Rural	
	<i>n</i>	%	<i>n</i>	%
Yes	116	47.1	93	37.7
No	27	11.2	10	4.0
Column Total	143	58.3	103	41.7

$\chi^2 (df = 1, n = 246) = 3.9, p < .04$

Table 73

*Machine Quilting According to Residential Status*

Machine quilting	Urban		Rural	
	<i>n</i>	%	<i>n</i>	%
Yes	118	47.8	67	27.1
No	27	10.9	35	14.2
Column Total	145	58.7	102	41.3

$\chi^2 (df = 1, n = 247) = 7.8, p < .00$

Table 74

*Fused Applications Utilized in Quiltmaking According to Residential Status*

Fused applications	Urban		Rural	
	<i>n</i>	%	<i>n</i>	%
Yes	94	38.5	52	21.3
No	49	20.1	49	20.1
Column Total	143	58.6	101	41.4

$\chi^2 (df = 1, n = 244) = 5.0, p < .02$

1,  $n = 245$ ) = .16, ns; *stack-n-whack*,  $X^2$  ( $df = 1, n = 240$ ) = 1.6, ns; *hand embroidery*,  $X^2$  ( $df = 1, n = 249$ ) = 1.4, ns; *machine embroidery*,  $X^2$  ( $df = 1, n = 242$ ) = 2.1, ns; and *trapunto*,  $X^2$  ( $df = 1, n = 244$ ) = .06, ns.

Nine 2 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between residential status with regard to the quilting technique of what quilt styles were made by the participants (Q25). The obtained statistics showed no significance. Regardless of residential status, participants were evenly distributed regarding *sampler*,  $X^2$  ( $df = 1, n = 249$ ) = .09, ns; *wholecloth*,  $X^2$  ( $df = 1, n = 240$ ) = 1.1, ns; *quilts of same block*,  $X^2$  ( $df = 1, n = 248$ ) = .00, ns; *pictorial*,  $X^2$  ( $df = 1, n = 244$ ) = .34, ns; *themed*,  $X^2$  ( $df = 1, n = 244$ ) = .34, ns; *holiday*,  $X^2$  ( $df = 1, n = 245$ ) = 2.0, ns; *crazy*,  $X^2$  ( $df = 1, n = 242$ ) = .10, ns; *Hawaiian*,  $X^2$  ( $df = 1, n = 244$ ) = .11, ns; and *mourning* quilt styles,  $X^2$  ( $df = 1, n = 244$ ) = .06, ns.

Eleven 2 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between residential status with regard to the quilting technique of what types of quilts were made by the participants (Q26). The obtained statistic showed significance with regard to *queen size* quilts,  $X^2$  ( $df = 1, n = 240$ ) = 4.2,  $p < .04$ . Participants who were raised in a rural environment were more likely to respond yes to making *queen size* quilts than participants raised in an urban environment (see Table 75).

Regardless of residential status, participants were evenly distributed regarding the quilt types of *single bed*,  $X^2$  ( $df = 1, n = 238$ ) = .00, ns; *double bed*,  $X^2$  ( $df = 1, n = 236$ ) =

Table 75

*Queen Size Quilts Made According to Residential Status*

Queen size quilts	Urban		Rural	
	<i>n</i>	%	<i>n</i>	%
Yes	107	44.6	87	36.3
No	33	13.7	13	5.4
Column Total	140	58.3	100	41.7

$\chi^2 (df = 1, n = 240) = 4.2, p < .04$

1.3, ns; *king size*,  $X^2 (df=1, n=235) = .64$ , ns; *crib/baby*,  $X^2 (df=1, n=248) = .13$ , ns; *lap quilts*,  $X^2 (df=1, n=240) = 2.8$ , ns; *wall hangings*,  $X^2 (df=1, n=247) = .02$ , ns; *miniature quilts*,  $X^2 (df=1, n=242) = .31$ , ns; *apparel and accessories*,  $X^2 (df=1, n=243) = .02$ , ns; *toys and collectibles*,  $X^2 (df=1, n=240) = .06$ , ns; and *home decorations*,  $X^2 (df=1, n=241) = .35$ , ns.

A 2 x 5 chi-square contingency analysis was utilized to determine if there were significant differences between residential status with regard to participants' quiltmaking technique of most important reasons for color selection (Q27). The obtained statistic showed no significance,  $X^2 (df=5, n=248) = 4.8$ , ns. Regardless of residential status, participants were evenly distributed with regard to the most important reason for color selection.

Eleven 2 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between residential status with regard to the quiltmaking technique of color palette usage (Q28). The obtained statistics showed significance with regard to *cool colors*,  $X^2 (df=1, n=245) = 7.5$ ,  $p < .00$ . Participants who were raised in a rural setting were more likely to respond yes to utilizing *cool colors* than participants who were raised in an urban setting (see Table 76).

Regardless of residential status, participants were evenly distributed regarding *warm colors*,  $X^2 (df=1, n=243) = .97$ , ns; *pastels*,  $X^2 (df=1, n=242) = 3.3$ , ns; *bright colors*,  $X^2 (df=1, n=246) = 1.0$ , ns; *multiple colors*,  $X^2 (df=1, n=246) = .01$ , ns; *one or two colors*,  $X^2 (df=1, n=242) = .18$ , ns; *white or tan backgrounds*,  $X^2 (df=1, n=247) =$

Table 76

*Cool Colors Utilized According to Residential Status*

Cool colors	Urban		Rural	
	<i>n</i>	%	<i>n</i>	%
Yes	132	53.6	103	42.0
No	8	3.2	3	1.2
Column Total	140	56.8	106	43.2

$X^2 (df = 1, n = 246) = 7.6, p < .05$

.00, ns; *black backgrounds*,  $X^2 (df = 1, n = 246) = .82$ , ns; *light color backgrounds*,  $X^2 (df = 1, n = 246) = .36$ , ns; *medium color backgrounds*,  $X^2 (df = 1, n = 245) = .19$ , ns; and *dark backgrounds*,  $X^2 (df = 1, n = 246) = .76$ , ns.

Twelve 2 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between residential status with regard to the quilting technique of fabric utilization (Q29). The obtained statistics showed no significance. Regardless of residential status, participants were evenly distributed regarding the fabric types of *solids*,  $X^2 (df = 1, n = 248) = .43$ , ns; *calicos*,  $X^2 (df = 1, n = 247) = .19$ , ns; *florals*,  $X^2 (df = 1, n = 247) = .99$ , ns; *geometric prints*,  $X^2 (df = 1, n = 247) = .98$ , ns; *conversational/novelty prints*,  $X^2 (df = 1, n = 247) = .02$ , ns; *civil war reproductions*,  $X^2 (df = 1, n = 244) = 2.8$ , ns; *1930s reproductions*,  $X^2 (df = 1, n = 248) = .00$ , ns; *museum reproductions*,  $X^2 (df = 1, n = 244) = 2.7$ , ns; *batiks*,  $X^2 (df = 1, n = 245) = .41$ , ns; *hand-dyed fabrics*,  $X^2 (df = 1, n = 247) = .43$ , ns; *flannels*,  $X^2 (df = 5, n = 245) = .72$ , ns; and *velvets*,  $X^2 (df = 1, n = 244) = .87$ , ns.

#### *Research Question 1d*

The demographic variable of employment status was investigated for Research Question 1d. The employment status variable was collapsed into three categories that consisted of employed outside the home, not employed outside the home, and retired as described in Hypothesis 8.

A 3 x 2 chi-square contingency analysis was utilized to determine if there were significant differences between employment status with regard to *quilting individually or with others* (Q13). The obtained statistic showed no significance,  $X^2 (df =$

2,  $n = 250$ ) = 1.7, ns. Regardless of employment status, participants were evenly distributed with regard to *quiltmaking individually or with others*.

Five 3 x 2 chi-square contingency analyses were conducted to determine if there were significant differences between employment status with regard to the quiltmaking practice of *quiltmaking with a group* (Q14). The obtained statistics showed significance with regard to *business colleagues*,  $X^2 (df = 2, n = 181) = 13.6, p < .00$ . Participants employed outside the home were more likely to indicate quiltmaking with *business colleagues* than participants from any other employment status (see Table 77).

Regardless of employment status, participants were evenly distributed with regard to quiltmaking with a *bee*,  $X^2 (df = 2, n = 181) = 2.9$ , ns; *guild*,  $X^2 (df = 2, n = 181) = 1.4$ , ns; *church*,  $X^2 (df = 2, n = 180) = 8.1$ , ns; and *friends not associated with a formal group*,  $X^2 (df = 2, n = 181) = 1.2$ , ns.

A 3 x 5 chi-square contingency analysis was utilized to determine if there were significant differences between employment status with regard to the quiltmaking practice of the number of hours per week spent on quiltmaking (Q19). For the purpose of the analysis, hours per week were collapsed into segments as described in Research Question 1a. The obtained statistic showed no significance,  $X^2 (df = 8, n = 243) = 7.0$ , ns. Regardless of employment status, participants were evenly distributed with regard to hours per week spent on quiltmaking.

Table 77

*Quilting with Business Colleagues According to Employment Status*

Quilting with Business colleagues	Employed outside the home		Not employed outside the home		Retired	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	5	2.8	0	0.0	1	0.0
No	35	19.4	48	26.8	92	51.0
Column total	40	22.2	48	26.8	93	51.0

$\chi^2 (df = 2, n = 181) = 13.6, p < .00$

Nineteen 3 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between employment status with regard to specific quilting practices (Q21). The obtained statistics showed significance with regard to *purchase quilt block patterns*,  $X^2 (df = 2, n = 241) = 7.8, p < .02$ ; *design quilting patterns*,  $X^2 (df = 2, n = 230) = 6.4, p < .04$ ; *create contemporary quilts*,  $X^2 (df = 2, n = 239) = 15.6, p < .00$ ; *machine quilt for personal income*,  $X^2 (df = 2, n = 238) = 17.1, p < .00$ ; and *machine quilt for fundraising*,  $X^2 (df = 2, n = 239) = 15.4, p < .00$ .

Retired participants were less likely to respond yes to *purchased quilt block patterns* and *design quilting patterns* than participants who were employed outside the home, or not employed outside the home (see Tables 78 and 79). Participants who were employed outside the home were more likely respond yes to *create contemporary quilts*, *machine quilt for personal income*, and *machine quilt for fundraising* than participants who were not employed outside the home or were retired (see Tables 80, 81, and 82).

Regardless of employment status, participants were evenly distributed with regard to the quilting practices of *design quilt block patterns*,  $X^2 (df = 2, n = 241) = 7.8, ns$ ; *design quilt top patterns*,  $X^2 (df = 2, n = 237) = 2.0, ns$ ; *purchase quilt top patterns*,  $X^2 (df = 2, n = 239) = .56, ns$ ; *design quilting patterns*,  $X^2 (df = 2, n = 230) = 6.4, ns$ ; *use templates for quilting patterns*,  $X^2 (df = 2, n = 241) = .97, ns$ ; *purchase block of the month patterns*,  $X^2 (df = 2, n = 240) = 4.9, ns$ ; *purchase quilt kits*,  $X^2 (df = 2, n = 239) = 2.1, ns$ ; *create traditional quilts*,  $X^2 (df = 2, n = 243) = 1.2, ns$ ; *display quilts at shows*,  $X^2 (df = 2, n = 243) = .97, ns$ ; *enter design competitions*,  $X^2 (df = 2, n = 238) = .28, ns$ ;

Table 78

*Purchase Quilt Block Patterns According to Employment Status*

Purchase quilt block patterns	Employed outside the home		Not employed outside the home		Retired	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	60	25.0	54	22.4	105	44.0
No	1	0.0	4	1.6	17	7.0
Column total	61	25.0	58	24.0	122	51.0

$\chi^2 (df = 2, n = 241) = 7.8, p < .02$

Table 79

*Design Quilting Patterns According to Employment Status*

Design quilting patterns	Employed outside the home		Not employed outside the home		Retired	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	34	14.8	35	15.2	52	22.6
No	23	10.0	21	9.1	65	28.2
Column total	57	24.8	56	24.3	117	50.8

$X^2 (df = 2, n = 230) = 6.4, p < .04$

Table 80

*Create Contemporary Quilts According to Employment Status*

Create contemporary quilts	Employed outside the home		Not employed outside the home		Retired	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	46	19.2	35	14.7	55	23.0
No	14	5.9	24	10.0	65	27.2
Column total	60	25.1	59	24.7	120	50.2

$\chi^2 (df = 2, n = 239) = 15.6, p < .00$

Table 81

*Machine Quilt for Personal Income According to Employment Status*

Machine quilt for personal income	Employed outside the home		Not employed outside the home		Retired	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	14	5.9	3	1.2	6	2.5
No	46	19.4	56	23.5	113	47.5
Column total	60	25.3	59	24.7	119	50.0

$\chi^2 (df = 2, n = 238) = 17.1, p < .00$

Table 82

*Machine Quilt for Fundraising According to Employment Status*

Machine quilt for fundraising	Employed outside the home		Not employed outside the home		Retired	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	22	9.3	14	5.7	14	5.7
No	38	16.0	45	18.9	106	44.4
Column total	60	25.3	59	24.6	120	50.1

$\chi^2 (df = 2, n = 239) = 15.4, p < .00$

*hand quilt for personal income*,  $X^2 (df = 2, n = 237) = .00$ , ns; *hand quilt for fundraising*,  $X^2 (df = 2, n = 237) = .21$ , ns; *sell quilt top patterns*,  $X^2 (df = 2, n = 239) = 1.3$ , ns; *sell quilting patterns*,  $X^2 (df = 2, n = 239) = 1.5$ , ns; and *write books/articles on quilting*,  $X^2 (df = 2, n = 238) = 4.1$ , ns.

A 3 x 16 chi-square contingency analysis was utilized to determine if there were significant differences between employment status with regard to the quilting practice of the amount of U.S. dollars spent by participants on quilting during 2001 (Q22). For the purpose of the analysis, responses to how many dollars were spent on quilting during 2001 were collapsed as described in Research Question 1a. The obtained statistics showed no significance,  $X^2 (df = 30, n = 236) = 36.8$ , ns. Regardless of employment status, participants were evenly distributed with regard to U.S. dollars spent on quilting during 2001.

A 3 x 6 chi-square contingency analysis was utilized to determine if there were significant differences between employment status with regard to beliefs about the quilting techniques that were most important to contributing to the quality and beauty of a quilt (Q23). For the purpose of the analysis, the most important techniques were collapsed into segments as described in Research Question 1a. The obtained statistic showed significance with regard to *hand work* and *quality*,  $X^2 (df = 10, n = 246) = 20.0$ ,  $p < .02$ . Retired participants were more likely to indicate *hand work* and *quality* as the most important techniques to the quality and beauty of a quilt than participants who were employed outside the home, or not employed outside the home (see Table 83).

Table 83

*Most Important Characteristic to the Quality and Beauty of a Quilt According to Employment Status*

Characteristic	Employed outside the home		Not employed outside the home		Retired	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Hand work	9	4.0	11	5.0	39	16.0
Machine work	1	0.0	2	1.0	1	0.0
Quality	14	5.9	8	3.2	37	14.8
Complexity	1	0.0	2	1.0	0	0.0
Visual impact	34	13.8	38	15.5	50	19.8
Originality	1	0.0	0	0.0	1	0.0
Column total	60	23.7	61	25.7	125	50.6

$\chi^2 (df = 10, n = 246) = 20.0, p < .02$

Seventeen 3 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between employment status with regard to specific quilting techniques utilized by the participants (Q24). The obtained statistics showed significance with regard to *machine appliqué*,  $X^2 (df = 2, n = 246) = 11.6, p < .00$ ; *machine quilting*,  $X^2 (df = 2, n = 247) = 9.1, p < .01$ ; and *fused applications*,  $X^2 (df = 2, n = 245) = 6.0, p < .05$ . Participants employed outside the home, and not employed outside the home were more likely to respond yes to utilizing *machine appliqué*, *machine quilting*, and *fused applications* than retired participants (see Tables 84, 85, and 86).

Regardless of employment status, participants were evenly distributed with regard to the quilting techniques of *hand piecing*,  $X^2 (df = 2, n = 245) = 3.4, ns$ ; *machine piecing*,  $X^2 (df = 2, n = 249) = 1.1, ns$ ; *hand appliqué*,  $X^2 (df = 2, n = 246) = 1.5, ns$ ; *hand quilting*,  $X^2 (df = 2, n = 250) = .11, ns$ ; *hired machine quilting*,  $X^2 (df = 2, n = 246) = 2.9, ns$ ; *paper piecing*,  $X^2 (df = 2, n = 249) = 3.2, ns$ ; *foundation piecing*,  $X^2 (df = 2, n = 246) = 2.5, ns$ ; *stack-n-whack*,  $X^2 (df = 2, n = 240) = 3.2, ns$ ; *hand embroidery*,  $X^2 (df = 2, n = 244) = 5.5, ns$ ; *machine embroidery*,  $X^2 (df = 2, n = 242) = 4.0, ns$ ; and *trapunto*,  $X^2 (df = 2, n = 244) = .27, ns$ .

Nine 3 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between employment status with regard to the quilting technique of what quilt styles were made by the participants (Q25). The obtained statistics showed no significance. Regardless of quilt styles made, participants were evenly distributed with regard to the quilt styles made including *sampler*,  $X^2 (df = 2, n =$

Table 84

*Machine Appliqué According to Employment Status*

Machine appliqué	Employed outside the home		Not employed outside the home		Retired	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	43	17.5	41	16.7	60	24.4
No	18	7.3	19	7.7	65	26.4
Column total	61	24.8	60	24.4	125	50.8

$\chi^2 (df = 2, n = 246) = 11.6, p < .00$

Table 85

*Machine Quilting According to Employment Status*

Machine quilting	Employed outside the home		Not employed outside the home		Retired	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	49	19.8	52	21.1	85	34.3
No	12	4.8	8	3.2	41	16.8
Column total	61	24.6	60	24.3	126	51.1

$\chi^2 (df = 2, n = 247) = 9.1, p < .01$

Table 86

*Fused Applications According to Employment Status*

Fused applications	Employed outside the home		Not employed outside the home		Retired	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	41	16.8	41	16.8	65	26.5
No	20	8.2	19	7.6	59	24.1
Column total	61	25.0	60	24.4	124	50.6

$X^2 (df = 2, n = 245) = 6.0, p < .05$

249) = .39, ns; *wholecloth*,  $X^2 (df = 2, n = 241) = 1.9$ , ns; *quilts of same block*,  $X^2 (df = 2, n = 248) = .64$ , ns; *pictorial*,  $X^2 (df = 2, n = 244) = 4.2$ , ns; *themed*,  $X^2 (df = 2, n = 244) = 5.8$ , ns; *holiday*,  $X^2 (df = 2, n = 245) = 2.7$ , ns; *crazy*,  $X^2 (df = 2, n = 242) = 1.1$ , ns; *Hawaiian*,  $X^2 (df = 2, n = 244) = 2.3$ , ns; and *mourning*,  $X^2 (df = 2, n = 243) = 5.9$ , ns.

Eleven 3 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between employment status with regard to the quilting technique of what types of quilts were made by the participants (Q26). The obtained statistics showed no significance. Regardless of employment status, participants were evenly distributed with regard to quilt types made including *single bed*,  $X^2 (df = 2, n = 238) = 2.9$ , ns; *double bed*,  $X^2 (df = 2, n = 236) = 2.6$ , ns; *queen size*,  $X^2 (df = 2, n = 240) = .02$ , ns; *king size*,  $X^2 (df = 2, n = 235) = 3.3$ , ns; *crib/baby*,  $X^2 (df = 2, n = 248) = 1.0$ , ns; *lap quilts*,  $X^2 (df = 2, n = 241) = 5.1$ , ns; *wall hangings*,  $X^2 (df = 2, n = 247) = 1.9$ , ns; *miniature quilts*,  $X^2 (df = 2, n = 242) = 4.6$ , ns; *apparel and accessories*,  $X^2 (df = 2, n = 243) = 1.0$ , ns; *toys and collectibles*,  $X^2 (df = 2, n = 240) = 1.7$ , ns; and *home decorations*,  $X^2 (df = 2, n = 240) = 1.7$ , ns.

A 3 x 5 chi-square contingency analysis was utilized to determine if there were significant differences between employment status with regard to participants' quilting technique of most important reasons for color selection (Q27). The obtained statistic showed no significance,  $X^2 (df = 8, n = 248) = 9.0$ , ns. Regardless of employment status, participants were evenly distributed with regard to the most important reason for color selection.

Eleven 3 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between employment status with regard to the quilting technique of color palette usage (Q28). The obtained statistics showed significance with regard to *black backgrounds*,  $X^2 (df = 2, n = 246) = 5.7, p < .05$ , and *dark backgrounds*,  $X^2 (df = 2, n = 246) = 8.0, p < .01$ . Retired participants were less likely to respond yes to utilizing *black backgrounds* and *dark colored backgrounds* in their quilting than participants employed outside the home or not employed outside the home (see Tables 87 and 88).

Regardless of employment status, participants were evenly distributed with regard to the color palettes of *cool colors*,  $X^2 (df = 2, n = 245) = 2.1, ns$ ; *warm colors*,  $X^2 (df = 2, n = 243) = .00, ns$ ; *pastels*,  $X^2 (df = 2, n = 242) = .23, ns$ ; *bright colors*,  $X^2 (df = 2, n = 246) = .20, ns$ ; *multiple colors*,  $X^2 (df = 2, n = 246) = .63, ns$ ; *one or two colors*,  $X^2 (df = 2, n = 243) = 1.5, ns$ ; *white or tan backgrounds*,  $X^2 (df = 2, n = 247) = 1.2, ns$ ; *light color backgrounds*,  $X^2 (df = 2, n = 246) = 1.0, ns$ ; and *medium color backgrounds*,  $X^2 (df = 2, n = 245) = 1.8, ns$ .

Twelve 3 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between employment status with regard to the quilting technique of fabric type utilization (Q29). The obtained statistics showed significance regarding *solid fabrics*,  $X^2 (df = 2, n = 248) = 15.2, p < .00$ , *civil war reproductions*,  $X^2 (df = 2, n = 244) = 5.6, p < .05$ , and *1930s reproductions*,  $X^2 (df = 2, n = 248) = 6.7, p < .03$ . Participants not employed outside the home were less likely to respond yes to

Table 87

*Black Backgrounds Utilized in Quiltmaking According to Employment Status*

Black backgrounds	Employed outside the home		Not employed outside the home		Retired	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	33	13.4	29	12.0	48	19.6
No	26	10.2	31	12.7	79	32.1
Column total	59	23.6	60	24.7	127	51.7

$\chi^2 (df = 2, n = 246) = 5.7, p < .05$

Table 88

*Dark Colored Backgrounds Utilized in Quilting According to Employment Status*

Dark colored backgrounds	Employed outside the home		Not employed outside the home		Retired	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	40	16.3	33	13.4	58	23.6
No	19	7.7	27	11.0	69	28.0
Column total	59	24.0	60	24.4	127	51.6

$\chi^2 (df = 2, n = 246) = 8.0, p < .01$

utilizing *solid fabrics* in quilting as compared to participants who were employed outside the home or retired (see Table 89). Retired participants were less likely to respond yes to utilizing *civil war reproductions* and *1930s reproductions* than participants from the other two employment status groups (see Tables 90 and 91).

Regardless of employment status, participants were evenly distributed with regard to *calicos*,  $X^2 (df = 2, n = 247) = 5.4, ns$ ; *florals*,  $X^2 (df = 2, n = 247) = 4.5, ns$ ; *geometric prints*,  $X^2 (df = 2, n = 247) = 4.5, ns$ ; *conversational/novelty prints*,  $X^2 (df = 2, n = 247) = 4.2, ns$ ; *museum reproductions*,  $X^2 (df = 2, n = 244) = 4.3, ns$ ; *batiks*,  $X^2 (df = 2, n = 245) = .08, ns$ ; *hand dyed fabrics*,  $X^2 (df = 2, n = 247) = 5.2, ns$ ; *flannels*,  $X^2 (df = 2, n = 245) = 5.2, ns$ ; and *velvets*,  $X^2 (df = 2, n = 244) = 1.4, ns$ .

#### *Research Question 1e*

The demographic variable of occupational status was investigated for Research Question 1e. The occupational variable was collapsed into nine segments consisting of labor/craftsperson, full-time homemaker, military, office/clerical, professional degreed, professional non-degreed, full-time student, business, and service. Because of the fact that only one participant was classified in the military and full-time student occupations, these classifications were not part of the analyses.

A 7 x 2 chi-square contingency analysis was utilized to determine if there were significant differences between occupational status with regard to *quilting individually or with others* (Q13). The obtained statistics showed no significance,  $X^2$

Table 89

*Solid Fabrics Utilized in Quilting According to Employment Status*

Solid fabrics	Employed outside the home		Not employed outside the home		Retired	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	57	23.0	48	19.4	123	49.6
No	3	1.2	12	4.8	5	2.0
Column total	60	24.2	60	24.2	128	51.6

$\chi^2 (df = 2, n = 248) = 15.2, p < .00$

Table 90

*Civil War Reproductions Utilized in Quiltmaking According to Employment Status*

Civil War reproductions	Employed outside the home		Not employed outside the home		Retired	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	31	12.7	31	12.7	48	19.7
No	27	11.0	28	11.5	79	32.4
Column total	58	23.7	59	24.2	127	52.1

$\chi^2 (df=2, n=244) = 5.6, p < .05$

Table 91

*1930s Reproductions Utilized in Quilting According to Employment Status*

1930s reproductions	Employed outside the home		Not employed outside the home		Retired	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	41	16.5	47	19.0	74	29.8
No	19	7.7	14	5.6	53	21.4
Column total	60	24.2	61	24.6	127	51.2

$\chi^2 (df = 2, n = 248) = 6.7, p < .03$

( $df = 6, n = 175$ ) = 3.9, ns. Regardless of occupation, participants were evenly distributed regarding *quiltmaking individually or with others*.

Five 7 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between occupational status with regard to the quiltmaking practice of *quiltmaking with a group* (Q14). The obtained statistics showed significance with regard to *business colleagues*,  $X^2 (df = 6, n = 5) = 24.4, p < .00$ . Participants from the labor/craftsperson occupational group were more likely to respond yes to quiltmaking with *business colleagues* than participants from any other occupational group (see Table 92). Regardless of occupation, the participants were evenly distributed with regard to quiltmaking with a *bee*,  $X^2 (df = 6, n = 175) = 4.0$ , ns; *guild*,  $X^2 (df = 6, n = 175) = 7.3$ , ns; *church group*,  $X^2 (df = 6, n = 174) = 35.4$ , ns; and *friends not associated with a formal group*,  $X^2 (df = 6, n = 175) = 1.9$ , ns.

A 7 x 5 chi-square contingency analysis was utilized to determine if there were significant differences between occupational status with regard to the quiltmaking practice of the number of hours per week spent on quiltmaking (Q19). For the purpose of the analysis, hours per week were collapsed into segments as described in Research Question 1a. The obtained statistic showed no significance,  $X^2 (df = 24, n = 239) = 19.6$ , ns. Regardless of occupational status, participants were evenly distributed with regard to the number of hours per week spent on quiltmaking.

Nineteen 7 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between occupational status with regard to specific

Table 92

*Quilting with Business Colleagues According to Occupation*

Business Colleagues	Labor/ Craftsperson		Full-time homemaker		Office/ Clerical		Professional Degreed		Professional Non-degreed		Business		Service	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	3	1.7	0	0.0	0	0.0	1	0.0	0	0.0	1	0.0	0	0.0
No	9	5.2	52	30.0	19	11.0	55	31.9	14	8.0	18	10.5	3	1.7
Column Total	12	6.9	52	30.0	19	11.0	56	31.9	14	8.0	19	10.5	3	1.7

$\chi^2 (df = 7, n = 175) = 24.4, p < .00$

quiltmaking practices (Q21). The obtained statistics showed significance for *machine quilting for personal income*,  $X^2 (df = 7, n = 233) = 15.6, p < .02$ . Participants from the labor/craftsperson occupational group were more likely to respond yes to *machine quilt for personal income* than participants from all other occupational groups (see Table 93).

Regardless of occupation, participants were evenly distributed regarding *design quilt block patterns*,  $X^2 (df = 6, n = 229) = 3.5, ns$ ; *purchase quilt block patterns*,  $X^2 (df = 26, n = 236) = 4.6, ns$ ; *design quilt top patterns*,  $X^2 (df = 26, n = 232) = 4.8, ns$ ; *purchase quilt top patterns*,  $X^2 (df = 6, n = 234) = 6.4, ns$ ; *design quilting patterns*,  $X^2 (df = 6, n = 225) = 5.2, ns$ ; *use templates for quilting patterns*,  $X^2 (df = 6, n = 236) = 6.8, ns$ ; *purchase block of the month patterns*,  $X^2 (df = 6, n = 235) = 1.9, ns$ ; *purchase quilt kits*,  $X^2 (df = 6, n = 234) = 7.0, ns$ ; *create contemporary quilts*,  $X^2 (df = 6, n = 234) = 12.7, ns$ ; *create traditional quilts*,  $X^2 (df = 6, n = 238) = 4.8, ns$ ; *display quilts at shows*,  $X^2 (df = 6, n = 238) = 6.6, ns$ ; *enter design competitions*,  $X^2 (df = 6, n = 233) = 8.2, ns$ ; *hand quilt for personal income*,  $X^2 (df = 6, n = 232) = 8.8, ns$ ; *hand quilt for fundraising*,  $X^2 (df = 6, n = 232) = 6.6, ns$ ; *machine quilt for fundraising*,  $X^2 (df = 6, n = 234) = 12.0, ns$ ; *sell quilt top patterns*,  $X^2 (df = 6, n = 234) = 2.4, ns$ ; *sell quilting patterns*,  $X^2 (df = 6, n = 233) = 3.5, ns$ ; and *write books/articles on quiltmaking*,  $X^2 (df = 6, n = 233) = 7.1, ns$ .

A 7 x 16 chi-square contingency analysis was utilized to determine if there were significant differences between participants' occupational status with regard to the quiltmaking practice of the amount of U.S. dollars spent by participants on quiltmaking during 2001 (Q22). For analysis purposes, the original segments of U.S. dollars spent on

Table 93

*Machine Quilt for Personal Income According to Occupation*

Machine quilt for income	Labor/ Craftsperson		Full-time homemaker		Office/ Clerical		Professional Degreed		Professional Non-degreed		Business		Service	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	6	3.0	2	1.0	3	1.3	7	3.1	2	1.0	3	1.3	0	0.0
No	12	6.0	63	26.0	21	8.9	75	32.2	15	6.0	20	8.9	3	1.3
Column Total	18	9.0	65	27.0	24	10.2	82	35.3	17	7.0	23	10.2	3	1.3

$X^2 (df = 7, n = 233) = 15.6, p < .02$

quiltmaking were collapsed as described in Research Question 1a. The obtained statistic showed no significance,  $X^2 (df = 90, n = 232) = 66.5, ns$ . Regardless of occupational status, participants were evenly distributed regarding U.S. dollars spent on quiltmaking.

A 7 x 6 chi-square contingency analysis was utilized to determine if there were significant differences between occupational status with regard to beliefs about the quiltmaking techniques that were most important to contributing to the quality and beauty of a quilt (Q23). For the purpose of the analysis, the original options pertaining to the most important techniques were collapsed into the six segments as described in Research Question 1a. The obtained statistic showed significance with regard to *hand work*, *quality*, and *visual impact*,  $X^2 (df = 35, n = 242) = 65.8, p < .00$ .

Participants from the office/clerical and business groups were more likely to indicate *hand work* as the most important technique that contributed to the quality and beauty of a quilt than participants from any other occupational group (see Table 94). Participants from the business group were less likely to indicate *quality* as the most important technique to the quality and beauty of a quilt. Participants from the labor/craftsperson and service occupational groups were more likely to indicate *visual impact* while the office/clerical group was less likely to indicate *visual impact* as the most important technique contributing to the quality and beauty of a quilt.

