THE RELATIONSHIP BETWEEN SELF ESTEEM, SELF PERCEIVED CLOTHING CONSTRUCTION SKILL LEVEL, AND THE PRICES CHARGED FOR SEWING SERVICES IN HOME BASED BUSINESSES

by

Karen Sue Bruck

Thesis submitted to the Faculty of the Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE in

Clothing and Textiles

APPROVED:

Lois M. Gurel
Lois M. Gurel, Chairman
Associate Professor
Clothing and Textiles

Beatrice S. Kalka
Beatrice S. Kalka
Associate Professor
Clothing and Textiles

Joann F. Boles
Joann F. Boles
Associate Professor
Clothing and Textiles

Barry L. Reece
Barry L. Reece
Professor
Marketing Education

May, 1988

Blacksburg, Virginia
The Relationship Between Self Esteem, Self Perceived Clothing Construction Skill Level, And The Prices Charged For Sewing Services In Home Based Businesses

by

Karen Sue Bruck

Committee Chairman: Lois M. Gurel
Clothing and Textiles

(ABSTRACT)

The number of home based businesses (HBB) utilizing home economic skills and entrepreneurial skills has increased in the 1980's. This has brought about an awareness of the numerous problems being faced by the owners of these businesses. This study was designed to investigate the problem of pricing sewing services in HBB's. The objective of this study was to analyze the relationships between self esteem, self perceived clothing construction skill level, and the prices charged for the sewing services.

Data were collected using Rosenberg's self esteem 10 item questionnaire and three garment case studies in which the participants quoted prices and times for constructing each garment. A 51 item skills list, in which each participant rated her own clothing construction skills, was
also completed. Demographic data was also collected. The instruments were field tested with seven seamstresses in the Blacksburg area. The pricing results from the case study field tests were used as standards for comparison in the study. The sample was made up of 46 seamstresses whose names were obtained from Virginia Cooperative Extension home economists.

The data collected was analyzed using descriptive statistics, Pearson Product Moment Correlations, and Multiple Linear Regressions. Self esteem was found to be significantly correlated to self perceived clothing construction skill level. Broad price ranges were quoted for each garment. Urban price quotes were slightly higher than rural prices.
ACKNOWLEDGEMENTS

My sincere appreciation is extended to Dr. Lois Gurel, thesis director and program advisor, for taking on the task of guiding me through this research and for her special efforts in helping me to finish on time. A very special thanks is extended to Dr. Beatrice Kalka, who inspired me to pursue this research. She has always been a rock for me to turn to and will always be a very special friend to me. A special thanks is also extended to Dr. Joann Boles and Dr. Barry Reece for believing in my ability to do this research, and for encouraging me along the way.

Many thanks to Dr. Walter Piere, and Cindy Sutherland of the Statistical Consulting Center, for their help with the data analysis. A note of gratitude is extended to the Virginia Cooperative Extension Service for supporting this research project. Recognition is also given to the seamstresses throughout Virginia, without their cooperation this research would not have been possible.

A very special note of thanks is extended to my many friends who lovingly supported my decision to return to school. Especially my close friends Helen Cole and Ruth Davis, who were always there for me despite the long
distance between us. I also recognize those many other
friends, too numerous to mention here, who always believed
in me.

I owe a special thank you to my parents, Anna Bruck
and Frank Bruck, for their support. Also thanks to my
sister and close friend, Vickie Hobgood, who understood
best what graduate school is like.

To my friends, Joan and Terry, I would like to thank
you for your love, concern, and understanding as you helped
me face the many challenges of my graduate program. Most
important thanks, goes to that ever present force in my
life that gave me the faith that sustained me through
graduate school.
# TABLE OF CONTENTS

ABSTRACT. .......................................................... ii

ACKNOWLEDGEMENTS. ................................................ iv

LIST OF TABLES. ..................................................... viii

CHAPTER

I. INTRODUCTION .................................................. 1

II. REVIEW OF LITERATURE. ....................................... 6

Self Esteem. ....................................................... 6
Home Based Business. .............................................. 10
Sewing Services. .................................................... 14
Service Industry. ................................................... 14
Home Economic Skills. .......................................... 16
Interrelationships of Self Esteem, HBB, and Clothing Construction. ........................................... 20
Perceived Clothing Construction Skill ........................................... 22
Pricing. ................................................................. 24
Fixed Costs .......................................................... 27
Variable Costs ...................................................... 28
Other Variables ..................................................... 29
Pricing Methods ...................................................... 31
Summary. .............................................................. 34

III. STATEMENT OF THE PROBLEM ................................ 36

Objectives .......................................................... 36
Theoretical Constructs ............................................ 36
Assumptions ........................................................ 38
Limitations .......................................................... 39
Operational Definitions .......................................... 39
Hypotheses .......................................................... 40

IV. DESIGN OF RESEARCH. ......................................... 41

Selection of Measuring Instruments ........................................... 41
Self Esteem .......................................................... 41
Perceived Clothing Construction Skill ........................................... 42
Pricing ................................................................. 44
Table of Contents continued

Sample Information ........................................ 45
Collection of the Data ..................................... 45
Sampling Procedure ....................................... 45
Analysis of Data ........................................... 46

V. RESULTS, DISCUSSION, AND CONCLUSIONS ............ 48

Sample Description ........................................ 49
Clothing Construction Skill Level.......................... 54
Self Esteem .................................................. 61
Pricing Practices ........................................... 61
Relationships Between Self Esteem, Self Perceived Clothing Construction Skill Level, and Prices .......... 67
Hypotheses ................................................... 73
Conclusions and Implications ................................ 74

VI. SUMMARY .................................................. 78

VII. SUGGESTIONS FOR FUTURE RESEARCH ................. 82

REFERENCES .................................................. 84

APPENDIX A: Measurement Instruments .................... 89
APPENDIX B: Field Test Results and Standards .......... 96
APPENDIX C: Letters To Extension Agents ................. 98

VITA .......................................................... 101
LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>52</td>
</tr>
<tr>
<td>3</td>
<td>53</td>
</tr>
<tr>
<td>4</td>
<td>55</td>
</tr>
<tr>
<td>5</td>
<td>56</td>
</tr>
<tr>
<td>6</td>
<td>57</td>
</tr>
<tr>
<td>7</td>
<td>59</td>
</tr>
<tr>
<td>8</td>
<td>60</td>
</tr>
<tr>
<td>9</td>
<td>62</td>
</tr>
<tr>
<td>10</td>
<td>65</td>
</tr>
<tr>
<td>11</td>
<td>66</td>
</tr>
<tr>
<td>12</td>
<td>69</td>
</tr>
<tr>
<td>13</td>
<td>72</td>
</tr>
</tbody>
</table>

viii
CHAPTER I
INTRODUCTION

In home based businesses in the 1980's the combination of home economics skills and entrepreneurial skills has increased significantly as greater emphasis is being placed on small businesses. "Home based businesses utilizing home economics skills can provide consumers with high quality goods and services to meet consumer needs," stated Smith (1983b, p.L-26). The subject area of clothing and textiles, specifically sewing services, is being emphasized as an area which can be very profitable as a home based business (HBB). According to Clark (1983), in a report on establishing small businesses in custom dressmaking, "The potential for starting and increasing home based custom dressmaking businesses is at a high point in West Virginia and in the nation" (p.1).

Before the industrial revolution men and women utilized the fine art of sewing to generate an income (Fonseca, 1984). As the industrial revolution spread to the clothing industry; consumers began to rely on buying ready-to-wear (RTW) clothing or were able to make their own clothes using paper patterns and personal sewing machines. Today, clothing consumers of the 1980's are individualistic
and demand quality goods and services often not available in RTW or if available, at a high price (Leiter & Stanley, 1982). The goods produced and services offered through HBB’s often meet these high quality standards (Smith, 1983b). The HBB movement, especially in the area of sewing services, has created an awareness of the lack of research reported in this entrepreneurial area. A number of problems have been encountered by entrepreneurs in general and those who offer sewing services specifically; these problems can affect the success of the business. Therefore, more research is needed to document these problems so that solutions can be found. By increasing the success of HBB’s, an economic impact can be made on the families involved. This research attempted to investigate perceived clothing construction skill level, self esteem, and the pricing of sewing services of selected entrepreneurs in HBB’s.

According to the Small Business Administration’s (SBA) 1986 Measurement and Evaluation of the Population of Family Owned and Home Based Businesses (Pratt & Davis, 1985), a home based business is, "an enterprise producing goods or services that is operated in or from the home" (p.I-1). This report indicated a growth of service producing businesses, fundamental to the economic health of the
One HBB included in the service industry is the custom sewing service, the use of clothing construction skills for whole garment construction, clothing alteration, and clothing repair. This service is considered a small business with the owner considered an entrepreneur.

According to Smith (1983b), "Many individuals possess the technical skills but have little business exposure or experience" (P.28). The business skill identified by most custom seamstresses as needing the most improvement is pricing. There are many variables that need to be considered when establishing prices for sewing services. They include the local community, the market, the overhead costs, the competition, the fabric, the pattern difficulty, the number of years sewing experience, and the skill level of the seamstress.

Since sewing is a skill that can be learned early and applied through a lifetime, many involved in HBB's take their skill level for granted. Often they do not perceive themselves as skilled (Smith, 1983b). People who sew for pay must be highly skilled in order to demand prices that will make their venture profitable. Many seamstresses under price their services and this can lead to business failure due to the lack of profits.
The increased amount of HBB literature, especially popular press articles, identify personal assessment as an important step when planning to establish a HBB (Greenwood & Callsen, 1981; Kiam, 1986; Leach, 1983; Smith, 1984). In a personal assessment the entrepreneur is encouraged by these authors to consider self esteem, sewing skill level, business skills, family considerations, and physical energy before taking any further steps in planning. All of these aspects of the personal self are important to the success of any business, but they are especially important to a HBB where the only employee is often the owner.

High self esteem, the attitude people have about themselves, and the value they place on themselves, is a highly desirable characteristic for an owner of a HBB. Smith (1983b) stated that "Many custom sewers have little sense of worth" (P.L-28). Leiter & Stanley (1982) advise seamstresses that "A good rule of thumb: if you have confidence in yourself and your abilities, you can be a success at professional dressmaking" (p.5). A benefit to participants of Smith's (1983a) custom sewing workshop in Ohio was a positive increase in self concept and a greater feeling of being a professional. Participants indicated that self esteem was important to the success of the business. Norum & Weagley (1985) suggest that research is needed on
all aspects of HBB including "...the potential benefits of improved self esteem" (p.26).

Sewing service as a HBB often evolve over a long period of time as opposed to being a well thought out business with a long term plan with objectives. Often people sew for others because the demand for their services is such that they decided to use their sewing skills to make money while doing something they enjoy. As the service evolved into a more involved business they encountered pricing problems. The two variables, self perceived construction skill level and self esteem have been mentioned as factors affecting pricing practices. This researcher suspects that there is a relationship between pricing, self esteem, and self perceived construction skill level. This study analyzed the effect of self perceived clothing construction skill level and self esteem on the prices charged by the entrepreneur for sewing services provided in home based businesses.
CHAPTER II
REVIEW OF RELATED LITERATURE

A review of related literature was conducted to provide a background and base for this research. Information is grouped into the following areas: (1) Self Esteem, (2) Home Based Business (HBB), (3) Sewing Services, and (4) Pricing.

