CONSUMER ATTITUDES TOWARD WOOL WEARING APPAREL

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WEARING APPAREL

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PREFACE

This study is concerned with consumer attitudes toward wool wearing apparel. The primary objective is to identify some reasons for consumer selection or rejection of wool apparel and fabric. Another objective is to determine if there are possible effects concerning income level, population density, education, number in family, and age with respect to decisions of consumers in the use of wool apparel and fabric. An opinion questionnaire is used to gather together data from a selected group of consumers.

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CHAPTER I

INTRODUCTION

Consumer attitudes concerning wool influence the selection or rejection of wool wearing apparel and fabric. Interest in ecology, the need for energy conservation, and an increased awareness in organically grown food and fiber has brought a renewed interest in the natural fibers which may affect the world wool consumption. Gertrude Alman, Executive Vice President, Allied Store Marketing Corp., reported to the 1976 Wool Meeting of the American Textile Manufacturers Institute that "the growing consumer demand for quality is resulting in a strong uptrend in wool apparel" (Strong Uptrend Seen, 1976, p. 16). During 1970 the United States consumed 170.7 million kilograms of clean virgin wool. Less than half of that amount was used during 1974, with only 80.2 million kilograms being consumed. During those four years the consumption of synthetic fibers increased from 703 million kilograms to 7457 million kilograms, a ten-fold increase (Wool Facts, 1975).

Advantageous characteristics of wool are shape-recovery, durability, water repellency, warmth in cold climates, easily tailored, fire resistance, and recyclability. Wool fabrics generally have a soft hand and fuzzy surface. They have little shine or sheen (Segal, 1960). The undesirable characteristics of wool also need to be considered. Wool requires special care in cleaning, may be expensive,

and may be hyper-allergenic to sensitive skins because of its overlapping scale structure (The Story of Wool, 1968, pp. 7-8). Woolen fabric does not hold a crease well and the tensile strength is relatively low (Segal, 1960).

Statement of the Problem

The purpose of the study was to determine from a selected group of consumers their opinions concerning the use of wool in wearing apparel and fabric. The principal objective of the study was to determine some of the reasons why wool was selected or rejected when buying wearing apparel and when selecting fabric to use in making wearing apparel.

The results of the survey may indicate to apparel and fabric manufacturers some of the problems to be overcome in the education of consumers toward the use of wool apparel and fabric. The results may indicate to educators as well the need for increased awareness of the tailoring skills used on wool fabric and the proper care of wool and wool blend fabric.

The purposes of the study were:

1. To identify some reasons for consumer selection or rejection of wool apparel and fabric.

2. To determine if there were possible effects concerning income level, population density, education, number in family, and age with respect to decisions in the use of wool apparel and fabric by a selected group of consumers.

Definitions

The following definitions of terms were used in the study:

Leaders Lesson - A monthly training meeting given to each Extension Homemakers Group Leader.

Extension Homemaker - A member of a group sponsored by the Cooperative Extension Service called the Extension Homemakers Association, Inc.

Extension Home Economist - A professional employee of the Cooperative Extension Service with a minimum of a bachelor's degree in home economics or a related field, who serves as an adviser to the Extension Homemakers Association.

Wearing Apparel - Those garments which are worn farthest away from the body, such as dresses, shirts, jackets, and slacks; excluding underclothing. Garments may be made at home or manufactured.

Wool Fabric - Clothing fabrics are made of fibers from lambs, sheep, and other animals.

CHAPTER II

REVIEW OF LITERATURE

History of Wool

Men and sheep have walked together through the pages of written history. Even before man told his first story through pictures scratched and painted on a cave wall, he had discovered that sheep could supply the basic necessities of life. Sheep supplied food, clothing, and even shelter in the form of tents (Segal, 1960).

"The Romans usually wore wool clothing. Their winter togas were made of heavily napped woolen cloth, while their summer togas were made from a lighter weight fabric similar to worsted" (Bergen, 1963, p. 1).

The importance of wool in history is sharply illustrated by the law passed in 1664 by the General Court of Massachusetts which required youths to learn to spin and weave wool. George Washington devoted his energies to the weaving of at least one yard of woolen cloth each day at Mount Vernon (Bicentennial of American Textiles, 1976, p. 61).

Throughout the 1800's, as men moved across the United States, the sheep population moved with them. When the California Gold Rush in 1849 caused a vigorous westward push, not all of these men headed west to dig for gold. Some of the most hardy saw the profit to be

derived from the "Golden Fleece" because sheep were a walking source of food and clothing (The Story of Wool, 1968).

At first, wool was a very coarse fiber. The development of wool into a softer, fleecier coat was the result of long-continued selective breeding. The breeding of the animals and the production of the wool fiber into fabric are more costly processes than are other fiber development processes (Joseph, 1976).

Research has been conducted to improve wool as a fiber. During 1959, the U.S. Department of Agriculture established a laboratory to study the improvements of wool and to make the wool fiber more competitive with other fibers.

Wool has certain basic characteristics which make it unique among fibers. Chemically, wool is essentially protein, although it does contain small amounts of lipids, sulphur, and inorganic materials. The composition of wool varies with the breed and the diet of the sheep from which it originates (Truter, 1973). The protein substance of wool called keratin is composed of eighteen amino acid residues. The amino acid resudies join together and the molecules are formed to give wool fiber many of its desirable properties, such as resiliency and elasticity (Joseph, 1963). Recent scientific analysis of wool provides evidence to indicate a helical form, rather than a folded form for the molecule (Alexander and Hudson, 1954, p. 373; Hearle and Peters, 1963, p. 58).

The first weavers of wool learned that wool cloth amazingly tended to retain its shape. Fabric could be pulled and twisted, sat upon and crushed or wrinkled, but it readily returned to the original shape after the fibers had time to realign.