Seventeen 7 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between participants' occupation with regard to specific quiltmaking techniques (Q24). The obtained statistics showed significance with

Table 94

*Most Important Characteristic That Contributes to the Quality and Beauty of a Quilt According to Occupation*

Characteristic	Labor/ Craftsperson		Full-time homemaker		Office/ Clerical		Professional Degreed		Professional Non-degreed		Business		Service	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Hand work	1	0.0	16	8.0	14	6.7	13	6.3	3	1.3	9	4.0	0	0.0
Machine work	0	0.0	1	0.0	0	0.0	1	0.0	1	0.0	1	0.0	0	0.0
Quality	4	2.4	15	7.0	5	2.0	23	10.0	6	2.4	4	1.6	0	0.0
Complexity	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
Visual impact	12	5.8	35	15.0	5	2.0	44	16.0	10	4.3	11	5.0	2	1.2
Originality	0	0.0	0	0.0	0	0.0	2	0.0	0	0.0	0	0.0	0	0.0
Column total	18	8.2	68	30.0	24	10.7	83	32.3	20	8.0	25	10.6	3	1.2

$X^2 (df = 35, n = 242) = 65.8, p < .00$

regard to *machine quilting*,  $X^2 (df= 7, n = 242) = 16.3, p < .02$ , *stack-n-whack*,  $X^2 (df= 7, n = 236) = 15.2, p < .03$ , and *hand embroidery*,  $X^2 (df= 7, n = 239) = 13.7, p < .05$ .

Participants from the office/clerical occupational group were less likely to respond yes to utilizing *machine quilting* while participants from the labor/craftsperson and professional non-degreed occupational groups were more likely to respond yes to utilizing *machine quilting* (see Table 95). Participants from the labor/craftsperson group were more likely to respond yes to utilizing *stack-n-whack* than participants from any other occupational group (see Table 96). Participants from professional degreed occupational group were less likely to respond yes to utilizing *hand embroidery* while participants from the labor/craftsperson and service occupational groups were more likely to respond yes to utilizing *hand embroidery* than participants from any other occupational group (see Table 97).

Regardless of occupational status, participants were evenly distributed regarding *hand piecing*,  $X^2 (df= 6, n = 240) = 6.7, ns$ ; *machine piecing*,  $X^2 (df= 6, n = 244) = 7.5, ns$ ; *hand appliqué*,  $X^2 (df= 6, n = 241) = 4.9, ns$ ; *machine appliqué*,  $X^2 (df= 6, n = 241) = 4.0, ns$ ; *hand quilting*,  $X^2 (df= 6, n = 245) = 11.9, ns$ ; *hired machine quilting*,  $X^2 (df= 6, n = 241) = 9.2, ns$ ; *paper piecing*,  $X^2 (df= 6, n = 244) = 13.1, ns$ ; *foundation piecing*,  $X^2 (df= 6, n = 241) = 11.0, ns$ ; *machine embroidery*,  $X^2 (df= 6, n = 237) = 8.8, ns$ ; *trapunto*,  $X^2 (df= 6, n = 239) = 9.0, ns$ ; and *fused applications*,  $X^2 (df= 6, n = 240) = 8.6, ns$ .

Nine 7 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between occupational status with regard to the quiltmaking

Table 95

*Machine Quilting According to Occupation*

Machine quilt	Labor/ Craftsperson		Full-time homemaker		Office/ Clerical		Professional Degreed		Professional Non-degreed		Business		Service	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	16	6.6	50	21.0	12	4.5	66	27.2	18	7.5	20	8.2	2	1.0
No	2	1.0	16	7.0	12	4.5	18	7.5	2	1.0	6	3.0	1	0.0
Column Total	18	7.6	66	28.0	24	9.0	84	34.7	20	8.5	26	11.2	3	1.0

$X^2 (df = 7, n = 242) = 16.3, p < .02$

Table 96

*Stack-n-Whack According to Occupation*

Stack-n-whack	Labor/ Craftsperson		Full-time homemaker		Office/ Clerical		Professional Degreed		Professional Non-degreed		Business		Service	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	12	5.0	23	10.0	8	3.4	20	8.5	4	1.7	9	3.8	1	0.0
No	6	2.5	42	18.0	16	6.9	61	25.9	15	6.3	16	7.0	2	1.0
Column Total	18	7.5	65	28.0	24	10.3	81	34.4	19	8.0	25	10.8	3	1.0

$\chi^2 (df = 7, n = 236) = 15.2, p < .03$

Table 97

## Hand Embroidery According to Occupation

Hand embroidery	Labor/ Craftsperson		Full-time homemaker		Office/ Clerical		Professional Degreed		Professional Non-degreed		Business		Service	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	17	7.1	53	22.9	21	9.0	56	23.4	15	6.2	20	8.4	3	1.2
No	1	0.0	12	5.0	4	1.7	27	11.3	5	2.1	4	1.7	0	0.0
Column Total	18	7.0	65	27.9	25	10.7	83	34.7	20	8.3	24	10.1	3	1.2

$X^2 (df = 7, n = 239) = 13.7, p < .05$

technique of what quilt styles were made by the participants (Q25). The obtained statistics showed no significance. Regardless of occupational status, participants were even distributed regarding the quilt styles including *sampler*,  $X^2 (df = 6, n = 244) = 5.8$ , ns; *wholecloth*,  $X^2 (df = 6, n = 236) = 2.1$ , ns; *quilts of same block*,  $X^2 (df = 6, n = 243) = 3.3$ , ns; *pictorial quilts*,  $X^2 (df = 6, n = 239) = 4.3$ , ns; *themed*,  $X^2 (df = 6, n = 239) = 10.3$ , ns; *holiday*,  $X^2 (df = 6, n = 240) = 4.7$ , ns; *crazy*,  $X^2 (df = 6, n = 237) = 3.9$ , ns; *Hawaiian*,  $X^2 (df = 6, n = 239) = 7.5$ , ns; and *mourning*,  $X^2 (df = 6, n = 238) = 5.7$ , ns..

Eleven 7 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between the occupational status with regard to the quilting technique of what types of quilts were made by the participants (Q26). The obtained statistics showed significance with regard to *wall hangings*,  $X^2 (df = 7, n = 199) = 18.9$ ,  $p < .00$ . Participants from the service occupational group were less likely to respond yes to making *wall hangings* than participants from any other occupational group (see Table 98).

Regardless of occupation, participants were evenly distributed regarding *single bed*,  $X^2 (df = 6, n = 234) = 7.1$ , ns; *double bed*,  $X^2 (df = 6, n = 232) = 7.6$ , ns; *queen size*,  $X^2 (df = 6, n = 236) = 5.8$ , ns; *king size*,  $X^2 (df = 6, n = 231) = 5.3$ , ns; *crib/baby*,  $X^2 (df = 6, n = 243) = 5.7$ , ns; *lap*,  $X^2 (df = 6, n = 236) = 6.8$ , ns; *miniature*,  $X^2 (df = 6, n = 238) = 11.6$ , ns; *apparel and accessories*,  $X^2 (df = 6, n = 238) = 5.5$ , ns; *toys and collectibles*,  $X^2 (df = 6, n = 236) = 7.6$ , ns; and *home decorations*,  $X^2 (df = 6, n = 237) = 6.1$ , ns.

Table 98

*Wall Hangings Made According to Occupation*

Wall hangings	Labor/ Craftsperson		Full-time homemaker		Office/ Clerical		Professional Degreed		Professional Non-degreed		Business		Service	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	13	5.4	55	22.8	18	7.4	72	30.0	16	6.6	24	10.0	0	0.0
No	4	1.6	11	4.4	7	3.0	12	5.0	4	1.6	2	1.0	3	1.2
Column Total	17	7.0	6	27.2	25	10.4	84	35.0	20	8.2	26	11.0	3	1.2

$X^2 (df = 7, n = 242) = 18.9, p < .00$

A 7 x 5 chi-square contingency analysis was utilized to determine if there were significant differences between occupational status with regard to participants' quiltmaking technique of most important reasons for color selection (Q27). The obtained statistic showed no significance,  $X^2 (df = 24, n = 243) = 36.0$ , ns. Regardless of occupational status, participants were evenly distributed regarding the most important reason for color selection.

Eleven 7 x 2 chi-square contingency analyses were utilized to determine there were significant differences between occupational status with regard to the quiltmaking technique of color palette usage (Q28). The obtained statistics showed significance with regard to *multiple colors*,  $X^2 (df = 7, n = 241) = 17.3, p < .01$ , and *medium color backgrounds*,  $X^2 (df = 7, n = 240) = 13.7, p < .02$ . Participants from the service occupational group were less likely to respond yes to utilizing *multiple colors* in quiltmaking than participants from any other occupational group (see Table 99). Participants from the full-time homemaker, office/clerical, and service occupational groups were less likely to indicate yes to utilizing *medium color backgrounds* than participants from any other occupation (see Table 100).

Regardless of occupation, participants were evenly distributed regarding the color palettes of *cool colors*,  $X^2 (df = 6, n = 240) = 2.0$ , ns; *warm colors*,  $X^2 (df = 6, n = 238) = 7.3$ , ns; *pastels*,  $X^2 (df = 6, n = 237) = 11.1$ , ns; *bright colors*,  $X^2 (df = 6, n = 241) = 9.0$ , ns; *one or two colors*,  $X^2 (df = 6, n = 238) = 7.1$ , ns; *white or tan backgrounds*,  $X^2 (df = 6,$

Table 99

*Multiple Colors Utilized in Quiltmaking According to Occupation*

Multiple colors	Labor/ Craftsperson		Full-time homemaker		Office/ Clerical		Professional Degreed		Professional Non-degreed		Business		Service	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	17	7.0	67	28.0	25	10.4	80	33.2	18	8.0	26	11.0	2	1.0
No	0	0.0	1	0.0	0	0.0	3	1.2	0	0.0	0	0.0	1	0.0
Column Total	17	7.0	68	28.0	25	10.4	83	34.4	18	8.0	26	11.0	3	1.2

$X^2 (df = 7, n = 241) = 17.3, p < .01$

Table 100

*Medium Color Backgrounds Utilized According to Occupation*

Medium color backgrounds	Labor/ Craftsperson		Full-time homemaker		Office/ Clerical		Professional Degreed		Professional Non-degreed		Business		Service	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	13	5.3	44	18.3	12	5.0	66	27.5	18	8.0	20	8.3	2	1.0
No	3	1.3	23	9.5	12	5.0	18	7.4	2	1.0	6	2.4	1	0.0
Column Total	15	6.6	67	27.8	24	10.0	84	34.9	20	9.0	26	10.7	3	1.0

$X^2 (df = 7, n = 239) = 16.3, p < .02$

$n = 242$ ) = 5.6, ns; *black backgrounds*,  $X^2$  ( $df = 6$ ,  $n = 241$ ) = 2.3, ns; *light colored backgrounds*,  $X^2$  ( $df = 6$ ,  $n = 241$ ) = 4.2, ns; and *dark backgrounds*  $X^2$  ( $df = 6$ ,  $n = 241$ ) = 3.6, ns.

Twelve 7 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between occupational status with regard to the quilting technique of fabric type utilization (Q29). The obtained statistics showed significance with regard to *calicos*,  $X^2$  ( $df = 7$ ,  $n = 242$ ) = 17.6,  $p < .01$ . Participants from the labor/craftsperson occupational group were less likely to respond yes to utilizing *calicos* than participants from all of the other occupational groups (see Table 101).

Regardless of occupation, participants were evenly distributed regarding the fabric types of *solids*,  $X^2$  ( $df = 6$ ,  $n = 243$ ) = 6.3, ns; *florals*,  $X^2$  ( $df = 6$ ,  $n = 242$ ) = 3.8, ns; *geometric prints*,  $X^2$  ( $df = 6$ ,  $n = 242$ ) = 6.1, ns; *conversational/novelty prints*,  $X^2$  ( $df = 6$ ,  $n = 242$ ) = 1.6, ns; *civil war reproductions*,  $X^2$  ( $df = 6$ ,  $n = 240$ ) = 7.0, ns; *1930s reproductions*,  $X^2$  ( $df = 6$ ,  $n = 240$ ) = 8.4, ns; *museum reproductions*,  $X^2$  ( $df = 6$ ,  $n = 240$ ) = 11.1, ns; *batiks*,  $X^2$  ( $df = 6$ ,  $n = 240$ ) = 9.5, ns; *hand-dyed fabrics*,  $X^2$  ( $df = 6$ ,  $n = 242$ ) = 11.8, ns; *flannels*,  $X^2$  ( $df = 6$ ,  $n = 241$ ) = 7.6, ns; and *velvets*,  $X^2$  ( $df = 6$ ,  $n = 239$ ) = 2.5, ns.

#### *Research Question 1f*

The demographic variable of religious affiliation was investigated for Research Question 1f. Religious affiliations were collapsed into six segments that consisted of nondenominational, Protestant, Baptist, Catholic/Episcopalian, Church of Christ/Disciples, and miscellaneous religious groups.

Table 101

*Calico Fabrics Utilized According to Occupation*

Business Colleagues	Labor/ Craftsperson		Full-time homemaker		Office/ Clerical		Professional Degreed		Professional Non-degreed		Business		Service	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	12	5.0	62	26.0	22	9.1	75	31.0	19	8.0	24	10.0	3	1.2
No	5	2.0	6	3.0	3	1.2	8	3.5	1	0.0	1	0.0	0	0.0
Column Total	17	7.0	68	29.0	25	10.3	83	34.5	18	8.0	23	10.0	3	1.2

$\chi^2 (df = 5, n = 242) = 17.6, p < .01$

A 6 x 2 chi-square contingency analysis was utilized to determine if there were significant differences between religious affiliations with regard to *quiltmaking individually or with others* (Q13). The obtained statistic showed no significance,  $X^2 (df = 5, n = 226) = 4.8$ , ns. Regardless of religious affiliation, participants were evenly distributed regarding *quiltmaking individually or with others*.

Five 6 x 2 chi-square contingency analyses were utilized to investigate if there were significant differences between religious affiliation with regard to the quiltmaking practice of *quiltmaking with a group* (Q14). The obtained statistics showed no significance. Regardless of religious affiliation, participants were evenly distributed regarding quiltmaking with a *bee*,  $X^2 (df = 5, n = 165) = 6.2$ , ns; *guild*,  $X^2 (df = 5, n = 165) = 2.3$ , ns; *church*,  $X^2 (df = 5, n = 165) = 5.3$ , ns; *business colleagues*,  $X^2 (df = 5, n = 180) = 9.5$ , ns; and *personal friends not associated with a formal group*,  $X^2 (df = 5, n = 180) = 9.4$ , ns.

A 6 x 5 chi-square contingency analysis was conducted to investigate if there were significant differences between religious affiliations with regard to the quiltmaking practice of number of hours per week spent on quiltmaking (Q19). For the purpose of the analysis, hours per week were collapsed into segments as described in Research Question 1a. The obtained statistic showed no significance,  $X^2 (df = 20, n = 220) = 12.0$ , ns. Regardless of religious affiliation, participants were evenly distributed regarding the number of hours per week spent on quiltmaking.

Nineteen 6 x 2 chi-square contingency analyses were conducted to investigate if there were significant differences between religious affiliations with regard to specific

quiltmaking practices (Q21). The obtained statistics showed no significance. Regardless of religious affiliation, participants were evenly distributed regarding *design quilt block patterns*,  $X^2 (df = 5, n = 215) = 8.8$ , ns; *purchase quilt block patterns*,  $X^2 (df = 5, n = 220) = 2.0$ , ns; *design quilt top patterns*,  $X^2 (df = 5, n = 219) = 4.7$ , ns; *purchase quilt top patterns*,  $X^2 (df = 5, n = 216) = 4.4$ , ns; *design quilting patterns*,  $X^2 (df = 5, n = 212) = 1.0$ , ns; *use templates for quilting patterns*,  $X^2 (df = 5, n = 220) = 6.6$ , ns; *purchase block of the month patterns*,  $X^2 (df = 5, n = 220) = 5.9$ , ns; *purchase quilt kits*,  $X^2 (df = 5, n = 220) = 5.6$ , ns; *create contemporary quilts*,  $X^2 (df = 5, n = 219) = 7.0$ , ns; *create traditional quilts*,  $X^2 (df = 5, n = 222) = .74$ , ns; *display quilts at shows*,  $X^2 (df = 5, n = 222) = 2.5$ , ns; *enter design competitions*,  $X^2 (df = 5, n = 218) = 6.3$ , ns; *hand quilt for personal income*,  $X^2 (df = 5, n = 218) = 1.5$ , ns; *machine quilt for personal income*,  $X^2 (df = 5, n = 218) = 3.1$ , ns; *hand quilt for fundraising*,  $X^2 (df = 5, n = 217) = 4.5$ , ns; *machine quilt for fundraising*,  $X^2 (df = 5, n = 219) = 1.3$ , ns; *sell quilt top patterns*,  $X^2 (df = 5, n = 218) = 5.6$ , ns; *sell your quilting patterns*,  $X^2 (df = 5, n = 217) = 2.7$ , ns; and *write books/articles on quiltmaking*,  $X^2 (df = 5, n = 218) = 1.8$ , ns.

A 6 x 16 chi-square contingency analysis was utilized to determine if there were significant differences between religious affiliations with regard to the quiltmaking practice of the amount of U.S. dollars spent by participants on quiltmaking during 2001 (Q22). For the purpose of the analysis, the original segments of U.S. dollars spent on quiltmaking were collapsed as described in Research Question 1a. The obtained statistic showed significance with regard to participants who reported *Protestant* and *Catholic/Episcopalian* as their religious affiliations,  $X^2 (df = 75, n = 215) = 96.5, p < .04$ .

Participants who indicated *Protestant* were more likely to indicate spending \$401 to \$500, \$501 to \$600, and \$1000 to \$2000 on quilting during 2001 than participants from any other religious affiliation. Participants who indicated Catholic/Episcopalians were more likely to spend \$801 to \$900 on quilting (see Table 102).

A 6 x 6 chi-square contingency analysis was utilized to determine if there were significant differences between religious affiliation with regard to beliefs about the quilting techniques that were most important to contributing to the quality and beauty of a quilt (Q23). The original options pertaining to the most important techniques were collapsed into six segments as described in Research Question 1a. The obtained statistic showed no significance,  $X^2 (df = 25, n = 223) = 18.7, ns$ . Regardless of religious affiliation, participants were evenly distributed regarding the most important technique to the quality and beauty of a quilt.

Seventeen 6 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between religious affiliations with regard to specific quilting techniques (Q24). The obtained statistics showed no significance. Regardless of religious affiliation, participants were evenly distributed regarding *hand piecing*,  $X^2 (df = 5, n = 222) = 8.3, ns$ ; *machine piecing*,  $X^2 (df = 5, n = 227) = 4.1, ns$ ; *hand appliqué*,  $X^2 (df = 5, n = 224) = 6.6, ns$ ; *machine appliqué*,  $X^2 (df = 5, n = 224) = 4.1, ns$ ; *hand quilting*,  $X^2 (df = 5, n = 227) = 6.5, ns$ ; *machine quilting*,  $X^2 (df = 5, n = 224) = 3.0, ns$ ; *hired machine quilting*,  $X^2 (df = 5, n = 224) = 4.0, ns$ ; *paper piecing*,  $X^2 (df = 5, n = 226) = 3.9, ns$ ; *foundation piecing*,  $X^2 (df = 5, n = 223) = 7.2, ns$ ; *stack-n-whack*,  $X^2$

Table 102

*U. S. Dollars Spent on Quiltmaking According to Religion*

U.S. Dollars	Protestant		Baptist		Catholic/ Episcopal		Church of Christ/ Disciples of Christ		Miscellaneous		Non- denominational	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
1 to 50	0	0.00	1	.05	1	.05	1	.05	2	1.00	1	.05
51 to 100	0	0.00	1	.05	2	1.00	0	.05	1	0.00	0	0.00
101 to 200	10	4.50	3	1.50	7	3.50	2	1.00	0	0.00	0	0.00
201 to 300	4	2.00	6	3.00	3	1.50	3	1.50	0	0.00	0	.05
301 to 400	6	3.00	3	1.50	4	2.00	0	.05	1	0.00	1	.05
401 to 500	11	5.00	4	2.00	5	2.50	4	2.00	0	0.00	0	0.00
501 to 600	11	5.00	1	.05	4	2.00	2	1.00	1	0.00	0	0.00
601 to 700	2	1.00	4	2.00	0	0.00	2	1.00	0	0.00	1	.05
701 to 800	2	1.00	4	2.00	1	0.00	1	.05	0	0.00	0	0.00
801 to 900	2	1.00	2	1.00	6	3.00	1	.05	0	0.00	0	0.00
901 to 1,000	3	1.50	0	0.00	0	0.00	1	.05	1	0.00	1	.05
1,000 to 2,000	22	10.20	10	5.00	10	4.50	5	2.50	1	0.00	4	2.00
2,001 to 3,000	1	.05	3	1.50	2	1.00	1	.08	0	0.00	2	1.00
3,001 to 4,000	1	.05	3	1.50	2	1.00	0	.05	1	0.00	2	1.00

Table 102 (continued).

U.S. Dollars	Protestant		Baptist		Catholic/ Episcopal		Church of Christ/ Disciples of Christ		Miscellaneous		Non- denominational	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
4,001 to 5,000	1	.05	0	0.00	1	.05	0	0.00	0	0.00	0	0.00
5,001 or more	1	.05	1	.05	0	0.00	0	0.00	1	.05	0	0.00
Column total	77	36.20	46	21.40	48	22.20	23	10.20	9	4.50	12	5.50

$X^2 (df = 75, n = 215) = 96.9, p < .04$

( $df = 5, n = 218$ ) = 2.2, ns; *hand embroidery*,  $X^2 (df = 5, n = 218) = 2.2$ , ns; *machine embroidery*,  $X^2 (df = 5, n = 222) = 3.8$ , ns; *trapunto*,  $X^2 (df = 5, n = 222) = 1.9$ , ns; and *fused applications*,  $X^2 (df = 5, n = 222) = 3.1$ , ns.

Nine 6 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between religious affiliations with regard to the quilting technique of what quilt styles were made by the participants (Q25). The obtained statistics showed no significance. Regardless of religious affiliation, participants were evenly distributed regarding the quilt styles of *sampler*,  $X^2 (df = 6, n = 227) = 1.2$ , ns; *wholecloth*,  $X^2 (df = 6, n = 218) = 1.1$ , ns; *quilts of same block*,  $X^2 (df = 6, n = 225) = 2.9$ , ns; *pictorial quilts*,  $X^2 (df = 6, n = 222) = 7.6$ , ns; *themed*,  $X^2 (df = 6, n = 222) = 5.3$ , ns; *holiday*,  $X^2 (df = 6, n = 223) = 4.8$ , ns; *crazy*,  $X^2 (df = 6, n = 220) = 2.5$ , ns; *Hawaiian*,  $X^2 (df = 6, n = 222) = 4.9$ , ns; and *mourning* quilt styles,  $X^2 (df = 6, n = 221) = 7.4$ , ns.

Eleven 6 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between religious affiliations with regard to the quilting technique of what types of quilts were made by the participants (Q26). The obtained statistics showed no significance. Regardless of religious affiliation, participants were evenly distributed regarding *single bed*,  $X^2 (df = 5, n = 217) = 3.0$ , ns; *double bed*,  $X^2 (df = 5, n = 214) = 1.3$ , ns; *queen size*,  $X^2 (df = 5, n = 218) = 7.2$ , ns; *king size*,  $X^2 (df = 5, n = 214) = 10.1$ , ns; *crib/baby*,  $X^2 (df = 5, n = 225) = 7.0$ , ns; *lap*,  $X^2 (df = 5, n = 219) = 7.2$ , ns; *miniature*,  $X^2 (df = 5, n = 225) = 6.4$ , ns; *apparel and accessories*,  $X^2 (df = 5, n = 219) = 1.6$ , ns; *toys and collectibles*,  $X^2 (df = 5, n = 220) = 5.4$ , ns; and *home decorations*,  $X^2 (df = 5, n = 218) = 5.2$ , ns.

A 6 x 5 chi-square contingency analysis was utilized to determine if there were significant differences between religious affiliations with regard to the participants' quiltmaking technique of most important reasons for color selection (Q27). The obtained statistics showed no significance,  $X^2 (df = 20, n = 226) = 18.8$ , ns. Regardless of religious affiliation, participants were evenly distributed regarding the most important reason for color selection.

Eleven 6 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between religious affiliations with regard to the quiltmaking technique of color palette usage (Q28). The obtained statistics showed no significance. Regardless of religious affiliation, participants were evenly distributed with regard to *cool colors*,  $X^2 (df = 5, n = 215) = 2.0$ , ns; *warm colors*,  $X^2 (df = 5, n = 215) = 4.1$ , ns; *pastels*,  $X^2 (df = 5, n = 221) = 10.0$ , ns; *bright colors*,  $X^2 (df = 5, n = 224) = 8.8$ , ns; *multiple colors*,  $X^2 (df = 5, n = 224) = 3.2$ , ns; *one or two colors*,  $X^2 (df = 5, n = 221) = 3.0$ , ns; *white or tan backgrounds*,  $X^2 (df = 5, n = 225) = 4.3$ , ns; *black backgrounds*,  $X^2 (df = 5, n = 224) = 5.6$ , ns; *light color backgrounds*,  $X^2 (df = 5, n = 224) = 9.6$ , ns; *medium color backgrounds*,  $X^2 (df = 5, n = 223) = 2.9$ , ns; and *dark color backgrounds*,  $X^2 (df = 5, n = 224) = 7.1$ , ns.

Twelve 6 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between religious affiliations with regard to the quiltmaking technique of fabric type utilization (Q29). The obtained statistics showed significance with regard to *solid*,  $X^2 (df = 5, n = 205) = 12.7$ ,  $p < .02$ ; *calico*,  $X^2 (df = 5, n = 202) = 10.9$ ,  $p < .05$ ; and *floral* fabric types,  $X^2 (df = 5, n = 218) = 12.6$ ,  $p < .02$ . Participants

who were Catholic/Episcopalian or non-denominational were less likely to respond yes to utilizing *solid fabrics* in their quilting than any other religious group (see Table 103). Participants who were miscellaneous were less likely to respond yes to utilizing *calicos* than participants from any other religious affiliation (see Table 104). Participants from the miscellaneous religious group were less likely to respond yes to *florals* in their quilting than any other religious group (see Table 105).

Regardless of religious affiliation, participants were evenly distributed with regard to *geometric prints*,  $X^2 (df = 5, n = 225) = 5.7$ , ns; *conversational/novelty prints*,  $X^2 (df = 5, n = 225) = 4.1$ , ns; *civil war reproductions*,  $X^2 (df = 5, n = 222) = 10.5$ , ns; *1930s reproductions*,  $X^2 (df = 5, n = 225) = 4.6$ , ns; *museum reproductions*,  $X^2 (df = 5, n = 222) = 2.3$ , ns; *batiks*,  $X^2 (df = 5, n = 223) = 7.5$ , ns; *hand-dyed fabrics*,  $X^2 (df = 5, n = 225) = 7.0$ , ns; *flannels*,  $X^2 (df = 5, n = 223) = 1.7$ , ns; and *velvets*,  $X^2 (df = 5, n = 223) = 4.5$ , ns.

#### *Research Question 1g*

The demographic variable of annual household income was investigated for Research Question 1g. U.S. annual household income were collapsed into the segments consisting of \$19,000 or less, \$20,000 to \$29,000, \$30,000 to \$39,000, \$40,000 to \$49,000, \$50,000 to \$59,000, \$60,000 to \$69,000, \$70,000 to \$79,000, \$80,000 to \$89,000, \$90,000 to \$99,000, and \$100,000 or more U.S. dollars.

A 10 x 2 chi-square contingency analysis was utilized to determine if there were significant differences between U.S. annual household incomes with regard to *quilting individually or with others* (Q13). The obtained statistic showed no

Table 103

*Solid Fabrics Utilized According to Religion*

Solid fabrics	Protestant		Baptist		Catholic/ Episcopal		Church of Christ/ Disciples of Christ		Miscellaneous		Non- denominational	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	78	35.0	43	19.0	39	17.2	26	11.6	10	4.4	9	4.0
No	5	2.2	3	1.3	9	4.0	0	0.0	1	0.0	3	1.3
Column total	83	37.2	46	20.3	48	21.2	26	11.6	11	4.4	12	5.3

$\chi^2 (df = 5, n = 226) = 12.7, p < .02$

Table 104

*Calico Fabrics Utilized According to Religion*

Calico fabrics	Protestant		Baptist		Catholic/ Episcopal		Church of Christ/ Disciples of Christ		Miscellaneous		Non- denominational	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	76	33.8	45	20.0	40	17.8	24	10.8	8	3.5	9	4.0
No	6	3.0	1	0.0	8	3.5	2	1.0	3	1.6	2	1.0
Column total	82	36.8	46	20.0	48	21.3	26	11.8	11	5.1	11	5.0

$\chi^2 (df = 5, n = 224) = 10.9, p < .05$

Table 105

*Floral Fabrics Utilized According to Religion*

Floral fabrics	Protestant		Baptist		Catholic/ Episcopal		Church of Christ/ Disciples of Christ		Miscellaneous		Non- denominational	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	81	35.7	46	20.3	45	20.0	26	11.5	9	4.0	11	5.0
No	2	1.0	0	0.0	3	1.5	0	0.0	2	1.0	0	0.0
Column total	83	36.7	46	20.3	48	21.5	26	11.5	11	5.0	11	5.0

$X^2 (df = 5, n = 225) = 12.5, p < .02$

significance,  $X^2 (df = 9, n = 192) = 10.8$ , ns. Regardless of U.S. annual household income, participants were evenly distributed regarding *quiltmaking individually or with others*.

Five 10 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between U.S. annual household income with regard to the quiltmaking practice of quiltmaking with a group (Q14). The obtained statistic showed significance with regard to *business colleagues*,  $X^2 (df = 9, n = 140) = 22.8$ ,  $p < .00$ . Participants who indicated a U.S. annual household income of \$70,000 to \$79,000 were more like to respond yes to quiltmaking with *business colleagues* than participants from any other level of income (see Table 106). Regardless of U.S. annual household income, participants were evenly distributed regarding quiltmaking with a *bee*,  $X^2 (df = 9, n = 140) = 13.3$ , *guild*,  $X^2 (df = 9, n = 140) = 8.5$ , *church*,  $X^2 (df = 9, n = 139) = 64.7$ , and *personal friends not associated with a formal group*,  $X^2 (df = 9, n = 140) = 8.0$ .

A 10 x 2 chi-square contingency analysis was utilized to determine if there were significant differences between U.S. annual household incomes with regard to the practice of the number of hours per week spent on quiltmaking (Q19). For analysis purposes, the hours per week were collapsed into six segments as described in Research Question 1a. The obtained statistics showed no significance,  $X^2 (df = 36, n = 186) = 26.6$ , ns. Regardless of U.S. annual household income, participants were evenly distributed regarding hours per week spent on quiltmaking.

Nineteen 10 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between U.S. annual household incomes regard to

Table 106

## Quiltmaking With Business Colleagues According to U.S. Annual Household Income

Business colleagues	Annual Household Income in U.S. \$1,000s																			
	19,000 or less		20 to 29		30 to 39		40 to 49		50 to 59		60 to 69		70 to 79		80 to 89		90 to 99		100,000 or more	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	0	0.0	0	0.0	0	0.0	0	0.0	2	1.3	0	0.0	3	2.0	0	0.0	1	0.0	0	0.0
No	8	5.5	12	8.5	9	6.3	17	11.6	16	10.1	11	7.7	11	7.7	9	6.4	8	5.5	39	27.0
Column total	8	5.7	12	8.5	9	6.3	17	11.6	18	11.4	11	7.7	14	9.7	9	6.4	9	5.7	39	27.0

$\chi^2 (df = 9, n = 140) = 22.8, p < .00$

specific quiltmaking practices (Q21). The obtained statistics showed no significance. Regardless of U.S. annual household income, participants were evenly distributed regarding *design quilt block patterns*,  $X^2 (df = 9, n = 181) = 6.9$ , ns; *purchase quilt block patterns*,  $X^2 (df = 9, n = 188) = 3.0$ , ns; *design quilt top patterns*,  $X^2 (df = 9, n = 185) = 9.3$ , ns; *purchase quilt top patterns*,  $X^2 (df = 9, n = 183) = 8.5$ , ns; *design quilting patterns*,  $X^2 (df = 9, n = 179) = 13.6$ , ns; *use templates for quilting patterns*,  $X^2 (df = 9, n = 187) = 8.2$ , ns; *purchase block of the month patterns*,  $X^2 (df = 9, n = 186) = 5.9$ , ns; *purchase quilt kits*,  $X^2 (df = 9, n = 186) = 9.0$ , ns; *create contemporary quilts*,  $X^2 (df = 9, n = 186) = 6.2$ , ns; *create traditional quilts*,  $X^2 (df = 9, n = 189) = 5.2$ , ns; *display quilts at shows*,  $X^2 (df = 9, n = 189) = 5.6$ , ns; *enter design competitions*,  $X^2 (df = 9, n = 184) = 13.5$ , ns; *hand quilt for personal income*,  $X^2 (df = 9, n = 185) = 7.5$ , ns; *machine quilt for personal income*,  $X^2 (df = 9, n = 185) = 13.0$ , ns; *hand quilt for fundraising*,  $X^2 (df = 9, n = 184) = 8.9$ , ns; *machine quilt for fundraising*,  $X^2 (df = 9, n = 186) = 6.5$ , ns; *sell your quilt top patterns*,  $X^2 (df = 9, n = 185) = 9.9$ , ns; *sell quilting patterns*,  $X^2 (df = 9, n = 185) = 11.8$ , ns; and *write books/articles on quiltmaking*,  $X^2 (df = 9, n = 185) = 11.7$ , ns.