Self Esteem

High self esteem, self confidence, or self image have been identified as positive personal traits that are needed to be a successful HBB entrepreneur (Custom Dressmaking Survey, 1980; Gotwals, 1985; Gotwals, 1986; Kiam, 1986; Ordonez, 1984-85; Smith, 1983a, 1983b, 1984;). Kiam (1986) talked about the importance of self confidence for entrepreneurs. He stressed the importance of entrepreneurs believing in themselves and stated "self perceived negatives can rob you of a healthy ego" (p.106). Throughout the literature, especially in the popular press, the terms self esteem, self concept, and self image are used synonymously (Greenwood & Callsen, 1981; Kiam, 1986; Leach, 1983; Smith, 1984). However, most social psychologist separate them into three separate terms, each representing a different concept under the umbrella concept
of self. Vander Zanden (1984) referred to the fact that social psychologists often use the terms interchangeably, when each term is really different. An example of this is using self esteem instead of self concept when actually self esteem is a construct under self concept (Super, 1963b).

Several self theories are used to explain self. Cooley (1922) saw the self as how we see ourselves in relation to our interaction with other people. We see our self by reflecting how other people see us and he called this the looking glass self.

According to Lindgren, (1973) "The self may thus be thought of as an 'image' the impression it makes on others, and the impression it makes on ourselves, as perceived in terms of the impression we think it makes on others " (p. 229). On the other hand there is a self image that is referred to in literature which can change frequently and a person can have more than one self image at one time (Turner, 1968). According to Turner, self concept, another dimension of the self, is a stable view which does not change over time. He believed that the self concept is "the real me" or "I myself as I really am" (p.94).

Rosenberg (1965) defined self esteem as "a positive or negative attitude toward a particular object namely the
self" (p.30). To Penrod (1986) it is "the appraisal we make of ourselves, an evaluation of what we have become" (p. 122). Self esteem, self concept, and self image all work together to give a total self.

An individual may have a high self esteem (HSE) or a low self esteem (LSE). In describing a HSE person Rosenberg (1965) said that:

...the individual respects himself, considers himself worthy; he does not necessarily consider himself better than others, but he definitely does not consider himself worse; he does not feel that he is the ultimate in perfection but, on the contrary, recognizes his limitations and expects to grow and improve. (p.31)

LSE people do not respect themselves. They know their self esteem is low and wishes it was higher (Rosenberg, 1965).

Research has related self esteem to various relationships in life such as social background, educational success, vocational choice, and vocational success (Coopersmith, 1967). Rosman & Burke (1980) found that self esteem was directly related to the level of one's perceived self competence. Their study supported previous research which stated that HSE people perceived themselves as generally more able.

Self esteem has been positively related to perceptions of self and vocational choice (Korman, 1967). Korman's (1967) research demonstrated that:
Individuals with HSE are more likely to see themselves as having high abilities in those areas where their chosen occupation calls for high abilities than are those with LSE likely to see themselves as having high abilities in those areas where their chosen occupation calls for high abilities. (pp.65 - 66)

He further suggested a "closed loop system" with LSE individuals who take on occupations in which they perceive themself not adequate, thus giving themselves a greater chance for failure. This failure would lower individuals' self esteem further leading them into other roles which would start the process over again.

Korman's 1966 research dealt with vocational choice according to roles in which the person "sees himself in the role" (p.479). The results of his study showed that self perceived characteristics played a role in the vocational choices of HSE individuals but did not play a role in LSE individuals' choices.

The research conducted by Korman (1966, 1967) was strongly supported by Mansfield (1973). He stated that "these two sets of results together suggest a fairly strong relationship between self esteem and perceiving oneself to possess abilities" (p.438). Mansfield further stated that:

...where a person feels he has many abilities this may cause him to gain in self esteem. As both of these factors developed as the individual moved
through a variety of experiences in his earlier life, it would seem most likely that the relationship emerges as the consequence of a lengthy interactive process. (p.430)

Mansfield’s (1973) research supports Super’s Self Implementation Theory which predicts that a person’s vocation is chosen with self perceived abilities being considered and that vocation allows him "to be what he thinks he is" (p.433). Self implementation theory of vocational choice theorizes that when an individual expresses a vocational preference he is expressing what type of person he thinks he is. When a chosen occupation is entered the individual is implementing a concept of himself. Through the establishment of himself in that occupation the individual is self actualizing. This vocational development process is implementing a self concept to choose the vocational role the individual will pursue (Super, 1963a).

Home Based Business

Self employment, work at home, entrepreneurship, and home based business are the key words of the 1980’s describing a movement in the business world. A large network of HBB’s offering goods and services is predicted for the future (Leiter & Stanley, 1982; Toffler, 1980). Pratt & Davis (1985) stated, "Home based work appears to be
on an increased trend, but statistical data are lacking to substantiate the growth " (p. E-5). They used an analogy of the early phase of a product life cycle to emphasize the newness of the HBB movement in 1985. This movement to home based business reflects changes in attitudes and needs of workers in the United States (Norum & Weagley, 1985). Many HBB's are established because the person desires to be his or her own boss or to cut the long commuting times to and from work (Work Schedules, 1987). Women are establishing HBB because of the need for a second income to support a family; by working at home they eliminate the cost of child care (Norum & Weagley, 1985; Work Schedules, 1987).

A major concern with the increase in HBB's is the lack of empirical research in all areas involved and the lack of an accurate count of HBB's. The Small Business Administration (SBA) pointed out that "The most pressing need for information on HBB is to know their numbers and business characteristics" (Pratt & Davis, 1985 p. E-3).

In a ten month study conducted by the SBA, methods were developed for collecting information from HBB's about their economic contributions and characteristics. The SBA defined a HBB as "an enterprise producing goods or services that is operating from the home" (Pratt & Davis, 1985 p.I-1).
Entrepreneurship for HBB is being emphasized by vocational education departments in colleges and universities (Leach, 1983). Kent (1983) stated that "the lack of knowledge regarding the entrepreneurial process in general and the educational needs of entrepreneurs in particular has caused entrepreneurship education to go forward with only the most vague idea of appropriate direction" (p. 28). He identified three levels of entrepreneurship education, 1) awareness of entrepreneurship as a career option, 2) inspiration which commits the entrepreneur to the idea, and 3) actualization, where the entrepreneur actually seeks out the skills needed to open a business. He outlined an agenda for business educators which included development of teaching materials and strengthening entrepreneurship education programs.

The Cooperative Extension Service (CES) in the United States has concentrated on programs that emphasize the establishment and operation of a HBB. "The Home Economics Extension Service is actively stimulating people to shape their home based work into viable home based businesses" (p. II 25). The CES is one of the most experienced agencies working with HBB's; farming is a HBB and extension agents and specialist have worked with farmers since its
founding in 1914 (Smith, 1983b). CES researchers have conducted a National Impact Survey on their work in the area of HBB. Sewing for Profit as a HBB was a major thrust of the Home Economics Extension Service (Pratt & Davis, 1985). Norum & Weagley (1985) suggested that "extension programming may be developed, in cooperation with others, to address issues such as the marketing of home produced goods" (p.26).

A key factor contributing to small business failure is the lack of proper business skills such as bookkeeping and setting adequate pricing policies. The 1980 White House Conference on Small Business gave the following statistics:

1. Eighty percent of all small businesses fail within the first five years of operation.

2. Nine out of ten small businesses fail because of poor management. (Leach, 1983, p.83)

Pratt & Davis (1985) also identified the lack of business skills as a problem for HBB owners. They suggest the owners need "Help in cutting costs, marketing and business techniques" (p.II-19).
Sewing Services

Service Industry

Rathmell (1966) distinguished goods from services by contrast and comparison.

One implicit distinction is to consider a good to be a noun and a service is an act. The former is an object, an article, a device, or a material... whereas the latter is a deed, a performance, or an effort. When a good is purchased, the buyer acquires an asset; when a service is purchased, the buyer incurs an expense. (p.33)

He gave 13 marketing characteristics of services. They included the following:

1. Monetary values are stated in terms of rates and fees.
2. The buyer is often a client.
3. Only direct sales are possible.
4. Because services cannot be mass produced, standards cannot be precise.
5. Price making practices vary greatly within the service category.
6. The "intangible nature" makes it hard to apply economic concepts like supply and demand. (pp.34-35)

"A pure service business is one in which the service is the primary entity that is sold" (Thomas, 1978, p.158).

Defining services as a product when marketing the service causes problems. He cited the failure of bank marketers to recognize that they were developing and marketing financial services not a tangible product. The product oriented language is a result of the product based image which makes it difficult to communicate in the service industry.
Thomas (1978) further divided services in two general types, equipment based and people based. Two questions must be answered to place a business in one of the types.

1. How is the service rendered?

2. What type of equipment or people render the service? (p.159)

His spectrum of types of service businesses included automated car washes and airlines as examples of equipment based services. Professionals such as lawyers and accountants, unskilled labor such as lawn care and janitorial services were given as people based services.

Pratt & Davis (1985) identified HBB's as the:

...large and growing number of companies operating in the service sector. Because the service sector is growing so rapidly and is so fundamental to our economic health, home based businesses become a critical component of our economy to watch. (p.E-2)

In 1985 the service industry was identified as the largest group of home based workers who work eight hours or more at home. "More than one-half of the men and two thirds of the women with long hours of nonfarm, home based work were in the service industry" (Work Schedules, 1987 p.29). HBB's with self employed people accounted for almost 70% of the businesses in which the home worker worked 35 or more hours per week (Work Schedules, 1987).
Home Economic Skills

Smith (1983b) and Leach (1983) emphasized the importance of utilizing home economics skills and business skills in operating HBB's. Both pointed out the large number of women who have home economics skills but lack business skills that could be used in such businesses. Two categories of HBB's were identified by Norum & Weagley (1985). The first category deals with work that is transferred to home from other work stations. The second category deals directly with home economics skills such as clothing construction, food services, and day care. Greenwood & Callsen (1981) also identified the use of entrepreneurial skills and home economic skills in entrepreneurial opportunities. They emphasized the role of the Extension Home Economist and the Vocational Education Home Economists in programs that educate future entrepreneurs. "The decade of the 80's could open up opportunities for home economists to utilize some of their subject matter knowledge to assist potential entrepreneurs and to decrease the risk of failure for new business" (p.97).

According to Fonseca (1984) in her research review of custom sewing, "skill training by home economics educators is being provided through workshops, seminars,
high school and college courses, self study learning packets, handbooks, and resource books" (p.39). Vocational education is emphasizing the use of home economics skills combined with entrepreneurial skills as a practical way to reduce unemployment (Leach, 1983). Teachers are helping home economic students establish small businesses utilizing home economic skills and entrepreneurial skills. The actual operation of the business offered students first hand learning experiences in the operation of a small business (Rhodes & Miller, 1973).

Forecast Magazine ("Entrepreneurship - New Opportunities", 1987) quoted Bertha King from the US Department of Education as describing entrepreneurial skills and home economics skills as "...transferable skills....People may make use of them in a specific occupation, in establishing their own business, or in the home" (p.40).

Roehr (1984) referred to sewing in a home business as a service. A custom sewing service is the use of clothing construction skills for garment construction, garment alteration, and garment repair. Construction skills include the proper use of the sewing machine, pattern knowledge, construction methods, and fabric knowledge (Leiter & Stanley, 1982).
Sewing services in HBB's are on the rise as the mass media, federal agencies such as the CES and educators invest time and money on writing publications, presenting workshops, and seminars, and providing "how-to" manuals. A number of books have been published on the subject also (Leiter & Stanley, 1982; Roehr, 1984). Increased requests for sewing for pay information among extension agents and specialists in Alabama Cooperative Extension was noted by Brannon (1983).

Clark (1983) cited the increasing number of women who work outside the home, their need for clothing, and their limited clothing acquisition time as three reasons for the increased potential for HBB's in sewing services. Smith (1983b) also attributed the increase in sewing services to the increasing number of women who work outside the home, who appreciate the quality, fit, and distinctive nature of custom sewn garments.