The scale-like characteristics of wool are clearly evident when viewed through the microscope. The major portion of the fiber is the cortex, which extends toward the center from the cutical layer. Cortical cells are long and spindle-shaped and provide fiber strength and elasticity. The cortex accounts for approximately 90 percent of the fiber mass. The center of the fiber is the medulla, which contains pigment.

Wool fibers have a natural crimp. The crimp increases the elasticity and elongation properties of the fiber and aids in yarn manufacturing. The strength of wool is 1.0 to 1.7 grams per denier when dry. When wet the strength drops to 0.8 to 1.6 grams per denier. Compared with other fibers, wool is weak (Joseph, 1966, p. 109).

Wool Advantages and Disadvantages

The quality and characteristics of wool fabrics are dependent upon the kind of sheep, its physical condition, the part of the sheep from which the wool is taken, and the manufacturing and finishing processes applied to the fabrics. This might be considered a major disadvantage in the production of fine wool fabrics because quality control is difficult to maintain with the exception of the finishing process.

Although a basic disadvantage of wool might be the low fiber strength, wool can be made more durable by the use of selected, reprocessed, or reused wool. Wool fabric is strengthened by the use of ply yarns. Tightly twisted yarns also add to the strength of wool fabrics.

Another disadvantage of wool is the adherence of dirt; unless thoroughly cleaned, wool retains odors. Wool, consequently, requires frequent dry cleaning, or laundering if the fabric is washable. Unless wool is specially processed, streaking and felting occur when the fabric is improperly washed (Corbman, 1975). Chlorine bleaches cannot be used in laundering wool because the cystine linkage is broken and the fiber disintegrates (Joseph, 1966).

Certain insects such as the larvae of moths and carpet beetles consume wool as a source of food. Special treatments can be applied when wool fabric is manufactured which prevent this type of insect damage.

Wool is resilient, moisture absorbent, water repellent, drapable, and low in density, which can be cited as advantageous. The elasticity of the fiber reduces the danger of tearing under tension and contributes to free body movement of the fabric wearer. Because wool fiber has a high degree of resilience, wool fabric wrinkles less than others; wrinkles disappear when the garment or fabric is steamed.

As wool fibers are non-conductors of heat, they permit the body to retain the normal body temperatures of 98.6 degrees Fahrenheit. Wool garments are excellent for winter clothing and are protective on damp days throughout the year.

Excellent draping and the ease in tailoring add to the beauty of quality designed garments. Because wool garments that are tailored require special skills and construction techniques, the price of labor is reflected at the retail level in higher market prices for ready-to-wear garments (Corbman, 1976).

Wool in the Market Place

Wartime increases the consumption of wool. This was especially true during the Civil War and World Wars I and II when soldiers were fighting in cold climates. According to the United States military observers, the destruction of the German Army before Stalingrad during World War II was the result of wool uniforms worn by Russian soldiers and the synthetic uniforms worn by German soldiers (The Story of Wool, 1968).

Stephen J. Ziffer (1976), the Consumer Market Research Manager for the Wool Bureau, Inc., United States Branch, International Wool Secretariat, indicated in a letter to the researcher that "Consumers' increased preference for wool is reflected in the increased sales of the product. . . ."

> The growing consumer demand for quality is resulting in a strong uptrend in wool apparel. The consumer acceptance for natural wool or cotton or linen has been gaining momentum now for some time. But in the past few months the demand has shown marked strength (Strong Uptrend Seen, 1976, p. 16).

Reporting on a consumer survey on wool made by J. C. Penney, John Schloss (Strong Uptrend Seen, 1976), merchandise manager of women's outerwear and suits, declared that there is "a clear, strong message from consumers: quality as a reason to buy is more important than it's been in a long time (p. 16). He continued by noting that "wool is a new look for a great many customers who became consumers in the late Sixties and early Seventies, and they need to be educated about the fiber" (p. 18). He predicted that wool will be as important as it was to the consumer ten years ago. The cost of upkeep of wool

must, however, be overcome before the consumer will buy. Over-the-counter woven wools must be washable in order to sell in volume.

The prospect of selling more wool in men's wear in the future is very good. Wool items are being seen again in outerwear where there has not been a wanted style in wool for several years. A good wool slack could be sold if it is at a reasonable price. The trend to natural fibers meant an excellent fall season during 1976 in heavyweight wool men's shirts, representing five percent of the total sport shirt volume. The use of wool in domestic suits and sports coats is projected to increase 50 to 100 percent. Wool slacks will remain stable, and a decrease is predicted in outerwear (Strong Uptrend Seen, 1976).

During January, 1975, the Wool Bureau commissioned Decision Center, Inc., a leading independent market research firm, to conduct a behavior and attitude study of suit purchasing as perceived by salesmen in men's retail stores throughout the country. The study revealed that (1) 62% of the salesmen preferred to wear a wool suit to work, (2) salesmen who preferred wool saw about half the number of customers as did the other salesmen, but sold more suits, (3) salesmen who preferred wool sold more suits than those who did not, (4) customer's questions were about the ability of wool to hold a press or shape, (5) salesmen gave wool a rating of 9.4 out of a possible 10 for fiber appropriateness, and (6) 75% of the salesmen interviewed said the Woolmark Label was helpful in making the sale (Selling Men's Suits, 1975).

"Man in Wool," an International Wool Secretariat (IWS) promotion campaign was aimed at men under the age of 35. According to the IWS,

this was the largest marketing operation ever undertaken by a fiber company in the men's wear field. The campaign was launched during the autumn of 1976 and included television, joint IWS/manufacturer advertising, and point-of-sale material to persuade the consumer to choose wool wearing apparel (Wool Men's Wear, 1976).