A 10 x 16 chi-square contingency analysis was utilized to determine if there were significant differences between U.S. annual household incomes with regard to the quiltmaking practice of the amount of U.S. dollars spent by participants on quiltmaking during 2001 (Q22). The original segments of U.S. dollars spent on quiltmaking were collapsed in to one segment as described in Research Question 1a. The obtained statistics showed no significance,  $X^2 (df = 135, n = 186) = 139.7$ , ns. Regardless of U.S. annual

household income, participants were evenly distributed regarding money spent on quilting during 2001.

A 10 x 6 chi-square contingency analysis was utilized to determine if there were significant differences between U.S. annual household income with regard to beliefs about the quilting techniques that were most important to contributing to the quality and beauty of a quilt (Q23). The original options pertaining to the most important techniques were collapsed into six segments as described in Research Question 1a. The obtained statistics showed no significance,  $X^2 (df = 45, n = 189) = 60.2, ns$ . Regardless of U.S. annual household income, participants were evenly distributed regarding the most important technique that contributed to the quality and beauty of a quilt.

Seventeen 10 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between U.S. annual household incomes with regard to specific quilting techniques (Q24). The obtained statistics showed significance with regard to *machine quilting*,  $X^2 (df = 9, n = 191) = 18.2, p < .03$ , and *hired machine quilting*,  $X^2 (df = 9, n = 190) = 19.8, p < .01$ . Participants who reported an U.S. annual household income of \$20,000 to \$29,000 and \$30,000 to \$39,000 were less likely to respond yes to utilizing *machine quilting*. Conversely, participants who reported an U.S. annual household income of \$19,000 a year or less were more likely to indicate yes to utilizing machine quilting than participants from any other income group (see Table 107).

Table 107

*Machine Quilting According to U.S. Annual Household Income*

Machine Quilting	Annual Household Income in U.S. \$1,000s																			
	19,000 or less		20 to 29		30 to 39		40 to 49		50 to 59		60 to 69		70 to 79		80 to 89		90 to 99		100,000 or more	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	10	5.2	7	3.8	8	4.2	17	9.0	14	7.4	11	6.0	12	6.4	10	5.2	12	6.3	44	23.0
No	0	0.0	9	4.7	6	3.1	5	2.6	6	3.1	3	1.5	3	1.5	2	1.0	1	0.0	11	6.0
Column total	10	5.2	16	8.5	14	7.3	22	11.6	20	10.5	14	7.5	15	7.9	12	6.2	13	6.3	55	29.0

$$X^2 (df = 9, n = 191) = 18.2, p < .03$$

Participants who reported an U.S. annual household income of \$20,000 to \$29,000, \$60,000 to \$69,000, \$70,000 to \$79,000 and \$80,000 to \$89,000 were less likely to respond yes to *hired machine quilting* than participants from any other level of income (see Table 108).

Regardless of U.S. annual household income, participants were evenly distributed with regard to *hand piecing*,  $X^2 (df = 9, n = 189) = 16.1$ , ns; *machine piecing*,  $X^2 (df = 9, n = 193) = 6.1$ , ns; *hand appliqué*,  $X^2 (df = 9, n = 191) = 6.3$ , ns; *machine appliqué*,  $X^2 (df = 9, n = 191) = 6.4$ , ns; *hand quilting*,  $X^2 (df = 9, n = 193) = 6.8$ , ns; *paper piecing*,  $X^2 (df = 9, n = 192) = 9.7$ , ns; *foundation piecing*,  $X^2 (df = 9, n = 190) = 2.3$ , ns; *stack-n-whack*,  $X^2 (df = 9, n = 185) = 11.3$ , ns; *hand embroidery*,  $X^2 (df = 9, n = 188) = 13.2$ , ns; *machine embroidery*,  $X^2 (df = 9, n = 188) = 9.8$ , ns; *trapunto*,  $X^2 (df = 9, n = 189) = 13.9$ , ns; and *fused applications*,  $X^2 (df = 9, n = 188) = 10.3$ , ns.

Nine 10 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between U.S. annual household incomes with regard to the quilting technique of what quilt styles were made by the participants (Q25). The obtained statistics showed significance with regard to *wholecloth quilts*,  $X^2 (df = 9, n = 187) = 17.6$ ,  $p < .04$ . Participants who reported an U.S. annual household income of \$19,000 or less, and \$80,000 to \$89,000 were more likely to respond yes to making *wholecloth quilts* than participants from all other levels of income (see Table 109).

Regardless of U.S. annual household income, participants were evenly distributed regarding the quilt styles of *sampler*,  $X^2 (df = 6, n = 193) = 6.0$ , ns; *quilts of same block*,  $X^2 (df = 6, n = 193) = 10.8$ , ns; *pictorial quilts*,  $X^2 (df = 6, n = 190) = 7.8$ , ns; *themed*,  $X^2$

Table 108

*Hired Machine Quilting According to U.S. Annual Household Income*

Hired quilting	Annual Household Income in U.S. \$1,000s																			
	19,000 or less		20 to 29		30 to 39		40 to 49		50 to 59		60 to 69		70 to 79		80 to 89		90 to 99		100,000 or more	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	6	3.1	7	4.0	11	5.3	12	6.3	15	7.8	5	2.6	6	3.1	5	2.6	11	5.3	37	19.6
No	4	2.1	9	4.5	3	1.3	11	5.3	4	4.0	9	4.5	9	4.5	7	4.0	2	1.0	17	8.4
Column total	10	5.2	16	8.5	14	6.3	23	12.6	19	11.8	14	7.1	15	7.6	12	6.6	13	6.3	54	28.0

$\chi^2 (df = 9, n = 190) = 18.2, p < .01$

Table 109

*Wholecloth Quilts Made According to U.S. Annual Household Income*

Wholecloth quilts	Annual Household Income in U.S. \$1,000s																			
	19,000 or less		20 to 29		30 to 39		40 to 49		50 to 59		60 to 69		70 to 79		80 to 89		90 to 99		100,000 or more	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	4	2.1	4	2.1	2	1.0	7	3.7	3	1.6	3	1.6	4	2.1	5	2.7	0	0.0	4	2.1
No	6	3.2	11	6.0	11	6.0	16	8.7	16	8.7	11	6.0	11	6.0	7	3.7	12	6.3	50	26.4
Column total	10	5.3	15	8.1	13	7.0	23	12.4	19	10.3	14	7.6	15	8.1	12	6.4	12	6.3	54	28.5

$$X^2 (df=9, n=187) = 17.6, p < .04$$

( $df = 6, n = 190$ ) = 5.6, ns; *holiday*,  $X^2 (df = 6, n = 190) = 9.0$ , ns; *crazy*,  $X^2 (df = 6, n = 189) = 15.9$ , ns; *Hawaiian*,  $X^2 (df = 6, n = 190) = 6.9$ , ns; and *mourning* quilt styles,  $X^2 (df = 6, n = 190) = 9.6$ , ns.

Eleven 10 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between U.S. annual household incomes with regard to the quiltmaking technique of what types of quilts were made by the participants (Q26). The obtained statistics showed no significance. Regardless of U.S. annual household income, participants were evenly distributed regarding the quilt types of *single bed*,  $X^2 (df = 9, n = 187) = 12.1$ , ns; *double bed*,  $X^2 (df = 9, n = 184) = 9.5$ , ns; *queen size*,  $X^2 (df = 9, n = 185) = 6.8$ , ns; *king size*,  $X^2 (df = 9, n = 182) = 10.9$ , ns; *crib/baby*,  $X^2 (df = 9, n = 191) = 5.8$ , ns; *lap*,  $X^2 (df = 9, n = 189) = 5.0$ , ns; *wall hangings*,  $X^2 (df = 9, n = 192) = 7.4$ , ns; *miniature*,  $X^2 (df = 9, n = 187) = 13.1$ , ns; *apparel and accessories*,  $X^2 (df = 9, n = 187) = 10.1$ , ns; *toys and collectibles*,  $X^2 (df = 9, n = 187) = 7.3$ , ns; and *home decorations*,  $X^2 (df = 9, n = 187) = 2.9$ , ns.

A 10 x 5 chi-square contingency analysis was utilized to determine if there were significant differences between U.S. annual household incomes with regard to the participants' quiltmaking technique of most important reasons for color selection (Q27). The obtained statistic showed no significance,  $X^2 (df = 36, n = 192) = 42.5$ , ns. Regardless of U.S. annual household income, participants were evenly distributed regarding the most important reason or color selection.

Eleven 10 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between U.S. annual household incomes with regard to the

quiltmaking technique of color palette usage (Q28). The obtained statistics showed significance with regard to *dark backgrounds*,  $X^2 (df = 9, n = 191) = 16.9, p < .05$ .

Participants from the \$30,000 to \$39,000 U.S. annual income group were less likely to respond yes to utilizing *dark backgrounds* than any other income group (see Table 110).

Regardless of U.S. annual household income, participants were evenly distributed regarding *cool colors*,  $X^2 (df = 9, n = 190) = 8.0, ns$ ; *warm colors*,  $X^2 (df = 9, n = 188) = 8.0, ns$ ; *pastels*,  $X^2 (df = 9, n = 187) = 9.5, ns$ ; *bright colors*,  $X^2 (df = 9, n = 189) = 7.2, ns$ ; *multiple colors*,  $X^2 (df = 9, n = 190) = 8.4, ns$ ; *one or two colors*,  $X^2 (df = 9, n = 187) = 6.7, ns$ ; *white or tan backgrounds*,  $X^2 (df = 9, n = 192) = 10.5, ns$ ; *black backgrounds*,  $X^2 (df = 9, n = 191) = 13.8, ns$ ; *light color backgrounds*,  $X^2 (df = 9, n = 191) = 9.4, ns$ ; and *medium color backgrounds*,  $X^2 (df = 9, n = 190) = 12.5, ns$ .

Twelve 10 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between U.S. annual household incomes with regard to the quiltmaking technique of fabric type utilization (Q29). The obtained statistics showed no significance. Regardless of U.S. annual household income, participants were evenly distributed regarding *solids*,  $X^2 (df = 9, n = 192) = 2.5, ns$ ; *calicos*,  $X^2 (df = 9, n = 191) = 8.9, ns$ ; *florals*,  $X^2 (df = 9, n = 192) = 7.1, ns$ ; *geometric prints*,  $X^2 (df = 9, n = 192) = 11.6, ns$ ; *conversational/novelty prints*,  $X^2 (df = 9, n = 192) = 14.4, ns$ ; *civil war reproductions*,  $X^2 (df = 9, n = 189) = 3.1, ns$ ; *1930s reproductions*,  $X^2 (df = 9, n = 192) = 5.7, ns$ ; *museum reproductions*,  $X^2 (df = 9, n = 189) = 9.6, ns$ ; *batiks*,  $X^2 (df = 9, n = 191) = 10.9, ns$ ; *hand-dyed fabrics*,  $X^2 (df = 9, n = 192) = 7.9, ns$ ; *flannels*,  $X^2 (df = 9, n = 190) = 4.9, ns$ ; and *velvets*,  $X^2 (df = 9, n = 190) = 9.2, ns$ .

Table 110

*Dark Backgrounds Utilized According to U.S. Annual Household Income*

Dark back- grounds	Annual Household Income in U.S. \$1,000s																			
	19,000 or less		20 to 29		30 to 39		40 to 49		50 to 59		60 to 69		70 to 79		80 to 89		90 to 99		100,000 or more	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	6	3.1	7	3.8	3	1.5	15	7.9	7	3.8	9	4.7	9	4.7	9	4.7	6	3.1	33	17.3
No	4	2.1	10	5.2	11	6.0	8	4.3	13	6.3	5	2.6	6	3.1	2	1.0	7	3.8	21	11.0
Column total	10	5.2	17	9.0	14	7.5	23	12.2	20	10.1	14	7.3	15	7.8	11	6.0	13	6.9	54	28.3

$X^2 (df = 9, n = 191) = 16.9, p < .05$

### *Research Question 2*

Chi-square contingency analyses and discriminant function analysis (DISCRIM) were utilized to determine if there were significant differences between why participants were motivated to quilt with respect to quilting practices and quilting techniques utilized by the participants in their quilting. The second research question read as follows: Will the quilting practices and quilting techniques utilized by members of the Trinity Valley Quilters' Guild vary according to quilting motivations? Therefore, it was expected that participants' responses regarding (a) quilting individually or with groups, (b) quilting practices used, (c) quilting techniques that were important to contributing to the quality and beauty of a quilt, (d) quilting techniques used, (e) quilt styles made, (f) quilt types made, (g) color selections made, (h) color palettes used, and (i) fabric types used would vary according why participants were motivated to quilt.

For the purposes of analyzing why participants were motivated to quilt, three groups were formulated based upon the participants' primary reason for being motivated to quilt. Participants who indicated *commemorate a special event, create a family heirloom, create a gift for a special person, and participation in a fundraising project* as primary reasons for being motivated to quilt formed the giving group. Participants who indicated the need to *satisfy creative expression, enter a quilt show or competition, or experiment with a new technique or fabric* formed the second group called creative expression. Participants who indicated *satisfy the need for pleasure, relieve stress,*

*depression or difficult times, and satisfy the need to socialize with others* as primary reasons for being motivated to quilt, formed the third group called relief and pleasure.

Chi-square contingency analyses were utilized to investigate Research Question 2a through 2i in order to determine if participants' quiltmaking practices and quiltmaking techniques significantly varied according to quiltmaking motivations. In regard to participants' responses regarding quiltmaking practices, quiltmaking techniques, quilt types and styles, color palettes, and fabric types, the options *most of the time* and *some of the time* were collapsed into one segment as described in Research Question 1.

DISCRIM analysis was utilized to determine if the participants' membership to the giving, creative expression, and relief and pleasure groups could be predicted by variables of number of quilts made, hours per week spent on quiltmaking, and U.S. dollars spent on quiltmaking by the participants.

#### *Research Question 2a*

A 3 x 2 chi-square contingency was utilized to determine if there were significant differences between the giving, creative expression, and relief and pleasure groups with regard to the participants' quiltmaking practice of *quiltmaking individually or with others* (Q13). The obtained statistic showed no significance,  $X^2 (df = 2, n = 249) = 1.2, ns$ . Regardless of participants' quiltmaking motivations, participants were evenly distributed with respect to *quiltmaking individually or with others*.

Five 3 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between the three groups with regard to the participants' quiltmaking practice of *quilting with a group* (Q14). The obtained statistics showed

significance with respect to quiltmaking with a *guild*,  $X^2 (df = 2, n = 180) = 1.7, p < .03$ . Participants who were from the creative expression group were more likely to respond yes to quiltmaking with a *guild* than participants from the giving and relief and pleasure groups (see Table 111). Regardless of quiltmaking motivations, the three groups were evenly distributed regarding quiltmaking with a *bee*,  $X^2 (df = 9, n = 180) = 1.7, ns$ ; *church*,  $X^2 (df = 9, n = 179) = 8.7, ns$ ; *business colleagues*,  $X^2 (df = 9, n = 180) = .98, ns$ ; or *personal friends not associated with a formal group*,  $X^2 (df = 9, n = 180) = .43, ns$ .

Table 111

Quiltmaking with Guild Members According to Quiltmaking Motivations

Design quilt top patterns	Giving		Creative Expression		Relief & Pleasure	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	37	20.5	33	18.3	15	8.3
No	40	22.3	24	13.7	31	17.2
Column Total	77	42.8	57	31.7	46	25.5

$\chi^2 (df = 2, n = 180) = 6.5, p < .03$

## Research Question 2b

Nineteen 3 x 2 chi-square analyses were utilized to determine if there were significant differences between the giving, creative expression, and relief and pleasure groups with regard to specific quilting practices utilized by the participants (Q 21). The obtained statistics showed significance with respect to *design quilt top patterns*,  $X^2 (df = 2, n = 237) = 10.9, p < .00$ , *design quilting patterns*,  $X^2 (df = 2, n = 231) = 14.1, p < .00$ , *create contemporary quilts*,  $X^2 (df = 2, n = 243) = .34, p < .00$ , *machine quilt for personal income*,  $X^2 (df = 2, n = 235) = .97, p < .03$ , and *machine quilt for fundraising*,  $X^2 (df = 2, n = 237) = 6.7, p < .05$ . Participants from the creative expression group were more likely to respond yes to *design quilt top patterns*, *design quilting patterns*, *create contemporary quilts*, *machine quilt for personal income*, and *machine quilt for fundraising*, than participants from the giving or relief and pleasure groups (see Tables 112, 113, 114, 115, and 116).

Regardless of quilting motivations, participants were evenly distributed regarding *design quilt block patterns*,  $X^2 (df = 2, n = 235) = 2.4, ns$ ; *purchase quilt block patterns*,  $X^2 (df = 2, n = 241) = 1.4, ns$ ; *purchase quilt top patterns*,  $X^2 (df = 2, n = 238) = 1.1, ns$ ; *use templates for quilting patterns*,  $X^2 (df = 2, n = 241) = .48, ns$ ; *purchase block of the month patterns*,  $X^2 (df = 2, n = 240) = 1.5, ns$ ; *purchase quilt kits*,  $X^2 (df = 2, n = 240) = .02, ns$ ; *create traditional quilts*,  $X^2 (df = 2, n = 238) = 18.3, ns$ ; *display quilts at shows*,  $X^2 (df = 2, n = 243) = 4.4, ns$ ; *enter design competitions*,  $X^2 (df = 2, n = 237) = 3.5, ns$ ; *hand quilt for personal income*,  $X^2 (df = 2, n = 237) = 1.0, ns$ ; *hand quilt for*

Table 112

*Design Quilt Top Patterns According to Quilting Motivations*

Design quilt top patterns	Giving		Creative Expression		Relief & Pleasure	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	58	24.5	58	24.5	30	12.7
No	40	16.8	19	8.0	32	13.5
Column Total	98	41.3	77	32.5	62	26.2

$\chi^2 (df = 2, n = 237) = 10.9, p < .00$

Table 113

*Design Quilting Patterns According to Quiltmaking Motivations*

Design quilting patterns	Giving		Creative Expression		Relief & Pleasure	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	52	22.5	50	21.6	21	9.1
No	45	19.5	24	10.4	39	16.9
Column Total	97	42.0	74	32.0	60	26.0

$X^2 (df = 2, n = 231) = 14.1, p < .00$

Table 114

*Create Contemporary Quilts According to Quilting Motivations*

Create contemporary quilts	Giving		Creative Expression		Relief & Pleasure	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	52	21.8	58	24.4	25	10.5
No	47	19.8	19	8.0	37	15.5
Column Total	99	41.6	77	32.4	62	26.0

$\chi^2 (df = 2, n = 238) = 18.3, p < .00$

Table 115

*Machine Quilt for Personal Income According to Quilting Motivations*

Machine quilt for personal income	Giving		Creative Expression		Relief & Pleasure	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	6	2.3	13	5.2	4	1.5
No	92	39.0	64	27.0	58	25.0
Column Total	98	41.3	77	32.2	62	26.5

$\chi^2 (df = 2, n = 237) = 6.7, p < .03$

Table 116

*Machine Quilt for Fundraising According to Quiltmaking Motivations*

Machine quilt for fundraising	Giving		Creative Expression		Relief & Pleasure	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	14	5.7	25	10.4	13	5.3
No	84	35.1	55	23.0	49	20.5
Column Total	98	40.8	78	33.4	62	25.8

$\chi^2 (df = 2, n = 238) = .9, p < .05$

*fundraising*,  $X^2 (df = 2, n = 236) = .96$ , ns; *sell quilt top patterns*,  $X^2 (df = 2, n = 238) = .52$ , ns; *sell quilting patterns*,  $X^2 (df = 2, n = 237) = .64$ , ns; and *write books/articles on quilting*,  $X^2 (df = 2, n = 237) = 2.0$ , ns.

#### *Research Question 2c*

A 3 x 6 chi-square contingency analysis was utilized to determine if there were significant differences between the giving, creative expression, and relief and pleasure groups with regard to beliefs about the quilting techniques that were most important to contributing to the quality and beauty of a quilt (Q23). For analysis purposes, the original options pertaining to the most important techniques were collapsed into six segments as described in Research Question 1a. Regarding the most important technique, the obtained statistic showed significance with respect to *hand work*, and *visual impact*,  $X^2 (df = 10, n = 246) = 26.65, p < .00$ . Participants from the giving group were more likely to indicate *hand work* as the most important technique than participants from the creative expression or relief and pleasure groups (see Table 117). Participants from the creative expression group and relief and pleasure groups were more likely to indicate *visual impact* as the most important technique that contributed to the quality and beauty of a quilt than participants from the giving group.

Table 117

*Most Important Characteristic to the Quality and Beauty of a Quilt According to Quiltmaking Motivations*

Characteristic	Giving		Creative Expression		Relief & Pleasure	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Hand work	36	14.6	9	3.6	13	5.4
Machine work	4	1.6	0	0.0	0	0.0
Quality	26	10.6	16	7.0	16	7.0
Complexity	2	1.0	1	0.0	0	0.0
Visual impact	37	15.0	52	21.2	32	13.0
Originality	1	0.0	1	0.0	0	0.0
Column total	106	42.8	79	31.8	61	25.4

$\chi^2$  ( $df = 10, n = 246$ ) = 26.65,  $p < .00$ .

### *Research Question 2d*

Seventeen 3 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between significant differences between the giving, creative expression, and relief and pleasure groups with regard to specific quilting techniques utilized by the participants (Q24). The obtained statistics showed significance with respect to *hand piecing*,  $X^2 (df = 2, n = 245) = 7.1, p < .02$ , *machine piecing*,  $X^2 (df = 2, n = 249) = 7.1, p < .02$ , *machine appliqué*,  $X^2 (df = 2, n = 246) = 8.8, p < .01$ , *paper piecing*,  $X^2 (df = 2, n = 248) = 10.4, p < .00$ , *foundation piecing*,  $X^2 (df = 2, n = 245) = 17.2, p < .00$ , and *hand embroidery*,  $X^2 (df = 2, n = 244) = 6.5, p < .03$ . Participants from the giving group were more likely to respond yes to utilizing *hand piecing* than participants from the creative expression or the relief and pleasure groups (see Table 118). Participants from the creative expression and relief and pleasure groups were more likely to respond yes to utilizing *machine piecing* than participants from the giving group (see Table 119). Participants from the creative expression group were more likely to respond yes to utilizing *machine appliqué*, *paper piecing*, *foundation piecing*, and *hand embroidery* than participants from the giving or relief and pleasure groups (see Tables 120, 121, 122, and 123).

Table 118

*Hand Piecing According to Quiltmaking Motivations*

Hand piecing	Giving		Creative Expression		Relief & Pleasure	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	70	28.6	38	15.5	33	13.5
No	34	13.9	39	15.9	31	12.6
Column Total	104	42.5	77	31.4	64	26.1

$$X^2 (df = 2, n = 245) = 7.1, p < .02$$

Table 119

*Machine Piecing According to Quiltmaking Motivations*

Machine piecing	Giving		Creative Expression		Relief & Pleasure	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	99	40.0	79	32.0	63	25.2
No	7	2.8	0	0.0	1	0.0
Column Total	106	42.8	79	32.0	64	25.2

$$X^2 (df = 2, n = 249) = 7.1, p < .02$$

Table 120

*Machine Appliqué According to Quiltmaking Motivations*

Machine appliqué	Giving		Creative Expression		Relief & Pleasure	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	55	22.3	56	22.7	32	13.0
No	49	20.0	22	9.0	32	13.0
Column Total	106	42.3	79	31.7	64	26.0

$\chi^2 (df = 2, n = 246) = 8.8, p < .01$

Table 121

*Paper Piecing According to Quiltmaking Motivations*

Paper piecing	Giving		Creative Expression		Relief & Pleasure	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	60	24.3	63	25.4	41	16.5
No	45	18.2	16	6.4	23	9.2
Column Total	105	42.5	79	31.8	64	25.7

$$X^2 (df = 2, n = 248) = 10.4, p < .00$$

Table 122

*Foundation Piecing According to Quiltmaking Motivations*

Foundation piecing	Giving		Creative Expression		Relief & Pleasure	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	48	19.6	60	24.6	35	14.3
No	55	22.4	18	7.3	29	11.8
Column Total	103	42.0	78	31.9	64	26.1

$\chi^2 (df = 2, n = 245) = 17.2, p < .00$

Table 123

*Hand Embroidery According to Quilting Motivations*

Hand embroidery	Giving		Creative Expression		Relief & Pleasure	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	78	32.0	66	27.0	46	19.0
No	27	11.0	9	3.6	18	7.4
Column Total	105	43.0	75	30.6	64	26.4

$X^2 (df = 2, n = 244) = 6.5, p < .03$

Regardless of quilting motivations, participants were evenly distributed regarding *hand appliqué*,  $X^2 (df = 2, n = 246) = 1.2$ , ns; *hand quilting*,  $X^2 (df = 2, n = 250) = 1.3$ , ns; *machine quilting*,  $X^2 (df = 2, n = 247) = 3.5$ , ns; *hired machine quilting*,  $X^2 (df = 2, n = 246) = 1.3$ , ns; *stack-n-whack*,  $X^2 (df = 2, n = 240) = 3.9$ , ns; *machine embroidery*,  $X^2 (df = 2, n = 242) = 3.0$ , ns; *trapunto*,  $X^2 (df = 2, n = 244) = 3.8$ , ns; and *fused applications*,  $X^2 (df = 2, n = 244) = .86$ , ns.

### *Research Question 2c*

Nine 3 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between the giving, creative expression, and relief and pleasure groups with regard to the quilting technique of what quilt styles were made by the participants (Q25). The obtained statistics showed significance with respect to the *themed* quilt style,  $X^2 (df = 2, n = 168) = 6.2$ ,  $p < .04$ . Participants from the creative expression group were more likely to respond yes to making *themed quilts* than participants from the giving or relief and pleasure groups (see Table 124).

Regardless of quilting motivations, participants were evenly distributed regarding the quilt styles of *sampler*,  $X^2 (df = 2, n = 249) = 1.3$ , ns; *wholecloth*,  $X^2 (df = 2, n = 241) = 4.0$ , ns; *quilts of same block*,  $X^2 (df = 2, n = 248) = .50$ , ns; *pictorial*,  $X^2 (df = 2, n = 244) = .10$ , ns; *holiday*,  $X^2 (df = 2, n = 245) = 4.5$ , ns; *crazy*,  $X^2 (df = 2, n = 242) = 4.9$ , ns; *Hawaiian*,  $X^2 (df = 2, n = 244) = 1.0$ , ns; and *mourning* quilt styles,  $X^2 (df = 2, n = 243) = .71$ , ns.

Table 124

*Themed Quilts Made According to Quilting Motivations*

Themed quilts	Giving		Creative Expression		Relief & Pleasure	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	65	26.6	62	25.4	41	16.8
No	39	16.0	16	6.6	21	8.6
Column Total	104	42.6	78	32.0	62	25.4

$\chi^2 (df = 2, n = 244) = 6.2, p < .04$

### Research Question 2f

Eleven 3 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between significant differences between the giving, creative expression, and relief and pleasure groups with regard to the quiltmaking technique of what types of quilts were made by the participants (Q26). The obtained statistics showed significance with respect to *apparel and accessories*,  $X^2 (df = 2, n = 135) = 16.4, p < .00$ . Participants from the creative expression group were more likely to respond yes to making *apparel and accessories* than participants from the giving and relief and pleasure groups (see Table 125).

Regardless of quiltmaking motivations, participants were evenly distributed regarding the quilt types of *single*,  $X^2 (df = 2, n = 238) = 2.8, ns$ ; *double*,  $X^2 (df = 2, n = 237) = .06, ns$ ; *queen*,  $X^2 (df = 2, n = 234) = 1.3, ns$ ; *king*,  $X^2 (df = 2, n = 236) = 1.9, ns$ ; *crib/baby*,  $X^2 (df = 2, n = 249) = .05, ns$ ; *lap*,  $X^2 (df = 2, n = 240) = 1.6, ns$ ; *wall hangings*,  $X^2 (df = 2, n = 247) = 3.0, ns$ ; *miniature*,  $X^2 (df = 2, n = 242) = 4.1, ns$ ; *toys and collectibles*,  $X^2 (df = 2, n = 240) = 1.6, ns$ ; and *home decorations*,  $X^2 (df = 2, n = 241) = 2.6, ns$ .

### Research Question 2g

A 3 x 5 chi-square contingency analysis was utilized to determine if there were significant differences between the giving, creative expression, and relief and pleasure groups with regard to the quiltmaking technique of most important reasons for color selection (Q27). The obtained statistic showed significance with respect to *colors*

Table 125

*Apparel and Accessories Made According to Quilting Motivations*

Apparel and accessories	Giving		Creative Expression		Relief & Pleasure	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	48	19.8	58	24.0	29	11.8
No	54	22.2	20	8.2	34	14.0
Column Total	102	42.0	78	32.2	63	25.8

$\chi^2 (df = 2, n = 243) = 16.4, p < .00$

*appropriate to a theme* and *other individual's personal color preference*  $X^2 (df = 8, n = 249) = 16.0, p < .04$ . Participants from the creative expression group were more likely to indicate *colors appropriate to a theme* as the most important reason for selecting colors for a quilt than participants from the giving and relief and pleasure groups. Participants from the relief and pleasure group were more likely to indicate *other individual's personal color preference* as the most important reason for selecting colors for a quilt than participants from the other two groups (see Table 126).

#### Research Question 2h

Eleven 8 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between the giving, creative expression, and relief and pleasure groups with regard to the quilting technique of color palette usage (Q28). The obtained statistics showed no significance. Regardless of quilting motivations, participants were evenly distributed regarding *cool colors*,  $X^2 (df = 2, n = 243) = 2.8, ns$ ; *warm colors*,  $X^2 (df = 2, n = 243) = 3.7, ns$ ; *pastels*,  $X^2 (df = 2, n = 242) = 4.7, ns$ ; *bright colors*,  $X^2 (df = 2, n = 246) = .80, ns$ ; *multiple colors*,  $X^2 (df = 2, n = 246) = 2.5, ns$ ; *one or two colors*,  $X^2 (df = 2, n = 242) = .86, ns$ ; *white or tan backgrounds*,  $X^2 (df = 2, n = 247) = 1.7, ns$ ; *black backgrounds*,  $X^2 (df = 2, n = 246) = 3.8, ns$ ; *light color backgrounds*,  $X^2 (df = 2, n = 246) = 1.0, ns$ ; and *medium color backgrounds*,  $X^2 (df = 2, n = 245) = 1.2, ns$ ; and *dark color backgrounds*,  $X^2 (df = 2, n = 246) = 4.2, ns$ .

Table 126

*Most Important Reason for Color Selection According to Quiltmaking Motivation*

Reasons	Giving		Creative Expression		Relief & Pleasure	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Personal color preference	85	34.0	57	23.3	49	20.2
Other individual's personal color preference	1	0.0	0	0.0	5	2.0
Colors appropriate to a theme	15	6.1	17	6.6	8	3.2
Color trends	0	0.0	1	0.0	0	0.0
Influence from home décor	6	2.4	3	1.2	2	1.0
Column total	107	42.5	78	31.1	64	26.4

$\chi^2 (df = 8, n = 249) = 16.05, p < .04$

## Research Question 2i

Twelve 3 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between the giving, creative expression, and relief and pleasure groups with regard to the quiltmaking technique of fabric type utilization (Q29). The obtained statistics showed significance with respect to *museum reproductions*,  $X^2 (df=2, n=244) = 13.2, p < .00$ , *batiks*,  $X^2 (df=2, n=245) = 7.4, p < .02$ , and *hand dyed fabrics*,  $X^2 (df=2, n=247) = 6.6, p < .03$ . Participants from the creative expression group were more likely to respond yes to utilizing *museum reproductions* and *batiks* in their quiltmaking than participants from the giving and relief and pleasure groups (see Tables 127, 128, and 129). Participants from the relief and pleasure group were less likely to respond yes to utilizing *hand-dyed fabrics* than participants from the other two groups. Regardless of quiltmaking motivations, participants were evenly distributed regarding the fabric types of *solids*,  $X^2 (df=2, n=248) = 2.0, ns$ ; *calicos*,  $X^2 (df=2, n=247) = 4.3, ns$ ; *florals*,  $X^2 (df=2, n=247) = .62, ns$ ; *geometric prints*,  $X^2 (df=2, n=247) = 1.8, ns$ ; *conversational/novelty prints*,  $X^2 (df=2, n=247) = .44, ns$ ; *civil war reproductions*,  $X^2 (df=2, n=244) = 4.4, ns$ ; *1930s reproductions*,  $X^2 (df=2, n=248) = .27, ns$ ; *flannels*,  $X^2 (df=2, n=245) = 2.3, ns$ ; and *velvets*,  $X^2 (df=2, n=244) = 3.6, ns$ .