The need for skilled sewers to alter, make and repair clothing is growing as more women are employed outside the home. Their need for well constructed and fitted clothing has increased while their time for sewing and making alterations for themselves and their families often has decreased. People are willing to pay for such a valuable service (Ordonez, 1984-85, p.1).

She also identified the interest in sewing for friends and relatives as a reason for establishing HBB's that
specialize in sewing services.

Educational organizations such as colleges, universities, and the CES are interested in research findings to provide support and a basis for future program objectives for the HBB owner. The CES is conducting a national impact study on "Sewing for Profit" which will encompass local workshops and the impact they have made on businesses and owners (Pratt & Davis, 1985). A number of state sponsored workshops and their impact has been reported in publications (Brannon, 1983; Fetterman, Lenburg & Mietlicki, 1986; Smith 1983a).

Clark's 1983 report on Increasing Economic Returns for Rural Women Through Establishment of Small Businesses in Custom Dressmaking described a successful program in West Virginia which was instrumental in establishing eight new custom dressmaking businesses in one year. She conducted a series of workshops on sewing services in HBB's. The first workshop focused mainly on the business skills needed to establish a business. The second workshop focused on clothing construction skills such as fitting garments, pattern alterations, and clothing construction techniques. The evaluation showed that 89% of participants in the second workshop were satisfied with the skills taught. "Altering patterns to fit the client was indicated as the
greatest skill required of them as custom dressmakers" (p.13). The report indicated implications for national CES programs on Sew for Profit.

Interrelationship Of Self Esteem, HBB, and Clothing Construction

Loker (1987), in building a case for teaching sewing skills in the classroom, identified sewing as a self esteem builder. She cited that "personal growth and expressive outputs of sewing are significant benefits to one's personal and professional life" (p. 16). The pride of accomplishment that is achieved from sewing can lead to higher self esteem. She suggested that adults take part in sewing courses offered by fabric stores and the CES to update skills and to "enhance self esteem" (p.18). Kiam (1986) identified increased positive sense of self as a reward for the sacrifices made as an entrepreneur. He listed six questions entrepreneurs need to ask themselves when evaluating their abilities. Question number two is "Do I have confidence in my venture" (p.106). He summarized this into one simple lesson "You can't sell anything you wouldn't buy" (p.107).

Rhodes & Miller (1973) found that high self esteem scores on a pre-program questionnaire were good indicators of successful participation in a clothing construction and
repair business involving high school students. Those who stayed with the program experienced a successful job which increased their positive feelings about themselves. Norum & Weagley (1985) suggested that research is needed on HBB including "the potential benefits of improved self esteem" (p.26).

Psychological and economic factors can affect the growth of a dressmaking business. Leiter & Stanley (1982) indicated that most custom sewers did not seriously plan to use their sewing skills to develop a career. The demand by friends and family encouraged them to start a business. "They also liked the status and admiration their skills brought them" (p.3). The importance of sewing skill when choosing professional dressmaking as a business was stressed. His rule of thumb is "if you have confidence in yourself and your abilities you can be a success at professional dressmaking" (p.6). He is suggesting here that you know your abilities and that you value these abilities in running a business. "Making the transition from talented home sewer to profit making professional is primarily based on your self awareness of the interrelationship of the quality of your sewing and service" (p.100).
According to Smith (1983b), "Many custom sewers have little sense of worth" (p.L-28). She indicated that custom seamstresses do not value their sewing skills. Often these skills have been learned over a period of years, therefore the seamstress does not perceive them as abilities or skills. Increased self perception of sewing skills possessed by participants in Sew for Profit workshops was a benefit identified by Smith (1983a) in the Ohio workshops. "One participant reported a greater appreciation of the value of her time and skill" (p.28).

Self esteem has been identified as affecting skill development in sewing (Rhodes & Miller, 1973). Loker (1987) identified developmental and marketable skills which are taught through sewing.

Eye-hand-foot coordination, spatial relationships, management, and patience are among the valuable developmental skills required during the construction process. Practice is necessary to develop dexterity, efficiency in coordination, and spatial conceptualization. (p.16)

**Perceived Clothing Construction Skill Level**

Limited research was found on perceived sewing competence. Wheeler (1972) referred to psychological studies involving motivation and aspiration but found few which related the use of a skill to the perceived competence by the individual. She defined perceived sewing
competence as "The skill level at which the home sewer rates herself in specified sewing techniques and methods" (p.8). In Wheeler's research the participants rated themselves on 53 specific clothing construction features. They were to compare their skill to ready made and/or professionally made clothing. The rating scale was as follows:

1--Haven't tried this 4--Above average
2--Below average 5--Exceptional (p.47)
3--Average

She found that the women in her study who had participated in a construction skill workshop had a high level of perceived sewing competence. She concluded "It is also possible that women who have a high perceived sewing competence level will have a high level of aspiration and will pursue classes or other sources to increase their skill level in sewing " (p.85). She also concluded that successful experiences with sewing with woven fabrics could have increased the level of perceived sewing competence by the participants. A significant variable to Wheeler's research was perceived sewing competence.

Stanley (1987) in a Discover Dressmaking As A Professional Career workshop elaborated on the skill levels discussed in Leiter and Stanley's book by the same title. She outlined four sewing skill levels as being:
1. Seamstress - No fitting is done, just sewing, mending and alterations. Often a person with this skill works for someone else.
2. Dressmaker - spends more time sewing and fitting, uses more skill, can set pay scale higher.
3. Tailor - Works with classic styles usually creating suits.
4. Designer - Creates own design, does pattern work and uses more complicated construction techniques.

Pricing

Every business must have a pricing philosophy and it needs to be established in the planning stages. Not every business can use the same format so the owner must decide on a price according to the profit wanted. This is true for HBB owners as for any other business owner. In establishing a price the expenses involved in producing the service must be taken into consideration. "If you don't figure your selling price correctly, you may find yourself selling your products for less than your expenses" (Greenhalgh, 1986, p.48). Nelson (1976) indicated a need for analysis of pricing in sewing services.

Stanley (1987) described money or profits as "A measure for success" and "A yardstick to measure progression to goals". In her workshop she constantly reminded participants that they are business people, professionals who should be concerned with financial goals
for their business.

Fact sheets from various state cooperative extension services identify pricing as an important key to success or failure of sewing services in a HBB (Gotwals, 1986; May & Kennedy, 1983; Ordonez, 1984-85; Smith, 1984) Alice Herman of the American Women’s Economic Development Corporation writing in Women’s Day magazine, advised not to underprice. She identified pricing of services as a problem area for HBB owners. Setting prices too low in the beginning is not recommended since it is difficult to raise the price later. She recommended "to raise prices when costs go up" (Quinn, 1987, p.18).

Because of the intangible nature of services the economic laws of supply and demand are difficult to apply when establishing prices (Rathmell, 1966). Services are often priced according to their value to the purchaser rather than through a cost pricing method; the value is the value of the service to the customer. The value is also determined by the competition and may be above or below the costs of the service (Gabor, 1977; Thomas, 1978). "However, there may be a considerable difference between the value of a good or service to a consumer and the price he is able and willing to pay for it" (Gabor, 1977, p.171).
Thomas (1978) explained, "the game people play" (p.163) in acquiring people based service businesses. In this game the person is more likely to acquire services at top prices because they feel they are getting value. They are willing to pay for the image of securing the most expensive rather than the least expensive. He stated "The general manager of a service business must use marketing methods that will enhance the perceived value of the service" (p.164). Gotwals (1986) and Leiter & Stanley (1982) also discussed the relationship of value to the customer and possible prices which can be charged.

All businesses have costs that must be considered when pricing goods and services. Economic principles categorize costs into explicit and implicit. Explicit costs are defined as "all cash or out-of-pocket expenses incurred in carrying out production" and implicit costs as "the costs that should be charged to inputs that are provided by the firm or whoever is carrying out the production" (pp. 111-112). Costs are fixed or variable. Fixed costs do not change over a time period no matter how much service is rendered while variable costs can change according to how much service is rendered (Peterson, 1986).
Fixed Costs

The majority of fixed costs fall into the category of overhead. The costs of housing the business in the home should be part of the cost. The space that the business is taking up is space the family could utilize in other ways ("How to Price" 1981; May & Kennedy, 1983; Ordonez, 1984-85; Quinn, 1987). Insurance costs for the business, such as liability for the personal belongings of the customer and the liability for people coming into the home need to be considered. Regular home owners insurance will not cover business related accidents (Quinn, 1987; Smith, 1984). Telephone expenses can be a fixed cost if a separate business line is installed. If the home telephone number is used then a percentage of the costs to maintain the phone must be included as an overhead cost (May & Kennedy, 1983).

Depreciation of equipment is a cost often overlooked because the equipment tends to be items already owned, not new purchases made to start the business. Depreciation would be important if new equipment is purchased to start the business (Leiter & Stanley, 1982).

Taxes such as sales tax, income taxes, and social security taxes must be accounted for. Sales tax laws on custom sewing vary from state to state. A business license
must be purchased in order for the business to pay sales tax in the state (Quinn, 1987; Smith, 1984).

The cost of professional services such as accountants or lawyers would be a fixed cost. Their help can make the HBB more professional (Quinn, 1987). Another often overlooked overhead cost is "subscriptions to fashion and sewing magazines and newspapers" ("How to price", 1981, p.7).

Wages and salaries are the other categories of fixed costs. The wages of hired help in a HBB would be considered an explicit cost, one that is often overlooked in self employment. People find it difficult to price the value of their own labor. Peterson (1986) recommended, "The best way to determine the value of your own labor in a self employed enterprise is to determine the wage you could have earned in the best alternative open to you" (p.112). Plans for retirement should be included in planning for a salary for the owner (Smith, 1984).

Variable costs

Maintenance of equipment is often a cost not anticipated when establishing prices (Greenhalgh, 1986; "How to price", 1981; May & Kennedy, 1983). Consumable supplies cost business owners. These include office supplies such as postage, pencils, and sewing supplies such as sewing machine needles, and pins' (Greenhalgh, 1986).
Advertising costs change as the business becomes established. A variety of advertising methods are used from formal ads in newspapers to less formal ads in newsletters or brochures posted in fabric stores (Ordonez, 1984-85; Smith, 1984).

Inservice training costs and educational costs are important and must be accounted for. This would include registration fees for workshops or trade shows (Greenhalgh, 1986; May & Kennedy, 1983).

The variable utility costs of heat, electricity, and long distance phone calls need to be considered. Miscellaneous costs include time and transportation to purchase supplies and equipment for clients, delivery or picking up supplies at clients homes, and the cost of bad checks from clients (Greenhalgh, 1986; "How to Price", 1981; May & Kennedy, 1983).

Other Variables

Other variables, which are not costs, but are suggested in the literature, need to be considered when establishing prices. Skill level of the seamstress can affect the prices charged. According to Greenhalgh (1986), Smith (1984), and Stanley (1987) the higher the construction skill level the higher the price that can be
charged for the service. The more expertise in specified areas the higher the price can be. The seamstress must evaluate her skill with honesty. Stanley (1987) stated "Setting your prices has a lot to do with the way you perceive yourself and how your customer perceives you." Gotwals (1986) explained that customers will perceive that the seamstress has low skills or the service is poor if the price is low. She stated, "Therefore... if you aren't proud enough to charge enough, no one will pay enough. The result will be low self esteem, depression, less income or no income, and business failure" (p.1). In Making It ("How to Price", 1981), part of the problem identified was the image the seamstress has of herself. The editor of Making It ("How to Price", 1981) advised, "If you regard yourself as a creative, skilled professional who offers a professional service, and run your business in a professional manner, you can often command higher prices" (p.7).

Smith (1983a) discovered that often the women in her workshops under price their services because they did not value their own construction abilities. In an exploratory research project on Women Who Sew for Pay in Their Homes, Nelson (1976) concluded that business and legal aspects need to be explored further and price guidelines need to be
established according to time, talent, and sewing ability. She also stated "The seamstress's perception of the adequacy of the compensation she received for her services could influence her total satisfaction with the work" (p.120).