The IWS has built its Woolmark into the best recognized trade symbol (Lawless, 1976, p. 33). The Woolblend mark was introduced to the public in December, 1971. The consumer campaign, estimated about $1,000,000 represented newspapers in 32 major market. The wool blend mark, like the Woolmark, is licensed by the Wool Bureau only to wool blend products that pass rigid tests for color fastness, fiber content, and quality of workmanship (Woolblend Mark Gets Ad Support, 1971, p. 22).

Consumer buying habits are influenced by socio-economic factors, psychological factors, and fabric performance. Fabric performance characteristics often listed by women as being important in dresses were ability to hold shape, wrinkle resistance, and color fastness (Galbraith, 1966). These same women indicated that the fabric characteristics which led to the purchase of a dress were the appearance of weave, color, wrinkle resistance, and the feel on the skin. Homemakers were then asked to list their satisfaction or dissatisfaction with various fibers as dress fabrics. Faults listed were lack of wrinkle resistance of all cellulose fibers, lack of shape holding ability and lack of shrink resistance of rayon, warmth or coolness of nylon, and feel on the skin of wool.

The United States Department of Agriculture Marketing Service (1959, pp. 20-21) surveyed consumers to find the satisfaction they

experienced from the use of five specific fibers: cotton, wool, linen, rayon, and nylon. Wrinkling was the characteristic which caused dissatisfaction for the greatest number of participants surveyed. Other complaints included the lack of dimensional stability of the fabric and the feel of fibers such as wool against the skin.

Wool Improvement Research

There have been two major technical developments in Europe which could greatly affect the textile industry in the future. One is a system of upgrading wool by scouring with ammonia to increase bulk and elasticity (Wood and Anderson, 1976). The other development uses radio-frequency heating to fix dyes in stock (Lennox-Kerr, 1976). Both systems are currently being used commercially.

The ammonia scouring system is used to permanently crimp straight wool to achieve high bulk and light weight. When the wool is subjected to the ammonia treatment and the crimp is fully developed, there is a very pronounced angle in the crimp and the wool has a scaly surface. It is believed that these scales on the convex side of the crimp open up considerably and because of this the wool has a definite tendency to felt more rapidly than does an untreated wool (Lennox-Kerr, 1976).

The radio-frequency heating to fix dyes was developed by Dawson International, a Scottish company. This highly sophisticated system of continuously dying loose fibers is basically simple. The work was aimed at wool but it has been found to work effectively on nylon, acrylic, and cellulosic fibers. Cost reduction, substantial reduction

in water consumption, and effluent discharge are three major advantages for this new dying system (Lennox-Kerr, 1976).

Research shows that when wool is immersed in water at different temperatures the fiber is more easily elongated and becomes weaker as the temperature rises. The result is to be expected for the action of water on a hydrogen-bonded structure. To preserve the dimensional stability of the article that has not been treated to be machine washed, it should be washed at a low temperature and flat dried (Truter, 1973).

A study was conducted (Feldtman and McPhee, 1964) on machine washing and tumble drying of wool fabrics. The study indicated that the behavior of untreated wool fabrics struck more than wool made shrink-resistant with chemical, oxidative processes in domestic washing and tumble drying machines. Relaxation shrinkage of 1.5 percent or less in each direction was reported by careful drying of wet fabrics and by dry finishing under minimum tensions.

In another study conducted two years later, Feldtman and McPhee (1966) found that the detergents used had an effect on felting of wool. Synthetic anionic and nonionic detergents produced higher felting rates and varied with the type of machine used. In rotating-drum machines, maximum felting with synthetic detergents is found at about .01% concentration or less, compared with .05% in machines in which the wool is completely immersed for the duration of the test. With soap, maximum felting occurs at .05% in both types of machines.

Wasley and Pittman (Permanent Press on Wool Blends, 1970), USDA Wool and Mohair Laboratory, Albany, California, presented a paper at the 4th International Wool Textile Research Conference in 1970. They

reported that successful experiments have been conducted with a multipurpose resin treatment. This treatment used modified polyurethanes padded onto wool fabrics from a dilute aqueous emulsion. When all-wool fabrics were impregnated with a 1% emulsion, were dried and cured for 5 minutes at 320 degrees Fahrenheit, and were subjected to 4 washing periods of 75 minutes each, the fabrics shrank only 2.9%. Wool-polyester blends also had an improved appearance when they were resin-treated by this method for machine-wash and tumble dry tests.

Niles Sorenson, director of the Wool Bureau's Research and Development Center in Woodbury, New York, has constructed a fabric using wool and nylon in the double knit combination. This combination fabric uses wool on alternate feeds with 100-denier textures set nylon. The fabric is knit on 18-cut machines, and finishes 10 to 10.5 ounces per 56-inch wide yard length. The fabric does not curl. The raw material cost is about $2,00 per linear yard. The cost will justify the use of wool for large volume combination double knits, even though the current price is more than twice the price of acrylic and polyester variants (Seidel, 1976).

The Future of Wool

"Wool has been enjoying a somewhat increased popularity recently," according to John Wilcox (Wool Men's Wear, 1976, p. 69), International Wool Secretariat, Director--Northwestern Europe. He continued to report that "another explosion in the price of wool is hardly imminent, and that the best way for the British textile and clothing industry to stay alive is to identify themselves with quality . . ." (p. 69).

Wilcox's comments about synthetics were far from promising:

> Most synthetics were based on petrochemicals, which are now expensive and in great demand. There is much better profit to be had by converting them into pharmaceuticals, agricultural chemicals and paints (Wool Men's Wear, 1976, p. 69).

A. D. G. Shillington (Wool Men's Wear, 1976, p. 69), marketing services manager of Fibers Division, Hoechst UK Ltd., pointed out that the pressures on the world's land resources for food means that there is little likelihood of the growth in man-made fibers slowing down. Shillington noted that,

> Sheep breeding requires a great deal of land while man-made fiber production needs very little. . . . Natural fibers can be expected to continue to move downwards in terms of their percentage share of the total world fiber market (Wool Men's Wear, 1976, p. 69).