Table 127

*Museum Reproductions Utilized According to Quilting Motivations*

Museum reproductions	Giving		Creative Expression		Relief & Pleasure	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	39	16.0	46	18.8	19	7.8
No	65	26.6	32	13.2	43	17.6
Column Total	104	42.6	78	32.0	62	25.4

$\chi^2 (df = 2, n = 244) = 16.4, p < .00$

Table 128

*Batiks Utilized According to Quiltmaking Motivations*

Batiks	Giving		Creative Expression		Relief & Pleasure	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	58	23.7	56	22.8	31	12.8
No	45	18.3	23	9.4	32	13.0
Column Total	103	42.0	79	32.2	63	25.8

$\chi^2 (df = 2, n = 245) = 7.4, p < .02$

Table 129

*Hand Dyed Fabrics Utilized According to Quiltmaking Motivations*

Hand dyed fabrics	Giving		Creative Expression		Relief & Pleasure	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	64	26.0	53	21.5	29	11.6
No	41	16.6	26	10.5	34	13.8
Column Total	105	42.6	79	32.0	63	25.4

$X^2 (df = 2, n = 247) = 6.6, p < .03$

In order to complete the investigation of Research Question 2, discriminant function analysis (DISCRIM), was utilized to determine if membership to the giving, creative expression, or relief and pleasure groups could be predicted by the predictor variables of number of quilts made, hours per week spent on quilting, and amount of U.S. dollars spent on quilting making during 2001 by the participants. For analysis purposes, the original options pertaining to number of quilts made were collapsed into the segments of 0 to 5, 6 to 10, 11 to 15, 16 to 20, 21 to 30, 31 to 40, 41 to 50, and 51 or more quilts made. The original options pertaining to hours per week spent on quilting, and amount of U.S. dollars spent on quilting making during 2001 were collapsed as described in Research Question 1a.

For this study, the number of participants per group was unequal. However, DISCRIM is a one-way analysis that seeks to determine the dimension or dimensions along which groups differ in order to predict group membership. Because the statistical test is a one-way analysis, unequal group membership is acceptable (Tabachnick, 1996).

The mean scores pertaining to the predictor variables were represented by a range of number of quilts made, hours per week spent on quilting, and U.S. dollars spent on quilting making during 2001. Regarding hours per week spent on quilting, the obtained statistics showed participants from the creative expression group, on the average, made more quilts, spent more hours per week on quilting, and spent more U.S. dollars on quilting making during 2001 than participants from the giving, and relief and pleasure groups (see Table 130).

Table 130

*Means and Standard Deviations of Predictor Variables for Group Membership by Quiltmaking Motivations*

Predictor variable	Giving		Creative Expression		Relief & Pleasure	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Number of quilts made	3.9	2.3	5.5	2.1	4.7	2.3
Hours per week spent on quiltmaking	2.1	1.3	2.6	1.3	2.3	1.4
U.S. dollars spent on quiltmaking	6.8	3.9	9.4	3.6	8.2	3.6

Note. *M* scores represent a range of number of quilts made, hours spent on quiltmaking, and U.S. dollars spent on quiltmaking and not a specific average for that predictor variable. The range for number of quilts made was (a) 3 = 11 to 15 quilts, (b) 4 = 16 to 20 quilts, (c) 5 = 21 to 30 quilts and (d) 6 = 31 to 40 quilts. The range for hours per week spent on quiltmaking was (a) 2 = 6 to 10 hours, and (b) 3 = 11 to 15 hours. The range for U.S. dollars spent on quiltmaking during 2001 was (a) 5 = \$301 to \$400, (b) 6 = \$401 to \$500, (c) 7 = \$501 to \$600, (d) 8 = \$601 to \$700, (e) 9 = \$701 to \$800, and (f) 10 = \$801 to \$900.

Regarding number of quilts made, on the average, members from the giving group made 11 to 15 and 16 to 20 quilts, and members from the creative expression group made 21 to 30 and 31 to 40 quilts. Members from the relief and pleasure group made 16 to 20 and 21 to 30 quilts. Therefore, participants from the creative expression group, on the average, made more quilts than the other two groups.

Regarding hours per week spent on quilting, participants from the giving group as well as the relief and pleasure group spent on the average, 6 to 10 hours per week on quilting. Members from the creative expression group spent on the average, 6 to 10 and 11 to 15 hours per week on quilting. Therefore, participants from creative expression group spent more hours per week on quilting than participants from the other two groups.

Regarding U.S. dollars spent on quilting, participants from the giving group spent on the average, the fewest U.S. dollars on quilting as compared to the other two groups. The giving group spent on the average, \$401 to \$500 during 2001, whereas participants from the creative expression group spent \$701 to \$800, and members from the relief and pleasure group spent \$601 to \$700 on quilting during 2001. Therefore, participants from the creative expression group spent, on the average, more U.S. dollars on quilting than participants from the other two groups.

The results of the tests of equality of group means indicated that all three groups were significantly different regarding average number of quilts made ( $p < .00$ ), average

hours per week spent on quilting ( $p < .04$ ), and average amount of U.S. dollars spent on quilting during 2001 ( $p < .00$ ) (see Table 131). The correlation with discriminant functions and standardized discriminant function coefficients when the three predictor variables were analyzed resulted in significance, meaning group membership could be predicted based upon the number of quilts made, hours per week, and U.S. dollars spent on quilting (see Table 132).

The results of the classification analysis for group membership by quilting motivations are reported in Table 133. Ninety-three participants were members of the giving group of which it was predicted that 74.2% consisted of participants who were motivated to quilt for giving purposes, and 25.8% were motivated to quilt for creative expression. Seventy-seven participants were participants from the creative expression group of which it was predicted that 40.3% consisted of participants who were motivated to quilt for giving purposes, and 59.7% were motivated to quilt for creative expression.

Regardless of the fact that the three groups were significantly different, the participants from the giving and creative expression groups were more different in terms of average numbers of quilts made, average hours per week spent on quilting, and average U.S. dollars spent on quilting than participants from the relief and pleasure group. It was for this reason that predicted group membership resulted in zero membership for the relief and pleasure group. Because participants from the relief and pleasure group were between the giving and creative expression groups in terms of number of quilts made, hours per week spent on quilting, and U.S. dollars spent on quilting, the

Table 131

*Tests of Equality of Group Means*

Predictor variable	Wilks's $\Lambda$	F (2, 224)	<i>p</i>
Number of quilts made	.918	9.96	.00
Hours per week spent on quilting	.972	3.21	.04
U.S. dollars spent on quilting	.919	9.83	.00

*p* < .05

Table 132

*Correlation of Predictor Variables With Function Structure Matrix and Standardized Discriminate Function Coefficients*

Predictor variable	Correlation with discriminant functions		Standardized discriminant function coefficients	
	Function 1	Function 2	Function 1	Function 2
Number of quilts made	.790*	-.614	.613	-.838
Hours per week quiltmaking	.784*	.610	.084	.093
U.S. dollars spent on quiltmaking	.449*	.045	.610	.790

Table 133

*Classification Analysis for Group Membership by Quiltmaking Motivations*

Actual group membership	n	Giving		Creative Expression		Relief & Pleasure	
		n	%	n	%	n	%
Giving	93	69	74.2	24	25.8	0	0.0
Creative expression	77	31	40.3	46	59.7	0	0.0
Relief and pleasure	57	31	54.4	26	45.6	0	0.0

*Note.* Overall percentage of correctly classified cases = 50.7%.

participants from this group were less distinguishable; definitive group membership was not predicted.

A post hoc test on comparisons between groups was utilized to determine if the three groups were significantly different when all three predictor variables were collectively analyzed. Regarding number of quilts made, hours per week spent on quilting, and U.S. dollars spent on quilting, the obtained statistics showed significance for all three groups. Members from the giving group were significantly different than members from the creative expression group when all three predictor variables were collectively analyzed ( $p < .00$ ) (see Table 134). Members from the creative expression group were significantly different than those members from the relief and pleasure group ( $p < .01$ ). The members from the relief and pleasure group were significantly different than members from the giving group ( $p < .01$ ).

It was predicted that participants who on the average, made 11 to 15 and 16 to 20 quilts, participated in quilting 6 to 10 hours per week on quilting, and spent \$401 to \$500 on quilting during 2001, were motivated to do so in order to commemorate a special event, create a family heirloom, create a gift for a special person, or participate in a fundraising project.

It was also predicted that participants who on the average made 21 to 30 and 31 to 40 quilts, participated in quilting 6 to 10 and 11 to 15 hours per week, and spent \$701 to \$800 on quilting during 2001, were motivated to do so in order to satisfy the need for creative expression, enter a quilt show or competition, or experiment with a new

Table 134

*Results from Post Hoc Tests on Comparisons Between Groups*

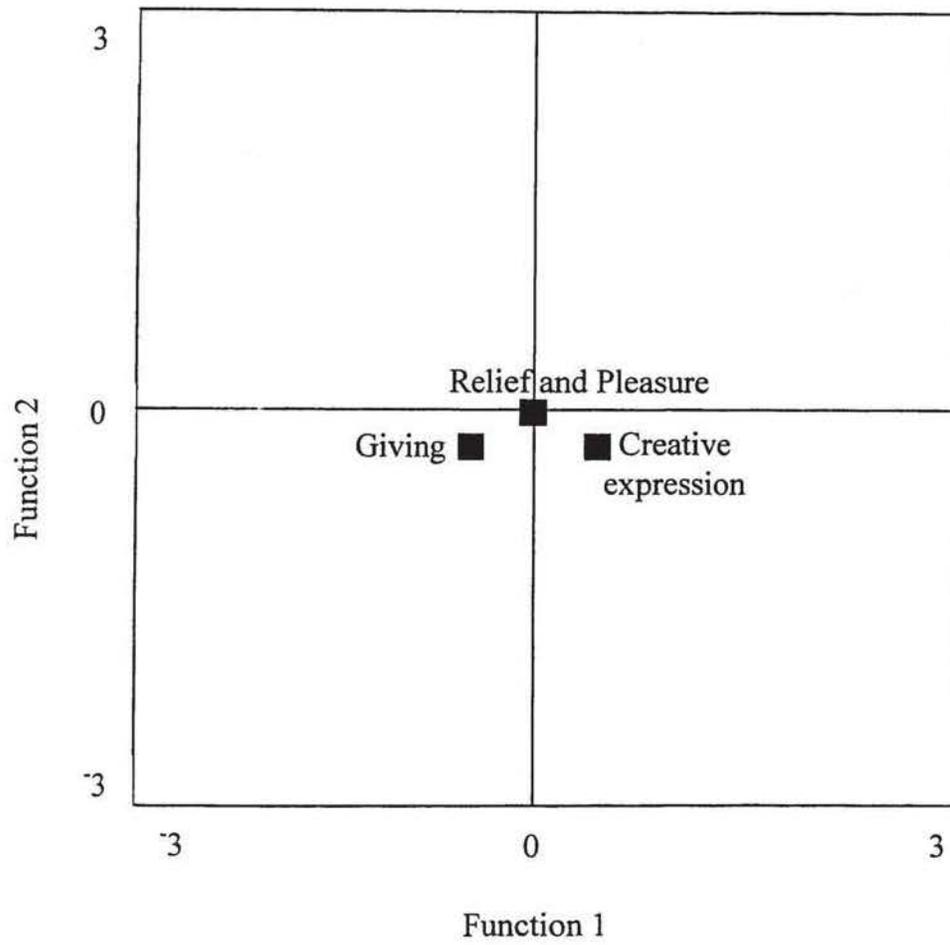
Group Membership	Group Membership	<i>M</i> Difference	Std. Error	<i>p</i>
Giving	Creative expression	-.87*	.15	.00
Creative expression	Relief and Pleasure	.44*	.17	.01
Relief & pleasure	Giving	.43*	.17	.01

technique or fabric. Figure 1 illustrates the group centroids plot from the DISCRIM analysis indicating the significant differences between the three groups.

### Research Question 3

Chi-square contingency analyses and discriminant function analysis (DISCRIM) were utilized to determine if there were significant differences between why participants were involved in quilting with respect to quilting practices and quilting techniques utilized by the participants in their quilting. The third research question read as follows: Will the quilting practices and quilting techniques utilized by members of the Trinity Valley Quilters' Guild vary according to why they are involved in quilting? Therefore, it was expected that participants' responses regarding (a) quilting individually or with others, (b) quilting practices used, (c) quilting techniques that were important to contributing to the quality and beauty of a quilt, (d) quilting techniques used, (e) quilt styles made, (f) quilt types made, (g) color selections made, (h) color palettes used, and (i) fabric types used would vary according to why participants were involved in quilting. For the purposes of the analyses, four groups were formulated based upon the participants' primary reason for being involved in quilting. Participants who indicated *personal enjoyment* as the primary reason formulated the enjoyment group. Participants who indicated *sense of accomplishment* and *source of personal income* as primary reasons formulated the sense of accomplishment group. Participants who indicated *self expression*, and *fulfill the desire for creativity* formulated the creative group, and participants who indicated

Figure 1. Group centroids plot from discriminate function analysis.



*a way to connect to the past* as the primary reason for being involved in quilting formulated the connect with the past group.

Chi-square analyses were utilized to investigate Research Question 3a through 3i in order to determine if participants' quilting practices and quilting techniques significantly varied according to why participants were involved in quilting. In regard to quilting practices, quilting techniques, quilt types and styles, color palettes, and fabric types, the options *most of the time* and *some of the time* were collapsed into one segment as described in Research Question 1. DISCRIM analysis was utilized to determine if membership to the enjoyment, sense of accomplishment, creative, and connect with the past groups could be predicted by the predictor variables of number of quilts made, hours per week spent on quilting, and U.S. dollars spent on quilting by the participants. For analyses purposes, the options pertaining to number of quilts made, hours per week spent on quilting, and U.S. dollars spent on quilting by the participants were collapsed as described in Research Question 2.

#### *Research Question 3a*

A 3 x 2 chi-square contingency was utilized to determine if there were significant differences between the enjoyment, sense of accomplishment, creative and connect with the past groups with regard to the participants' quilting practice of *quilting individually or with others* (Q13). The obtained statistic showed no significance,  $X^2 (df = 3, n = 177) = 2.4, ns$ . Regardless of why participants were involved in quilting, participants were evenly distributed regarding *quilting individually or with others*.

Five 3 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between the three groups with regard to the participants' quiltmaking practice of *quilting with a group* (Q14). The obtained statistics showed no significance with respect to quiltmaking with a *bee*,  $X^2 (df = 3, n = 177) = 6.1$ , ns; *guild*,  $X^2 (df = 3, n = 177) = 2.4$ , ns; *church*,  $X^2 (df = 3, n = 176) = 4.9$ , ns; *business colleagues*,  $X^2 (df = 3, n = 177) = 3.8$ , ns; or *personal friends not associated with a formal group*,  $X^2 (df = 3, n = 180) = .43$ , ns. Regardless of why participants were involved in quiltmaking, participants were evenly distributed regarding quiltmaking with a *bee*, *guild*, *church*, *business colleagues*, or *personal friends not associated with a formal group*.

#### *Research Question 3b*

Nineteen 4 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between the enjoyment, sense of accomplishment, creative and connect with the past groups with regard to specific quiltmaking practices utilized by the participants (Q21). The obtained statistics showed significance with respect to *design quilt block patterns*,  $X^2 (df = 3, n = 232) = 17.4$ ,  $p < .00$ , *purchase quilt block patterns*,  $X^2 (df = 3, n = 239) = 10.5$ ,  $p < .01$ , *design quilt top patterns*,  $X^2 (df = 2, n = 234) = 13.0$ ,  $p < .00$ , *purchase quilt top patterns*,  $X^2 (df = 3, n = 133) = 16.1$ ,  $p < .00$ , *design quilting patterns*,  $X^2 (df = 3, n = 236) = 16.2$ ,  $p < .00$ , *purchase block of the month patterns*,  $X^2 (df = 3, n = 237) = 7.7$ ,  $p < .05$ , *purchase quilt kits*,  $X^2 (df = 3, n = 238) = 0.9$ ,  $p < .00$ , and *create contemporary quilts*,  $X^2 (df = 3, n = 236) = 16.7$ ,  $p < .00$ . Participants from the creative group were more likely to respond yes to *design quilt block patterns* than participants from

any of the other three groups (see Table 135). Participants from the enjoyment group were more likely to respond yes to utilizing *purchased quilt block patterns* than participants from the sense of accomplishment, creative or connect with the past groups (see Table 136). Participants from the creative group were more likely to respond yes to *design quilt top patterns* than participants from the other three groups (see Table 137). Participants from the enjoyment group were more likely to respond yes to *purchase quilt top patterns* than participants from the other three groups (see Table 138). Participants from the sense of accomplishment group were more likely to respond yes to *design quilting patterns* than participants from the enjoyment, creative, or connect with the past groups (see Table 139). Participants from the connect with the past group and the enjoyment groups were more likely to respond yes to *purchase block of the month patterns* than participants from any of the other two groups (see Table 140). Participants from the enjoyment group were more likely to respond yes to *purchase quilt kits* than participants from the other three groups (see Table 141). Participants from the creative group were more likely to respond yes to *create contemporary quilts* and *enter design competitions* than participants from the enjoyment, sense of accomplishment, or connect with the past groups (see Tables 142 and 143).

Table 135

*Design Quilt Block Patterns According to Why Participants Were Involved in Quilting*

Design quilt block patterns	Enjoyment		Sense of Accomplishment		Creative		Connect with Past	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	85	36.5	11	5.0	39	17.0	2	1.0
No	74	32.0	9	3.5	7	3.0	5	2.0
Column total	159	68.5	20	8.5	46	20.0	7	3.0

$$X^2 (df = 3, n = 232) = 17.4, p < .00$$

Table 136

*Purchase Quilt Block Patterns According to Why Participants Were Involved in Quiltmaking*

Purchase quilt block patterns	Enjoyment		Sense of Accomplishment		Creative		Connect with Past	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	156	65.2	16	6.7	40	16.7	5	2.0
No	9	3.7	4	1.7	7	3.0	2	1.0
Column total	165	68.9	20	8.4	47	19.7	7	3.0

$X^2 (df = 3, n = 239) = 10.5, p < .01$

Table 137

*Design Quilt Top Patterns According to Why Participants Were Involved in Quilting*

Design quilt top patterns	Enjoyment		Sense of Accomplishment		Creative		Connect with Past	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	86	36.7	14	5.8	39	16.5	3	1.2
No	73	32.0	6	2.5	9	3.7	4	1.6
Column total	159	68.7	20	8.3	48	20.2	7	2.8

$\chi^2 (df = 3, n = 234) = 13.0, p < .00$

Table 138

*Purchase Quilt Top Patterns According to Why Participants Were Involved in Quilting*

Purchase quilt top patterns	Enjoyment		Sense of Accomplishment		Creative		Connect with Past	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	142	60.2	14	6.0	35	14.8	3	1.3
No	19	8.0	6	2.5	13	5.5	4	1.7
Column total	161	68.2	20	8.5	48	20.3	7	3.0

$X^2 (df = 3, n = 236) = 16.2, p < .00$

Table 139

*Design Quilting Patterns According to Why Participants Were Involved in Quilting*

Design quilting patterns	Enjoyment		Sense of Accomplishment		Creative		Connect with Past	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	71	31.2	12	5.4	34	15.0	2	1.0
No	83	36.5	8	3.7	13	6.0	5	2.2
Column total	154	67.7	20	9.1	47	21.0	7	2.2

$\chi^2 (df = 3, n = 228) = 11.9, p < .00$

Table 140

*Purchase Block of the Month According to Why Participants Were Involved in Quiltmaking*

Purchase block of the month	Enjoyment		Sense of Accomplishment		Creative		Connect with Past	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	102	43.0	8	3.4	22	9.1	5	2.1
No	60	25.3	12	5.1	26	11.0	2	1.0
Column total	162	68.3	20	8.5	48	20.1	7	3.1

$X^2 (df = 3, n = 237) = 7.7, p < .05$

Table 141

*Purchase Quilt Kits According to Why Participants Were Involved in Quilting*

Purchase quilt kits	Enjoyment		Sense of Accomplishment		Creative		Connect with Past	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	89	37.3	8	3.3	15	6.3	1	0.0
No	73	30.6	12	5.7	34	14.3	6	2.5
Column total	162	67.9	20	9.0	49	20.6	7	2.5

$$X^2 (df = 3, n = 238) = 12.7, p < .00$$

Table 142

*Create Contemporary Quilts According to Why Participants Were Involved in Quiltmaking*

Create contemporary quilts	Enjoyment		Sense of Accomplishment		Creative		Connect with Past	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	82	35.0	8	3.5	39	16.6	4	1.7
No	79	33.0	12	5.2	9	3.8	3	1.2
Column total	161	68.0	20	8.7	48	20.4	7	2.9

$\chi^2 (df = 3, n = 236) = 16.1, p < .00$

Table 143

*Enter Design Competitions According to Why Participants Were Involved in Quilting*

Enter design Competitions	Enjoyment		Sense of Accomplishment		Creative		Connect with Past	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	12	5.2	1	0.0	12	5.3	1	0.0
No	148	63.0	19	8.1	36	18.0	6	2.6
Column total	160	68.2	20	8.1	48	23.3	7	2.6

$$X^2 (df = 3, n = 235) = 12.3, p < .00$$

Regardless of why participants were involved in quilting, participants were evenly distributed regarding *use templates*,  $X^2 (df = 3, n = 239) = 2.9$ , ns; *create traditional quilts*,  $X^2 (df = 3, n = 241) = 5.4$ , ns; *display quilts at shows*,  $X^2 (df = 3, n = 241) = 5.5$ , ns; *hand quilt for personal income*,  $X^2 (df = 3, n = 235) = .97$ , ns; *hand quilt for fundraising*,  $X^2 (df = 3, n = 234) = 2.5$ , ns; *sell quilt top patterns*,  $X^2 (df = 3, n = 236) = 3.4$ , ns; *sell quilting patterns*,  $X^2 (df = 3, n = 235) = .53$ , ns; and *write books/articles on quilting*,  $X^2 (df = 3, n = 235) = .18$ , ns.

#### *Research Question 3c*

A 4 x 6 chi-square contingency analysis was utilized to determine if there were significant differences between the enjoyment, sense of accomplishment, creative, and connect with the past groups with regard to participants' beliefs about the quilting techniques that were most important to contributing to the quality and beauty of a quilt (Q23). For the purpose of the analysis, the original options pertaining to the most important characteristics were collapsed into six segments as described in Research Question 1a. The obtained statistic showed no significance,  $X^2 (df = 15, n = 244) = 23.9$ . Regardless of why participants were involved in quilting, the participants were evenly distributed regarding the most important characteristic that contributed to the quality and beauty of a quilt.

#### *Research Question 3d*

Seventeen 4 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between the enjoyment, sense of accomplishment, creative,

and connect with the past groups with regard to specific quiltmaking techniques utilized by the participants (Q24). The obtained statistics showed significance with respect to *paper piecing*,  $X^2 (df=3, n = 246) = 10.6, p < .01$ . Participants from the enjoyment group were less likely to respond yes to utilizing *paper piecing* than participants from the sense of accomplishment, creative, or connect with the past groups (see Table 144).

Regardless of participants' reasons for being involved in quiltmaking, participants were evenly distributed regarding *hand piecing*,  $X^2 (df = 3, n = 243) = 4.4, ns$ ; *machine piecing*,  $X^2 (df = 3, n = 247) = 4.5, ns$ ; *hand appliqué*,  $X^2 (df = 3, n = 244) = 6.4, ns$ ; *machine appliqué*,  $X^2 (df = 3, n = 244) = 6.7, ns$ ; *hand quilting*,  $X^2 (df = 3, n = 248) = 2.0, ns$ ; *machine quilting*,  $X^2 (df = 3, n = 245) = 3.8, ns$ ; *hired machine quilting*,  $X^2 (df = 3, n = 244) = 1.7, ns$ ; *foundation piecing*,  $X^2 (df = 3, n = 243) = 5.4, ns$ ; *stack-n-whack*,  $X^2 (df = 3, n = 238) = 2.5, ns$ ; *hand embroidery*,  $X^2 (df = 3, n = 242) = .30, ns$ ; *machine embroidery*,  $X^2 (df = 3, n = 240) = 2.3, ns$ ; *trapunto*,  $X^2 (df = 3, n = 242) = .99, ns$ ; and *fused applications*,  $X^2 (df = 3, n = 242) = .82, ns$ .

### *Research Question 3e*

Nine 4 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between the enjoyment, sense of accomplishment, creative, and connect with the past groups with regard to the quiltmaking techniques of what quilt styles were made by the participants. The obtained statistics showed significance with respect to the quilt styles including *themed*,  $X^2 (df = 3, n = 165) = 10.1, p < .01$ , and *mourning*,  $X^2 (df = 3, n = 11) = 9.4, p < .02$ . Participants from the connect with the past group were less

Table 144

*Paper Piecing According to Why Participants Were Involved in Quilting*

Paper Piecing	Enjoyment		Sense of Accomplishment		Creative		Connect with Past	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	100	41.0	15	6.0	41	16.6	4	1.6
No	69	28.0	6	2.4	8	3.2	3	1.2
Column total	169	69.0	21	8.4	49	19.8	7	2.8

$\chi^2 (df = 3, n = 246) = 10.6, p < .01$

likely to respond yes to creating *themed* quilts than participants from the sense of accomplishment, enjoyment, or creative groups (see Table 145). Participants from the creative group were more likely to respond yes to creating *mourning* quilts than participants from the other three groups (see Table 146).

Regardless of why participants were involved in quilting, participants were evenly distributed regarding *sampler*,  $X^2 (df = 3, n = 247) = 1.4$ , ns; *wholecloth*,  $X^2 (df = 3, n = 239) = .93$ , ns; *quilts of same block*,  $X^2 (df = 3, n = 246) = .68$ , ns; *pictorial*,  $X^2 (df = 3, n = 242) = 6.1$ , ns; *holiday*,  $X^2 (df = 3, n = 243) = 3.2$ , ns; *crazy*,  $X^2 (df = 3, n = 240) = 1.0$ , ns; and *Hawaiian* quilt styles,  $X^2 (df = 3, n = 242) = 1.8$ , ns.

#### *Research Question 3f*

Eleven 4 x 2 chi-square contingency analyses were utilized to investigate if there were significant differences between the enjoyment, sense of accomplishment, creative, and connect with the past groups with regard to the quilting technique of what types of quilts were made by the participants (Q26). The obtained statistics showed no significance. Regardless of why participants were involved in quilting, participants were evenly distributed regarding the quilt types of *single*,  $X^2 (df = 3, n = 236) = 3.8$ , ns; *double*,  $X^2 (df = 3, n = 234) = 1.3$ , ns; *queen*,  $X^2 (df = 3, n = 238) = 3.3$ , ns; *king*,  $X^2 (df = 3, n = 233) = 2.4$ , ns; *crib/baby*,  $X^2 (df = 3, n = 246) = 2.8$ , ns; *lap*,  $X^2 (df = 3, n = 238) = 3.8$ , ns; *wall hangings*,  $X^2 (df = 3, n = 245) = 3.6$ , ns; *miniature*,  $X^2 (df = 3, n = 240) = 3.0$ , ns; *apparel and accessories*,  $X^2 (df = 3, n = 241) = 2.1$ , ns; *toys and collectibles*,  $X^2 (df = 3, n = 238) = .26$ , ns; and *home decorations*,  $X^2 (df = 3, n = 239) = 2.9$ , ns.

Table 145

*Theme Quilts Made According to Why Participants Were Involved in Quiltmaking*

Themed quilts	Enjoyment		Sense of Accomplishment		Creative		Connect with Past	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	113	47.0	13	5.3	38	15.8	1	0.0
No	55	22.7	7	3.0	10	4.2	5	2.0
Column total	168	69.7	20	8.3	48	20.0	6	2.0

$\chi^2 (df = 3, n = 242) = 10.1, p < .01$

Table 146

*Mourning Quilts Made According to Why Participants Were Involved in Quiltmaking*

Mourning quilts	Enjoyment		Sense of Accomplishment		Creative		Connect with Past	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	5	2.0	0	0.0	6	2.5	0	0.0
No	163	67.6	20	8.2	41	17.0	6	2.5
Column total	168	69.6	20	8.2	48	19.5	7	2.5

$\chi^2 (df = 3, n = 241) = 9.4, p < .02$

### *Research Question 3g*

A 4 x 5 chi-square contingency analysis was utilized to determine if there were significant differences between the enjoyment, sense of accomplishment, creative, and connect with the past groups with regard to the quilting technique of most important reasons for color selection (Q27). The obtained statistics showed significance with respect to *personal color preference*,  $X^2 (df = 12, n = 246) = 22.44, p < .03$ . Participants from the enjoyment group were more likely to indicate *personal color preference* as the most important reason for color selection than participants from the sense of accomplishment, creative, or to connect with the past groups (see Table 147).

### *Research Question 3h*

Eleven 4 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between the enjoyment, sense of accomplishment, creative, and the connect with the past groups with regard to the quilting technique of color palette usage (Q28). The obtained statistics showed significance with respect to *multiple colors*,  $X^2 (df = 3, n = 244) = 9.8, p < .02$ , *black backgrounds*,  $X^2 (df = 3, n = 244) = 8.6, p < .03$ , and *dark backgrounds*,  $X^2 (df = 3, n = 244) = 9.9, p < .02$ . Participants from the connect with the past group were less likely to indicate yes to utilizing *multiple colors* in their quilting than participants from the enjoyment, sense of accomplishment, or creative groups (see Table 148). Participants from the creative group were more likely to respond yes to utilizing *black* and *dark backgrounds*, than participants from the

Table 147

*Most Important Reason for Color Selection According to Why Participants Were Involved in Quiltmaking*

Reason	Enjoyment		Sense of Accomplishment		Creative		Connect with Past	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Personal color preference	138	56.0	15	6.0	32	13.2	4	1.7
Other individual's person color preference	5	2.0	0	0.0	0	0.0	0	0.0
Colors appropriate to a theme	21	9.0	4	1.7	13	6.0	2	1.0
Color trends	0	0.0	1	0.0	0	0.0	0	0.0
Influence from home décor	6	2.5	1	0.0	3	1.3	1	0.0
Column total	170	69.1	21	7.7	48	20.5	7	2.7

$X^2 (df = 12, n = 246) = 22.4, p < .03$

Table 148

*Multiple Colors Utilized According to Why Participants Were Involved in Quiltmaking*

Multiple colors	Enjoyment		Sense of Accomplishment		Creative		Connect with Past	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	167	68.6	20	8.4	48	20.0	4	1.7
No	3	1.3	1	0.0	0	0.0	1	0.0
Column total	170	69.9	21	8.4	48	20.0	5	1.7

$X^2 (df=3, n=244) = 9.8, p < .02$

enjoyment, sense of accomplishment, or connect with the past groups (see Tables 149 and 150).

Regardless of why participants were involved in quilting, participants were evenly distributed regarding *cool colors*,  $X^2 (df = 3, n = 243) = 2.8$ , ns; *warm colors*,  $X^2 (df = 3, n = 242) = 2.2$ , ns; *pastels*,  $X^2 (df = 3, n = 241) = 1.9$ , ns; *bright colors*,  $X^2 (df = 3, n = 244) = 4.4$ , ns; *one or two colors*,  $X^2 (df = 3, n = 244) = 9.8$ , ns; *white or tan backgrounds*,  $X^2 (df = 3, n = 240) = .64$ , ns; *light backgrounds*,  $X^2 (df = 3, n = 245) = .51$ , ns; and *medium backgrounds*,  $X^2 (df = 3, n = 245) = 1.2$ , ns.

### *Research Question 3i*

Eleven 4 x 2 chi-square contingency analyses were utilized to determine if there were significant differences between the enjoyment, sense of accomplishment, creative, and connect with the past groups with regard to the quilting technique of fabric type utilization (Q29). The obtained statistics showed significance with respect to *calicos*,  $X^2 (df = 3, n = 219) = 8.3$ , and *batiks*,  $X^2 (df = 3, n = 144) = 9.4$ ,  $p < .04$ .