The competition in the area is a variable that needs to be considered. The prices set must be competitive. To set the price significantly higher than the competition, the service will have to be exceptionally well done (Gotwals, 1986). In market areas with a large amount of competition the prices will have to be competitive to follow supply and demand theory (Peterson, 1986).

Fabric difficulty would affect the price charged. The more specialized knowledge or skill needed to handle the fabric the higher the charge could be (Smith, 1984).

Pricing Methods

Comparison of price of the custom made garment to a similar ready-to-wear garment is one method for establishing the fee charged ("How to Price", 1981; Smith, 1984). The major draw back to this method was summed up best by Smith:

When the cost of raw materials is included, custom sewn garments cannot be made for less than the price of a comparable ready-to-wear garment, excluding designer garments... customers come to the custom sewer because they can't find what
they want or cannot get a satisfactory fit. (p.5)

Seamstresses often price sewing services by item sewn. An established price range is used for various garments such as dresses, blouses, or slacks. The price range is determined by keeping time records on how long it takes to complete a garment, thus allowing for more difficult garments to cost more. The time is then multiplied by the hourly rate the seamstress desires. An advantage of this method is a definite price can be quoted to the customer before the seamstress starts to sew (Ordonez, 1984-85; Roehr, 1984; Smith, 1984).

A third method used is to establish an hourly rate by which customers are charged according to the amount of time it takes to complete the garment. This method allows for the seamstress to be adequately compensated for the time spent rendering the service. Smith (1984), recommended developing a list of construction techniques which are used on the garments and the average time it takes to complete each technique. She recommended that the seamstress use this as a check sheet with the customer. Each technique used to construct the garment is checked, the total time to complete all techniques is calculated then multiplied by the hourly rate the seamstress wants to earn. She pointed out an advantage to this approach is that it can "help
customers understand the skills and time required to produce a custom sewn garment" (p.5). This method is also referred to as charging by the detail (Ordonez, 1985; Reilly; 1985).

The American Home Sewing Association in the Sewing By Satellite'85 video conference detailed this pricing formula, "Materials costs + overhead + labor + profit = price" (P.72) for establishing an hourly wage. Each of the four categories was explained. It was recommended that materials costs be eliminated from the formula to simplify the formula.

Leiter and Stanley (1982) detailed a pricing strategy which worked the seamstress through steps to determine her earning rate and average unit time. The earning rate equals the financial goal for a year plus the overhead costs. The earning rate is the wage per hour which the person will use to establish the charge to the client. They also recommended using the method of establishing a construction detail chart with average time for completing the details to quote a price for constructing a garment.

In establishing an hourly rate or an earning rate Ordonez (1984-85) recommended, "You should make more than minimum wage plus expenses because you are offering a skilled service" (p.3). She also recommended, "Your prices
should reflect the fit, quality and uniqueness of the product you produce, plus your time, skill and overhead" (p.3).

SUMMARY

The number of HBB's is increasing and they are important to the American economy. A large number of the HBB's being established are in the service industry. Sewing services are included in that service industry (Pratt & Davis, 1985). Self perception of construction skills, self esteem, and pricing have been identified as common problem areas in these home based sewing services. An interrelationship of these three areas has also been suggested (Gotwals, 1986; Leiter & Stanley, 1982; Smith, 1983a; Smith 1983b).

Research has shown that people perceive their vocational abilities, such as sewing skill, and they use these perceptions in their vocational choice. A significant relationship between self perceived abilities and self esteem has been shown by Rosman & Burke (1980) and Super (1963a). Gotwals (1986), in her extension publication on pricing sewing services, emphasized the importance of the relationship between self esteem and self perceived construction skill level.

Self esteem has been defined in terms of valuing of
the self (Cooley, 1922). Pricing a sewing service is the placing of a monetary value on clothing construction skills (Leiter & Stanley, 1982). It has been suggested that a seamstress take into consideration her clothing construction ability when establishing a price for sewing services (Gotwals, 1985; Gotwals, 1986; Leiter & Stanley, 1982; Smith, 1983a; Smith, 1983b; Smith, 1984). Gotwals, (1986) related self esteem and construction skill level to prices charged for sewing services. This research attempted to analyze the relationship between self esteem, self perceived clothing construction skill level, and the prices charged for sewing services in HBB's.
CHAPTER III

STATEMENT OF THE PROBLEM

This research will analyze the relationship of self esteem and self perceived clothing construction skill level to the prices charged for sewing services in home based businesses.

Objectives

1. To see if there is a relationship between self esteem, self perceived construction skill level, and the prices charged for sewing services in home based businesses.
2. To assess the self esteem of the seamstress.
3. To assess the self perceived construction skill level of the seamstress.
4. To assess the prices charged for constructing three garments from fabric preparation to finishing the garment.

Theoretical Constructs

Self esteem, a construct of the self concept (Super, 1963) and the total self, has been related to perceived abilities (Korman, 1966, 1967; Mansfield, 1973; Rosman & Burke, 1980). People with high self esteem (HSE) use their self perceived abilities different than those people with

36
low self esteem (LSE).

Korman (1967), tested 126 university students to further support his earlier research on the relationship between self perceived abilities and self esteem. Mansfield's (1973) research suggested, "a fairly strong relationship between self esteem and perceiving oneself to possess abilities" (p.438). His results strongly support cognitive balance theory and the self implementation theory of vocational choice.

Pricing has been defined as "... an amount of money paid by the buyer to the seller of a product or service or in other words, that price is the money value of a product or service as agreed upon in a market transaction" (Harper, 1966, p. 1). The economic theory of pricing considers a large number of variables when establishing a price, as previously reviewed in the related literature for this study.

The pricing of the service involves placing a dollar value on the skills of the person producing the service. However, no economic theoretical concepts were found that related self esteem, self perceived abilities, and pricing of services in general. Since this research was conducted to learn if there were such relationships the major theoretical concepts used here are related to self esteem.
and self perceived abilities.

Assumptions

For the purpose of this study:

1. It is assumed that the seamstresses offering a sewing service have clothing construction skills similar to those listed in a high school homemaking textbook (Parnell, 1981).

   1. Take body measurements
   2. Determine best pattern size and type
   3. Find the amount of fabric needed to make garment
   4. Use pattern pieces and markings
   5. Use guide sheet to lay pattern out on fabric
   6. Pin and cut out garment
   7. Follow pattern guide sheet
   8. Construct a plain seam
   9. Construct a flat felled seam
   10. Apply a zig zag seam finish
   11. Clip and notch curved seams
   12. Apply facings
   13. Press darts
   14. Press as you sew
   15. Backstitch/Lockstitch at seam ends
   16. Use pressing equipment
17. Put fabric on grain
2. It is assumed that the seamstress knows how to operate a sewing machine, and has a basic knowledge of textiles.
3. It is assumed that the responses from the seamstresses are accurate and done to the best of their ability.
4. Women who have sewing services as HBB are qualified to rate their own clothing construction skill level.
5. The adapted instrument measuring perceived construction skill level is valid as evidenced by the results in Wheeler's (1972) study and by pre-testing.

Limitations
1. Cost of administering the instrument.
2. The small size of the sample.

Operational Definitions
Home Based Business - "... one that is based in one's place of residence and may be a full time or a part time enterprise. A business service or product may be supplied in or from the home." (Pratt & Davis, 1985, p. I-2).

Custom Sewing - The use of clothing construction skills for personalized clothing construction, alteration and repair of garments.

Sewing Service - When a person has made at least six custom
sewn garments in a time span of one year and received pay for the services.

**Perceived Construction Skill Level** - "the skill level at which the home sewer rates herself in specified sewing techniques and methods" (Wheeler, 1972).

**Self Esteem** - "A positive or negative attitude toward a particular object namely the self" (Rosenberg, 1965, p.30).

**Hypotheses**

**Research Hypothesis**

There will be a relationship between self esteem, self perceived construction skill level, and the prices charged for the sewing services.

**Sub Hypotheses**

1. There will be a relationship between the seamstress' self esteem and the seamstress' self perceived abilities.
2. There will be a relationship between the seamstress' self esteem and the prices charged for the sewing services.
3. There will be a relationship between self perceived construction skill level and the prices charged for the sewing services.
CHAPTER IV
DESIGN OF RESEARCH

The purpose of this research was to analyze the relationships between self esteem, self perceived construction skill level, and prices charged for sewing services in home based businesses (HBB's). The research was designed to assess self esteem, self perceived clothing construction skill level, pricing of sewing services, and to collect demographic data on persons who provide sewing services in HBB's.

Selection of Measuring Instruments

The measurement instruments will be reviewed in the following order: 1. Self Esteem, 2. Self Perceived Construction Skill Level, 3. Pricing, 4. Sample Information

Self Esteem

A ten item Guttman scale developed by Rosenberg (1965) was used to measure self esteem. The scale, which measures self worth, gives five negative and five positive items; with responses of strongly agree, agree, disagree, or strongly disagree with (Rosenberg, 1965). This instrument is unidimensional and ranks people along a continuum of very high self esteem to very low self esteem. The scale has been widely used with younger age groups as well as
with adult groups (Robinson & Shaver, 1978). Additionally, it has been demonstrated to have reliability, "The reproducibility of this scale is 92% percent" (Rosenberg, 1965, p.17). He used the scale with 5000 high school students.

"The main validity for the scale is construct validity developed in Rosenberg's outstanding book" (Robinson & Shaver, 1978). The face validity is established through the Guttman model which insures that the items are the same dimension but cannot define the dimension. Throughout his book, Society and the Adolescent Self Image, Rosenberg (1965) discussed the relationship of self esteem with a variety of psychological functionings and social affairs. He explained that, "because these items are theoretically meaningful and consistent with expectations, they would suggest that the scale actually is measuring self esteem" (p.29). This instrument was chosen because it has been demonstrated to have reliability and validity, it is easy to administer, and it can be completed in a very short amount of time. (See Appendix A).

Self Perceived Construction Skill Level

This variable was measured with an adapted version of Wheeler’s (1972) Perceived Sewing Competence Instrument.
A listing of 51 skills was developed based on the researcher's personal knowledge of clothing construction skills and skills listed in a high school homemaking text book (Parnell, 1981). The 51 skills are those needed to complete the three garments on the pricing instrument. A basic high school level of clothing construction skills was assumed. (See Appendix A).

The instrument was field tested by seven seamstresses from the Blacksburg area. The names were obtained from three local fabric stores. The researcher made personal contact with eleven women to ask them to participate in the field test. The questionnaires were then sent to the women who agreed to participate. The only revisions made after the field test, was to change Hong Kong seam finish to bound seam finish. Five of the seven respondents did not know what a Hong Kong seam finish was.

Each respondent indicated the skill level she felt she possessed on the clothing construction skills in comparison to construction by other professional seamstresses. The rating scale was:

5 - Exceptional
4 - Above Average
3 - Average
2 - Below Average
1 - Haven't tried to do this
A mean score for each participant was derived from the ratings on the skills listed to yield a self perceived construction skill level.

Pricing

An instrument was developed consisting of three garment case studies. Individual research participants were asked to quote a price for preparation and construction of each garment. The price was not to include the fabric, the pattern, and the notions as the customer would be providing them. An estimate of preparation and construction time was also asked for. The garments were, a classic shirt waist dress made from 100% cotton fabric, a tailored jacket made from 100% wool fabric, and a blouse made from 100% polyester silk-like fabric. These garments and fabrics were chosen because it was felt that they covered a broad range of skill levels and would be garments sewn often in a HBB. (See Appendix A).