Man-made fibers have technically made more progress during the last 20 years than has wool in 2,000 years, but additional funds are being allocated to wool at the rate of three million pounds under Great Britain's Government Wool Textile Scheme (Fiber Producers React Sharply to Wool Attack, 1976). Another 15 million pounds of government assistance to firms in the wool industry enable them to modernize their production facilities, encourage restructuring, and the phasing out of economic and unneeded capacity (Wood and Anderson, 1976). This may well indicate that wool's renewed popularity could be here to stay, as the additional warmth that wool gives the wearer could minimize the energy used in heating homes, offices, businesses, churches, and other places.

CHAPTER III

METHODS AND PROCEDURES

The purpose of the study was to determine selected consumer preferences toward wool wearing apparel. A review of the literature revealed that studies of this nature were conducted during the middle 1960's when wool was more widely worn but a specific study on consumer attitudes toward wool has not been conducted since that time.

Selection of Sample

Participants for the study were drawn from the Extension Homemakers Group lesson leaders representing six counties within the central Oklahoma Cooperative Extension District. The six counties were: Oklahoma, Tulsa, Pawnee, Okfuskee, Seminole, and Hughes. These counties were selected on the basis of the 1970 census. Population density for both rural and urban areas and per capita income levels based on the counties average yearly income were given in the census.

Permission to test the Extension Homemakers at the training meeting conducted by the Extension Home Economists from each of the six counties was obtained from the Central District Extension Director (Appendix A). All women attending the meeting were asked to participate. A sample was composed of 119 women who were present at the

monthly Extension Homemakers Group leaders training during July, August, or September.

Development and Use of Instrument

A questionnaire (Appendix B) was used to gather data. The questionnaire was developed by the researcher, pretested, and revised before it was administered.

The Extension Home Economists from the six counties were asked to cooperate by administering the questionnaire. The Extension Home Economist in each of the six counties was the person directly responsible for the monthly leader training meeting and, therefore, it was most convenient for her to administer the questionnaire to the women. A packet was given or else mailed to the Extension Home Economists. The packet included a letter to the Extension Home Economist (Appendix C), the questionnaires, instructions for administration of the questionnaire (Appendix D) and a return addressed envelope.

The questionnaires were administered during July in Oklahoma, Tulsa, and Seminole counties. Okfuskee and Hughes County Extension Home Economists administered the questionnaires to the lesson leaders during August. The Pawnee County Home Economist distributed the questionnaires to the lesson leaders during September. A total of 250 questionnaires were either given or mailed to the six Extension Home Economists. A total of 119 completed questionnaires were returned. A problem encountered by many of the participants was a difficulty in ranking the choices given in questions six through ten.

The instructions given the Home Economist and on the questionnaire requested that the participants rank their preferences in questions six through ten.

Analysis of Data

Results of the study are given in Chapter IV. Responses were tabulated and analyzed according to like and dislike of wool characteristics, fabric preference for ready-to-wear and home tailored male and female suits, machine washable wool, and care of wool garments. The number of wool garments in the present wardrobe was estimated and the numbers of wool garments that could be added was also estimated.

The data were tabulated for frequencies and percentages. Rank analysis, the Friedman Chi-Square (FCS) test, and the Friedman Rank Sum Multiple Comparison (FRSMC) test were applied to the data. One of the 119 questionnaires returned could not be used. However, only 53 to 67 participants ranked their opinions with respect to questions six through ten. The remaining 51 to 65 participants did not follow the procedure for answering these questions. Data from questions six through ten were used when choices were ranked. One hundred and eleven of the 118 participants gave background information requested in questions one through five.

The rank analysis was used to indicate the mean of the ranks for questions six through ten. The FCS test was calculated to test the hypothesis of no differences among the mean rank of the wool responses. When the FCS test showed a statistical significance, the FRSMC test

was applied to show significant difference among the participants' choices.

The FCS and FRSMC tests were used to analyze the data obtained from questions six through ten. These questions asked the participants to rank their choices concerning fabric preference for male or female ready-to-wear or home tailored suits. The rank analysis for questions six through ten was used to indicate the mean of the ranks. The FCS test (Conover, 1971) was calculated by using the formula

$$\chi^2 = (SS)\frac{x\ 12}{(k)(k+1)}$$

where k equals the number responding to the question. The calculated chi-square was then compared to the tabulated valve taken from the chi-square distribution table at the .95 quantile. When the calculated value was larger than the tabulated value, the hypothesis was rejected and no significant difference among the ranking of choices was rejected. When the hypothesis was not rejected the FRSMC test was not applied to the data. However, after FCS was applied to the data and the hypothesis was rejected, the FRSMC test (Hollander, 1973) was applied to the data. The formula

$$q(\sigma,k,\infty) = \frac{n(k)(k+1)}{12}$$

was used to calculate the nonparametric least significant difference between the ranked means at the .95 quantile ($LSD_{.05}$). The rank means were subtracted from all possible rank mean score combinations, thus giving a different number. These differences are shown in tables.

When the differences between the ranked means was less than the $LSD_{.05}$ value there was no significant difference between ranking of choices. However, when the differences were greater there was a significant difference between ranking of choices by the participants.

CHAPTER IV

FINDINGS AND ANALYSIS

The purpose of the study was to determine from a selected group of consumers their opinions concerning the use of wool in wearing apparel and fabric. The principal objective of the study was to determine some of the reasons why wool was selected or rejected for wearing apparel and fabric. Another objective of the study was to determine if there were possible effects of income level, population density, education, and age with respect to decisions concerning wool apparel and fabric.

Description of Sample

One hundred and eighteen Extension Homemaker Lesson Leaders participated in the study. Background information for the participants shown in Table I includes age, income, number in the household, education, and population density.