Participants from the creative group were less likely to respond yes to utilizing *calicos* than participants who were members of the other three groups (see Table 151).

Participants from the creative group were more likely to respond yes to utilizing *batiks* in their quilting than participants who were members of the enjoyment, sense of accomplishment, and connect with the past groups (see Table 152).

Regardless of why participants were involved in quilting, participants were evenly distributed regarding *solids*,  $X^2 (df = 3, n = 246) = 1.1$ , ns; *florals*,  $X^2 (df = 3, n =$

Table 149

*Black Background Utilized According to Why Participants Were Involved in Quilting*

Black backgrounds	Enjoyment		Sense of Accomplishment		Creative		Connect with Past	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	74	29.3	5	2.0	29	12.0	2	1.0
No	96	39.5	16	7.0	19	8.0	3	1.2
Column total	170	68.8	21	9.0	48	20.0	5	2.2

$\chi^2 (df = 3, n = 244) = 8.6, p < .03$

Table 150

*Dark Backgrounds Utilized According to Why Participants Were Involved in Quilting*

Dark backgrounds	Enjoyment		Sense of Accomplishment		Creative		Connect with Past	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	87	36.0	7	3.0	34	14.4	2	1.0
No	83	34.0	14	5.0	14	5.4	3	1.2
Column total	170	70.0	21	8.0	48	19.8	5	2.2

$$X^2 (df = 3, n = 244) = 9.9, p < .02$$

Table 151

*Calico Fabrics Utilized According to Why Participants Were Involved in Quilting*

Calicos	Enjoyment		Sense of Accomplishment		Creative		Connect with Past	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	154	63.0	21	8.5	39	16.0	5	2.0
No	16	6.5	0	0.0	10	4.0	0	0.0
Column total	170	69.5	21	8.5	49	20.0	5	2.0

$$\chi^2 (df = 3, n = 245) = 8.3, p < .04$$

Table 152

*Batiks Utilized According to Why Participants Were Involved in Quiltmaking*

Batiks	Enjoyment		Sense of Accomplishment		Creative		Connect with Past	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Yes	94	38.5	10	4.3	38	15.5	2	1.0
No	74	30.5	11	4.5	11	4.5	3	1.2
Column total	168	69.0	21	8.8	49	20.0	5	2.2

$$X^2 (df = 3, n = 243) = 9.4, p < .02$$

245) = 1.0, ns; *geometric prints*,  $X^2 (df = 3, n = 245) = 7.0$ , ns; *conversational/novelty prints*,  $X^2 (df = 3, n = 245) = 4.2$ , ns; *civil war reproductions*,  $X^2 (df = 3, n = 242) = 2.6$ , ns; *1930s reproductions*,  $X^2 (df = 3, n = 246) = 3.0$ , ns; *museum reproductions*,  $X^2 (df = 3, n = 242) = 6.2$ , ns; *hand dyed fabrics*,  $X^2 (df = 3, n = 245) = .12$ , ns; *flannels*,  $X^2 (df = 3, n = 243) = 1.6$ , ns; and *velvets*,  $X^2 (df = 3, n = 242) = .56$ , ns.

In order to complete the investigation of Research Question 3, discriminant function analysis (DISCRIM) was utilized to determine if the predictor variables of number of quilts made, hours per week spent on quilting, and the amount of U.S. dollars spent on quilting could predict the reasons why participants were involved in quilting. For this study, the number of participants per group was unequal. However, as stated previously, unequal group membership is acceptable (Tabachnick, 1996).

The mean scores pertaining to the predictor variables were represented by a range of number of quilts made, hours per week spent on quilting, and U.S. dollars spent on quilt making during 2001. Regarding number of quilts made, hours per week spent on quilting, and U.S. dollars spent on quilting, the obtained statistics showed participants from the creative and connect with the past groups, on the average, made more quilts than the members from the enjoyment and sense of accomplishment groups. Participants spent on the average, the same amount of hours per week on quilting regardless of the reason why they were involved in quilting. Participants, who were involved in quilting for creativity, spent, on the average, more money on quilting

that participants from the enjoyment, sense of accomplishment, and connect with the past groups.

Regarding number of quilts made, on the average, members from the enjoyment and sense of accomplishment groups made, 16 to 20 quilts, whereas participants from the creative and connect with the past groups made 21 to 30 quilts (see Table 153). Regarding hours per week spent on quiltmaking, participants who were involved in quiltmaking from the connect to the past group spent on the average, the fewest hours per week on quiltmaking. Participants from the enjoyment, sense of accomplishment, and creative groups spent, on the average, the same range of hours per week on quiltmaking.

Participants from the connect with past group spent on the average, \$401 to \$500 on quiltmaking, participants from the enjoyment group spent on the average, \$501 to \$600 and \$601 to \$700 on quiltmaking, participants from the sense of accomplishment group spent on the average, \$501 to \$600, and participants from the creative group spent on the average, \$701 to \$800 on quiltmaking.

The results of the tests of equality of group means indicated that all four groups were significantly different regarding U.S. dollars spent on quiltmaking ( $p < .01$ ) (see Table 154). Regarding number of quilts made, and hours per week spent on quiltmaking, the obtained statistics showed no significant differences between the four groups. The correlation with discriminant functions and standardized discriminant function coefficients when the three predictor variables were analyzed resulted in significance for U.S. dollars

Table 153

*Means and Standard Deviations of Predictor Variables for Group Membership by Why Members Were Involved in Quiltmaking*

Predictor Variable	Enjoyment		Sense of Accomplishment		Creative		Connect with the past	
	M	SD	M	SD	M	SD	M	SD
Number of quilts made	4.4	2.4	4.5	1.9	5.4	1.9	5.0	3.0
Hours per week spent on quiltmaking	2.2	1.3	2.6	1.7	2.6	1.3	1.2	0.4
U.S. dollars spent on quiltmaking during 2001	7.7	3.8	7.0	4.4	9.5	3.6	6.1	4.5

*Note.* *M* scores represent a range of number of quilts made, hours spent on quiltmaking, and U.S. dollars spent on quiltmaking and not a specific average for that predictor variable.

*Note.* *M* scores represent a range of number of quilts made, hours spent on quiltmaking, and U.S. dollars spent on quiltmaking and not a specific average for that predictor variable. The range for number of quilts made was (a) 3 = 11 to 15 quilts, (b) 4 = 16 to 20 quilts, (c) 5 = 21 to 30 quilts, and (d) 6 = 31 to 40. The range for hours per week spent on quiltmaking was (a) 1 = 0 to 5 hours, (b) 2 = 6 to 10 hours, and (c) 3 = 11 to 15 hours. The range for U.S. dollars spent on quiltmaking during 2001 was (a) 5 = \$301 to \$400, (b) 6 = \$401 to \$500, (c) 7 = \$501 to \$600, (d) 8 = \$601 to \$700, (e) 9 = \$701 to \$800, and (f) 10 = \$801 to \$900.

Table 154

*Tests of Equality of Group Means*

Predictor variable	Wilks's $\Lambda$	F (2, 224)	<i>p</i>
Number of quilts made	.973	2.00	.11
Hours per week spent on quiltmaking	.968	2.42	.06
U.S. dollars spent on quiltmaking during 2001	.953	3.63	.01

\*  $p < .05$ .

spent on quilting with regarding to number of quilts made, and hours per week spent on quilting (see Table 155).

The results of the classification analysis for group membership by why members were involved in quilting are reported in Table 156. All participants were classified to belong to the enjoyment group (see Table 156). Because the U.S. dollars spent on quilting predictor variable was the only variable that resulted in significance between the four groups, definitive group membership based upon number of quilts made and hours per week spent on quilting was not predicted.

A post hoc test on comparison between groups was utilized to determine if the four groups were significantly different when all three predictor variables were collectively analyzed. Regarding number of quilts made, hours per week spent on quilting, and U.S. dollars spent on quilting, the obtained statistics showed significance for the participants from the creative group (see Table 157). When all three variables including number of quilts made ( $p < .00$ ), hours per week spent on quilting, ( $p < .04$ ), and U.S. dollars spent on quilting ( $p < .02$ ), were collectively analyzed, participants from the creative group were significantly different from the participants from the enjoyment, sense of accomplishment and connect with the past groups. Figure 2 illustrates the group centroids plot from the DISCRIM analysis indicating the significant differences between the creative group and the other three groups.

Table 155

*Correlation of Predictor Variables With Function Structure Matrix and Standardized Discriminant Function Coefficients*

Predictor variable	Correlation with Discriminant functions			Standardized discriminant function coefficients		
	Function 1	Function 2	Function 3	Function 1	Function 2	Function 3
Number of quilts made	.594	-.367	.716*	.292	-.699	.797
Hours per week on quilting	.524	.726*	.445	.180	.101	.373
U.S. dollars spent on quilting during 2001	.930*	-.030	-.367	.788	-.127	-.719

\* $p < .05$ .

Table 156

*Classification Analysis for Group Membership by Why Members are Involved in Quiltmaking*

Actual group membership	<i>n</i>	Predicted Group Membership							
		Enjoyment		Sense of Accomplishment		Creative		Connect with Past	
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Enjoyment	155	155	100.0	0	0.0	0	0.0	0	0.0
Sense of accomplishment	16	16	100.0	0	0.0	0	0.0	0	0.0
Creative	46	46	100.0	0	0.0	0	0.0	0	0.0
Connect with past	7	7	100.0	0	0.0	0	0.0	0	0.0

*Note.* Overall percentages of correctly classified cases = 69.2%.

Groups were defined according to why participants were involved in quiltmaking. The *enjoyment group* consisted those participants who selected personal enjoyment as their reason. The *sense of accomplishment group* consisted of (a) sense of accomplishment, and (b) source of personal income. The *creative group* consisted of (a) self expression, (b) fulfill the desire for creativity, and (c) connect with the past as their reason for being involved in quiltmaking.

Table 157

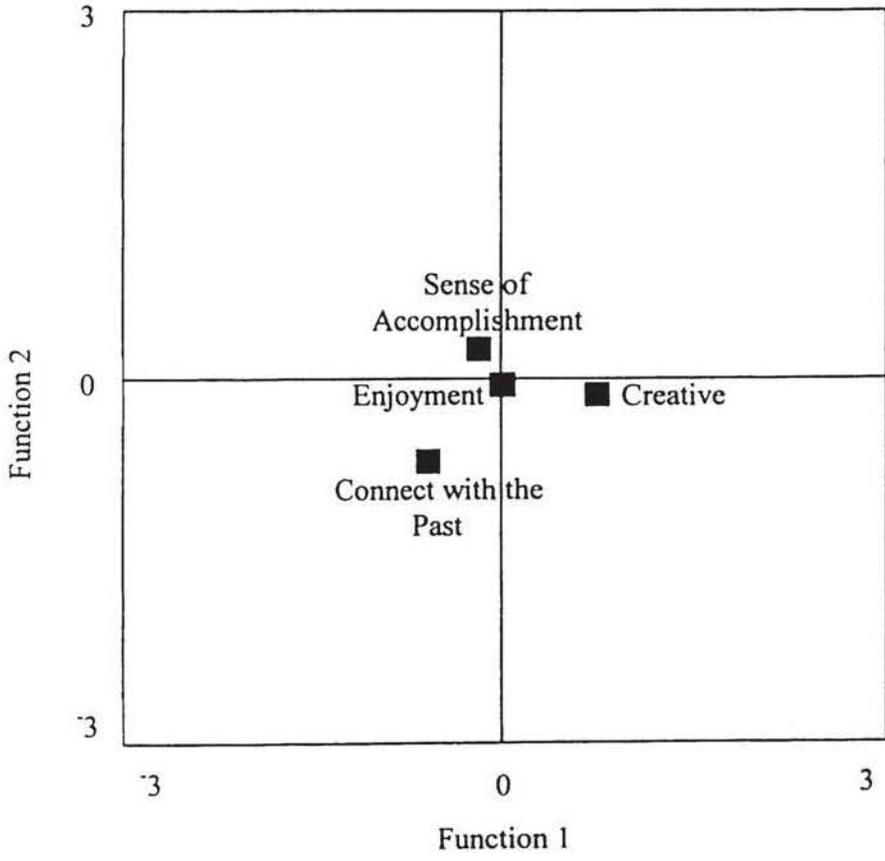
*Results from Post Hoc Tests on Comparisons Between Groups*

Group Membership	Group Membership	<i>M</i> Difference	Std. Error	<i>p</i>
Enjoyment	Sense of accomplishment	.08	.26	.75
Enjoyment	Creative	-.53*	.17	.00*
Enjoyment	Connect with past	.39	.39	.32
Sense of accomplishment	Creative	-.62*	.29	.04*
Sense of accomplishment	Connect with past	.30	.45	.50
Creative	Connect with past	.92*	.41	.02*

\**p* < .05.

Groups were defined according to why participants were involved in quiltmaking. The *enjoyment group* consisted of those participants who selected personal enjoyment as their reason. The *sense of accomplishment group* consisted of (a) sense of accomplishment, and (b) source of personal income. The *creative group* consisted of (a) self expression, (b) fulfill the desire for creativity, and (c) connect with the past as their reason for being involved in quiltmaking.

Figure 2. Group centroids plot from discriminate function analysis.



### Summary of Data Analysis

The analyses of findings related to the eight hypotheses and the three research questions were tested through the use of frequency and percentage distributions, chi-square contingency analyses, and discriminant function analyses (DISCRIM). Hypothesis 1 was tested through frequency and percentage distributions. Results indicated that the participants were prevalently 51 years of age or older, female, white Non-Hispanic, grew up in the west south central part of the United States, had a high school or higher education, and were married. However, the majority of the participants were raised in an urban rather than rural setting, were retired rather than full-time homemakers, were not Methodist, nor did they have an annual household income of \$60,000 a year or more. Hypothesis 1 was rejected. Hypothesis 2 was tested through frequency and percentage distributions. The majority of the participants did participate fully or partially in the quilting process. Hypothesis 2 was accepted. Hypothesis 3 was tested through frequency and percentage distributions. The majority of participants were not between the ages of one and nine when they learned to quilt, rather, approximately one-third of the participants were between the ages of 50 to 59 when they learned to quilt. Hypothesis 3 was rejected. Hypothesis 4 was tested through frequency and percentage distributions. The majority of participants reported that they taught themselves quilting. Hypothesis 4 was rejected. Hypothesis 5 was tested through frequency and percentage distributions. The majority of the participants did not select hand piecing more frequently than machine piecing as one of the three most important

characteristics that contributed to the quality and beauty of a quilt. Hypothesis 5 was rejected. Hypothesis 6 was tested through frequency and percentage distributions. The majority of participants did not select hand quilting more frequently than machine quilting as one of the three most important characteristics that contributed to the quality and beauty of a quilt. Hypothesis 6 was rejected. Hypothesis 7 was tested through frequency and percentage distributions. The participants selected create a gift for a special person, satisfy the need for creative expression, and satisfy the need for pleasure as the three most important reasons why they were motivated to quilt. Hypothesis 7 was partially accepted. Hypothesis 8a was tested through the use of chi-square contingency analyses. Retired participants were less likely to respond yes to machine appliqué, machine quilting, and fused applications as contrasted to those participants who were not employed outside the home or employed outside the home. Retired participants were less likely to respond yes to purchased quilt block patterns and designed quilting patterns than participants who were not employed outside the home or employed outside the home. There were no significant differences between other hand and machine quiltmaking techniques and employment status. Hypothesis 8a was rejected. Hypothesis 8b was tested through the use of chi-square contingency analyses. There were no significant differences between employment status groups and memberships in bee(s) and guild(s) other than TVQG. Hypothesis 8b was rejected. Hypothesis 8c was tested through the use of chi-square contingency analysis. There was no significant difference between

employment status groups and the number of TVQG meetings attended during 2001.

Hypothesis 8c was rejected.

Research Question 1 was analyzed through chi-square contingency analyses.

Data were analyzed to determine if there were significant differences between participants' demographics and their quilting practices and quilting techniques utilized in their quilting. With respect to age and quilting practices utilized, participants in the age group 45 or younger were more likely to respond yes to design quilt block patterns than participants from other age groups. Participants in the age group 76 or older were less likely to respond yes to purchase quilt block patterns, design quilt top patterns, and design quilting patterns as contrasted to participants from other age groups. Participants in the age groups 45 years younger and 46 to 50 were more likely to respond yes to machine quilt for personal income than participants from other age groups. Participants in the age groups 61 to 65, 66 to 70, and 71 to 75 were more likely to respond yes to hand quilt for fundraising than participants from other age groups. In contrast, participants from the age groups 45 or younger, 46 to 50, and 56 to 60 were more likely to respond yes to machine quilting for fundraising than participants from other age groups.

Regarding age and specific quilting techniques believed important to the quality and beauty of a quilt, participants in the age group 76 or older were more likely to indicate hand work and quality as the most important techniques contributing to the quality and beauty of a quilt than participants from other age groups. The age group 71

to 75 was more likely to indicate hand work and visual impact as the most important techniques. Conversely, participants in the age groups of 45 or younger, 46 to 50, 51 to 55, 56 to 60, 61 to 65, and 66 to 70 were more likely to indicate visual impact as the most important technique to the quality and beauty of a quilt.

Regarding age and specific quilting techniques utilized, participants in the age group 76 or older were more likely to respond yes to utilizing hand piecing while participants of the ages 45 or younger and 46 to 50 were less likely to respond yes to utilizing hand piecing than participants from other age groups. Participants in the age groups of 56 to 60, 61 to 65, 66 to 70, 71 to 75, and 76 or older were more likely to respond yes to utilizing hand quilting than participants from all other age groups. Participants in the age group of 76 or older were less likely to respond yes to utilizing machine appliqué as compared to participants from all other age groups. Participants in the age group of 76 or older were less likely to respond yes to utilizing fused applications than participants from all other age groups.

Regarding age and quilt styles made, participants in the age group of 56 to 60 were more likely to respond yes to making mourning quilts than participants from all other age groups. Regarding age and quilt types made, participants in the age group of 45 or younger were less likely to respond yes to making crib/baby quilt types than participants from all other age groups. Participants in the age group of 46 to 50 were more likely to respond yes to making toys/collectibles than participants from all other age groups.

Regarding age and color palette usage, participants in the age groups of 66 to 70, 71 to 75, and 76 or older were less likely to respond yes to utilizing black backgrounds in their quilting than participants from all other age groups. Participants in the age group of 45 or younger were less likely to respond yes to utilizing light color backgrounds as compared to participants from all other age groups. Regarding age and fabric type utilization, participants in the age group of 45 years of age were less likely to respond yes to utilizing solid and calico fabrics in quilting as compared to participants from all other age groups.

With respect to education and quilting individually or in groups, participants who had some college or technical school were more likely to respond yes to quilting with personal friends than participants from any other level of education. Regarding education and hours per week spent on quilting, participants indicating a high school education or less were more likely to spend more hours per week on quilting than participants with an educational status of some college or technical school, college degree, and some graduate work or a graduate degree. Conversely, participants who indicated some college or technical school, a college degree, or some graduate work or graduate degree were more likely to spend fewer hours per week on quilting.

Regarding education and specific quilting practices utilized, participants who indicated a high school education or less were more likely to respond yes to hand quilt for personal income than participants with any other level of education. Regarding education and quilting techniques believed important to the quality and beauty of a quilt,

participants with an educational level of high school or less and some college or technical school were more likely to indicate hand work as the most important technique contributing to the quality and beauty of a quilt than participants indicating college degree and some graduate work or graduate degree. Participants indicating some college or technical school were more likely to indicate quality as the most important technique to the quality and beauty of a quilt than participants indicating high school or less, a college degree, or some graduate work or graduate degree. Participants indicating some college or technical school, a college degree, and some graduate work or a graduate degree were more likely to indicate visual impact as the most important technique to the quality and beauty of a quilt.

Regarding education and specific quilting techniques utilized, participants indicating high school or less, or some college or technical school were more likely to respond yes to utilizing hand embroidery than participants from all other levels of education. Participants indicating some graduate work or graduate degree were less likely to respond yes to utilizing machine embroidery than participants with any other level of education.

Regarding education and quilt types made, participants indicating high school education or less were more likely to respond yes to making single bed, double bed, queen size, and king size quilts than participants indicating some college or technical school, college degree or some graduate work or graduate degree. Regarding education and color palette usage, participants indicating a high school education or less, or some

college or technical school were more likely to respond yes to utilizing one or two colors in their quilting than those participants from any other level of education.

Regarding residential status and specific quilting practices utilized, participants who were raised in an urban setting were more likely to respond yes to machine quilt for fundraising than those participants raised in a rural setting. Regarding residential status and quilting techniques believed important to the quality and beauty of a quilt, participants who were raised in an urban environment were more likely to indicate visual impact as the most important technique that contributes to the quality and beauty of a quilt than participants raised in a rural environment.

Regarding residential status and specific quilting techniques utilized, participants who were raised in a rural environment were more likely to respond yes to utilizing hand piecing and hand appliqué than those participants raised in an urban environment. Conversely, participants raised in an urban environment were more likely to respond yes to utilizing machine quilting and fused applications than participants raised in a rural environment.

Regarding residential status and quilt types made, participants who were raised in a rural environment were more likely to respond yes to making queen size quilts than participants raised in an urban environment. Regarding residential status and color palette usage, participants who were raised in a rural setting were more likely to respond yes to utilizing cool colors than participants who were raised in an urban setting.

Regarding employment status and quiltmaking individually or with a group, participants employed outside the home were more likely to indicate quiltmaking with business colleagues than participants from any other employment status. Regarding employment status and specific quiltmaking practices utilized, retired participants were less likely to respond yes to purchased quilt block patterns and design quilting patterns than participants who were employed outside the home or not employed outside the home. Participants who were employed outside the home were more likely respond yes to create contemporary quilts, machine quilt for personal income, and machine quilt for fundraising than participants who were not employed outside the home or were retired.

Regarding employment status and quiltmaking techniques believed important to the quality and beauty of a quilt, retired participants were more likely to indicate hand work and quality as the most important techniques to the quality and beauty of a quilt than participants who were employed outside the home or not employed outside the home. Regarding employment status and specific quiltmaking techniques utilized, participants employed outside the home, and not employed outside the home were more likely to respond yes to utilizing machine appliqué, machine quilting, and fused applications than retired participants.

Regarding employment status and color palette usage, retired participants were less likely to respond yes to utilizing black backgrounds and dark colored backgrounds in their quiltmaking than participants employed outside the home or not employed outside the home. Regarding employment status and fabric type usage, participants not

employed outside the home were less likely to respond yes to utilizing solid fabrics in quilting as compared to participants who were employed outside the home or retired. Retired participants were less likely to respond yes to utilizing civil war reproductions and 1930s reproductions than participants from the other two employment status groups.

Regarding occupation and quilting individually or in a group, participants from the labor/craftsperson occupational group were more likely to respond yes to quilting with business colleagues than participants from any other occupational group. Regarding occupation and specific quilting practices utilized, participants from the labor/craftsperson occupational group were more likely to respond yes to machine quilt for personal income than participants from all other occupational groups.

Regarding occupation and quilting techniques believed important to the quality and beauty of a quilt, participants from the office/clerical and business groups were more likely to indicate hand work as the most important technique that contributed to the quality and beauty of a quilt than participants from any other occupational group. Participants from the business group were less likely to indicate quality as the most important technique to the quality and beauty of a quilt. Participants from the labor/craftsperson and service occupational groups were more likely to indicate visual impact while participants from the office/clerical group was less likely to indicate visual impact as the most important technique contributing to the quality and beauty of a quilt.

Regarding occupation and specific quilting techniques utilized, participants from the office/clerical occupational group were less likely to respond yes to utilizing

machine quilting while participants from the labor/craftsperson and professional non-degreed occupational groups were more likely to respond yes to utilizing machine quilting. Participants from the labor/craftsperson group were more likely to respond yes to utilizing stack-n-whack than participants from any other occupational group. Participants from professional degreed occupational group were less likely to respond yes to utilizing hand embroidery while participants from the labor/craftsperson and service occupational groups were more likely to respond yes to utilizing hand embroidery than participants from any other occupational group.

Regarding occupation and quilt styles made, participants from the service occupational group were less likely to respond yes to making wall hangings than participants from any other occupational group. Regarding occupation and color palette usage, participants from the service occupational group were less likely to respond yes to utilizing multiple colors in quiltmaking than participants from any other occupational group. Participants from the full-time homemaker, office/clerical, and service occupational groups were less likely to indicate yes to utilizing medium color backgrounds than participants from any other occupation. Regarding occupation and fabric type utilization, participants from the labor/craftsperson occupational group were less likely to respond yes to utilizing calicos than participants from all of the other occupational groups.

Regarding religion and money spent on quiltmaking, participants who indicated Protestant were more likely to indicate spending \$401 to \$500, \$501 to \$600, and \$1000

to \$2000 on quilting during 2001 than participants from any other religious affiliation. Participants who indicated Catholic/Episcopalians were more likely to spend \$801 to \$900 on quilting.

Regarding religion and fabric type utilization, participants who were Catholic/Episcopalian or non-denominational were less likely to respond yes to utilizing solid fabrics in their quilting than any other religious group. Participants who were miscellaneous were less likely to respond yes to utilizing calicos than participants from any other religious affiliation. Participants from the miscellaneous religious group were less likely to respond yes to florals in their quilting than any other religious group.

Regarding U.S. annual household income and quilting individually or in a group, Participants who indicated a U.S. annual household income of \$70,000 to \$79,000 were more like to respond yes to quilting with business colleagues than participants from any other level of income. Regarding U.S. annual household income and specific quilting techniques utilized, participants who reported an U.S. annual household income of \$20,000 to \$29,000 and \$30,000 to \$39,000 were less likely to respond yes to utilizing machine quilting. Conversely, participants who reported an U.S. annual household income of \$19,000 a year or less were more likely to indicate yes to utilizing machine quilting than participants from any other income group. Participants who reported an U.S. annual household income of \$20,000 to \$29,000, \$60,000 to \$69,000, \$70,000 to \$79,000 and \$80,000 to \$89,000 were less likely to respond yes to hired machine quilting than participants from any other level of income.

Regarding U.S. annual household income and quilt styles made, participants who reported an U.S. annual household income of \$19,000 or less, and \$80,000 to \$89,000 were more likely to respond yes to making wholecloth quilts than participants from all other levels of income. Regarding U.S. annual household income and color palette usage, participants from the \$30,000 to \$39,000 U.S. annual income group were less likely to respond yes to utilizing dark backgrounds than any other income group.

Research Question 2 was analyzed by chi-square contingency analyses and discriminant function analysis in order to determine if participants' quiltmaking practices and quiltmaking techniques utilized in their quiltmaking varied according to why they were motivated to quilt. Three groups based upon why participants were motivated to quilt were analyzed. These groups included the giving, creative expression, and relief and pleasure groups. With respect to participants motivated to quilt for giving purposes, participants from the giving group were more likely to indicate handwork as the most important quiltmaking technique that contributed to the quality and beauty of a quilt as compared to the participants from the other two groups. Participants from the giving group were more likely to respond yes to hand piecing as contrasted to the participants from the other two groups. Participants from the giving group on the average, made the fewest quilts, spent the least number of hours per week on quiltmaking, and spent the least amount of money on quiltmaking as compared to the participants from the other two groups.

With respect to participants motivated to quilt for creative expression, participants from the creative expression group were more likely to respond yes to quilting with guild members than participants from the other two groups. Participants from the creative expression group were more likely to respond yes to design quilt top patterns, design quilting patterns, create contemporary quilts, machine quilt for personal income, and machine quilt for fundraising as contrasted to the participants from the other two groups. Participants from the creative expression group were more likely to indicate visual impact as the most important quilting technique that contributed to the quality and beauty of a quilt as compared to the participants from the giving group. Participants from the creative expression group were more likely to respond yes to the quilting techniques of machine piecing, machine appliqué, paper piecing, foundation piecing, and hand embroidery than participants from the other two groups. Participants from the creative expression group were more likely to respond yes to creating themed quilts, creating apparel and accessories, and utilizing museum reproductions and batiks in their quilting as contrasted to the other two groups. Participants from the creative expression group were more likely to respond yes to utilizing colors appropriate to a theme as a reason for selecting colors for a quilt as compared to the participants from the giving and relief and pleasure groups. Participants from the creative group on the average, made more quilts, spent more hours per week, and spent more money on quilting during 2001 as contrasted to the participants from the giving and relief and pleasure groups.

Participants from the relief and pleasure group were more likely to indicate visual impact as the most important technique that contributes to the quality and beauty of a quilt than participants from the giving group. Participants from the relief and pleasure group were more likely to respond yes to machine piecing as contrasted to participants from the giving group. Participants from the relief and pleasure group were more likely to indicate an other individual's color preference as the most important reason for color selection for a quilt. Participants from the relief and pleasure group made more quilts than the giving group, but fewer quilts than the creative group. Participants from the relief and pleasure group on the average, spent more money on quiltmaking than the participants from the giving group but less money than the participants from the creative group. The participants from the giving and the relief and pleasure groups spent on the average the same number of hours per week on quiltmaking.

Membership to the giving and creative expression groups could be predicted based upon number of quilts made, hours per week spent on quiltmaking, and the amount of U.S. dollars spent on quiltmaking. It was predicted that participants who were members of the giving group and who on the average, made 11 to 15 and 16 to 20 quilts, participated in quiltmaking 6 to 10 hours per week on quiltmaking, and spent \$401 to \$500 on quiltmaking during 2001, were motivated to do so in order to commemorate a special event, create a family heirloom, create a gift for a special person, or participate in a fundraising project. It was also predicted that participants who were members of the creative expression group and who on the average made 21 to 30 and 31 to 40 quilts, participated in

quiltmaking 6 to 10 and 11 to 15 hours per week, and spent \$701 to \$800 on quiltmaking during 2001, were motivated to do so in order to satisfy the need for creative expression, enter a quilt show or competition, or experiment with a new technique or fabric. Membership to the relief and pleasure group was not predicted based upon number of quilts made, hours per week spent on quiltmaking, and the amount of U.S. dollars spent on quiltmaking.

Research Question 3 was analyzed by chi-square contingency analyses and discriminant function analysis in order to determine if participants' quiltmaking practices and quiltmaking techniques utilized in their quiltmaking varied according to why they were involved in quiltmaking. Four groups based upon why participants were involved in quiltmaking were analyzed. These groups included the enjoyment, sense of accomplishment, creative, and connect with the past groups. With respect to participants involved in quiltmaking for enjoyment purposes, participants from the enjoyment group were more likely to respond yes to purchasing quilt block patterns, quilt top patterns, block of the month patterns, and quilt kits as contrasted to the sense of accomplishment and creative groups. Participants from the enjoyment group were less likely to respond yes to paper piecing. Participants from the enjoyment group were more likely to indicate their personal color preferences as the most important reason for selecting colors to be utilized in a quilt. Participants from the enjoyment group were less likely to respond yes to utilizing multiples colors in one quilt as compared to participants from the sense of accomplishment, creative, or connect with the past groups. The enjoyment and the sense

of accomplishment groups were most similar in that participants from these groups, on the average, made the same number of quilts and spent approximately the same amount of money on quilting during 2001.

With respect to participants involved in quilting for the sense of accomplishment, participants from the sense of accomplishment group were more likely to respond yes to design quilting patterns than participants from the other three groups. Participants from the sense of accomplishment group made, on the average, the same number of quilts as the participants from the enjoyment groups, but fewer quilts than the participants from the creative or connect with the past groups. Participants from the sense of accomplishment group spent, on the average, the same number of hours per week on quilting than participants from the enjoyment and creative groups, but more than the participants from the connect with the past group. Participants from the sense of accomplishment group spent, on the average, the same amount of U.S. dollars on quilting as participants from the connect with the past group, but less than participants from the enjoyment and creative groups.

With respect to participants involved in quilting for creative purposes, participants from the creative group were more likely to respond yes to designing quilt block, and quilt top patterns than participants from the other three groups. Participants from the creative group were also more likely to respond yes to creating contemporary quilts and entering design competitions as compared to the other three groups. Participants from the creative group were more likely to respond yes to utilizing black

and dark backgrounds in their quilting than participants from the other three groups. Participants from the creative were more likely to respond yes to utilizing batik fabrics rather than calicos in their quilting and were more likely to respond yes to creating mourning quilts than the participants from the enjoyment, sense of accomplishment, and creative groups. Participants from the creative group, on the average, made more quilts than the enjoyment or sense of accomplishment groups, and also spent the most money on quilting as contrasted to participants from the other three groups.