A price range was developed from the field study results in order to establish a low total price and high total price for each garment. This range established price standards used for comparison in analyzing the data for this study. (See Appendix B).
Sample Information

Demographic information on the seamstress' 1) age, 2) community (urban or rural), and 3) years of sewing experience was asked for. Information was requested concerning the number of years involved in sewing for pay and the number of garments paid for constructing in the last year was asked for, to be sure the women qualified for the sample. The seamstress was also asked if she took into consideration her level of sewing skill when quoting a price for constructing a garment. (See Appendix A).

Collection of the Data

Sampling Procedure

The researcher received encouragement and permission from the Assistant Director of the Cooperative Extension Home Economics programs in Virginia to contact the Extension Home Economists in the local units. All of the agents were contacted by letter and asked if they would provide three to five names with mailing addresses of persons in the area who were involved in sewing services as HBB's. (See Appendix C). The researcher encouraged the agent to make an initial contact with the seamstress to see if she would participate and to alert her to anticipate receiving the questionnaire. The agents were encouraged to send the
information to the researcher by electronic mail through the clothing and textiles main office in order to reduce the response time. The option of returning the information by regular mail was also given to the agents. The Cooperative Extension Specialist at Virginia State, who works with HBB programs was also contacted for names.

Analysis of Data

Descriptive statistics was used to describe the sample. Two multiple linear regressions were run for each garment. The overall price, the response variable for each garment, was regressed with the perceived clothing construction skill level, the years of sewing experience, the consideration of skill level in determining price, the community, and the self esteem, all explanatory variables. The price per hour for constructing each garment, was also regressed with the same explanatory variables. The purpose of using a multiple linear regression was to determine if any of the explanatory variables influenced the total price for constructing the garment or the price per hour for constructing the garment. Multiple linear regression was used to give a clearer look at the relationships between the variables.

Pearson product moment correlations were also run
with: 1) the overall price for constructing the garment and the perceived clothing construction skill level, 2) the overall price and the self esteem, 3) the self esteem and the perceived clothing construction skill level, 4) the price per hour and the perceived clothing construction skill level, and 5) the price per hour and the self esteem.
CHAPTER V

RESULTS, DISCUSSION, AND CONCLUSIONS

The purpose of this research was to analyze the relationships between self esteem, self perceived clothing construction skill level, and the prices charged for sewing services in home based businesses (HBB). The results of this study are based on 46 questionnaires from seamstresses across the state of Virginia, and are discussed in the following order: 1) Sample description, 2) Clothing construction skill level, 3) Self esteem, 4) Pricing practices for the three garments, and 5) Relationships between self esteem, self perceived clothing construction skill level, and prices.

One hundred fifteen questionnaires were sent out to those identified by the Cooperative Extension Home Economists. Fifty eight questionnaires were received back giving a response rate of 50%. Seventy nine percent of those returned qualified for use in this study. Twenty one percent of the questionnaires were not used because they did not meet the qualifications to be included in the sample or the questionnaire was completed incorrectly.

48
Sample Description

Age

Almost three fourths of the respondents were between the ages of 30 and 59, (72%), and none were under 29. This age distribution could be the result of many factors. The population was largely drawn from a Cooperative Extension audience which tends to be made up of older adults. Other factors include the fact that not as many young people are being taught to sew today (Loker, 1987). Also, jobs done outside the home could be more attractive to younger people. These findings are consistent with the findings by Goetting & Muggli (1988). Another factor, which could be true for half of the group, some of the women in this age group are involved in raising children, since people are marrying later in life and are starting families later in life. An advantage of owning a HBB has been identified as "...being home with children" (Holyoak, 1988, p.177). (See Table 1).

Years Sewing Experience

This sample was made up of very experienced seamstresses. Seventy four percent of the sample had over 20 years of experience sewing while only four percent had sewn for 10 years or less. With the older age range of the
Table 1

Age Range

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 20</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>20 to 29</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>30 to 39</td>
<td>18</td>
<td>39</td>
</tr>
<tr>
<td>40 to 49</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>50 to 59</td>
<td>15</td>
<td>33</td>
</tr>
<tr>
<td>Over 60</td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
<td>100</td>
</tr>
</tbody>
</table>
sample it would be expected to have more experienced seamstresses. This finding supports Smith's (1983b) belief that seamstresses involved in sewing services have the technological knowledge they need for constructing clothing in a sewing service. (See Table 2).

**Years Sewing for Pay**

The operational definition for sewing service as defined for this research was that participants had to have made at least six custom sewn garments in a time span of one year and received pay for the services. Therefore, anyone who had less than one year of experience in sewing for pay was eliminated from the study.

This sample was made up of experienced seamstresses; fifty four percent had been sewing for pay for over 10 years, while only 9% had been sewing for pay for one to two years. Again, the years of experience providing a sewing service would be high considering the age range of this sample. (See Table 3).

**Garments Constructed For Pay In The Last Year**

With the majority of the sample being made up of seamstresses who have been involved in sewing services for more than 10 years it was not surprising to find that over 72% of the respondents had each constructed over 20 garments in the past year. These results indicate that
## Table 2

**Years Sewing Experience**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 5 Years</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>6 to 10 Years</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>11 to 15 Years</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>16 to 20 Years</td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>Over 20 Years</td>
<td>34</td>
<td>74</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>46</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
TABLE 3
YEARS SEWING FOR PAY

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 Year</td>
<td>0</td>
</tr>
<tr>
<td>1 to 2 Years</td>
<td>4</td>
</tr>
<tr>
<td>2 to 3 Years</td>
<td>8</td>
</tr>
<tr>
<td>6 to 10 Years</td>
<td>9</td>
</tr>
<tr>
<td>Over 10 Years</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>46</strong></td>
</tr>
</tbody>
</table>
there is a demand for sewing services in Virginia. This goes along with the national trend identified by the Cooperative Extension Service (Smith, 1983b). (See Table 4).

Community

Seventy eight percent of the seamstresses indicated that they were from a rural area and 22% indicated they were from an urban area. (See Table 5). The type of area, rural or urban, has been identified as a variable to be considered when establishing a price (Smith, 1984). Table three shows that the prices charged in urban areas are slightly higher than the prices in the rural areas in this study. The price difference per hour could make a difference when calculating a fee for constructing a garment. These results could be due to the unequal distribution of the sample in the rural areas versus the urban areas. This finding may also be an indication that the pricing problem is common in any home based sewing service whether it is located in a rural area or an urban area.

Clothing Construction Skill Level

Information on clothing construction skill level of participants was obtained in two ways. The respondents were asked if they considered their sewing skill level when they
<table>
<thead>
<tr>
<th>Garments Constructed for Pay in the Last Year</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 5 Garments</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6 to 10 Garments</td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>11 to 15 Garments</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>16 to 20 Garments</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Over 20 Garments</td>
<td>33</td>
<td>72</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>---------------</td>
<td>-----------</td>
<td>------------</td>
</tr>
<tr>
<td>Rural</td>
<td>36</td>
<td>78</td>
</tr>
<tr>
<td>Urban</td>
<td>10</td>
<td>22</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
<td>100</td>
</tr>
</tbody>
</table>
### TABLE 6

**RURAL AND URBAN PRICE AVERAGES**

<table>
<thead>
<tr>
<th></th>
<th>Dress</th>
<th></th>
<th>Blouse</th>
<th></th>
<th>Jacket</th>
<th></th>
<th>Avg.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>P.Hr.</td>
<td>Total</td>
<td>P.Hr.</td>
<td>Total</td>
<td>P.Hr.</td>
<td>P.Hr.</td>
<td>P.Hr.</td>
</tr>
<tr>
<td>Rural</td>
<td>$23.47</td>
<td>$4.98</td>
<td>$17.39</td>
<td>$4.55</td>
<td>$35.71</td>
<td>$4.81</td>
<td>$4.78</td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>$25.20</td>
<td>$4.98</td>
<td>$20.80</td>
<td>$5.09</td>
<td>$43.50</td>
<td>$5.06</td>
<td>$5.04</td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>.00</td>
<td>.54</td>
<td>.25</td>
<td>.26</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
quoted a price for constructing a garment. Sixty three percent of the seamstresses said that they did consider their own sewing skill level when they were quoting a price for constructing a garment. However, what was surprising was that 39% did not. (See Table 7).

Self perceived clothing construction skill level of participants was also assessed through a 51 item rating list where each woman rated herself, on a scale from one to five, (one being, haven't tried to do this, to five being, exceptional). She was to rate herself as compared to other seamstresses doing custom sewing. (See Appendix A).

Data collected indicated that most seamstresses involved in this study thought their skills were average or above. Sixty one percent of the respondent's perceived their skill level as above average in comparison to other custom seamstresses. Three believed their skills to be exceptional when the literature has indicated that many seamstresses do not have a good perception of their skill level or even consider themselves as skilled. (See Table 8). These findings show that the seamstresses in this study do have the technical skills needed for operating a sewing service. This finding reinforces the popular belief that custom seamstresses are highly skilled (Kent, 1983; Smith, 1983b; Stanley, 1987).
## TABLE 7

**SKILL LEVEL CONSIDERATION FOR PRICING**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>29</td>
<td>63</td>
</tr>
<tr>
<td>No</td>
<td>17</td>
<td>37</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
<td>100</td>
</tr>
<tr>
<td>Skill Level</td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-----------</td>
<td>------------</td>
</tr>
<tr>
<td>1 - Haven't Tried to do</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2 - Below Average</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>3 - Average</td>
<td>13</td>
<td>28</td>
</tr>
<tr>
<td>4 - Above Average</td>
<td>28</td>
<td>61</td>
</tr>
<tr>
<td>5 - Exceptional</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>46</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
Self Esteem

The instrument used to assess self esteem has a range from 10 to 40. For purposes of this study the scores were grouped by this researcher into the following categories:

1) Low Self Esteem - Scores from 10 to 17
2) Moderately Low Self Esteem - Scores from 18 to 25
3) Moderately High Self Esteem - Scores from 26 to 33
4) High Self Esteem - Scores from 34 to 40

The data indicated a concentration of respondents in the high self esteem category. This could be a result of the extensive sewing experience, and the years of experience in a home based business by the sample. Research shows that an increased level of self esteem is an outcome of being involved in a HBB (Holyoak, 1988). Only one seamstress rated herself below the middle of the range in the moderately low self esteem category. (See Table 9). These findings support the common belief that a high self esteem is needed to be a successful entrepreneur in a HBB (Gotwals, 1985; Leiter & Stanley, 1982; Smith, 1984).

Pricing

The pricing data was collected by using three garment case studies. (See Appendix A). Each respondent was asked to quote a price for constructing each garment, and to quote the time it would take her to cut out, sew, and press the garment. Three garments were used so that different
### Table 9

#### Self Esteem

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Self Esteem</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Moderately Low Self Esteem</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Moderately High Self Esteem</td>
<td>17</td>
<td>37</td>
</tr>
<tr>
<td>High Self Esteem</td>
<td>28</td>
<td>61</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>46</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
construction skill levels could be evaluated. The total price quoted and the calculated price per hour was used in the analysis.

**Dress**

A broad range was quoted for both the total price charged and the time it took to construct it. The price per hour for constructing the dress also had a broad range. Over 75% of the time quotes were below the mean time of 6.27 hours. In analyzing the data, it was found that the seamstress who quoted the highest time, also quoted the lowest price per hour. In reverse, the seamstress with the lowest time quote had the highest price per hour quote. (See Table 10).

The total price range was compared to the standards set on the field test total price range. (See Appendix B). The range for the dress in this study was broader than the standard set in the field test. However, the mean total price, in this study, was lower than the mean total price in the pretest standards, indicating that the prices in this study were generally lower than the field test prices. (See table 10).
Blouse

The blouse total price range was widespread over a broad range. Sixty percent of the total prices quoted fell below the mean total price of $18.67. The same percentage distribution (61%), as the total price quotes, was found with the time quotes for the blouse. The seamstress quoting the highest time and lowest price per hour was the same one, for both the blouse and the dress. (See table 10).