Age of participants ranged from 20 to over 70 years of age. Almost half (49%) of the participants were in the 50 to 69 year age group. The 40 to 49 year age group included 16% of the participants. Eleven percent were in each of the 20 to 29, 30 to 39, and 70 and above age groups.

Income of the participants ranged from below $4,999 to $39,999, as shown in Table I. None reported an income over $40,000. Over

TABLE I

CHARACTERISTICS OF RESPONDENTS

Classification	Number	Percent
Age Range		
20-29	12	11
30-39	13	11
40-49	18	16
50-59	26	23
60-69	29	26
70 and above	13	11
Total	111[a]	99[b]
Income Level		
Below $4,999	15	14
$5,000 to $7,999	18	16
$8,000 to $10,999	23	21
$11,000 to $13,999	12	11
$14,000 to $16,999	17	15
$17,000 to $19,999	7	6
$20,000 to $24,999	6	5
$25,000 to $29,000	8	7
$30,000 to $40,000	5	4
Above $40,000	0	0
Total	111[a]	99[b]
Number in the Household		
1 person	14	13
2	60	54
3	18	16
4	7	6
5	10	9
6	1	1
7 or more	1	1
Total	111[a]	100
Education Level		
8th grade or less	6	5
Some high school	17	15
High school graduate	33	30
High school & some college or technical training	39	35
College graduate	10	9
Advanced degree beyond bachelors	6	5
Total	111[a]	99[b]

TABLE I (Continued)

Classification	Number	Percent
Living Situation		
Outside of city limits	29	26
Town under 5,000 population	16	14
Town between 5,001 and 25,000	20	18
City 25,000 and 75,000 population	6	5
City 75,000 population and over	40	36
Total	111[a]	99[b]

[a]Only 111 of the 118 answered questions.

[b]Not 100% because of rounding.

one-half (53%) of the participants indicated an annual household income of between $8,000 and $19,999. Twenty-one percent of the group were in the $8,000 to $10,999 income range. Thirty percent of the participants were in the two lowest income levels. The income level below $4,999 group represented 14% of the participants and $5,000 to $7,999 income level represented a smaller portion of the participants (16%). The remaining participants (22%) indicated higher incomes ranging from $20,000 to $39,999.

The participants tended to live in small households. Approximately half of the participants (54%) lived in two member households. Eighteen participants indicated three member households (16%) and nineteen of the participants (17%) had four or more persons living in the household. Thirteen percent of the group lived along (see Table I).

Sixty-five percent of the participants were either a high school graduate (30%) or had some college or technical training (35%). Some participants had attended, but had not graduated from high school (15%). Few participants (5%) had an eighth grade education or less. College graduates and those holding advanced degrees beyond the bachelor's were 9% and 5%, respectively. The participants' living situations were evenly divided between: (1) a city of 75,000 population or more, and (2)those living outside a city and town limits or a town under 5,000 population. Approximately one-third of the participants (36%) lived in a city of 75,000 population and over. Participants who lived outside a city or town limits (26%), those who lived in a town having a population of 5,001 to 25,000 (18%), and those who lived in a town under 5,000 population (14%) accounted for a large portion of the sample. Participants living in a city of 25,000 to 75,000 population (5%) were few.

Characteristics of Wool

The participants were asked to rank six given characteristics of wool. A score of one indicated the most liked characteristic and a score of six indicated the least liked characteristic. Results are given in Table II.

A rank analysis derived from the mean of the ranked characteristics revealed that appearance was the most liked characteristic, durability was second, and ease in tailoring was third. Ranked fifth and sixth were water repellency and fire resistance, respectively (see Table III).

TABLE II

RANKED CHARACTERISTICS OF WOOL
(N=54)

Wool Characteristics	Ranked Preferences for Wool Characteristics					
	1	2	3	4	5	6
Appearance	23	18	7	4	2	0
Durability	15	11	18	10	0	0
Ease in Tailoring	2	8	14	20	4	6
Fire Resistance	1	1	2	2	24	24
Additional Warmth	13	16	11	8	3	3
Water Repellency	0	0	2	10	21	21
Total	54	54	54	54	54	54

TABLE III

RANK ANALYSIS OF WOOL CHARACTERISTICS

Wool Characteristics	Means
Appearance	1.96
Durability	2.42
Additional Warmth	2.64
Ease in Tailoring	3.62
Water Repellency	5.12
Fire Resistance	5.20

The calculated chi-square was 151.46; a much larger number than the tabulated chi-square of 11.07, indicating that there was a difference among the participants' ranking preferences. The FRMSC test was applied to the data to indicate the differences among the ranking

of choices. The difference between the means was less than the $LSD_{.05}$ tabulated value of 1.026 which showed that there was no significant difference in the women's preferences between (1) durability and appearance, (2) warmth and appearance, (3) durability and warmth, (4) warmth and ease in tailoring, and (5) water repellency and fire resistance (see Table IV for results).

TABLE IV

ORDERED TABLE OF MEANS FOR WOOL CHARACTERISTICS

Wool Characteristics	Mean Rank	Subtracted Numbers				
		a.	d.	a.w.	e.t.	w.r.
Fire resistance (f.r.)	5.20	3.24	2.78	2.56	1.58	.08*
Water repellency (w.r.)	5.12	3.16	2.70	2.48	1.50	
Ease in Tailoring (e.t.)	3.62	1.66	1.20	.98		
Additional warmth (a.w.)	2.64	.68*	.22*			
Durability (d.)	2.42	.46*				
Appearance (a.)	1.96					

*Note: Subtracted numbers which are less than the $LSD_{.05}$ value of 1.026 indicated no significant difference between ranks of wool characteristics.