With respect to participants involved in quilting as a means to connect with the past, the participants from the connect with the past group were more likely to respond yes to purchase block of the month patterns as contrasted to participants from the sense of accomplishment or creative groups. Participants from the connect with the past group were less likely to respond yes to creating themed quilts than participants from the sense of accomplishment, enjoyment, and creative groups. Participants from the connect with the past group made, on the average, the same number of quilts as the participants from the creative group which was more than the participants from the enjoyment or sense of accomplishment groups. However, participants from the connect with the past group spent, on the average, the least amount of money on quilting during 2001. Membership to the enjoyment, sense of accomplishment, creative, and connect with the past groups could not be predicted based upon number of quilts made, hours per week spent on quilting, and the amount of U.S. dollars spent on quilting.

## CHAPTER V

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Quilting has been an important aspect of U.S. history since the mid-18<sup>th</sup> century. Historically, women utilized quilting to develop domestic skills for life as wife and mother and to provide a beautiful home. Additionally, women utilized quilting as a mechanism for pleasure and to express their opinions on issues otherwise reserved for the public sphere (Gunn, 1988; Mulholland, 1996). The popularity of quilting continued throughout the 19<sup>th</sup> and early 20<sup>th</sup> centuries. However, during the years that followed World War II, women turned to more modern thinking, worked outside the home, and entered into non-traditional roles. As a result, quilting declined (Crews & James, 1996; Gunn, 1990).

Women in the United States did not experience renewed interest in quilting until the 1976 U.S. bi-centennial (Houck, 1988). Individuals desired to revere the event and as a result, there was a significant increase in classes on quilting. Quilts that marked the 200<sup>th</sup> birthday of the United States proliferated. The renewed interest in quilting that emerged in 1976 has yet to decline (Crews & James, 1996). With the revived interest in quilting, scholars turned their attention to quilt research. Scholars recognized the need to reveal the history of quilting in the United States and focused upon documenting American quilts and their makers (Madden, 1990).

Additionally, states from across the country dedicated time and resources in order to document quilting. Referred to as state quilt projects, historical societies, guilds, and quilting groups collected demographic data, oral interviews, and photographs of their states' quilters and quilts (Crews & James, 1996).

Another national effort of quilt research has been the Quilter's Save Our Stories Project (QSOS). Headquartered at the University of Delaware, QSOS's mission is to interview quilters from across the United States in order to learn their quilt history and create a record of the quilts they have made (Herman, 1993). The QSOS project is unique in that the focus is upon the transcribed oral interview which subsequently is placed on the World Wide Web for review by scholars and the public. Photos of the quilter and their quilt are also retrievable.

Despite the national effort to conduct quilt scholarship, methodologies and procedures have varied. Perhaps the most famous example of an initial study on U.S. quilting was the Holstein exhibition of quilts held in New York City in 1971. Although the exhibition was credited with elevating quilts to acceptable historic artifacts, the lack of appropriate documentation and acknowledgement of the quilter resulted in a poor model for subsequent research (Gunn, 1992). State quilt projects have also varied in their methodology. While some projects only documented quilts authentically made in a particular state, other projects included quilts that were transported into the state through migration (Crews & Rich, 1995; Goldman & Wiebusch, 1991). The types of demographic data collected also varied. Currently, there does not appear to be a

consistent or common method of collecting the oral history and demographic data of U.S. quiltmakers.

Because there has been such a wide range of approaches to studying quiltmaking and quilts, valid and reliable methodology for quilt research needs to be developed in order to collect consistent information (Gunn, 1992; MacDowell, 2000). Because quiltmaking is an important aspect of American culture, this is a necessary step so that valid cross-comparisons between quiltmakers from the United States eventually can be made. Through formal research, the accurate story of U.S. quiltmakers can be told.

#### Summary of the Study

The ultimate goal of scholars participating in quilt research has been to compare data so that common and unique characteristics of quiltmaking in America can be revealed. As a result, any scholarly study that adds to the collective data contained within quilt projects is valid. Thus, this study was designed to develop a demographic profile of quiltmakers from the Trinity Valley Quilter's Guild and divulge their quiltmaking motivations and practices. Although at a smaller scale than state quilt projects, the intent of this study was to contribute important information to the overall body of knowledge on U.S. quiltmakers.

The primary problem addressed in this investigation was to identify and describe the demographic characteristics, quiltmaking motivations, and quiltmaking practices of members of the Trinity Valley Quilters' Guild (TVQG). Specifically, the study sought to

determine (a) a demographic profile of TVQG members including gender, age, racial or ethnic identification, marital status, education, residential background, employment status, occupation, and income; (b) quilting motivations including commemorating people or events, creating heirlooms, relieving stress or difficult times, experimenting with new techniques or fabrics, entering quilt shows or competitions, satisfying the need for pleasure and/or creative expression, or participating in a fundraising project; and (c) quilting practices including identifying first quilts, quilting individually or in groups, numbers of quilts made, years of participation in quilting, factors negatively impacting the ability to practice quilting, time spent quilting, and common quilting practices and techniques.

A self-administered, mail questionnaire was developed in order to obtain a demographic profile of TVQG members and their quilting motivations and practices. The framework for the questionnaire was based upon qualitative data that was collected from oral interviews of 10 Trinity Valley Quilters' Guild members utilizing the Quilters' Save Our Stories project as the methodology (Herman, 1993). Similar questions from state quilt projects were also utilized in the development of the questionnaire (Cerny, Eicher, & DeLong, 1993; Crews & James, 1996; Crews & Rich, 1995; Stonuey & Crews, 1988).

It was hypothesized that participants would not vary according to age, gender, ethnicity, education, marital status, religion, occupation, or income. Additionally, it was projected that participants would have spent their adolescent years in the west south central

region of the United States (Arkansas, Louisiana, Oklahoma, and Texas), and would have been raised in a rural area. It was also theorized that participants would fully or partially participate in the quilting process, would have learned to quilt between the ages of one and nine, and would have been taught quilting by their mother or female relative. Additionally, it was hypothesized that participants would select hand piecing and hand quilting more frequently than machine piecing and machine quilting as the most important characteristics of the quality and beauty of a quilt. It was also theorized that members of TVQG would be motivated to quilt in order to satisfy the need for creative expression, satisfy the need to socialize with others, and create a gift for a special person. It was hypothesized that TVQG members who were retired would be more likely to utilize hand techniques and practices, hold memberships in bees and guilds, and attend TVQG meetings during 2001 than members who were employed outside the home and not employed outside the home.

Additionally, it was expected that participants' responses regarding quilting individually or with groups, hours per week spent on quilting, specific quilting practices utilized, money spent on quilting, quilting techniques believed to be important to the quality and beauty of a quilt, specific quilting techniques utilized, quilt styles made, quilt types made, color selections made, color palettes usage, and fabric type utilization would vary according to (a) age, (b) education, (c) residential setting, (d) employment status, (e) occupation, (f) religious affiliation, and (g) annual household income. It was also expected that participants' responses regarding (a) quilting

individually or with groups, (b) specific quilting practices utilized, (c) important quilting techniques believed important to the quality and beauty of a quilt, (d) specific quilting techniques used, (e) quilt styles made, (f) quilt types made, (g) color selections made, (h) color palette usage, and (i) fabric type utilization would vary according to why participants were motivated to quilt. It was also expected that participants' responses regarding (a) quilting individually or with groups, (b) specific quilting practices utilized, (c) quilting techniques believed important to the quality and beauty of a quilt, (d) specific quilting techniques utilized, (e) quilt styles made, (f) quilt types made, (g) color selections made, (h) color palette usage, and (i) fabric type utilization would vary according to why participants were involved in quilting.

The Quilter's Guild of Parker County (QGPC) was utilized as the pilot test sample. From the 89 members of QGPC that received the self-administered mail questionnaire, 63 participants responded, resulting in a 72% response rate. The questionnaire was pilot tested to identify any problems with comprehending the instructions, terminology utilized in the instrument, and identification of major quilting practices and techniques.

The questionnaire consisted of six sections designed to elicit information regarding quilting motivations, techniques, practices, and demographics of the sample. Based upon the pilot study data, the following seven revisions were made to the instrument:

1. Q1 through Q17 of the instrument consisted of direct response or Likert-type scale questions. Q18 was the first question to shift in the nature of the type of response. Beginning with Q18, participants were asked to respond to each quilting technique,

motivation, or quilting practice listed in the choices of responses. In order to clarify that the participant should respond to each factor listed, the instructions for Q18 and subsequent, similar questions were clarified to include a direct statement that stated to respond to each factor listed. It was believed that this statement would more accurately describe the action required for the completion of the question.

2. Q19 requested that participants record an average number of hours per week spent on quilting, and Q22 requested that the participants record an average dollar amount spent on quilting fabric, patterns, workshops/seminars, magazine subscriptions, and equipment. In order to clarify that the participant should record a specific number rather than a range, the instructions were changed to state that the participant should record a specific estimated number of hours (Q19) or specific estimated dollar amount (Q22). It was believed that this statement would more accurately describe the action required for the completion of the question.

3. Q29 was designed to elicit information regarding the most frequently utilized fabric types. The choice of responses for Q29 was changed to include conversation/novelty print as an option. This was based upon the number of participants who wrote in this fabric type from the pilot study.

4. Q43 inquired where the participant lived the longest while growing up; participants were asked to record the city, county, state, and country. The number of different cities, states, and counties became excessive and resulted in cumbersome data. As a result, the question was changed to ask each participant to record the U.S. region, as

defined by the 2000 U.S. Census, in which they lived the longest while growing up. It was believed that this information would gather similar data as originally intended in a more accurate and useful manner.

5. Q44 was designed to determine where the participant currently resided. Based upon analysis of this question from the pilot study, it was determined that the data was available by analyzing the current membership directory of TVQG. Therefore, the question was believed to be unnecessary to the main study and eliminated.

6. Q47 (changed to Q46 for the main study instrument) requested participants record their usual occupation. Based upon several written-in responses, professional non-degreed was added as a possible response to the question. It was believed that by adding this response, a more clear distinction between professional degreed and professional non-degreed would be achieved.

7. Q50 (changed to Q49 for the main study instrument) inquired about participants' religious affiliation. Based upon numerous write-in responses, Episcopalian and Latter Day Saint were added as possible responses.

The data for the research study were collected from the revised, self-administered mail questionnaire. The population for the study was 382 members of TVQG. The sample for this study consisted of the entire population of TVQG as of March 15, 2002 and as listed in the 2001-2002 membership set of mailing labels. During the spring of 2002, the questionnaire was mailed to the sample and a follow-up mailing occurred to encourage participation. A 66.4% ( $n = 254$ ) return rate was achieved.

In order to identify and describe the demographic characteristics, quiltmaking motivations, and quiltmaking practices of the participants, frequency and percentage distributions were utilized to analyze the hypotheses. Chi-square contingency analyses were utilized to determine significant differences between quiltmaking practices and quiltmaking techniques according to employment status. Additionally, chi-square contingency analyses were utilized to analyze the three research questions to determine if quiltmaking practices and quiltmaking techniques significantly varied according to participants' demographics, quiltmaking motivations, and reasons for being involved in quiltmaking. Discriminant function analyses (DISCRIM) were utilized to further analyze Research Questions 2 and 3. Differences were considered statistically significant at the .05 levels.

### Findings of the Study

Data utilized to determine the findings of the study were collected through the use of a self-administered mail questionnaire. The questionnaire solicited information regarding demographic characteristics, quiltmaking motivations, and quiltmaking practices of members of the Trinity Valley Quilters' Guild (TVQG). Data were analyzed through frequency and percentage distributions as well as for statistical significance. A summation of the findings follows.

### *Demographics*

Prevalent demographic characteristics for the participants emerged based upon data collected. Participants were predominately female, 51 years of age or older, white, non-Hispanic, and married. Concerning education, 98.4% of the participants had received a high school or higher level of education. Specifically, 28.3% had some college and 16.1% had a 4-year bachelors degree. The majority of participants was raised in the west south central region of the United States that included Arkansas, Louisiana, Oklahoma, and Texas. Nearly 50% of the participants had lived at their current residence more than 15 years. While 57.5% of the participants grew up in an urban environment, 41.3% were raised in a rural setting. The majority of the participants were retired (51.4%) and 21.1% were full-time homemakers. In terms of occupation, 33.5% of the participants were degreed professionals, and 26.8% were full-time homemakers. Regarding annual household income, 42.9% reported an income of \$60,000 or more during 2001. Concerning religious affiliation, 24.4% of the participants reported being Methodist. This was the most frequently reported denomination for the participants. The second most frequently reported religious affiliation was Baptist (18.5%).

### *Membership Profile of Participants*

The questionnaire was also designed to elicit information regarding the participants' membership profile including membership status with guilds and bees other than TVQG, and attendance at meetings and workshops. Regarding the length of time that participants were members of TVQG, 25.6% reported 6 to 10 years, 18.1% reported

4 to 5 years, and 17.7% reported 2 to 3 years. There were 29 participants (11.4%) who reported that they were members of TVQG for 11 to 15 years and 29 participants reported 16 to 20 years. Eleven (4.3%) of the participants were charter members of the guild. The most frequently selected reason for being a member of TVQG was to socialize with other quiltmakers (67.3%). Learn new quiltmaking techniques was selected by 61.0% of the participants as their first, second, or third reason for being a member of TVQG. The third most frequently reported reason (44.1%) was to enhance their quiltmaking skills.

There were 52.4% of the participants who were members of a TVQG bee, whereas 47.2% were not members of a TVQG bee. Additionally, there were 23.6% of the participants who were members of one other bee in addition to a TVQG bee, and 24.4% of the participants were members of one other guild in addition to TVQG. The most frequently reported range of TVQG meetings attended by the participants was 10 to 12 meetings during 2001 (31.5%).

#### *Involvement in Quiltmaking and Quiltmaking Motivations*

The administration of the questionnaire resulted in data that revealed why participants were involved in quiltmaking and their quiltmaking motivations. Of the 254 participants, 95.3% indicated that they partially or fully participated in the quiltmaking process. When asked why participants were involved in quiltmaking, the most frequently indicated reason was personal enjoyment (92.1%), followed by sense of accomplishment (72.8%), and fulfill the desire for creativity (61.0%). When asked what motivated them

to quilt, 160 participants (63.0%) indicated that they were motivated to quilt in order to create a gift for a special person. The second most frequently reported motivation by the participants was satisfy the need for creative expression (51.2%) followed by satisfy the need for pleasure (37.0%).

When asked at what age they learned to quilt, the largest percentage of participants (28.0%) were between the ages of 50 and 59. Nearly 20% of the participants were between the ages of 40 and 49 when they learned to quilt. When asked why they learned to quilt, 57.5% of the participants indicated the primary reason was that they just wanted to learn to quilt. The second most frequently selected reason by the participants was that they had newfound time to quilt (11.8%). Concerning who taught them quilting, 62.6% of the participants were self-taught. Nearly 60% of the participants learned quilting through a class or workshop, and 44.1% learned through a friend.

### *Quilting Practices*

The questionnaire was designed to collect a variety of data pertaining to the participants' quilting practices. Participants were asked to indicate the name of the first quilt pattern they made and the years in which they began participation in quilting. Thirty-nine or 15.4% of the participants made sampler quilts for their first quilts. The second most frequently reported quilt pattern was log cabin (11.0%). When asked when they began their first quilt, 181 participants (71.2%) started their first quilt during the 1980s.

Concerning those with whom the participants quilt, 88.2% of the participants indicated that they usually or always quilted by themselves rather than with groups. Of the participants that quilted with groups (approximately 5.0%), the majority indicated that they quilted with bee members. Only 10.6% of the participants indicated that they quilted with a church of which the majority reported that they quilted with a Methodist church group.

When asked how many quilts they have made, nearly fifteen percent of the participants reported that they have made 16 to 20 quilts. The second most frequently reported range of quilts made was 21 to 30 (13.0%). Nine participants (3.5%) indicated that they had made more than 150 quilts. When asked in what decade(s) they participated in quilting, three participants (1.2%) indicated that they participated in quilting from 1921-1930, over 90% of the participants indicated that they participated in quilting from 1991 to 2000. Nearly 60% of the participants participated in quilting from 1981 to 1990, and 28.0% of the participants indicated that they participated in quilting from 1971 to 1980. There were 82.3% of the participants who indicated that they were currently practicing quilting.

When asked if there were factors that limited their time for quilting, the majority of participants (77.2%) indicated that there were limiting factors. The most frequently reported factors included family obligations (71.3%), volunteer obligations (63.8%), and employment obligations (62.2%). Thirty-six (14.2%) of the participants reported that they quilted 10 hours per week. When asked how much time is spent

quiltmaking each week, the majority of participants (51.5%) participated in quiltmaking 10 hours per week or more, whereas 48.4% participated in quiltmaking 9 hours per week or less. Participants spent on the average, 10.9 hours per week on quiltmaking during 2001. Regarding money spent on quiltmaking, participants spent an average amount of \$538.00 on quiltmaking fabric, \$89.00 on patterns, \$98.00 on workshops and seminars, \$45.00 on magazine subscriptions, and \$174.00 on equipment such as templates, rulers, and frames during 2001.

Participants were asked to indicate how frequently they participated in various quiltmaking practices. The overwhelming majority of participants indicated that they created traditional quilts (88.9%), purchased quilt block patterns (87.4%), and purchased quilt top patterns (78.0%) at least some of the time in their quiltmaking. The majority of participants indicated that designing quilt block patterns, utilizing templates for quilting patterns, purchasing block of the month patterns, and displaying quilts at shows were practices that they utilized in quiltmaking at least some of the time. There were several quiltmaking practices that were frequently reported by participants as practices never utilized in their quiltmaking. These practices included enter design competitions (83.5%), hand quilt for personal income (87.8%), machine quilt for personal income (85.4%), sell quilt top patterns (89.0%), sell quilting patterns (92.9%), and write books/articles on quiltmaking (89.4%).

### *Quiltmaking Techniques*

In order to describe participants' quiltmaking techniques, data were collected to gather information pertaining to quiltmaking techniques believed important to the quality and beauty of a quilt, specific quiltmaking techniques, quilt styles and types, fabric types, reasons for color selections, and color palettes utilized in quiltmaking. Regarding quiltmaking techniques important to the quality and beauty of a quilt, 56.3% of the participants indicated that initial visual impact was the most important, second most important, or third most important technique that contributed to the quality and beauty of a quilt. Color scheme was reported by 52.8% of the participants, and quality of piecing and quality of quilting both were reported by 45.7% as the most important, second most important, or third most important techniques to the quality and beauty of a quilt.

Participants participated in a variety of quiltmaking techniques at least some of the time in their quiltmaking. Hand piecing was reported by 55.9% of the participants as a technique they participated in at least some of the time. Machine piecing was reported by 96.0% of the participants as a technique they utilized at least some of the time in their quiltmaking. Machine piecing was by far the most frequently indicated technique performed by the participants. Regarding hand quilting, 80.7% of the participants indicated that they hand quilted at least some of the time, whereas 73.7% indicated that they machine quilted. Hand embroidery was reported by 75.2% of the participants as a technique they utilized at least some of the time. The majority of participants indicated

that they never utilized stack-n-whack, machine embroidery, or trapunto in their quiltmaking.

Regarding quilt styles, there were four styles that emerged as the most frequently reported by the participants as a style they made most of the time or some of the time. These included quilts of same block (90.1%), sampler quilts (80.3%), holiday quilts (78.0%), and themed quilts (66.5%). Four quilt styles emerged as styles that the majority of participants never made in their quiltmaking. These included mourning quilts (92.5%), Hawaiian quilts (86.2%), wholecloth quilts (78.7%), and pictorial quilts (57.9%).

With the exception of three quilt types (miniature, apparel and accessories, and toys and collectibles), the majority of the participants made single size, double size, queen size, crib/baby, and lap quilt types at least some of the time. Wall hangings and home decorations were reported by the majority of participants as quilt types they made some of the time. The queen size quilt style was reported by 24.8% of the participants as being made most of the time and 52.4% reported making queen size quilts some of the time. King size, miniature quilts, apparel and accessories, and toys and collectibles were reported by less than the majority of the participants as quilt styles that they made some of the time in their quiltmaking. The king size quilt style was reported by 48.4% of the participants as a style that they never made. Miniature quilts were reported by 52.4% and toys/collectibles were reported by 71.7% of the participants as quilt types they never made in their quiltmaking.

Regarding the most important reasons for color selection, personal color preference was selected by 94.5% of the participants as their most important, second most important, or third most important reason for color selection for their quilting. Selecting colors appropriate to a theme was the second most frequently selected reason (63.8%), and the third most frequently selected reason was to coordinate with home décor (45.7%). Current color trends were the least frequently selected reason for color selection selected by the participants (8.3%).

Four-color palettes were reported by over 90% of the participants as being utilized most of the time or some of the time in their quilting. These included cool colors (93.7%), warm colors (93.7%), white or tan backgrounds (90.2%), and light color backgrounds (92.5%). There were three fabric types that were the most prevalent for over 80% of the participants as fabric types they utilized at least some of the time in their quilting. These included calicos (88.1%), florals (95.2%), and solids (90.5%). Calicos were the most frequently reported fabric type utilized most of the time (22.8%) and some of the time (65.7%) by the participants. The majority of participants reported civil war reproductions (53.5%), museum reproductions (55.9%), and velvets (81.1%) as fabric types they never utilized in their quilting.

### Summary of Data Analysis

The analyses of findings related to the eight hypotheses and the three research questions were tested through the use of frequency and percentage distributions,

chi-square contingency analyses, and discriminant function analyses (DISCRIM).

Hypotheses 1 through 7 were tested using descriptive and frequency analyses in order to address the primary problem of the study. Hypothesis 8 was analyzed utilizing chi-square contingency analyses to determine if the differences in frequencies were significant. Chi-square contingency analyses were utilized to analyze Research Question 1, and discriminant function analyses (DISCRIM), and chi-square contingency analyses were utilized to analyze Research Question 2 and Research Question 3.

Hypothesis 1 read as follows: The majority of members from the Trinity Valley Quilters' Guild will: (a) be 51 years of age or older, (b) be female, (c) be white, non-Hispanic, (d) have spent their adolescent years in the U.S. west south central region, (e) be raised in a rural area, (f) be high school educated or higher, (g) be currently married, (h) be Methodist, (i) be a full-time homemaker, and (j) have an annual household income of \$60,000. Therefore, it was not expected that participants would vary according to age, gender, ethnicity, education, marital status, religion, occupation or income. Additionally, participants would have spent their adolescent years in the west south central region of the United States (Arkansas, Louisiana, Oklahoma and Texas), and would have been raised in a rural area. Frequency and percentage distributions indicated that participants were prevalently 51 years of age or older, female, white Non-Hispanic, grew up in the west south central part of the United States, had a high school or higher education, and were married. However, the majority of the participants were

raised in an urban rather than rural setting, were retired rather than full-time homemakers, were not Methodist, nor did participants have an annual household income of \$60,000 a year or more. Therefore, Hypothesis 1 was rejected.

Hypothesis 2 read as follows: The majority of members from the Trinity Valley Quilters' Guild will participate fully or partially in the quilting process such as quilting, piecing, and designing quilts. Therefore, it was expected that the majority of participants would be involved in some aspect of the quilting process. Frequency and percentage distributions indicated that the majority of the participants did participate fully or partially in the quilting process. Therefore, Hypothesis 2 was accepted.

Hypothesis 3 read as follows: The majority of members from the Trinity Valley Quilters' Guild will have learned to quilt between the ages of one and nine. Therefore, it was expected that participants would be of similar age when they learned quilting. Frequency and percentage distributions indicated that the majority of participants were not between the ages of one and nine when they learned to quilt. Rather, approximately one-third of the participants were between the ages of 50 to 59 when they learned to quilt. Therefore, Hypothesis 3 was rejected.

Hypothesis 4 read as follows: The majority of members from the Trinity Valley Quilters' Guild will have learned to quilt from (a) a female relative, or (b) their mother. Therefore, it was expected that a female relative or mother would have been the most influential figure who taught quilting to TVQG members. Frequency and percentage distributions indicated that a female relative or mother did not teach the majority of

participants quiltmaking. Rather, the majority of participants were self-taught.

Therefore, Hypothesis 4 was rejected.

Hypothesis 5 read as follows: Members of the Trinity Valley Quilters' Guild will select hand piecing more frequently than machine piecing as one of the three most important characteristics that contribute to the quality and beauty of a quilt. Therefore, it was expected that participants would place higher importance on hand piecing than on machine piecing as one of the three most important characteristics that contributed to the quality and beauty of a quilt. Frequency and percentage distributions indicated that initial visual impact, color scheme, quality of piecing, and quality of quilting were selected by the participants as the four most important characteristics that contributed to the quality and beauty of a quilt (quality of piecing and quality of quilting were selected by the same percentage of participants). Although hand piecing was selected more frequently than machine piecing as one of the three most important characteristics, hand piecing was not selected by the participants as one of the three most important characteristics that contributed to the quality and beauty of a quilt. Therefore, Hypothesis 5 was rejected.

Hypothesis 6 read as follows: Members of the Trinity Valley Quilters' Guild will select hand quilting more frequently than machine quilting as one of the three most important characteristics that contribute to the quality and beauty of a quilt. Therefore, it was expected that participants would place higher importance on hand quilting than on machine quilting as one of the three most important characteristics that contributed to the

quality and beauty of a quilt. Frequency and percentage distributions indicated that the majority of participants selected initial visual impact, color scheme, quality of piecing, and quality of quilting as the four most important characteristics that contributed to the quality and beauty of a quilt (quality of piecing and quality of quilting were selected by the same percentage of participants). Although hand quilting was selected more frequently than machine quilting, hand quilting was not selected by participants as one of the three most important characteristics that contributed to the quality and beauty of a quilt. Therefore, Hypothesis 6 was rejected.

Hypothesis 7 read as follows: Members of the Trinity Valley Quilters' Guild will select the following three motivations as the three best reasons that explain why they are motivated to quilt: (a) satisfy the need for creative expression, (b) satisfy the need to socialize with others, and (c) create a gift for a special person. Therefore, it was expected that TVQG members would have similar motivations to quilt because they considered quilting a means of creative expression, it was an opportunity to socialize with others, and it served as a mechanism to create gifts for a special person. Frequency and percentage distributions indicated that the participants selected create a gift for a special person, satisfy the need for creative expression, and satisfy the need for pleasure as the three most important reasons why they were motivated to quilt. Satisfy the need to socialize with others was not one of the three best reasons why participants were motivated to quilt. Therefore, Hypothesis 7 was partially accepted.

Hypothesis 8 read as follows: Members of the Trinity Valley Quilters' Guild with differing types of employment status will exhibit significant differences in: (a) utilizing specific quilting techniques and practices, (b) holding membership in bees and guilds, and (c) attending TVQG meetings during 2001. Therefore, it was expected that TVQG members who were retired would be more likely to utilize hand techniques and practices, hold memberships in bees and guilds, and attend TVQG meetings during 2001 than members who were employed outside the home and not employed outside the home. The results from chi-square contingency analyses indicated that retired participants utilized machine appliqué, machine quilting, and fused applications in their quilting as contrasted to participants who were not employed outside the home or employed outside the home. Retired participants purchased quilt block patterns and designed quilting patterns less frequently as contrasted to participants who were not employed outside the home or employed outside the home. There were no significant differences between other hand and machine quilting techniques and participants' employment status. Therefore, Hypothesis 8a was rejected. Chi-square contingency analyses indicated that there were no significant differences between participants' employment status groups and memberships in bee(s) and guild(s) other than TVQG. Therefore, Hypothesis 8b was rejected. Chi-square contingency analyses indicated that there was no significant difference between participants' employment status groups and the number of TVQG meetings attended during 2001. Therefore, Hypothesis 8c was rejected.

Research Question 1 read as follows: Will the quilting practices and quilting techniques utilized by members of the Trinity Valley Quilters' Guild vary according to demographic profiles? Results from chi-square contingency analyses indicated that with respect to age and quilting practices utilized, participants 45 years of age or younger designed quilt block patterns more than participants from all other age groups. Participants 76 years of age or older purchased quilt block patterns, designed quilt top patterns, and designed quilting patterns more than participants from other age groups. Participants 45 years of age or younger and 46 to 50 years of age machine quilted for personal income more than participants from other age groups. Participants in the age groups 61 to 65, 66 to 70, and 71 to 75 hand quilted for fundraising more than participants from other age groups. In contrast, participants from the age groups 45 or younger, 46 to 50, and 56 to 60 machine quilted for fundraising more than participants from other age groups.

Regarding age and specific quilting techniques believed important to the quality and beauty of a quilt, participants 76 years of age or older indicated hand work and quality as the most important techniques contributing to the quality and beauty of a quilt as contrasted to participants from other age groups. Participants 71 to 75 years of age indicated hand work and visual impact as the most important techniques. Conversely, participants in the age groups of 45 or younger, 46 to 50, 51 to 55, 56 to 60, 61 to 65, and 66 to 70 indicated visual impact as the most important technique to the quality and beauty of a quilt.

Regarding age and specific quilting techniques utilized, participants 76 years of age or older utilized hand piecing while participants 45 years of age or younger and 46 to 50 years of age utilized hand piecing as compared to participants from other age groups. Participants in the age groups of 56 to 60, 61 to 65, 66 to 70, 71 to 75, and 76 or older utilized hand quilting more than participants from all other age groups. Participants 76 years of age or older utilized machine appliqué less frequently in their quilting as compared to participants from all other age groups. Participants 76 years of age or older utilized fused applications less than participants from all other age groups.

Regarding age and quilt styles made, participants 56 to 60 years of age made mourning quilts more than participants from all other age groups. Regarding age and quilt types made, participants 45 years of age or younger did not make crib/baby quilt types as frequently as participants from all other age groups. Participants 46 to 50 years of age made toys/collectibles more than participants from all other age groups.

Regarding age and color palette usage, participants in the age groups of 66 to 70, 71 to 75, and 76 or older did not utilize black backgrounds in their quilting as frequently as participants from all other age groups. Participants 45 years of age or younger did not utilize light color backgrounds in their quilting as frequently as participants from all other age groups. Regarding age and fabric type utilization, participants 45 years of age or younger did not utilize solid and calico fabrics in their quilting as frequently as participants from all other age groups.

With respect to education and quilting individually or in groups, participants with some college or technical school participated in quilting with personal friends more frequently than participants from any other level of education. Regarding education and hours per week spent on quilting, participants with a high school education or less spent more hours per week on quilting than participants with some college or technical school, college degree, or some graduate work or a graduate degree.

Regarding education and specific quilting practices utilized, participants with a high school education or less hand quilted for personal income more frequently than participants with any other level of education. Regarding education and quilting techniques believed important to the quality and beauty of a quilt, participants with a high school education or less or some college or technical school indicated hand work as the most important technique contributing to the quality and beauty of a quilt as compared to participants with any other level of education. Participants with some college or technical school or a college degree indicated quality as the most important technique to the quality and beauty of a quilt as compared to than participants with a high school education or less, a college degree, or some graduate work or graduate degree. Participants with some college or technical school, a college degree, and some graduate work or a graduate degree indicated visual impact as the most important technique to the quality and beauty of a quilt.

With respect to education and specific quilting techniques utilized, participants with a high school education or less, or some college or technical school

utilized hand embroidery more than participants from all other levels of education.

Participants with some graduate work or graduate degree utilized machine embroidery more than participants with any other level of education.

Regarding education and quilt types made, participants with a high school education or less made single bed, double bed, queen size, and king size quilts more than participants with some college or technical school, college degree, or some graduate work or graduate degree. Regarding education and color palette usage, participants with a high school education or less, or some college or technical school utilized one or two colors in their quilting more than those participants from any other level of education.

With respect to residential status and specific quilting practices utilized, participants raised in an urban setting machine quilted for fundraising more than those participants raised in a rural setting. Regarding residential status and quilting techniques believed important to the quality and beauty of a quilt, participants raised in an urban environment indicated visual impact as the most important technique that contributes to the quality and beauty of a quilt more than participants raised in a rural environment.

Regarding residential status and specific quilting techniques utilized, participants raised in a rural environment utilized hand piecing and hand appliqué more than those participants raised in an urban environment. Conversely, participants raised in an urban environment utilized machine quilting and fused applications more than participants raised in a rural environment.

With respect to residential status and quilt types made, participants raised in a rural environment made queen size quilts more than participants raised in an urban environment. Regarding residential status and color palette usage, participants raised in a rural setting utilized cool colors more than participants who were raised in an urban setting.