When comparing the field test total price standards with the total price results in the sample there was a narrower price range and a higher mean total price in the field test standards. (See table 11). This finding could be because of the small sample size in the field test when assessing a larger sample there is a greater chance to increase the range and the increased range affects the mean price.

Jacket

The jacket total price range was spread over a broad range; again 67% of the prices quoted were below the mean total price. The time quotes for constructing and the price per hour were also out over broad ranges. The same seamstress who in the first two case studies had the highest time quote also had the lowest price per hour quote
TABLE 10

GARMENT PRICE AND TIME RANGES

<table>
<thead>
<tr>
<th>Garment</th>
<th>Total Price</th>
<th>Hours</th>
<th>Price Per Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dress</td>
<td>$8.00 to $50.00</td>
<td>2.00 to 18.00</td>
<td>$0.83 to $25.00</td>
</tr>
<tr>
<td>Blouse</td>
<td>$6.00 to $45.00</td>
<td>1.50 to 16.00</td>
<td>$0.75 to $20.00</td>
</tr>
<tr>
<td>Jacket</td>
<td>$10.00 to $100.00</td>
<td>3.00 to 32.00</td>
<td>$1.09 to $24.29</td>
</tr>
</tbody>
</table>
### Table 11

**PRICE COMPARISONS**

<table>
<thead>
<tr>
<th></th>
<th>Price Range</th>
<th>Mean Price</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dress</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field Test</td>
<td>$12.50 to $45.00</td>
<td>$28.93</td>
</tr>
<tr>
<td>Study</td>
<td>$8.00 to $50.00</td>
<td>$23.85</td>
</tr>
<tr>
<td><strong>Blouse</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field Test</td>
<td>$10.00 to $30.00</td>
<td>$21.00</td>
</tr>
<tr>
<td>Study</td>
<td>$6.00 to $45.00</td>
<td>$18.67</td>
</tr>
<tr>
<td><strong>Jacket</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field Test</td>
<td>$20.00 to $77.50</td>
<td>$46.71</td>
</tr>
<tr>
<td>Study</td>
<td>$10.00 to $100.00</td>
<td>$38.05</td>
</tr>
</tbody>
</table>
for constructing the garment. In each case study her total price quote fell below the mean of the total price in this study. Obviously, she was quoting a low price but a high time for sewing which influenced her price per hour. (See table 10).

The jacket total price results are similar to the blouse, and the dress results, in comparison with the field test standards. Again the results from this study give a broader price range with a lower mean price. (See table 11). This could be a result of the larger number of samples in this study as compared to the low number of samples in the field test.

Relationships Between Self Esteem, Self Perceived Clothing Construction Skill Level, and Prices

Multiple linear regressions were used. The variables of skill level, age, years of sewing, years sewing for pay, the number of garments sewn in a year, whether the skill level was considered in establishing a price, and the type of community were regressed with total price for each garment and the price per hour for each garment. For the statistical analysis the statistician regrouped three variables. They were 1) the age ranges were grouped into three categories, 2) the years of sewing experience was
grouped into two categories, and 3) the number of garments sewn in the last year was grouped into two categories. (See Table 12).

In the blouse total price, consideration of skill level was significantly related to the price at the p = .05 level, meaning that there is a positive relationship between the blouse total price and whether the seamstress considered her sewing skill level when she quoted a price for a garment. In both the dress total price and the blouse total price the category of six to 10 years sewing for pay was significantly related at the p = .05 level. The category one to 15 years of sewing experience was significantly related (p = .05) to the jacket price per hour. However, neither self esteem, self perceived clothing construction skill level or any of the other variables were found to be significant in any of the price regressions. (See Table 12).

The relationship between self esteem and self perceived clothing construction skill level was significant at the p = .0001 level with a correlation coefficient of r = .59. This finding is similar to previous research findings dealing with self esteem and self perceived
<table>
<thead>
<tr>
<th>Variable</th>
<th>F Value</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dress Total Price</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skill Level</td>
<td>0.0</td>
<td>.9024</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 to 49 Years old</td>
<td>2.41</td>
<td>.1305</td>
</tr>
<tr>
<td>50 to 59 Years old</td>
<td>0.03</td>
<td>.8539</td>
</tr>
<tr>
<td>Over 60 years old</td>
<td>0.89</td>
<td>.3519</td>
</tr>
<tr>
<td>Years Sewing Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 15 years</td>
<td>0.16</td>
<td>.6933</td>
</tr>
<tr>
<td>16 Years and over</td>
<td>0.73</td>
<td>.3993</td>
</tr>
<tr>
<td>Years Sewing For Pay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 3 years</td>
<td>0.21</td>
<td>.5533</td>
</tr>
<tr>
<td>6 to 10 years</td>
<td>3.03</td>
<td>.0916</td>
</tr>
<tr>
<td>Over 10 years</td>
<td>0.00</td>
<td>.9753</td>
</tr>
<tr>
<td>Garments Sewn In Last Year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 20</td>
<td>0.16</td>
<td>.6936</td>
</tr>
<tr>
<td>Over 20</td>
<td>0.43</td>
<td>.5155</td>
</tr>
<tr>
<td>Skill Level Consid.</td>
<td>1.32</td>
<td>.2600</td>
</tr>
<tr>
<td>Community</td>
<td>0.31</td>
<td>.5831</td>
</tr>
<tr>
<td>Self Esteem</td>
<td>0.24</td>
<td>.6252</td>
</tr>
</tbody>
</table>

Dress Price Per Hour

<table>
<thead>
<tr>
<th>Variable</th>
<th>F Value</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skill Level</td>
<td>0.35</td>
<td>.5591</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 to 49 Years Old</td>
<td>2.35</td>
<td>.1356</td>
</tr>
<tr>
<td>50 to 59 Years Old</td>
<td>0.03</td>
<td>.8654</td>
</tr>
<tr>
<td>Over 60 years Old</td>
<td>1.19</td>
<td>.2846</td>
</tr>
<tr>
<td>Years Sewing Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 15 Years</td>
<td>3.65</td>
<td>.0654</td>
</tr>
<tr>
<td>16 Years and Over</td>
<td>0.17</td>
<td>.6847</td>
</tr>
<tr>
<td>Years Sewing For Pay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 3 years</td>
<td>0.66</td>
<td>.4218</td>
</tr>
<tr>
<td>6 to 10 years</td>
<td>0.13</td>
<td>.7234</td>
</tr>
<tr>
<td>Over 10 years</td>
<td>0.42</td>
<td>.5222</td>
</tr>
<tr>
<td>Garments Sewn in Last Year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 20</td>
<td>0.17</td>
<td>.6849</td>
</tr>
<tr>
<td>Over 20</td>
<td>0.06</td>
<td>.8066</td>
</tr>
<tr>
<td>Skill Level Consid.</td>
<td>0.26</td>
<td>.6160</td>
</tr>
<tr>
<td>Community</td>
<td>0.00</td>
<td>.9470</td>
</tr>
<tr>
<td>Self Esteem</td>
<td>0.86</td>
<td>.3615</td>
</tr>
<tr>
<td>Variable</td>
<td>F Value</td>
<td>P Value</td>
</tr>
<tr>
<td>----------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>Blouse Total Price</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skill Level</td>
<td>0.08</td>
<td>.7815</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 to 49 Years</td>
<td>1.01</td>
<td>.3221</td>
</tr>
<tr>
<td>50 to 59 Years</td>
<td>0.00</td>
<td>.9710</td>
</tr>
<tr>
<td>Over 60 Years</td>
<td>1.24</td>
<td>.2742</td>
</tr>
<tr>
<td>Years Sewing Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 15 Years</td>
<td>0.05</td>
<td>.8291</td>
</tr>
<tr>
<td>16 Years and Over</td>
<td>0.92</td>
<td>.3458</td>
</tr>
<tr>
<td>Years Sewing For Pay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 3 Years</td>
<td>0.23</td>
<td>.6330</td>
</tr>
<tr>
<td>6 to 10 Years</td>
<td>2.81</td>
<td>.1040</td>
</tr>
<tr>
<td>Over 10 Years</td>
<td>0.05</td>
<td>.8306</td>
</tr>
<tr>
<td>Garments Sewn in Last Year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 20</td>
<td>0.11</td>
<td>.7471</td>
</tr>
<tr>
<td>Over 20</td>
<td>0.01</td>
<td>.9074</td>
</tr>
<tr>
<td>Skill Level Consid.</td>
<td>4.41</td>
<td><strong>.0439</strong></td>
</tr>
<tr>
<td>Community</td>
<td>0.51</td>
<td>.4793</td>
</tr>
<tr>
<td>Self Esteem</td>
<td>1.10</td>
<td>.3027</td>
</tr>
</tbody>
</table>

------------------------------------------

**Blouse Price Per Hour**

| Skill Level | 0.49 | .4912 |
| Age | | |
| 30 to 49 Years | 2.36 | .1350 |
| 50 to 59 Years | 0.00 | .9865 |
| Over 60 Years | 0.92 | .3443 |
| Years Sewing Experience | | |
| 1 to 15 Years | 2.81 | .1038 |
| 16 Years and Over | 0.16 | .6893 |
| Years Sewing For Pay | | |
| 1 to 3 Years | 0.34 | .5648 |
| 6 to 10 Years | 0.34 | .5613 |
| Over 10 Years | 0.38 | .5442 |
| Garments Sewn in Last Year | | |
| 1 to 20 | 0.02 | .9008 |
| Over 20 | 0.26 | .6131 |
| Skill Level Consid. | 0.27 | .6085 |
| Community | 0.18 | .6778 |
| Self Esteem | 1.10 | .3033 |

** Significant at the p = .05 Level
TABLE 12 CONTINUED

<table>
<thead>
<tr>
<th>Variables</th>
<th>F Value</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Jacket Total Price</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skill Level</td>
<td>0.01</td>
<td>.9378</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 to 49 Years Old</td>
<td>0.21</td>
<td>.6495</td>
</tr>
<tr>
<td>6 to 10 Years Old</td>
<td>0.41</td>
<td>.5268</td>
</tr>
<tr>
<td>Over 60 Years Old</td>
<td>0.09</td>
<td>.7637</td>
</tr>
<tr>
<td>Years Sewing Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 15 Years</td>
<td>0.28</td>
<td>.6027</td>
</tr>
<tr>
<td>16 Years and Over</td>
<td>0.48</td>
<td>.4926</td>
</tr>
<tr>
<td>Years Sewing For Pay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 3 Years</td>
<td>0.37</td>
<td>.5501</td>
</tr>
<tr>
<td>6 to 10 Years</td>
<td>1.28</td>
<td>.2664</td>
</tr>
<tr>
<td>Over 10 Years</td>
<td>0.00</td>
<td>.9587</td>
</tr>
<tr>
<td>Garments Sewn In Last Year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 20</td>
<td>0.42</td>
<td>.5230</td>
</tr>
<tr>
<td>Over 20</td>
<td>0.45</td>
<td>.5081</td>
</tr>
<tr>
<td>Skill Level Consid.</td>
<td>2.70</td>
<td>.1102</td>
</tr>
<tr>
<td>Community</td>
<td>0.71</td>
<td>.4045</td>
</tr>
<tr>
<td>Self Esteem</td>
<td>0.05</td>
<td>.8213</td>
</tr>
<tr>
<td><strong>Jacket Price Per Hour</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skill Level</td>
<td>0.39</td>
<td>.5358</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 to 49 Years</td>
<td>1.10</td>
<td>.3031</td>
</tr>
<tr>
<td>50 to 59 Years</td>
<td>0.03</td>
<td>.8705</td>
</tr>
<tr>
<td>Over 60 Years</td>
<td>0.47</td>
<td>.4980</td>
</tr>
<tr>
<td>Years Sewing Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 15 Years</td>
<td>4.02</td>
<td>** .0538</td>
</tr>
<tr>
<td>16 Years and Over</td>
<td>0.10</td>
<td>.7492</td>
</tr>
<tr>
<td>Years Sewing For Pay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 3 Years</td>
<td>0.23</td>
<td>.6383</td>
</tr>
<tr>
<td>6 to 10 Years</td>
<td>0.52</td>
<td>.4768</td>
</tr>
<tr>
<td>Over 10 Years</td>
<td>0.35</td>
<td>.5569</td>
</tr>
<tr>
<td>Garments Sewn in Last Year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 20</td>
<td>0.43</td>
<td>.5157</td>
</tr>
<tr>
<td>Over 20</td>
<td>0.19</td>
<td>.6658</td>
</tr>
<tr>
<td>Skill Level Consid.</td>
<td>0.83</td>
<td>.3697</td>
</tr>
<tr>
<td>Community</td>
<td>0.10</td>
<td>.7550</td>
</tr>
<tr>
<td>Self Esteem</td>
<td>1.06</td>
<td>.3113</td>
</tr>
</tbody>
</table>