Problems of Wool Wearing Apparel

Participants were asked to rank the disadvantageous characteristics of wool wearing apparel. A score of one indicated the characteristic created the least problem and a score of seven indicated the characteristic had given the most problems. Fifty-four of the

participants ranked the characteristics. A rank analysis of means revealed that there was not a great difference in the ranking of the seven characteristics. Dry-cleaning was considered not to be a problem as it was ranked first by sixteen participants; thirteen of the participants, however, indicated that dry-cleaning was a problem by their ranking. The allergies characteristic was ranked as a least problem by twenty of the participants and the characteristic causing the most problems for sixteen participants (see Table V).

TABLE V

RANKED PROBLEMS OF WOOL WEARING APPAREL

Wool Problem	Ranked Preferences for Wool Problems						
	1	2	3	4	5	6	7
Allergies	16	6	1	2	1	8	20
Dry-Cleaning	16	7	5	5	6	2	13
Expensive	5	4	15	5	9	13	3
Irritates the Skin	9	8	5	5	7	13	7
Moth Holes	1	11	6	7	13	10	6
Does Not Hold Press	5	9	11	16	7	5	1
Does Not Hold Shape	2	9	11	14	11	3	4
Total	54	54	54	54	54	54	54

The rank analysis of means were all within scores of 3.55 to 4.37. Characteristics were ranked as follows: doesn't hold press, 3.55; dry-cleaning, 3.66; doesn't hold shape; 3.88; irritates the skin, 4.11; expensive, 4.11; allergies, 4.29; and last ranked, moth holes, 4.37.

All the mean scores indicated the possibility that there was no difference in the ranking of the wool problems. There was very little difference in the score of the first ranked problem (3.55) and the seventh ranked problem (4.37) (Table VI).

TABLE VI

RANK ANALYSIS OF WOOL PROBLEMS

Wool Problem	Means of Wool Problems
Does Not Hold Press	3.55
Dry-Cleaning	3.66
Does Not Hold Shape	3.88
Irritates the Skin	4.11
Expensive	4.11
Allergies	4.29
Moth Holes	4.37

When the FCS test was applied to the data, the calculated chi-square was 8.732 and the tabulated chi-square was 11.07. Since the tabulated chi-square was larger than the calculated chi-square, there were no significant differences among the seven disadvantages characteristics of wool. The FRMC test was not applied to the data as the FCS test indicated no significant difference among the choices ranked by the participants.

Price No Object/Woman's Suit

The participants were asked to rank fabric preferences for a home tailored woman's suit. Price was to be disregarded. Choices were ranked from one, indicating the first choice, through five indicating the last choice. Sixty-seven women ranked the fabric preferences.

Polyester fabric was ranked first 49 times; wool fabric and wool/polyester blend fabrics were ranked first seven times. Wool/polyester blend fabric was ranked second 32 times and third by 20 of the participants. Wool fabric was ranked as the last choice by 24 participants and acrylic fabric was ranked last 26 times. The fabric choices and ranking are tabulated in Table VII.

TABLE VII

FABRIC PREFERENCES FOR A TAILORED WOMEN'S SUIT/PRICE NO OBJECT (N=67)

Fabric Choice	Ranked Preferences for Fabrics				
	1	2	3	4	5
Acrylic	1	18	7	15	26
Polyester	49	5	4	5	4
Wool/Polyester	7	32	20	8	0
Wool/Nylon	3	7	23	21	13
Wool	7	5	13	18	24
Total	67	67	67	67	67

The rank analysis of means for fabric choices revealed a first place score of 1.66 for polyester fabric, wool/polyester blend fabric had a second place score of 2.43, wool/nylon blend fabric was scored third with a 3.51, and wool fabric and acrylic fabric placed last in the ranked order with scores of 3.70 each. A rank analysis of means is shown in Table VIII.

TABLE VIII

RANK ANALYSIS OF FABRIC PREFERENCES FOR A TAILORED WOMAN'S SUIT/PRICE NO OBJECT

Fabric Choice	Means
Polyester	1.66
Wool Polyester	2.43
Wool/Nylon	3.51
Wool	3.70
Acrylic	3.70

The FCS test was applied to the data to evaluate the fabric choice ranks. The calculated chi-square was 90.256 which was greater than the tabulated chi-square of 9.488, revealing a difference among the choices ranked.

The FRSMC test was applied to the data to obtain fabric choice rank differences. Table IX notes the subtracted mean score to be larger than the $LSD_{.05}$ value of 0.75, indicating that there was a significant difference among these choices. The subtracted mean

scores which are smaller than the $LSD_{.05}$ value of 0.75 indicate no significant differences for fabric choices between: (1) wool and wool/nylon blend fabrics, (2) acrylic and wool/nylon blend fabrics, and (3) wool and acrylic fabrics.

TABLE IX

ORDERED TABLE OF MEANS OF FABRIC PREFERENCES
FOR WOMAN'S SUIT/PRICE NO OBJECT

Fabric Preferences	Mean Rank	Subtracted Numbers			
		p.	w.p.	w.n.	w.
Acrylic (a.)	3.70	2.05	1.27	.19*	0*
Wool (w.)	3.70	2.05	1.27	.19*	
Wool/Nylon (w.n.)	3.51	1.85	1.08		
Wool/Polyester (w.p.)	2.43	.78			
Polyester (p.)	1.66				

*Note: Subtracted numbers which are less than the $LSD_{.05}$ value of 0.75 indicated no significant difference between ranks of fabric preferences.

Price No Object/Man's Suit

When the participants were asked to rank the given fabric choices for a home tailored man's suit, polyester fabric was ranked first by 31 of the 59 usable questionnaires. Wool/polyester blend fabric was ranked first by 17 participants, wool fabric was ranked first nine times and last 14 times. Fabric choices ranked by the frequency are given in Table X.