Regarding employment status and quilting individually or with a group, participants employed outside the home participated in quilting with business colleagues more than participants from any other employment status. Regarding employment status and specific quilting practices utilized, retired participants purchased quilt block patterns and design quilting patterns less frequently than participants employed outside the home or not employed outside the home. Participants employed outside the home created contemporary quilts, machine quilted for personal income, and machine quilted for fundraising more than participants not employed outside the home or were retired. Participants employed outside the home, and not employed outside the home utilized machine appliqué, machine quilting, and fused applications more than retired participants. With respect to employment status and quilting techniques believed important to the quality and beauty of a quilt, retired participants indicated hand work and quality as the most important techniques to the quality and beauty of a quilt more than participants who were employed outside the home or not employed outside the home.

With respect to employment status and color palette usage, retired participants utilized black backgrounds and dark colored backgrounds in their quilting less than participants employed outside the home or not employed outside the home. Regarding employment status and fabric type usage, participants not employed outside the home utilized solid fabrics in quilting less than participants who were employed outside the home or retired. Retired participants utilized civil war reproductions and 1930s reproductions less than participants from the other two employment status groups.

Regarding occupation and quilting individually or in a group, participants from the labor/craftsperson occupational group quilted with business colleagues more than participants from any other occupational group. Regarding occupation and specific quilting practices utilized, participants from the labor/craftsperson occupational group machine quilted for personal income more than participants from all other occupational groups.

With respect to occupation and quilting techniques believed important to the quality and beauty of a quilt, participants from the office/clerical and business groups indicated hand work as the most important technique that contributed to the quality and beauty of a quilt more than participants from any other occupational group. Participants from the business group indicated quality as the most important technique to the quality and beauty of a quilt less frequently than any other occupational group. Participants from the labor/craftsperson and service occupational groups indicated visual impact as the

most important technique contributing to the quality and beauty of a quilt more than participants from the office/clerical group.

Regarding occupation and specific quilting techniques utilized, participants from the office/clerical occupational group utilized machine quilting less frequently than participants from the labor/craftsperson and professional non-degreed occupational groups. Participants from the labor/craftsperson group utilized stack-n-whack in their quilting more than participants from any other occupational group. Participants from the professional degreed occupational group utilized hand embroidery less frequently than participants from the labor/craftsperson and service occupational groups. Participants from the labor/craftsperson and service occupational groups utilized hand embroidery more than participants from any other occupational group.

With respect to occupation and quilt styles made, participants from the service occupational group made wall hangings less frequently than participants from any other occupational group. Regarding occupation and color palette usage, participants from the service occupational group utilized multiple colors in quilting less than participants from any other occupational group. Participants from the full-time homemaker, office/clerical, and service occupational groups utilized medium color backgrounds less frequently than participants from any other occupation. Regarding occupation and fabric type utilization, participants from the labor/craftsperson occupational group utilized calicos less frequently than participants from all of the other occupational groups.

Regarding religion and money spent on quiltmaking, Protestant participants most often spent \$401 to \$500, \$501 to \$600, and \$1000 to \$2000 on quiltmaking during 2001. Catholic/Episcopalian participants most often spent \$801 to \$900 on quiltmaking.

With respect to religion and fabric type utilization, Catholic/Episcopalian or non-denominational participants utilized solid fabrics in their quiltmaking less frequently than any other religious group. Participants who were of miscellaneous affiliation utilized calicos less frequently than participants from any other religious affiliation. Participants from the miscellaneous religious group utilized florals in their quiltmaking less frequently than any other religious group.

Regarding U.S. annual household income and quiltmaking individually or in a group, participants with an income of \$70,000 to \$79,000 participated in quiltmaking with business colleagues more frequently than participants from any other level of income. Regarding U.S. annual household income and specific quiltmaking techniques utilized, participants with an income of \$20,000 to \$29,000 and \$30,000 to \$39,000 utilized machine quilting less frequently than any other income group. Conversely, participants with an income of \$19,000 a year or less, utilized machine quilting more frequently than participants from any other income group. Participants with annual incomes of \$20,000 to \$29,000, \$60,000 to \$69,000, \$70,000 to \$79,000, and \$80,000 to \$89,000 hired machine quilting less frequently than participants from any other level of income.

With respect to U.S. annual household income and quilt styles made, participants incomes of \$19,000 or less and \$80,000 to \$89,000 made wholecloth quilts more frequently than participants from all other levels of income. Regarding U.S. annual household income and color palette usage, participants with an income of \$30,000 to \$39,000 utilized dark backgrounds less frequently in their quilting than any other income group.

Research Question 2 read as follows: Will the quilting practices and techniques utilized by members of the Trinity Valley Quilters' Guild vary according to quilting motivations? Three groups were formulated based upon why participants were motivated to quilt. These groups were (a) the giving, (b) creative expression, and (c) relief and pleasure groups. Chi-square contingency analyses were utilized to determine if quilting practices and quilting techniques significantly varied according to participants' quilting motivations. Discriminant function analysis (DISCRIM) was conducted to determine if there were significant differences between number of quilts made, hours per week spent on quilting, and the amount of U.S. dollars spent on quilting during 2001 and participants' quilting motivations. Additionally, DISCRIM was utilized to determine if membership to the giving, creative expression, or relief and pleasure groups could be predicted based upon number of quilts made, hours per week spent on quilting, and the amount of U.S. dollars spent on quilting.

Results from chi-square contingency analyses and DISCRIM indicated that the giving group selected handwork as the most important quilting technique that contributed to the quality and beauty of a quilt as compared to the participants from the creative expression and relief and pleasure groups. When examining the characteristics of the giving group, those participants hand pieced more frequently as contrasted to the other two groups, and on the average, made the fewest quilts, spent the least number of hours per week on quilting, and spent the least amount of money on quilting as compared to the participants from the creative expression and relief and pleasure groups.

The creative expression group exhibited the widest variety of activities regarding quilting. When compared to the giving and relief and pleasure groups, the creative expressionists quilted with guild members, designed quilt top patterns, designed quilting patterns, created contemporary quilts, machine quilted for personal income, and machine quilted for fundraising more frequently than participants from the other two groups. Creative expressionists machine pieced, machine appliquéd, paper pieced, foundation pieced, and participated in hand embroidery; created themed quilts, created apparel and accessories, and utilized museum reproductions and batiks in their quilting; utilized colors appropriate to a theme as a reason for selecting colors for a quilt more than participants from the giving and relief and pleasure groups. Finally the creative group, on the average, made more quilts, spent more hours per week, and spent more money on quilting during 2001 as contrasted to the participants from the giving and relief and pleasure groups. Participants from the creative expression group indicated visual impact

as the most important quilting technique that contributed to the quality and beauty of a quilt as compared to the participants from the giving group, but not the relief and pleasure group. It was only when indicating visual impact as the most important quilting technique that contributed to the quality and beauty of a quilt that the creative expressionists expressed more than the giving group but not the relief and pleasure group.

When examining the characteristics of the relief and pleasure group, participants indicated another individual's color preference as the most important reason for color selection for a quilt more than participants from the other two groups. The relief and pleasure group indicated visual impact as the most important technique that contributes to the quality and beauty of a quilt, and machine pieced more than participants from the giving group. The relief and pleasure group made more quilts and, on the average, spent more money on quilting than the participants from the giving group, but less than the creative group. Finally, the relief and pleasure and giving groups spent, on the average, the same number of hours per week on quilting.

Results of the DISCRIM analysis did indicate that membership to the giving and creative expression groups could be predicted based upon number of quilts made, hours per week spent on quilting, and the amount of U.S. dollars spent on quilting. Analysis predicted that participants from the giving group, who, on the average, made either 11 to 15 or 16 to 20 quilts, participated in quilting 6 to 10 hours per week on quilting, and spent \$401 to \$500 on quilting during 2001, were motivated to do

so in order to commemorate a special event, create a family heirloom, create a gift for a special person, or participate in a fundraising project. DISCRIM also predicted that participants from the creative expression group, who, on the average made either 21 to 30 or 31 to 40 quilts, participated in quilting 6 to 10 or 11 to 15 hours per week, and spent \$701 to \$800 on quilting during 2001, were motivated to do so in order to satisfy the need for creative expression, enter a quilt show or competition, or experiment with a new technique or fabric. Membership to the relief and pleasure group could not be predicted based upon number of quilts made, hours per week spent on quilting, and the amount of U.S. dollars spent on quilting.

Research Question 3 read as follows: Will the quilting practices and quilting techniques utilized by members of the Trinity Valley Quilters' Guild vary according to why they are involved in quilting? Four groups based upon why participants were involved in quilting were analyzed. These groups were the (a) enjoyment, (b) sense of accomplishment, (c) creative, and (d) connect with the past groups. Chi-square contingency analyses were utilized to determine if quilting practices and quilting techniques significantly varied according to why participants were involved in quilting. Discriminant function analysis (DISCRIM) was conducted to determine if there were significant differences between number of quilts made, hours per week spent on quilting, and the amount of U.S. dollars spent on quilting during 2001 and why participants were involved in quilting. Additionally, DISCRIM was utilized to determine if membership to the enjoyment, sense

of accomplishment, creative, and connect with the past groups could be predicted based upon number of quilts made, hours per week spent on quilting, and the amount of U.S. dollars spent on quilting.

Results from chi-square contingency analyses and DISCRIM indicated that the enjoyment group utilized multiple colors in one quilt less frequently but paper pieced more than participants from the sense of accomplishment, creative, or connect with the past groups and members indicated personal color preferences as the most important reason for selecting colors to be utilized in a quilt. The enjoyment group purchased quilt block patterns, quilt top patterns, block of the month patterns, and quilt kits more than participants from the sense of accomplishment and creative groups. Finally, the enjoyment and sense of accomplishment groups were most similar to each other in that participants from these groups, on the average, made the same number of quilts and spent approximately the same amount of money on quilting during 2001.

The sense of accomplishment group designed quilting patterns more than participants from the other three groups, the only unique characteristic of the group. Other quilting characteristics varied as the sense of accomplishment group made, on the average, the same number of quilts as the enjoyment group, but fewer quilts than the creative or connect with the past groups. They spent, on the average, the same number of hours per week on quilting than the enjoyment and creative groups, but more than the connect with the past group. Finally, the sense of accomplishment group spent, on the

average, the same amount of U.S. dollars on quilting as the connect with the past group, but less than the enjoyment and creative groups.

The creative group was fairly well defined by its quilting characteristics. The creative group designed quilt block and quilt top patterns, created contemporary quilts, entered design competitions, utilized black and dark backgrounds, utilized batik fabrics rather than calicos in their quilting, and created mourning quilts more frequently than participants from the enjoyment, sense of accomplishment, and creative groups. Finally, the creative group, on the average, made more quilts than the enjoyment or sense of accomplishment groups. They also spent the most money on quilting as contrasted to participants from the other three groups.

The connect with the past group was not as clearly defined as the other groups. They created themed quilts more frequently than the sense of accomplishment, enjoyment, and creative groups. Also, the connect with the past group purchased block of the month patterns more frequently than the sense of accomplishment or creative groups, but made, on the average, the same number of quilts as the creative group which was more than the enjoyment or sense of accomplishment groups. However, the connect with the past group spent, on the average, the least amount of money on quilting during 2001. Ultimately, the results of the DISCRIM analysis indicated that membership to the enjoyment, sense of accomplishment, creative, and connect with the past groups could not be predicted based upon number of quilts made, hours per week spent on quilting, and the amount of U.S. dollars spent on quilting.

## Discussion of Findings and Conclusions

Data acquired from the study were limited to 254 members of Trinity Valley Quilters' Guild of Fort Worth, Texas. Based upon the analyses of the data, the following interpretations of the findings and conclusions appear to be appropriate.

### *Demographics*

The demographic characteristics of the participants revealed a predominately homogenous group. The overwhelming majority of participants were 51 years of age or older, female, married, white non-Hispanic, grew up in Arkansas, Louisiana, Oklahoma, or Texas, were raised in an urban setting, and had at least a high school level of education or higher. The most frequently reported religious affiliation by the participants was Methodist and the most frequently reported U.S. annual household income was \$60,000 a year or more.

Findings were supported by previous studies conducted on U.S. quiltmakers. Quiltmaking historically as well as currently has been a predominately female activity and associated with married older women (Roach, 1986). Roach (1986) described the most productive stage of quiltmaking as being conducted primarily by women during their mid to later years in life when domestic obligations decreased, children became more self-sufficient, and the quiltmaker approached retirement. Roach's (1986) findings determined that because of decreased domestic obligations, quiltmakers in their middle

fifties or older generally produced a higher number of quilts and reached their highest level of skill in quilting as compared to younger quilters.

Findings from this study supported Roach's research on the life cycle of the quilter. The overwhelming majority of participants were 51 years of age or older, married, and reported that they started their first quilt in the 1980s or later. Based on the average age of the participants, this supported the finding that the participants learned quilting later in life when perhaps family obligations lessened and there was newfound time for quilting. Additionally, the most frequently reported range of quilts made by the participants was 16 to 20 quilts. Considering the majority of participants learned to quilt while they were adults and began their first quilt during the 1980s or later, this was a considerable amount of quilts made by the participants. This finding further supported Roach's (1986) theory that women in their fifties or older enter into one of the most productive stages of quilting.

The majority of participants were raised in an urban environment. The review of literature supported this finding. Several studies determined that while quilters were generally from rural areas, urban quilters have been on the rise since the 1976 U.S. quilt revival (Langellier, 1990; Roach, 1986; Shea & Crews, 1989). The review of literature, however, did not indicate why quilting has increased specifically in urban areas. Although Crews and James (1996) reported that there was a significant increase in quilting across the United States in response to national efforts to commemorate the

nation's 1976 Bicentennial, it is not clear if the Bicentennial was the predominate factor that led to the increase in quilting in urban settings.

Nearly one-third of the participants from this study had some college education and the majority of participants had at least a vocational/technical degree. The review of literature on quilters' education corroborated the findings from this study. For example, Crews and James (1996) determined that today's quilters are well educated and *Quilter's Newsletter* (2000) reported that the overwhelming majority of U.S. quilters had at least some college education. With regard to education, findings indicated that the participants were indicative of U.S. quilters.

Regarding religious affiliation, nearly one-quarter of the participants indicated that they were Methodist. This finding was supported by studies conducted by Crews and James (1996) and Langellier (1990) which indicated Methodist was one of the most frequently reported affiliations of U.S. quilters. Since the mid-twentieth century, there has been a tradition in the Methodist church to utilize quilting as a means of socialization and fundraising for charitable events. While according to Crews and James (1996) and Langellier (1990), quilting in the Methodist church continues today, findings did not indicate that there were a significant number of participants who quilted with the Methodist church. In fact, less than 3% of the participants indicated that they participated in quilting with the Methodist church. It is not clear why so few Methodist participants quilted with the church. One explanation may be that women have opted to quilt by themselves rather than consume valuable time traveling to a social

center or gathering. Cerny (1991) reported that, due to time constraints, quilting in groups had declined nationally.

Participants most frequently reported their U.S. annual household income as \$60,000 a year or more. A study conducted by *Quilting's Newsletter* (2000) indicated that the average household income for U.S. quilters was nearly \$75,000 a year. The review of literature did not reveal any other formal study regarding quilters and U.S. annual household income. It appears that scholars may be concerned over the sensitive nature of inquiring about U.S. annual household income. With regard to this study, 145 participants elected not to indicate their U.S. annual household income on the questionnaire.

#### *Membership Profile*

In order to analyze the membership profile of quilters, the participants were asked why they were members of TVQG, how long they had been a member, number of guild and bee meetings attended, whether or not they were members of bees or guilds other than TVQG, whether or not they were charter members of TVQG, and number of workshops and/or seminars they attended during 2001. The overwhelming majority of participants indicated that they were involved in TVQG in order to socialize with others. The majority of participants indicated that they were members of TVQG in order to learn new quilting techniques, while nearly close to half indicated that they were members of TVQG in order to support the art and craft of quilting.

Participants were relatively evenly distributed regarding the number of years they held membership in TVQG since its formal organization 21 years ago. In addition, the majority of participants were members of a TVQG bee and approximately 25% of the participants were members of one other guild and bee other than TVQG. Less than 5% of the participants were charter members of TVQG. Approximately one-third of the participants attended 10 to 12 of the monthly guild and bee meetings during 2001. Nearly 45% of the participants attended one to three workshops/seminars sponsored by the guild.

The finding that the primary reason participants were members of TVQG and bee(s) was supported by research that described the modern quilt guild as a form of socialization in a dominant feminine culture (Cerny, 1991; Cerny, Eicher, & DeLong, 1993). The high number of participants who were members of a TVQG bee and who attended more than the majority of the monthly guild meetings supported the theory that guilds and bees serve primarily as social outlets for quiltmakers.

Cerney, Eicher, and DeLong (1993) determined that guilds and bees also provide quiltmakers opportunities to learn about quilting through lectures and workshops, provide exposure to a variety of viewpoints and techniques, and serve as forums for discussion. Findings were supported by the review of literature in that the majority of participants indicated that they were involved in TVQG in order to learn new quilting techniques. Almost half of the participants had attended one to three workshops/seminars on new quilting techniques sponsored by the guild.

### *Why Participants Learned to Quilt*

Why participants learned to quilt was investigated by asking the participants to indicate the age at which they learned to quilt, the primary reason that motivated them to learn to quilt, and the person(s) who taught them quilting. Nearly one-third of the participants reported that they learned to quilt between the ages of 50 to 59 years and only 14% of the participants indicated that they learned to quilt during their youth. The majority of participants indicated that they were motivated to quilt because they just wanted to learn to quilt and reported being self-taught or taught by a teacher of a class or workshop.

While women historically learned to quilt as children (Fox, 1985), the participants from this study learned to quilt as adults. Roach (1986), Shea and Crews (1989), and Ayers (1988) reported that while the majority of quilters learned to quilt at a young age, they did not become productive until they were at least the age of 50 when domestic responsibilities decreased. While the demographic findings indicated that participants were older women active in quilting, the participants did not learn to quilt at a young age. To the contrary, the majority of participants learned to quilt later in life.

Learning to quilt as an adult reinforced the contemporary climate for women of the late 20<sup>th</sup> and 21<sup>st</sup> centuries. Participants from this study were no longer required to learn quilting as were previous generations of women (Gunn, 1990). Historically, mothers or female family members taught women quilting, however, the predominate

number of participants were either self-taught or taught quilting by an instructor of a workshop or seminar.

Although the review of literature did not reveal studies that specifically identified the primary instructor of today's quilter, the decline of U.S. quilting that occurred between the middle of the 20th century until the late 1970s may offer explanation. Participants were raised by mothers and other family members who were impacted by events such as World War II, the Cold War, and the women's movement. Dominate female role models for the participants were some of the first generations of women to work outside the home, participate in or observe the women's movement, and blend traditional female roles with the changing roles of contemporary women. Post-World War II through the early 1970s was a period of great decline in quilting in the United States (Crews & James, 1996). Women who may have served as a primary parent for the participants were not involved in quilting and, therefore, did not appear to serve as significant role models for teaching quilting to the participants. It is probable that the majority of participants were not familiar with quilting until later in life when it was a choice to learn to quilt. In fact, the majority of participants indicated that they just wanted to learn to quilt as the primary reason why they learned to quilt.

#### *The Decline of Hand Quilting Practices and Techniques*

In order to investigate participants' quilting practices and techniques, participants indicated specific quilting practices and techniques utilized in their quilting and whether they usually participated in quilting by themselves or with

groups. Additionally, participants were asked to indicate the three most important quiltmaking techniques that contributed to the quality and beauty of a quilt.

Findings showed that while participants utilized a variety of quiltmaking practices and techniques, there was an emphasis upon machine techniques and practices rather than traditional hand methods. Additionally, participants purchased manufactured patterns and kits more frequently than designed original patterns. Participants also placed emphasis upon the initial impression and the quality of construction of the quilt rather than on traditional quiltmaking methods and participated in quiltmaking by themselves rather than in groups.

*The decline of hand piecing and hand quilting.* Participants were asked to indicate how frequently they utilized various hand and machine quiltmaking practices and techniques in their quiltmaking. While the findings indicated that participants utilized a variety of quiltmaking methods, a trend in the decline of hand quiltmaking practices and techniques emerged. Based upon the findings, hand quiltmaking methods were primarily utilized by the eldest participants, which also comprised one of the smallest age groups from TVQG. The predominant trend was that participants utilized machine techniques and practices such as machine piecing, machine quilting, paper piecing, and foundation piecing, and purchased patterns and templates more frequently than using hand techniques and practices. Based upon the findings, it appears that the participants emphasized quiltmaking techniques and practices that expedited the

quiltmaking process rather than adhering to traditional methods such as hand piecing, hand quilting, and other hand techniques and practices.

A study conducted by *Quiltmaker's Newsletter Magazine* (2000) indicated that the overwhelming majority of today's U.S. quiltmakers utilize machine piecing and machine quilting in their quiltmaking. However, *Quiltmaker's Newsletter Magazine* (2000) also reported that the majority of U.S. quiltmakers practiced hand quilting. While the findings from this study supported the national decline in hand piecing, it is not clear if the decline in hand quilting as evidenced by the participants indicated a trend that is yet to emerge nationwide. It is also important to note that the study by *Quiltmaker's Newsletter Magazine* (2000) was the only one found in a review of literature that addressed specific quiltmaking techniques and practices utilized by today's quiltmaker. Further investigation is necessary to determine if the decline of hand quiltmaking techniques and practices as evidenced by the findings is a cyclical, regional, and/or national trend.

*The decline of original quilt designs.* Participants were asked to indicate how frequently they participated in quiltmaking practices and techniques such as designing quilt block patterns, purchasing quilt block patterns, purchasing quilt kits, designing quilting patterns, creating contemporary quilts, or creating traditional quilts. Findings indicated that participants predominately participated in quiltmaking practices such as purchasing quilt and quilting patterns rather than designing original quilt and/or quilting patterns.

Other findings related to the dominant use of purchased patterns for quilting by the participants. Overwhelmingly, participants indicated that they created traditional quilts and experienced factors that limit time for quilting. While there was abundant research regarding historic quilting practices and techniques, the review of literature did not reveal any current studies on U.S. quilters and specific purchasing practices or the nature of factors that limited time for quilting.

In this study, the predominant practice of purchasing quilt block patterns may have resulted in the majority of participants indicating that they created contemporary quilts only some of the time, while nearly 90% of the participants created traditional quilts at least some of the time. Traditional quilts are generally based upon pre-existing patterns, are adaptable to quick assembly techniques such as machine, foundation, and paper piecing, and frequently are based upon repetition of a particular block or blocks. Therefore, traditional quilts can be expediently assembled by utilizing purchased quilt block and quilting patterns. Contemporary quilts are typically more individualized and often based upon original designs by the quilter. Individuality and originality may consume more time and can mandate experimentation of techniques and the pattern for accuracy. With limited time for quilting, participants utilized purchased patterns for quilting rather than dedicate limited time to creating original quilts.

*Characteristics important to the quality and beauty of a quilt.* Participants were asked to indicate the three techniques believed most important in contributing to the quality and beauty of a quilt. Results indicated that participants placed more importance

upon the initial impression of the quilt including visual impact, colors utilized, and the quality of assembly. Few participants placed importance on hand piecing and less than one-third of the participants indicated hand quilting as an important quality.

The review of literature did not reveal any studies pertaining to characteristics believed important to the quality and beauty of the quilt by current U.S. quiltmakers. Based upon the findings, participants did not view traditional hand practices or techniques utilized in the assembly of the quilt as important, but rather, participants viewed visual impact, colors utilized, and the quality in the assembly of the quilt as most important to the quality and beauty of a quilt. This finding reinforces previously discussed findings that participants utilized more time saving quilting methods to participate in the act of quilting, rather than place importance upon traditional quilting techniques and practices.

*The decline of quilting in groups.* Participants were asked to indicate if they usually participated in quilting by themselves or in groups. The overwhelming majority of participants indicated that they usually participated in quilting by themselves. Of the few participants who sometimes or usually quilted with others, the bee and quilt guild were the two primary groups with whom the participants participated in quilting. Despite the fact that the majority of participants belonged to some form of a quilting group, the findings clearly indicated that participants opted to participate in quilting by themselves rather than in groups.

The review of literature supported the findings that bees and guilds remain two of the most popular forums for quilting, however, quilting in groups has declined nationally (Cerny, 1991; Cerny, Eicher, & DeLong, 1993). Additionally, the primary role of bees and guilds has shifted from a means of practicing quilting in groups to socialization and learning about quilting (Carow, 1997; Cerny, Eicher, & DeLong, 1993). Therefore the participants reflected the nationwide trend to utilize guilds and bees for socialization and learning quilting methods and techniques rather than as a forum for quilting in groups.

#### *Quilting Practices and Techniques Related to Quilting Motivations*

In order to determine if quilting practices and techniques varied according to why participants were motivated to quilt, three groups were analyzed. The three groups were based upon the primary quilting motivations identified by the participants. The three groups were the (a) giving, (b) creative expression, and (c) relief and pleasure groups. Specifically, the three groups were analyzed based upon their quilting motivations, specific quilting practices and techniques, number of hours per week spent on quilting, number of quilts made, and the amount of U.S. dollars spent on quilting.

Based upon the findings, characteristic quilting practices and techniques for each group emerged. The giving group, which consisted of individuals motivated to quilt in order to give quilts to others, utilized hand piecing in their quilting and indicated handwork as the most important technique that contributed to the quality and beauty of a

quilt. However, they also made the fewest quilts, spent the least number of hours per week on quilting, and spent the least amount of money on quilting as compared to those groups motivated to quilt for creative expression or for relief and pleasure.

These results indicated that the giving group appeared to place emphasis upon the act of hand work to show their appreciation or love for the person for whom they made the quilt. The act of hand work by the quilter may have showed dedication of time, a personal touch, and the spirit of giving. However, because participants motivated to quilt for giving purposes utilized hand work, the number of hours required to execute a quilt likely was increased and therefore, impacted the number of quilts made by the giving group resulting in a lower amount of output. As a result, the giving group made fewer quilts and also spent less money on quilting.

The creative expression group designed quilt top and quilting patterns, created contemporary quilts, machine quilted for personal income, machine quilted for fundraising, and machine pieced in their quilting as contrasted to the giving or relief and pleasure groups. The creative expressionists also machine appliquéd, paper pieced, foundation pieced, hand embroidered, created themed quilts, utilized museum reproductions, batiks, and hand-dyed fabrics as contrasted to the giving or relief and pleasure groups. The creative expression group also indicated that visual impact was the most important technique that contributed to the quality and beauty of a quilt, and made more quilts, spent more hours per week, and spent more money on quilting as contrasted to the giving or relief and pleasure groups.

Participants motivated to quilt for creative expression participated in a wide variety of techniques and practices. Perhaps participants from this group designed their own quilt top patterns and quilting patterns to nurture the need for creative expression. Creating contemporary quilts, which were indicative of this group, tend to lend themselves to more exploration and originality as contrasted to traditional quilts that are usually based upon existing, well-known patterns. It was probable that machine techniques were utilized more than hand-techniques in order to complete as many different quilts in less time than hand techniques require. Based upon the number of different techniques participants who desired creative expression utilized, they appeared to be very interested in exploration and variety. In support of the need for creative expression and the variety of techniques utilized, participants motivated to quilt for creative expression spent more hours per week, more money, and more time on quiltmaking than participants motivated to quilt for giving or relief and pleasure purposes.

The relief and pleasure group indicated that they were more likely to machine piece than the giving group and indicated visual impact as the most important technique that contributed to the quality and beauty of a quilt. The relief and pleasure group made more quilts than the giving group, but fewer quilts than creative expression group. The relief and pleasure also spent more money on quiltmaking than the giving group, but less than the creative expression group. Finally, the relief and pleasure groups and giving groups spent the same number of hours per week on quiltmaking.

These results indicated that the relief and pleasure group may have participated in quiltmaking for release from daily pressure and to simply enjoy the pleasure of quiltmaking. Machine piecing, which is usually more expedient than traditional hand-piecing techniques, was the most prevalent quiltmaking technique utilized by this group. Because no other distinguishable characteristic emerged for this group, it may be that the activity of quiltmaking rather than a particular practice or technique motivated these participants to make quilts. While the relief and pleasure group spent more money, more hours per week on quiltmaking, and made more quilts than the giving group, they did not produce as many quilts as the creative expression group. In fact, producing a high number of quilts could have been stressful and therefore counterproductive to the relief from stress and pleasure important to the relief and pleasure group.

A thorough review of literature did not reveal any studies that investigated quiltmaking practices and techniques as related to quiltmaking motivations. The findings from this study appear to be unique. While there has been research on why women quilt, there is no indication that research has been conducted on the relationship, if any, between quiltmaking practices and techniques and why quiltmakers are motivated to quilt.

### Implications of the Study

Based upon the findings from this study, implications concerning three major areas pertaining to the quiltmaking practices and techniques of the participants from the

Trinity Valley Quilters' Guild emerged. The three areas are (a) the decline of hand quilting techniques and practices, (b) the tendency for participants to learn quilting later in life, and (c) the need for valid methodology in conducting quilt research.

### *The Decline of Hand Quilting Techniques and Practices*

Today's quilter has exposure to a variety of quilting techniques and practices offered by industry. Findings from this study verified that the overwhelming majority of participants participated in some aspect of the quilting process and enjoyed a variety of approaches to quilting. The quilting industry will need to continue to respond to the apparent desire for variety in quilting practices and techniques utilized by the participants.

The diverse quilting methods available combined with the limited time for quilting available appeared to have impacted the utilization of traditional quilting techniques such as original designs, hand piecing, and hand quilting. In fact, the overwhelming majority of participants utilized machine and expedient methods of quilting more than traditional hand methods. The current trend in quilting by the participants appears to be speed in assembly in order to complete the quilt. While there appears to be no research in this area, observations and conversations at quilt shows by the researcher indicate that there is moderate concern regarding the decline of original work and traditional methods that were once part of quilting in the United States. The duplication of quilt patterns, fabrics, and designs by well-known designers have

repeatedly appeared in quilt shows and exhibitions causing concern regarding the decline of folk art, original work, and traditional quilting techniques and practices that were once a part of the culture of U.S. quilting. This brings to question the state of traditional quilting methods and what should or can be done to preserve traditional quilting techniques and practices.

### *Learning to Quilt*

Participants from this study learned quilting as middle-aged adults and were primarily self-taught. Findings indicated that there was an overwhelming preference for a variety of quilting techniques and practices that fulfill the desire for producing quilts in a timely fashion and that could be self-taught. The quilting industry will need to continue to develop new quilting techniques and practices that are user friendly and foster quick quilt assembly.

Additionally, the conventional belief that quilters were taught by their mother or female relative was folklore rather than fact in regard to participants from this study. This brings to question the future of quilting in terms of how it is taught, the importance of teaching quilting to youths in order to sustain quilting traditions, and therefore, the future of long-established quilting methods.

### *The Importance of Valid Methodology*

The past two decades have indicated that there is an increased interest in quilting in the United States (Crews & Rich, 1995). In an effort to capture the traditions and characteristics of quilting in the United States, the numbers of studies

on U.S. quilting have increased (Crews & James, 1996; Gunn, 1992). In response to the interest in quilt research, various states initiated programs that have become known as state quilt projects. A state quilt project is a compilation of demographic and psychographic data that describes the history of quilting for a particular group (Crews & Rich, 1995).

Although significant strides in quilt research have been made, inconsistencies in methodology, the type of data gathered, and accessibility of information continues to be a problem. For example, in their study of Nebraska quilters, Crews and James (1996) included only those quilts that were actually made in the state. Conversely, Goldman and Wiebush (1991) in their study of Indiana quilters included those quilts that may have been made somewhere else, but relocated to the state through migration, gifts, or other mechanisms. Other factors that have been inconsistent in quilt research include (a) methods of data collection and (b) types of questions. These factors, blended with inconsistency in implementation, have reinforced the need for consistency in research methodology.

The most significant implication of this study was the development of a questionnaire that was designed to collect demographic and psychographic data of quilters from the Trinity Valley Quilters' Guild (TVQG). This was the first and only formal analysis of this group. Although small in scale, this study contributed to the development of a consistent methodology that may be utilized in subsequent quilt research.

Furthermore, the ultimate goal of quilt scholars is to make cross-comparisons between quiltmakers in the United States (Crews & James, 1996; Gunn, 1992; Horton, 1988a). However, without a consistent methodology, statistical analyses for the purpose of comparing quiltmaking groups are challenging. The research instrument for this study was based upon the fundamental components of state quilt projects (Crews & James, 1996; Herman, 1993). Oral interviews were conducted and analyzed to determine prevalent quiltmaking trends. Additionally, similar questions from a variety of research projects were integrated, resulting in a comprehensive questionnaire designed to gather demographic and psychographic data on a particular quiltmaking group (Cerny, Eicher, & Delong, 1993; Crews & James, 1996; Crews & Rich, 1995; Stonuey & Crews, 1988). The significant implication for this study is that the instrument could serve as a model for subsequent research projects aimed to gather consistent data from various quiltmaking groups in order reach the ultimate goal of making cross comparisons between U.S. quiltmakers.