** Significant at the P = .05 Level
TABLE 13

PEARSON CORRELATION COEFFICIENTS

<table>
<thead>
<tr>
<th></th>
<th>Skill Level</th>
<th>Self Esteem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dress Total Price</td>
<td>.06599</td>
<td>-.0618</td>
</tr>
<tr>
<td></td>
<td>p = .6630</td>
<td>p = .9675</td>
</tr>
<tr>
<td>Blouse Total Price</td>
<td>.01037</td>
<td>-.09207</td>
</tr>
<tr>
<td></td>
<td>p = .9455</td>
<td>p = .5428</td>
</tr>
<tr>
<td>Jacket Total Price</td>
<td>.14629</td>
<td>.13367</td>
</tr>
<tr>
<td></td>
<td>p = .3320</td>
<td>p = .3758</td>
</tr>
<tr>
<td>Dress Price Per Hour</td>
<td>.09595</td>
<td>.22334</td>
</tr>
<tr>
<td></td>
<td>p = .5259</td>
<td>p = .1357</td>
</tr>
<tr>
<td>Blouse Price Per Hour</td>
<td>.10310</td>
<td>.25516</td>
</tr>
<tr>
<td></td>
<td>p = .4953</td>
<td>p = .0870</td>
</tr>
<tr>
<td>Jacket Price Per Hour</td>
<td>.13935</td>
<td>.27133</td>
</tr>
<tr>
<td></td>
<td>p = .3557</td>
<td>p = .0682</td>
</tr>
<tr>
<td>Self Esteem</td>
<td>.59167</td>
<td>* p = .0001</td>
</tr>
</tbody>
</table>

* Significant at the p = .01 Level
abilities in that people with high self esteem perceived their abilities better than those with low self esteem (Korman, 1966, 1967, 1969; Mansfield, 1973). (See Table 13).

Hypotheses

The objective of this study was to see if there is a relationship between self esteem, self perceived construction skill level, and the prices charged for sewing services in home based businesses.

Hypothesis 1

There will be no relationship between the seamstress' self esteem and the seamstress' self perceived abilities.

The Pearson Product Moment Correlation coefficient was $r = .59$, which although not a strong relationship, was highly significant at the $p = .0001$ level. Therefore this hypothesis was not retained.

Hypothesis 2

There will be no relationship between the seamstress' self esteem and the prices charged for the sewing services.

Using a Pearson Product Moment Correlation the self esteem measure was correlated with the total price charged
and price per hour for each garment. No significant correlations were found. Therefore, this hypothesis was retained.

Hypothesis 3

There is no relationship between self perceived construction skill level and the prices charged for the sewing services. The Pearson Product Moment Correlation found no significant relationship between these variables. Therefore, this hypothesis was retained.

Hypothesis 4

There will be no relationship between self esteem, self perceived construction skill level, and the prices charged for the sewing services. A multiple linear regression found no significant relationship between these variables, therefore, this hypothesis was retained.

Conclusions and Implications

The pricing of sewing services is a problem that does exist as indicated in the popular literature on sewing for profit, and by those people participating in sew for profit workshops. The respondents attached a number of notes to the surveys returned in this study, asking for information
on pricing or explaining why the prices charged were so low. These notes identified the consumers' value which is placed on the services by the client a determinant of the prices charged. Several respondents identified this problem:

"Most people want expert sewing for poor wages."

"I would make it for myself, but not for anyone else! Most people would not want to pay what it would be worth."

"I charge $5.00 an hour. That is not enough - but people expect sewing for nothing. They tend to not appreciate it and actually don't think of it as a positive job - minimum wage kinds of jobs. Therefore, it really isn't worth the time. And if you make an item that is time consuming they don't want to pay for it."

"I find it hard to charge as much as it is worth."

Perhaps there is a relationship, that should be investigated, between the seamstress' prices and the value of the service to the client.

The broad range of prices and the broad range of time estimates indicate that the respondents need help in understanding the value of their skills, so that they are not sewing for sub minimum wages. The low time quotes could also indicate that the seamstresses in this study do not have an idea as to how long it takes them to construct garments. A skilled seamstress is entitled to a salary...
which pays her for her knowledge, her skills, and her time but she doesn’t seem to know how to attain this.

This researcher wonders how the image of home economics influences the prices that the seamstress can charge for the sewing services, since sewing is considered a home economics skill? Do the customers who are unwilling to pay higher prices see the service as a "home sewn garment" or "home made" or do they see the service as a "custom made garment"? Home Economics professionals have marketed home sewn clothes as inexpensive. Is that image influencing the value of sewing services in the 1980’s?

Home Economic skills in American society are considered skills possessed by women. The pricing problems encountered by the woman in a sewing service as a HBB could also reflect deeper values toward women’s work, our society does not always value women’s work as high as they do men’s work. Consider the differences in the value of a tailor versus a seamstress, the value of a male designer versus a female designer and the value between a male hair stylist versus a female hair dresser.

Sewing is a cultural art just like hand weaving, knitting, and woodworking. Why is it that people are willing to pay for the value of these arts but are unwilling to pay for the value of a custom sewn garment?
The seamstress making a garment may be just as skilled as the weaver and the woodworker. These hand crafted items can command high prices whereas seamstresses appear to be unable to command equally as high a price as she should.

The significant relationship between self esteem and self perceived construction skill level was expected. However, how can a seamstress with a high self esteem, and a high perception of her skill level still claim she doesn't feel like she can charge what she knows her skill is worth? Perhaps these women need assertiveness training along with training in business skills and sewing skills so they can feel better about charging what they think their labor is worth.
CHAPTER VI
SUMMARY

Sewing services offered through home based businesses (HBB) are popular today. With the increase in women working outside the home there is a large potential growth for this industry. First, sewing services could flourish to meet the demand for quality clothes for the woman who works outside of the home. Second, this increased demand could also stem from the fact that the professional woman has reduced time in which to shop and maintain clothing, therefore, she is willing to seek out individuals who she can pay for these services.

The increased growth of small businesses, like sewing services, has also brought about an awareness of the problems that exist and can eventually lead to small business failure. One problem often identified is the lack of business skills needed to successfully operate a business, like sewing services, which utilize home economic skills to produce goods or services.

The one problem most often identified in sewing services is a profitable pricing policy. This problem may be related to the self esteem of the person rendering the service and that person's lack of perception of their
clothing construction skill level. This research was
designed to assess the three variables; self esteem, self
perceived clothing construction skill level, and prices
charged for sewing services in HBB’s.

The Instruments

Self esteem was measured using Rosenberg’s (1965) self
esteem inventory. This ten question instrument is scored
on a four point Likert-type scale. The instrument measured
unidimensional self esteem. Self perceived clothing
construction skill level was assessed with a 51 item
questionnaire in which the respondent rated her clothing
construction skills. The seamstress ranked her own skills
in comparison to other custom seamstresses. The
respondents were given three garment case studies and asked
to quote the price they would charge to make the item and
the amount of time it would take. From this information a
price per hour was calculated to be used in the analysis of
pricing.

Sample information on age, years of sewing
experience, years sewing for pay, number of garments
constructed in the past year, the type of community the
seamstress lived in, and whether the seamstress considered
skill level when she established a price for the sewing
service was asked for.

The Sample

Forty six women participated in the study. Names of seamstresses were obtained through the Virginia Cooperative Extension Service. To qualify for the study the women had to have sewn at least six garments for pay within the last year. The majority of the respondents were between the ages of 30 and 59, with 74% of the sample having had over 20 years of sewing experience. Seventy eight percent of the sample lived in rural areas.

Statistical Analysis and Results

Each seamstress completed the four part questionnaire and returned it by mail. The questionnaires were individually scored to obtain a mean self perceived clothing construction skill level, and a summed self esteem measure. A price per hour was calculated using the total price quote and the time quote for constructing each garment. The sample information was used to qualify the respondent for the sample and to describe the sample with frequency distributions. The frequency distributions indicated a wide range of prices, times, and prices per hour.

A multiple linear regression was run using the variables; 1) self esteem, 2)self perceived clothing
construction skill level, 3) age, 4) years of sewing experience, 5) years of sewing for pay, 6) consideration of the skill level when establishing price, and 7) the type of community lived in. There was no significant relationship found between any of these variables. In analyzing the pricing data, a set of price standards was established from the pretest results which were used to evaluate the price results in this study.

Two Pearson Product Moment Correlations were run. First self esteem was correlated with self perceived construction skill level. A significant relationship was found with a correlation coefficient of \( r = .59 \) and was significant at the \( p = .0001 \) level. Self perceived construction skill level was then correlated with each total price and each price per hour.

No significant relationships were found. This research showed that there were no significant relationships between the three variables; skill level, self esteem, and prices charged, but there was a significant relationship between self esteem and self perceived clothing construction skill level.
CHAPTER VII
SUGGESTIONS FOR FUTURE RESEARCH

1. This research could be repeated using a larger sample, perhaps involving seamstresses from a multi-state area and comparing those results with the results of this study. Are there any differences in results in other geographical areas? This research could also be repeated using specific audiences such as an all urban audience, or a non Cooperative Extension audience.

2. The pricing of sewing services needs to be researched further and the causes of pricing problems need to be identified. Results from this study could be used in planning the teaching curriculum being used in entrepreneurship education programs.

3. Research is needed on the clientele of the sewing services. By researching their clothing values or expectations one could better define the group of people that make up the market for sewing services. This information could be used in planning programs that would help the seamstresses market their services better.

4. Further research on the relationship between self esteem and self perceived clothing construction skill level could be conducted. The knowledge gained from this
research could be used to plan programs for individuals involved in sewing services that would help them feel better about charging for the skills they know they possess.

5. Further research is needed on home based businesses which involve home economic skills. The impact of home based businesses on the family would be of interest to home economists and their role in helping meet the needs of these business owners.

6. Further research is needed on the establishment of a formal network/guild for the women involved in sewing services in home based businesses.

7. Research is needed on the value of women's work and the implications of that value on the success of businesses owned by women in particular the home based business involving sewing services.

8. Further research could be conducted using the self perceived clothing construction skill level instrument to see what areas the seamstresses, who are involved in home based businesses, felt they were weak in. The findings from this research could be used to plan future programs for the Cooperative Extension Service.
REFERENCES


84


APPENDIX A
April 11, 1988

Dear Seamstress,

You have been identified by the local Extension Home Economist as a person in your community who provides a sewing service from your home. The agent may have already discussed this study with you and I would like to thank you for agreeing to participate. If you were not contacted please let me explain who I am and what I am trying to do.