TABLE X

FABRIC PREFERENCE FOR A TAILORED MAN'S SUIT/PRICE NO OBJECT (N=59)

Fabric Choice	Ranked Preferences for Fabrics				
	1	2	3	4	5
Acrylic	0	9	2	14	34
Polyester	31	8	4	10	6
Wool/Polyester	17	23	18	1	0
Wool/Nylon	2	11	23	18	5
Wool	9	8	12	16	14
Total	59	59	59	59	59

Fabric choice preferences analyzed by rank analysis of means confirmed that wool/polyester blend fabric was the first choice with a score of 2.05, polyester fabric was ranked second with a score of 2.18, wool/nylon blend fabric was ranked third with a score of 3.22, wool fabric fourth with a score of 3.30, and acrylic fabric was ranked last with a score of 4.23. The ranked choices are given in Table XI.

The FCS test was calculated to evaluate the fabric choice ranks. A calculated chi-square of 76.352 was larger than the tabulated chi-square of 9.488, indicating a difference among ranks.

The FRSMC test was applied to the data to indicate the difference among the ranks. The $LSD_{.05}$ value was 0.79. No significant difference between fabric choices ranked by the participants were shown for: (1) polyester and wool/polyester blend fabrics and for (2) wool and wool/nylon blend fabrics.

TABLE XI

RANK ANALYSIS OF FABRIC PREFERENCES FOR
A TAILORED MAN'S SUIT/PRICE
NO OBJECT

Fabric Choice	Means of Fabric Preferences
Wool/Polyester	2.05
Polyester	2.18
Wool/Nylon	3.22
Wool	3.30
Acrylic	4.23

TABLE XII

ORDERED TABLE OF MEANS FOR FABRIC
PREFERENCES FOR MAN'S SUIT/
PRICE NO OBJECT

Fabric Choice	Mean Rank	Subtracted Numbers			
		w.p.	p.	w.n.	w.
Acrylic (a.)	4.24	2.19	2.05	1.02	.93
Wool (w.)	3.31	1.26	1.12	.09*	
Wool/Nylon (w.n.)	3.22	1.17	1.03		
Polyester (p.)	2.19	.14			
Wool/Polyester (w.p.)	2.05				

*Note: Subtracted numbers which are less than the $LSD_{.05}$ value of 0.75 indicated no significant difference between ranks of fabric preferences for man's suit.

Fabric Preferences for a Woman's Ready-to-Wear Suit

The participants ranked their fabric choices for a ready-to-wear woman's suit. Price was to be considered. Polyester fabric was ranked first by 54 of the 65 persons answering the question. Wool/polyester fabric was ranked first eight times. Three persons ranked wool as the most desirable fabric. Wool/nylon fabric and acrylic fabric were not chosen first by any of the participants (Table XIII).

TABLE XIII

FABRIC PREFERENCES FOR READY-TO-WEAR WOMAN'S SUIT (N=65)

Fabric Choice	Ranked Preferences for Fabric				
	1	2	3	4	5
Acrylic	0	25	4	14	22
Polyester	54	3	2	3	3
Wool/Polyester	8	23	25	7	2
Wool/Nylon	0	10	24	23	8
Wool	3	4	10	18	30
Total	65	65	65	65	65

A rank analysis of means confirmed that polyester fabric ranked as the highest preference with a 1.43 score. The second highest score was 2.56 for wool/polyester fabric; wool/nylon blend fabric was ranked third with a 3.44 score. Acrylic fabric with a score of 3.50 and wool

fabric with a score of 4.04 were ranked fourth and fifth, respectively. The rank analysis of means is given in Table XIV.

TABLE XIV

RANK ANALYSIS OF FABRIC PREFERENCES FOR READY-TO-WEAR WOMAN'S SUIT

Fabric Choice	Means
Polyester	1.43
Wool/Polyester	2.56
Wool/Nylon	3.44
Acrylic	3.50
Wool	4.04

The FCS test to evaluate the rank analysis of means was calculated with a chi-square of 101.776. The tabulated chi-square was 13.28 which was less than the calculated score indicating a difference among fabric choices of the participants.

The FRSMC test was applied to the data to evaluate the difference among the choices ranked. The $LSD_{.05}$ value was 0.76 which was more than the subtracted mean score for: (1) acrylic and wool/nylon blend fabrics, (2) wool and wool/nylon blend fabrics, and (3) wool and acrylic fabrics, indicating no significant difference in these choices of fabrics by the participants (Table XV).

TABLE XV

ORDERED TABLE OF MEANS FOR FABRIC PREFERENCES
FOR READY-TO-WEAR WOMAN'S SUIT

Fabric Preferences	Mean Rank	Subtracted Numbers			
		p.	w.p.	w.n.	a.
Wool (w.)	4.04	2.61	1.48	.60*	.54*
Acrylic (a.)	3.50	2.07	.94	.06*	
Wool/Nylon (w.n.)	3.44	2.01	.88		
Wool/Polyester (w.p.)	2.56	1.13			
Polyester (p.)	1.43				

*Note: Subtracted numbers which are less than the $LSD_{.05}$ value of 0.76 indicated no significant difference between ranks of fabric preferences.

Fabric Preferences for a Woman's Home Sewn Suit

A question regarding fabric choice for a woman's home sewn suit was answered by the participants. Price was to be considered. After ranking the choices, polyester fabric was ranked first 49 times by the 59 participants answering the question. Wool fabric was ranked fifth by 31 of the participants. A frequency distribution is shown in Table XVI.

Polyester fabric ranked first with a score of 1.42 in the rank analysis of means. A score of 2.54 was given to second place wool/polyester blend fabric. Acrylic fabric scored third with a 3.40 score. The wool/nylon blend fabric ranked fifth with a 4.06 score (see Table XVII).