#### Recommendations for Further Research

The current study was an attempt to identify and describe the demographic characteristics, quiltmaking motivations, and quiltmaking practices of members of the Trinity Valley Quilters' Guild (TVQG). Specifically, the study sought to determine (a) a demographic profile of TVQG members including gender, age, racial or ethnic identification, marital status, education, residential background, employment status,

occupation, and income; (b) quilting motivations including commemorating people or events, creating heirlooms, relieving stress or difficult times, experimenting with new techniques or fabrics, entering quilt shows or competitions, satisfying the need for pleasure and/or creative expression, or participating in a fundraising project; and (c) quilting practices including identifying first quilts, quilting individually or in groups, numbers of quilts made, years of participation in quilting, factors negatively impacting the ability to practice quilting, time spent quilting, and common quilting practices and techniques. The study was an exploratory examination into the stated relationships.

Additional research is recommended in the following areas:

Additional research is recommended in the following areas:

1. Expand the study to include a formal investigation of the extent of the apparent decline in hand quilting techniques, practices, and original designs in quilting. Findings will reveal a more accurate perception of any concern regarding the decline in hand quilting techniques and practices, and will assist the quilting industry in tailoring techniques and practices to the current quilter.

2. Examine the noticeable decline in learning to quilt at a young age and its impact, if any, upon quilting in the United States. Findings will reveal more valid conclusions as to the age groups that participate in quilting and if the age in which one learns quilting has any impact upon quilting traditions.

3. Expand the study to include quilters from other guilds. Findings will allow cross-comparisons to be made from one quilt guild to another, will assist in determining

unique characteristics to a particular group, and will identify common characteristics pertaining to U.S. quiltmakers.

4. Explore the opportunity to standardize the questionnaire from this study to be utilized by state quilt projects and guilds across the United States. The standardized instrument may contribute to a valid and reliable methodology for gathering information pertaining to quiltmaking allowing for formal research and cross comparisons. Findings will contribute to compiling research that accurately reveals the history and characteristics of quiltmaking throughout the United States.

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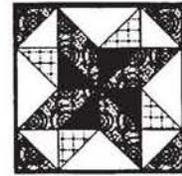
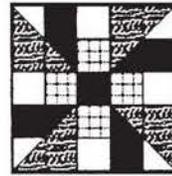
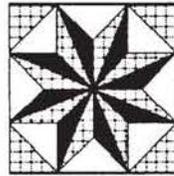
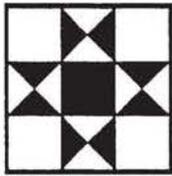
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## APPENDICES

APPENDIX A  
MAIN STUDY COVER LETTER



April 19, 2002

Dear «FirstName»,

Quilting has been part of our country's social history for over 200 years. In the past 15 years, various groups such as historical societies, quilt organizations, and guilds have been committed to learning about the rich cultural and social aspects of quilting. This has been done through oral interviews and research on specific quilting groups.

The Trinity Valley Quilters' Guild has joined in this effort by becoming the first guild in the United States to participate in the *Quilters' Save Our Stories* project—a national effort to collect and archive the oral history of quilters. In order to tell the complete story of our guild, more research is necessary. *As a result, I have selected you and your fellow guild members to help me gather information about our quilting motivations, practices and techniques that is vital to the national effort to document quilting.*

Enclosed you will find a survey designed to find out more about our guild. Your participation is very important to the thoroughness and accuracy of the study. I know your time is valuable, therefore, each person completing and returning the completed survey by May 3, 2002 will become eligible for a random drawing for two, \$50 gift certificates to a local merchant.

*Participation in completing the survey is completely voluntary, and your answers will be strictly anonymous.* You also may choose not to answer any question that you are not comfortable with. You will notice that the questionnaire has an identification number for mailing purposes only. This is so that I can check your name off the mailing list when your questionnaire is returned. *Your name is not part of the survey and cannot be associated with your responses.* The data being collected will be used for a dissertation, and the results of this study will be for research purposes only. I would be happy to answer any questions you may have about this study. I may be reached at 817.257.6327.

Thank you in advance for your time and participation. You can truly make a difference in telling the story of quilting in our country.

Sincerely,

Jane Kucko  
Doctoral Student and  
Member, Trinity Valley Quilters' Guild

APPENDIX B  
MAIN STUDY RESEARCH INSTRUMENT

**Trinity Valley Quilters' Guild:**  
**Quilting Practices & Motivations**



The purpose of this survey is to better understand the quilting motivations and practices among the members of Trinity Valley Quilters' Guild. Participation is voluntary, the results of this survey will be used for research purposes only, and all answers will be strictly anonymous. The return of your completed questionnaire constitutes your informed consent to act as a participant in this research.

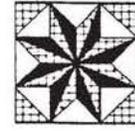
The survey has 6 sections and will take about 25 minutes to complete. Please complete all of the questions. Your response is important! For your convenience, a business reply envelope is included in this package. Please put your completed survey in the envelope provided, seal the envelope, and place it in the mail to me. Your prompt reply will be greatly appreciated. Please return the completed survey by Friday, May 3<sup>rd</sup>.

Please return your completed questionnaire in the enclosed envelope to:

**Jane Kucko**  
**Design, Merchandising & Textiles**  
**P. O. Box 298630 Fort Worth TX 76129**



*Part I: Why are you involved in quiltmaking?*



**Q 1** From the list of suggested reasons below, select the three best reasons that explain why you are involved in quiltmaking. Write a “1” by your first reason, a “2” by your second reason, and a “3” by your third reason.

- Personal enjoyment (01)
- Sense of accomplishment (02)
- Self-expression (03)
- Fulfill the desire for creativity (04)
- A way to connect the present with the past (05)
- Source of personal income (06)

**Q 2** Listed below are suggested quiltmaking activities. Please indicate which activity(s) you participate in by circling the corresponding number. Circle all that apply.

- 1 Quilting—the act of oneself stitching a quilt by machine or hand
- 2 Piecing—the act of oneself piecing quilt tops by machine or hand
- 3 Designing your own patterns
- 4 Quilt collecting
- 5 Reading about quilts and quilt history
- 6 Attend quilt shows
- 7 Attend quilt workshops and/or seminars

**Q 3** Do you presently or have you ever made a quilt(s)? This includes if you participate fully or partially in the quiltmaking process such as quilting, piecing or designing quilts. Circle only one response.

- 1 Yes, I presently make quilts.
- 2 I have made quilts but presently do not.
- 3 No, I have never made a quilt



*If you presently or have made quilts, proceed to Q 4. If you have never made a quilt, proceed to Q 38, page 13.*

**Q 4 From the list of suggested reasons below, select the three best reasons that explain what motivates or motivated you to quilt. Write a “1” by your first reason, a “2” by your second reason, and a “3” by your third reason.**

- Commemorate a special event (01)
- Create a family heirloom (02)
- Create a gift for a special person (03)
- Relieve stress, depression or difficult times (04)
- Experiment with a new technique or fabric (05)
- Enter a quilt show or competition (06)
- Satisfy the need for pleasure (07)
- Satisfy the need to socialize with others (08)
- Satisfy the need for creative expression (09)
- Participate in a fundraising project (10)

**Q 5 If you have ever participated in making a quilt(s) for a special event, please circle each number that indicates for which occasions you have made quilts. Circle all that apply. If you have not made a quilt for a special event, circle response #12.**

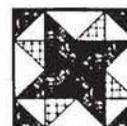
- 1 Wedding
- 2 Anniversary
- 3 Birth of baby
- 4 Christmas
- 5 Graduation
- 6 Birthday
- 7 Retirement
- 8 Historical event (for example, the Bicentennial)
- 9 Social cause (for example, to benefit cancer research)
- 10 Memorial quilt (for example, the Aids Quilt)
- 11 Other \_\_\_\_\_
- 12 I have never made a quilt for a special event.

**Q 6** If you have made a quilt for a special person, please circle each number that indicates for which person(s) you have made a quilt(s). Circle all that apply. If you have not made a quilt for a special person, circle response #9.

- 1 Family member
- 2 Teacher
- 3 Friend
- 4 Pastor
- 5 Doctor
- 6 Civic leader
- 7 Business colleague
- 8 Other \_\_\_\_\_
- 9 I have never made a quilt for a special person.



*Part II: When and why did you learn to quilt?*



**Q 7** At what age did you initially learn to quilt? Circle only one response.

- 1 1 – 9
- 2 10 – 19
- 3 20 – 29
- 4 30 – 39
- 5 40 – 49
- 6 50 – 59
- 7 60 – 69
- 8 70 – 79
- 9 80 – 89
- 10 90 – 99

**Q 8** Listed below are suggested reasons that may have motivated you to learn to quilt. From the list of suggested reasons, select the one best reason that explains why you wanted to learn to quilt. Circle only one response.

**I was motivated to learn to quilt because:**

- 1 I just wanted to learn to quilt.
- 2 I wanted to make a quilt for my first baby
- 3 I had new-found time to learn to quilt
- 4 I wanted to make a heirloom for a grandchild
- 5 It was a way to get through a difficult time
- 6 I wanted to commemorate a special event
- 7 Other \_\_\_\_\_

**Q 9** Who taught you quiltmaking? From the list below, select no more than three people who were influential in teaching you quiltmaking. You may have one, two or three responses to this question. Write a "1" by the person who was most influential. If applicable, write a "2" by the second most influential person and a "3" by the third most influential person who taught you quiltmaking.

- \_\_\_\_\_ Mother (01)
- \_\_\_\_\_ Female relative (02)
- \_\_\_\_\_ Male relative (03)
- \_\_\_\_\_ Church group (04)
- \_\_\_\_\_ Self-taught (05)
- \_\_\_\_\_ Friend (06)
- \_\_\_\_\_ Teacher of a class or workshop (07)
- \_\_\_\_\_ Other \_\_\_\_\_ (08)

**Q 10** Are you currently or have you ever taught quiltmaking to a family member or friend? Circle only one response.

- 1 Yes
- 2 No



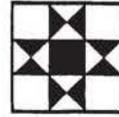
*If yes, proceed to Q 11. If no, proceed to Q 12.*

**Q 11** Indicate below the person(s) that you have taught or are presently teaching quiltmaking. Circle all that apply.

- 1 Friend
- 2 Daughter
- 3 Son
- 4 Granddaughter
- 5 Grandson
- 6 Spouse
- 7 Student in class
- 8 Acquaintance
- 9 Other \_\_\_\_\_



*Part III: What are your quilting practices?*



- Q 12** Record below information about the first quilt you made either by yourself or with assistance. Include the pattern name, year it was started and completed and the name of the quilt if applicable. Please record a specific, estimated year (not a range) for starting and completing the quilt.

Pattern: \_\_\_\_\_ Name of Quilt (if applicable) \_\_\_\_\_

Year Started (Record a specific, estimated year) \_\_\_\_\_ Year Completed: \_\_\_\_\_

- Q 13** Do you usually participate in quilting individually or with others? From the list of suggested quilting scenarios, select one response that best describes your quilting practice. Circle only one response.

- 1 I usually participate in quilting by myself.
- 2 I usually participate in quilting with others.
- 3 Sometimes I quilt with others, but I usually quilt by myself.
- 4 Sometimes I quilt by myself, but I usually quilt with others.



*If you usually or sometimes quilt with others, proceed to Q 14. If you usually quilt by yourself, proceed to Q 15.*

- Q 14** Who do you quilt with? Below are suggested quilting groups. Circle all those groups with whom you usually or sometimes quilt.

**I quilt with a:**

- 1 Bee
- 2 Guild
- 3 Church (Specify denomination \_\_\_\_\_)
- 4 Business colleague(s)
- 5 Personal friends not associated with a formal group.

**Q 15** How many quilts have you participated in making? This includes partially or fully participating in the design, piecing, and/or quilting process. Circle only one response.

- 1 00 - 05
- 2 06 - 10
- 3 11 - 15
- 4 16 - 20
- 5 21 - 30
- 6 31 - 40
- 7 41 - 50
- 8 51 - 60
- 9 61 - 70
- 10 71 - 80
- 11 81 - 100
- 12 101 - 125
- 13 126 - 150
- 14 More than 150

**Q 16** In which of the following decades did you participate in quiltmaking? Circle all that apply.

- 1 1900 - 1910
- 2 1911 - 1920
- 3 1921 - 1930
- 4 1931 - 1940
- 5 1941 - 1950
- 6 1951 - 1960
- 7 1961 - 1970
- 8 1971 - 1980
- 9 1981 - 1990
- 10 1991 - 2000
- 11 2001 -present

**Q 17** Are there any factors that affect the amount of time that you have to participate in quiltmaking? Circle only one response.

- 1 Yes
- 2 No



*If yes, proceed to Q 18. If no, proceed to Q 19.*

**Q 18** Listed below are suggested factors that can negatively impact your time to practice quilting. To the right of each factor, circle the number that indicates how significant it is in negatively affecting your time for quilting. Please respond to each factor listed.

Factors	Very Significant	Significant	Not Significant
Employment obligations (01)	1	2	3
Family obligations (02)	1	2	3
Rearing children (03)	1	2	3
Taking care of parent(s) (04)	1	2	3
Illness in family (05)	1	2	3
Personal illness (06)	1	2	3
Volunteer obligations (07)	1	2	3
Other _____ (08)	1	2	3

**Q 19** Reflect on the past year (2001). On the average, how many hours per week did you participate in quilting? Please record a specific estimated number of hours and not a range. Please record your response below.

Write your response here: \_\_\_\_\_ (Average hours per week)

**Q 20** If you did not or were unable to participate in quilting during 2001, please indicate the reason. I did not participate in quilting during 2001 because:

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**Q 21** Below is a list of various quilting practices. To the right of each quilting practice, circle the number that indicates how frequently you participate in the practice. Please respond to each practice listed.

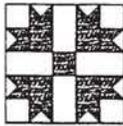
Quilting Practice	Most of the Time	Some of the Time	Never
Design quilt block patterns (01)	1	2	3
Purchase quilt block patterns (02)	1	2	3
Design quilt top patterns (03)	1	2	3
Purchase quilt top patterns (04)	1	2	3
Design quilting patterns (05)	1	2	3
Use templates for quilting patterns (06)	1	2	3
Purchase block of the month patterns (07)	1	2	3
Purchase quilt kits (08)	1	2	3
Create contemporary quilts (09)	1	2	3
Create traditional quilts (10)	1	2	3
Display your quilts at shows (11)	1	2	3
Enter design competitions (12)	1	2	3
Hand quilt for personal income (13)	1	2	3
Machine quilt for personal income (14)	1	2	3
Hand quilt for fundraising (15)	1	2	3
Machine quilt for fundraising (16)	1	2	3
Sell your quilt top patterns (17)	1	2	3
Sell your quilting patterns (18)	1	2	3
Write books/articles on quilting (19)	1	2	3

**Q 22** In 2001, approximately how much money did you spend on quilting fabric, patterns, workshops/seminars, magazine subscriptions and equipment. Write in an estimated, specific amount for each category listed below. Do not record a range of dollars spent. If you did not spend money in that category, please write in a zero.

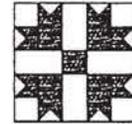
- \$ \_\_\_\_\_ Fabric (001)
- \$ \_\_\_\_\_ Patterns (002)
- \$ \_\_\_\_\_ Workshops/Seminars (003)
- \$ \_\_\_\_\_ Magazine subscriptions (004)
- \$ \_\_\_\_\_ Equipment such as templates, rulers, frames, etc. (005)



*Please proceed to Part IV.*



*Part IV: What do you look for in a quilt and  
what are your quilting techniques?*



**Q 23** Listed below are suggested characteristics that may contribute to the quilt's perceived quality and beauty. Select the three characteristics that you believe are most important in contributing to the quality and beauty of a quilt. Write a "1" by the most important characteristic, a "2" by the second most important characteristic and a "3" by the third most important characteristic.

- Hand piecing (01)
- Hand appliqué (02)
- Hand quilting (03)
- Machine piecing (04)
- Machine appliqué (05)
- Machine quilting (06)
- Quality of piecing (07)
- Quality of appliqué (08)
- Quality of quilting (09)
- Quality of binding (10)
- Complexity of piecing (11)
- Complexity of appliqué (12)
- Complexity of quilting (13)
- Color scheme (14)
- Initial visual impact (15)
- Originality of pattern (16)
- Originality of quilting (17)

**Q24** Listed below are suggested quilting techniques. To the right of each technique, circle only one number that indicates how frequently you use it in your quilting practices. Please respond to each technique listed.

<b>Technique</b>	<b>Most of the Time</b>	<b>Some of The Time</b>	<b>Never</b>
Hand piecing (01)	1	2	3
Machine piecing (02)	1	2	3
Hand appliqué (03)	1	2	3
Machine appliqué (04)	1	2	3
Hand quilting (05)	1	2	3
Machine quilting (06)	1	2	3
Hired machine quilting (07)	1	2	3
Paper piecing (08)	1	2	3
Foundation piecing (09)	1	2	3
Stack-n-whack (10)	1	2	3
Hand embroidery (11)	1	2	3
Machine embroidery (12)	1	2	3
Trapunto (13)	1	2	3
Fused applications (14)	1	2	3
Other _____ (15)	1	2	3

**Q 25** Listed below are suggested quilt styles. To the right of each style, circle only one number that indicates how frequently you create this style of quilt. Please respond to each style listed.

<b>Style</b>	<b>Most of the time</b>	<b>Some of the Time</b>	<b>Never</b>
Sampler quilts (01)	1	2	3
Wholecloth quilts (02)	1	2	3
Quilts of same block (03)	1	2	3
Pictorial quilts (04)	1	2	3
Themed quilts (05)	1	2	3
Holiday quilts (06)	1	2	3
Crazy quilts (07)	1	2	3
Hawaiian quilts (08)	1	2	3
Mourning quilts (09)	1	2	3
Other _____ (10)	1	2	3

**Q 26** Listed below are suggested quilt types. To the right of each type, circle only one number that indicates how frequently you create this type of quilt. Please respond to each quilt type listed.

Type	Most of the Time	Some of the Time	Never
Single bed quilts (01)	1	2	3
Double bed quilts (02)	1	2	3
Queen-size quilts (03)	1	2	3
King-size quilts (04)	1	2	3
Crib-baby quilts (05)	1	2	3
Lap quilts (06)	1	2	3
Wall-hangings (07)	1	2	3
Miniature quilts (08)	1	2	3
Apparel & accessories (09)	1	2	3
Toys & collectibles (10)	1	2	3
Home decorations (11)	1	2	3
Other _____ (12)	1	2	3

**Q 27** From the list below, indicate the three most important reasons why you select color(s) for a quilt. Write a “1” by the most important reason, a “2” by the second most important reason, and a “3” by the third most important reason why you select certain colors.

- \_\_\_\_\_ Personal color preferences (01)
- \_\_\_\_\_ Another person’s color preferences (02)
- \_\_\_\_\_ To keep in tradition of a certain quilt style (03)
- \_\_\_\_\_ To select the most appropriate colors for a quilt theme (04)
- \_\_\_\_\_ Current color trends (05)
- \_\_\_\_\_ Coordinate with home décor (06)
- \_\_\_\_\_ Other \_\_\_\_\_ (07)

**Q28** Listed below are suggested color palettes. To the right of each palette, circle only one number that indicates how frequently you utilize this palette in your quilting practices. Please respond to each color palette listed.

<b>Color Palette</b>	<b>Most of the time</b>	<b>Some of the Time</b>	<b>Never</b>
Cool colors (01)	1	2	3
Warm colors (02)	1	2	3
Pastel colors (03)	1	2	3
Bright colors (04)	1	2	3
Multiple colors in one quilt (05)	1	2	3
One or two color quilts (06)	1	2	3
White or tan backgrounds (07)	1	2	3
Black backgrounds (08)	1	2	3
Light color backgrounds (09)	1	2	3
Medium color backgrounds (10)	1	2	3
Dark color backgrounds (11)	1	2	3

**Q 29** Below is a list of fabric types. To the right of each fabric, circle only one number that indicates how frequently you utilize this type in your quilting practices. Please respond to each fabric type listed.

<b>Fabric Type</b>	<b>Most of the Time</b>	<b>Some of the Time</b>	<b>Never</b>
Solids (01)	1	2	3
Calicos (02)	1	2	3
Florals (03)	1	2	3
Geometric prints (04)	1	2	3
Conversational/novelty prints (05)	1	2	3
Civil War reproductions (06)	1	2	3
1930s reproductions (07)	1	2	3
Museum reproductions (08)	1	2	3
Batiks (09)	1	2	3
Hand-dyed fabrics (10)	1	2	3
Flannels (11)	1	2	3
Velvets (12)	1	2	3
Other _____ (13)	1	2	3

- Q 30** Listed below are suggested sources of quilting fabrics. To the right of each source, circle the number that represents how frequently you obtain fabrics and/or supplies from these sources. Respond to each source.

Source	Most of the Time	Some of the Time	Never
Traditional fabric store (01)	1	2	3
Quilt shops (02)	1	2	3
National chains (Hancock's) (03)	1	2	3
Hobby store (JoAnn's & Hobby Lobby) (04)	1	2	3
Wal-Mart (05)	1	2	3
Mail order catalogs (06)	1	2	3
On-line Sources (07)	1	2	3
Sewing scraps (08)	1	2	3
Worn out clothing/textiles (09)	1	2	3
Historical sources such as feed sacks (10)	1	2	3
Fabrics from family or friends (11)	1	2	3
Garage/estate sales (12)	1	2	3
Other _____ (13)	1	2	3



*Part V: Why are you a member of TVQG?*



- Q 31** Why are you a member of Trinity Valley Quilters' Guild? From the list of suggestions below, select the three most important reasons why you are a member of TVQG.. Write a "1" by your first reason, a "2" by the second reason and a "3" by the third reason.

**I am a member of TVQG in order to:**

- \_\_\_\_\_ Learn about quiltmaking (01)
- \_\_\_\_\_ Learn new quiltmaking techniques (02)
- \_\_\_\_\_ Socialize with other quilters (03)
- \_\_\_\_\_ Participate in workshops sponsored by the guild (04)
- \_\_\_\_\_ Enhance my quiltmaking skills (05)
- \_\_\_\_\_ Have a venue for displaying my quilts (06)
- \_\_\_\_\_ To support the art and craft of quiltmaking (07)

**Q 32 How long have you been a member of TVQG? Circle only one response.**

- 1 00 -01 year
- 2 02 -03 years
- 3 04 -05 years
- 4 06 -10 years
- 5 11 -15 years
- 6 16 -20 years

**Q 33 Are you a charter member of TVQG (The guild was founded in 1982). Circle only one response.**

- 1 Yes
- 2 No

**Q 34 Besides being a member of Trinity Valley Quilters' Guild, are you a member of any other guilds or bees? From the list below, circle all that apply to you.**

- 1 I am currently a member of a TVQG bee.
- 2 I am currently a member of another guild (s). If so, how many? \_\_\_\_\_
- 3 I am currently a member of another bee (s). If so, how many? \_\_\_\_\_

**Q 35 For the year 2001, how many TVQG meetings did you attend? Circle only one response.**

- 1 None
- 2 01 - 03
- 3 04 - 06
- 4 07 - 09
- 5 10 - 12

**Q 36 If you are a member of a TVQG bee, how many meetings did you attend in 2001? Circle only one response. If you are not a member of a bee, circle response #6.**

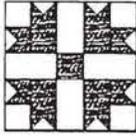
- 1 None
- 2 01 - 03
- 3 04 - 06
- 4 07 - 09
- 5 10 - 12
- 6 I am not a member of a bee.

**Q 37** During 2001, how many workshops and/or seminars sponsored by various groups such as guilds, retail stores, and quilt shows did you attend? Circle only one response.

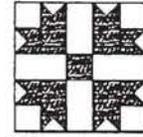
- 1 None
- 2 01 - 03
- 3 04 - 06
- 4 07 - 09
- 5 10 - 12
- 6 More than 12



*Please proceed to Part VI.*



*Part VI. What about you?*



**Q 38** What is your gender?

- 1 Female
- 2 Male

**Q 39** What is your age? Circle only one response.

- 1 15 - 20
- 2 21 - 25
- 3 26 - 30
- 4 31 - 35
- 5 36 - 40
- 6 41 - 45
- 7 46 - 50
- 8 51 - 55
- 9 56 - 60
- 10 61 - 65
- 11 66 - 70
- 12 71 - 75
- 13 76 - 80
- 14 81 - 85
- 15 86 - 90
- 16 91 - 95
- 17 96 - 100
- 18 Over 100

**Q 40** Which of the following best describes your racial or ethnic identification. Circle only one response.

- 1 White, Non-Hispanic
- 2 Hispanic
- 3 Black
- 4 Asian
- 5 Native American
- 6 Pacific Islander
- 7 Mixed heritage

**Q 41 What is your marital status? Circle only one response.**

- 1 Never Married
- 2 Married
- 3 Divorced
- 4 Separated
- 5 Widowed

**Q 42 What is the highest level of education that you have completed? Circle only one response.**

- 1 Some Grade School
- 2 Grade School
- 3 Some High School
- 4 High School or Equivalent
- 5 Some College
- 6 Vocational/Technical Degree
- 7 Two – Year Associates Degree
- 8 Four – Year Bachelors Degree
- 9 Some Graduate Work
- 10 Masters Degree
- 11 Doctoral Degree
- 12 Post-Doctoral Degree

- Q43** Below is a listing of regions in the United States as defined by the 2000 U.S. Census. Which region did you live in the longest while growing up? Please circle only one response. If you did not live in the United States while growing up, please circle #10.

<b>Name of Region</b>	<b>States Located within the Region</b>
1 New England	Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut.
2 Middle Atlantic	New York, New Jersey, and Pennsylvania
3 East North Central	Ohio, Indiana, Illinois, Michigan, and Wisconsin
4 West North Central	Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska and Kansas.
5 South Atlantic	Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, and Florida.
6 East South Central	Kentucky, Tennessee, Alabama, and Mississippi.
7 West South Central	Arkansas, Louisiana, Oklahoma, and Texas.
8 Mountain	Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, and Nevada.
9 Pacific	Washington, Oregon, California, Alaska, and Hawaii.
10	I did not live in the U.S. while growing up (Please specify the country you lived while growing up _____).

- Q 44** How long have you lived at your present residence?

- 1 0 – 2 years
- 2 3 – 5 years
- 3 6 – 9 years
- 4 10 – 12 years
- 5 13 – 15 years
- 6 More than 15 years

- Q 45** Where you raised in a rural or urban environment? Circle only one response.

- 1 Urban
- 2 Rural

**Q 46 How would you describe your present employment status? Circle only one response.**

- 1 Employed Full-Time
- 2 Employed Part-Time
- 3 Unemployed
- 4 Retired
- 5 Full-time Homemaker

**Q 47 How would you best describe your usual occupation? Circle only one response.**

- 1 Blue Collar/Labor
- 2 Craftsman/Tradesman/Skilled Trade
- 3 Homemaker (Full-Time)
- 4 Military
- 5 Office/Clerical
- 6 Professional (Degreed)
- 7 Professional (Non-Degreed)
- 8 Salesperson
- 9 Service Position
- 10 Full-time Student
- 11 Upper/Middle Management
- 12 Other-Specify \_\_\_\_\_

**Please respond to Q 48 and Q 49 if you choose. Thank you.**

**Q 48 Which of the following categories best describes your annual household income from all sources before taxes in 2001? Circle only one response.**

- 1 Less than \$ 10,000
- 2 \$10,000 - \$19,999
- 3 \$20,000 - \$29,999
- 4 \$30,000 - \$39,999
- 5 \$40,000- \$49,999
- 6 \$50,000 - \$59,999
- 7 \$60,000 - \$69,999
- 8 \$70,000 - \$79,999
- 9 \$80,000 - \$89,999
- 10 \$90,000 - \$99,999
- 11 \$100,000 and over

**Q 49 Please indicate your religious affiliation if applicable. Circle only one response.**

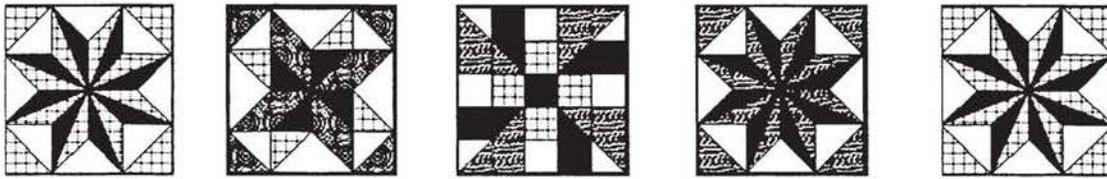
- 1 Methodist
- 2 Lutheran
- 3 Catholic
- 4 Presbyterian
- 5 Jewish
- 6 Church of Christ
- 7 Baptist
- 8 Episcopal
- 9 Latter Day Saint
- 10 Other \_\_\_\_\_

 *Please turn to the last page.* 



Your comments will be appreciated either here or in a separate envelope.

APPENDIX C  
FOLLOW UP COVER LETTER



May 9<sup>th</sup>, 2002

Dear First Name:

As member of the TVQG, you are an important part of our quiltmaking history. Recently, I wrote you a letter accompanied with a questionnaire that requested your participation in a study of our guild. At this point, I have not heard from you and I would like to take this opportunity to encourage your participation.

The purpose of the study is to gather information about our quiltmaking motivations, practices and techniques. This information is vital to the national effort to document the history of quiltmaking in our country. In order to conduct a thorough and accurate study, your participation is very important. *The study will not be complete without you.* I have enclosed another copy of the questionnaire in the event that the original was misplaced.

*Please return the completed questionnaire in the provided business reply envelope by Monday, May 20th.* This is an extension of the date originally printed in the instructions of the questionnaire. You may also notice that the return address printed on the questionnaire is different than the address on the business reply envelope. This is in accordance to postal regulations. *Please use the provided business reply envelope to return the questionnaire.*

All members of TVQG were asked to participate in the study and all responses are strictly anonymous. The data being collected will be used for a dissertation, and the results of this study will be for research purposes only. I would be happy to answer any questions that you may have about this study. I may be reached at 817.257.6327.

I do hope that you will complete the questionnaire and be a part of this important study on our guild's quiltmaking motivations, practices and techniques. *You are a vital part of our history and I hope that you will participate!* Thank you!

Sincerely,

Jane Kucko, TVQG Member  
Doctoral Student at Texas Woman's University

APPENDIX D  
ANNOUNCEMENTS

Announcement as it appeared in the April, 2002, TVQG Newsletter

**TVQG: Quiltmaking Practices & Motivations**

My name is Jane Kucko and I am a Ph.D. candidate at Texas Woman's University. Currently, there is a national focus to conduct research on various quiltmaking groups in an effort to reveal the history of quiltmaking in the United States. As a graduate student and a member of TVQG, I am conducting a study on our guild in order to contribute vital information to the national effort. The guild has granted me permission to conduct this study. You are an important part of this history!

In the near future, you will be receiving a questionnaire that is designed to help me gather information about our quiltmaking motivations, practices and techniques. Your participation is critical to the accuracy of the study. I will be at the April meeting to personally distribute the self-administered questionnaire to those members in attendance. Be sure to pick up your questionnaire as you leave the meeting. Those of you who are unable to attend the April meeting will receive your own copy in the mail. All participants will be able to complete the questionnaire at their convenience and return it by the specified date in the post- paid envelope that will be provided.

Your participation is voluntary, and all results of the research will be strictly anonymous. A cover letter that provides more specific information, including how to become eligible for a \$50 gift certificate to a local quilt merchant, will be included with the questionnaire.

Thank you for your support to my education and this research project. I look forward to sharing the findings on TVQG and our quilt- making motivations and practices with you!

Announcement as it appeared in the June, 2002, TVQG Newsletter Questionnaire

**TVQG: Quiltmaking Practices & Motivations**

Significant progress in telling the story of our quiltmaking motivations, practices and techniques has been made! Recently, each guild member received a call to participate in a research study on our guild. This study is being conducted by me, Jane Kucko, as a graduate student at TWU. I am pleased to announce that over 200 individuals have responded to this important information! That translates to over 53% response rate which is a tremendous response. Thank you to each of you for taking the time to complete the questionnaire. Collectively, we will contribute important information to the national effort to document quiltmaking in our country.

I do hope that each of you will complete the questionnaire so your quilt history will be part of this enriching story. All members who had not yet responded by May 3rd received a second mailing in the middle of May. Even if you haven't returned the questionnaire, you still have time to do so! I do hope that you will participate!

I look forward to sharing our quilt history with the guild.

Jane Kucko, TVQG Member, TWU Graduate Student