I am a graduate student in the Clothing and Textiles Department at Virginia Tech. I have a deep appreciation for your sewing talents and your efforts to provide a service with those talents. I would appreciate your help with a study I am conducting.

The purpose of my study is to look at how you perceive yourself, how you perceive your sewing skills, and how you price the garments that you are sewing. To participate in the study will you complete the enclosed questionnaire. The questionnaire has four sections to it and should take less than one hour to complete. All information that you provide will be kept strictly confidential.

Please complete all sections of the questionnaire and return it to me by April 22, 1988. I am enclosing a self addressed stamped envelope for your convenience. If you are interested in receiving the study results please include your name and address on the enclosed card and I will send them to you.

Thank you for taking time from your busy schedule to assist me with my study and for supporting the research efforts at Virginia Tech.

Sincerely,

Karen S. Bruck
Graduate Student

Lois M. Gurel Ph.D.
Graduate Committee Chairman
SECTION 1

Please indicate the skill level you feel you have in the following clothing construction features in comparison to other custom made clothing. Please do not leave any blanks without a number.

5 - Exceptional
4 - Above Average
3 - Average
2 - Below Average
1 - Haven't tried to do this

ALTERATIONS AND FITTING
___ Adapt pattern designs from one pattern to another
___ Alter a waistline in bodice and skirt pattern that are sewn together to make a dress
___ Alter a bodice pattern to fit
___ Alter a skirt pattern to fit
___ Alter a sleeve pattern to fit

FABRICS
___ Sew with napped fabric
___ Sew with sheer fabric
___ Match plaids and/or stripes

CONSTRUCTION METHODS
___ Staystitch
___ Grade seams
___ Understitch
___ Stitch in the ditch
___ Topstitch
___ Miter corners
___ Eliminate bulk
___ Make ruffles
___ Attach a waistband
___ Set in a sleeve
___ Attach a cuff to sleeve
___ Apply lace
___ Press as you sew

Zipper
___ Apply lapped zipper
___ Apply centered zipper
___ Apply fly front zipper

Fasteners
___ Apply snaps
___ Apply hook and eye
___ Attach buttons with thread shank

DARTS AND DART EQUIVALENTS
___ Sew a two ended dart
___ Sew a regular dart
___ Make gathers
___ Make pleats/tucks

POCKETS
___ Patch
___ Inset
___ Welt

Buttonholes
___ Machine made
___ Bound

SEAM FINISHES
___ Turned and stitched
___ Bound
___ Machine stitched
___ French seam

Collars
___ Attach a flat collar
___ Attach a rolled collar
___ Make a notched collar

Linings
___ Jacket, coats
___ Skirt
(SECTION 1 CONTINUED)

HEMMING & HAND STITCHES
____ Machine blind hem
____ Narrow machine stitched hem
____ Hand stitch flat catch stitch
____ Hand stitch slip stitch
____ Hand stitch using blind stitches
____ Mark a hem parallel to the floor

SECTION 2

1. What is your age?
   ___ A. Under 20    ___ D. 40-49
   ___ B. 20-29       ___ E. 50-59
   ___ C. 30-39       ___ F. Over 60

2. How long have you been sewing?
   ___ A. 1-5 Years    ___ D. 16-20 Years
   ___ B. 6-10 Years   ___ E. Over 20 Years
   ___ C. 11-15 Years

3. How many years have you been sewing for pay in your home?
   ___ A. Less than 1 year    ___ D. 6-10 Years
   ___ B. 1-2 Years           ___ E. Over 10 Years
   ___ C. 2-3 Years

4. Approximately how many garments in the last year have you been paid for constructing?
   ___ A. 1-5 Garments       ___ D. 16-20 Garments
   ___ B. 6-10 Garments      ___ E. Over 20 Garments
   ___ C. 11-15 Garments

5. Do you take into consideration your level of sewing skill when you quote a price for constructing a garment?
   ___ Yes        ___ No

6. What type of community do you live in?
   ___ Rural       ___ Urban
SECTION 3

Please circle one number for each statement below indicating your level of agreement on each of the ten statements.

<table>
<thead>
<tr>
<th>STRONGLY AGREE</th>
<th>AGREE</th>
<th>DISAGREE</th>
<th>STRONGLY DISAGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. On the whole, I am satisfied with myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. At times I think I am no good at all.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3. I feel that I have a number of good qualities.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4. I feel I do not have much to be proud of.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5. I am able to do things as well as most other people.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6. I certainly feel useless at times.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7. I feel that I am a person of worth, at least on an equal plane with others.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8. I wish I could have more respect for myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9. I take a positive attitude toward myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>10. All in all, I am inclined to feel that I am a failure.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
SECTION 4

Please quote a price and an amount of time for preparation and construction of each garment illustrated. Each garment is described for you and a sample of the fabric it will be made from is provided. The client would provide the fabric, the pattern, and the notions for you.

GARMENT # 1 CLASSIC DRESS

Pullover mock - wrap dress has forward shoulder seams, extended shoulders, button trimmed epaulets, notched collar, shoulder pads, short sleeves, patch pockets, and partially elasticized waistline; straight skirt has inset pockets and stiffened self fabric belt with buckle. Fabric: 100% Cotton Broadcloth

Price you would charge $_______ Estimated time to sew _______
GARMENT # 2 BLOUSE

Buttoned blouse with self-faced yoke, forward shoulder seams and patch pockets. Long sleeves with gathered cap are gathered into buttoned cuffs. Fiber content: 100% Polyester. Fabric: 100% Polyester Silk Look.

Price you would charge $_______  Estimated time to sew ______

---

GARMENT # 3 BLAZER

Loose fitting lined jacket with shoulder pads has notched collar and lapel, front buttoned closing, welt pockets and full length two piece effect sleeves with button trim.

Fabric: 100% Wool flannel.

Price you would charge $_______  Estimated time to sew ______
APPENDIX B
FIELD TEST RESULTS AND STANDARDS

**Dress**

<table>
<thead>
<tr>
<th>Total</th>
<th>Hours</th>
<th>Per Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.00</td>
<td>10.00</td>
<td>2.00</td>
</tr>
<tr>
<td>40.00</td>
<td>6.00</td>
<td>6.67</td>
</tr>
<tr>
<td>25.00</td>
<td>(1 Week)</td>
<td>--</td>
</tr>
<tr>
<td>35.00</td>
<td>8.00</td>
<td>4.37</td>
</tr>
<tr>
<td>25.00</td>
<td>8.00</td>
<td>3.12</td>
</tr>
<tr>
<td>45.00</td>
<td>30.00</td>
<td>1.50</td>
</tr>
<tr>
<td>12.50</td>
<td>1.75</td>
<td>7.14</td>
</tr>
</tbody>
</table>

Mean 28.93
Dress price range $12.50 to $45.00

**Blouse**

<table>
<thead>
<tr>
<th>Total</th>
<th>Hours</th>
<th>Per Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>17.00</td>
<td>8.50</td>
<td>2.00</td>
</tr>
<tr>
<td>30.00</td>
<td>5.00</td>
<td>6.00</td>
</tr>
<tr>
<td>15.00</td>
<td>(1 Week)</td>
<td>--</td>
</tr>
<tr>
<td>25.00</td>
<td>7.00</td>
<td>3.57</td>
</tr>
<tr>
<td>25.00</td>
<td>8.00</td>
<td>3.12</td>
</tr>
<tr>
<td>25.00</td>
<td>15.00</td>
<td>1.67</td>
</tr>
<tr>
<td>10.00</td>
<td>1.50</td>
<td>6.67</td>
</tr>
</tbody>
</table>

Mean 21.00
Blouse price range $10.00 to $30.00

**Jacket**

<table>
<thead>
<tr>
<th>Total</th>
<th>Hours</th>
<th>Per Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>30.00</td>
<td>15.00</td>
<td>2.00</td>
</tr>
<tr>
<td>77.50</td>
<td>11.00</td>
<td>7.05</td>
</tr>
<tr>
<td>25.00</td>
<td>7 to 10 Days</td>
<td>--</td>
</tr>
<tr>
<td>65.00</td>
<td>16.00</td>
<td>4.06</td>
</tr>
<tr>
<td>50.00</td>
<td>16.00</td>
<td>3.12</td>
</tr>
<tr>
<td>60.00</td>
<td>47.00</td>
<td>1.28</td>
</tr>
<tr>
<td>20.00</td>
<td>3.00</td>
<td>6.67</td>
</tr>
</tbody>
</table>

Mean 46.71
Jacket price range $20.00 to $77.50
APPENDIX C
March 17, 1988

TO: Unit Extension Home Economists
FROM: DELORES J. ELLIS
Assistant Director, Home Economics

Attached you will find a request for assistance in a research project being conducted by Karen Bruck, a graduate student in the Clothing and Textiles Department at Virginia Tech. Her research deals with the topic of home-based business. In an effort to further the research mission of the Virginia Cooperative Extension Service, I encourage you to provide the requested information. The information gained from this research can be used in our future programming efforts related to the home-based business objective.

I hope you can help Karen with the requested information. You may or may not wish to notify the person(s) that you have submitted their name for a research survey. It is my understanding that a sample will be drawn from the names submitted; therefore, not all persons will be surveyed.

If you have any questions about this research, please feel free to contact Karen or me.

bjw
Attachment
Dear Extension Home Economist,

I am a graduate student in the Clothing and Textiles department at Virginia Tech. I need your help in putting together the population for collecting my data for my thesis. The purpose of my research is to investigate the relationship between self esteem, self perceived clothing construction skill level, and the prices charged for sewing services in home based businesses.

I would greatly appreciate it if you could furnish me with 3 to 5 names and mailing addresses of people in your area who have sewing services as home based businesses, who would be willing to spend about one hour of their time to complete a questionnaire. I am looking for people who sew garments, rather than those who do just clothing alterations. It does not matter if they specialize in an area like bridal wear.

You do not need to know the people but an initial contact from you could encourage them to complete the questionnaire when they receive it. If you do not know anyone who sews for pay perhaps you could contact local fabric store managers, they may know of some people who sew for pay. After I receive the names I will contact each person through the mail.

If possible I would like to have the names by March 31, 1988. If you have any questions you can contact me at 961-1084 (home) or 961-6179 (CT Dept.). You can send the names and addresses to me by computer through VM1 to user ID MARSH; please refer to the information as HBB RESEARCH. Or, you can mail the information to me at the above address.

Thank you for supporting the research efforts in the Clothing and Textiles Department at Virginia Tech.

Sincerely,

Karen S. Bruck
Graduate Student

Lois M. Gurel
Lois M. Gurel, Ph.D.
Graduate Committee Chairman
Karen Sue Bruck, the daughter of Mr. and Mrs. Frank Bruck, was born on October 19, 1959 in Cumberland, Maryland. She graduated from Allegany High School, June 1977. She graduated Cum Laude from West Virginia University, May 1981, with a Bachelor of Science degree in Family Resources, emphasizing Clothing and Textiles.

In September 1986 she began graduate work in apparel design at Virginia Polytechnic Institute and State University and completed requirements for her Master of Science degree in May, 1988. Her work experience includes:

- **1986 - 1987**
  - Graduate Assistant
  - Department of Clothing and Textiles
  - Cooperative Extension Service
  - Virginia Polytechnic Institute and State University

- **1987 - 1988**
  - Graduate Teaching Assistant
  - Department of Clothing and Textiles
  - Virginia Polytechnic Institute and State University

- **1981-1987**
  - Extension Home Economist
  - West Virginia University
  - Cooperative Extension Service
  - Summersville, West Virginia

- **1984-1985**
  - Program Assistant
  - University of Maryland
  - Cooperative Extension Service
  - Cumberland, Maryland

Karen Sue Bruck