TABLE XVI

FABRIC PREFERENCES FOR HOME SEWN WOMAN'S SUIT
(N=59)

Fabric Choice	Ranked Preferences for Fabrics				
	1	2	3	4	5
Acrylic	0	24	4	14	17
Polyester	42	2	3	3	2
Wool/Polyester	4	25	25	4	1
Wool/Nylon	1	5	21	24	8
Wool	5	3	6	14	31
Total	59	59	59	59	59

TABLE XVII

RANK ANALYSIS OF FABRIC PREFERENCES FOR HOME
SEWN WOMAN'S SUIT

Fabric Choice	Means of Fabric Preference
Polyester	1.42
Wool/Polyester	2.54
Acrylic	3.40
Wool/Nylon	3.55
Wool	4.06

The FCS test was applied using the rank analysis of mean data. The calculated chi-square was 101.776, which was larger than the tabulated chi-square of 9.488, confirming a difference among the fabric choices.

The FRSMC test was used to determine the least significant difference among the ranks. Subtracted mean scores less than the $LSD_{.05}$ value of 0.79 indicated no significant difference in women's preference between: (1) wool/nylon blend and acrylic fabrics, (2) wool and acrylic fabrics, and (3) wool/nylon blend and wool fabrics (see Table XVIII).

TABLE XVIII

ORDERED TABLE OF MEANS FOR FABRIC PREFERENCES FOR HOME SEWN WOMAN'S SUIT

Fabric Preferences	Mean Rank	Subtracted Numbers			
		p.	w.p.	a.	w.n.
Wool (w.)	4.06	2.64	1.52	.66*	.51*
Wool/Nylon (w.n.)	3.55	2.13	1.01	.15*	
Acrylic (a.)	3.40	1.98	.86		
Wool/Polyester (w.p.)	2.54	1.12			
Polyester (p.)	1.42				

*Note: Subtracted numbers which are less than the $LSD_{.05}$ value of 0.79 indicated no significant difference between ranks of fabric preferences.

Fabric Preferences for a Man's Ready-to-Wear Suit

Fabric choices for a man's ready-to-wear suit, considering price, were ranked by 59 of the participants and out of that number 49 ranked polyester fabric first. Wool/polyester blend fabric was ranked first four times, and wool fabric was ranked first five times.

Wool fabric was ranked last 31 times (see Table XIX for ranking of fabric choices).

TABLE XIX

FABRIC PREFERENCES FOR READY-TO-WEAR MAN'S SUIT
(N=59)

Fabric Choice	Ranked Preferences for Fabrics				
	1	2	3	4	5
Acrylic	0	24	4	14	17
Polyester	49	2	3	3	2
Wool/Polyester	4	25	25	4	1
Wool/Nylon	1	5	21	24	8
Wool					
Total	59	59	59	59	59

A rank analysis was tabulated to compare the five fabric choices. Polyester fabric was first with a mean score of 1.42 and wool/polyester fabric was second with a mean score of 2.54. Acrylic fabric was third with a 3.40 score. Wool/nylon blend fabric was fourth with a 3.55 score and last was wool fabric with a score of 4.06. Refer to Table XX for means of fabric choices.

The rank analysis was tested with the FCS test. The calculated chi-square of 71.5375 was larger than the tabulated chi-square of 9.488, indicating a significant difference in choices of fabric.

The FRSMC test was calculated to determine the significant difference among the choices ranked. The $LSD_{.05}$ value of 0.79 was larger

than the subtracted mean scores: (1) wool/nylon blend and acrylic fabrics, (2) wool and acrylic fabrics, and (3) wool and wool/nylon blend fabrics, indicating no significant difference between the fabric choices ranked by the participants (see Table XXI).

TABLE XX

RANK ANALYSIS OF FABRIC PREFERENCES
FOR READY-TO-WEAR MAN'S SUIT

Fabric Choice	Means of Fabric Preferences
Polyester	1.42
Wool/Polyester	2.54
Acrylic	3.40
Wool/Nylon	3.55
Wool	4.06

TABLE XXI

ORDERED TABLE OF MEANS FOR FABRIC PREFERENCES
FOR READY-TO-WEAR MAN'S SUIT

Fabric Preferences	Mean Rank	Subtracted Numbers			
		p.	w.p.	a.	w.n.
Wool (w.)	4.06	2.64	1.52	.66*	.15*
Wool/Nylon (w.n.)	3.55	2.13	1.01	.15*	
Acrylic (a.)	3.40	1.98	.86		
Wool/Polyester (w.p.)	2.54	1.12			
Polyester (p.)	1.42				

*Note: Subtracted numbers which are less than the $LSD_{.05}$ value of 0.79 indicated no significant difference between ranks of fabric preferences.

Fabric Preferences for a Man's Home Sewn Suit

Participants were questioned regarding fabric choice for a home tailored man's suit. Price was to be considered. Fifty-three participants ranked polyester fabric first 37 times. Wool/polyester blend fabric was ranked first 11 times. Acrylic fabric was ranked last 22 times and wool fabric was ranked last 19 times. Table XXII shows the fabric choices and rank distribution.

TABLE XXII

FABRIC PREFERENCES FOR HOME SEWN MAN'S SUIT
(N=53)

Fabric Choices	Ranked Preference for Fabrics				
	1	2	3	4	5
Acrylic	1	15	4	11	22
Polyester	37	3	5	5	3
Wool/Polyester	11	18	14	9	1
Wool/Nylon	2	9	18	16	8
Wool	2	8	12	12	19
Total	53	53	53	53	53

A rank analysis of means was computed on the five fabric rankings. The mean score for polyester fabric was 1.75, the highest. A mean score of 2.45, the second highest, was given for wool/polyester blend fabric. Wool/nylon blend and wool fabrics tied for third with a 3.55

mean score. Acrylic fabric was last with a mean score of 3.71 (see Table XXIII).

TABLE XXIII

RANK ANALYSIS OF FABRIC PREFERENCES FOR HOME SEWN MAN'S SUIT

Fabric Choice	Means
Polyester	1.75
Wool/Polyester	2.45
Wool/Nylon	3.35
Wool	3.71
Acrylic	3.71

The FCS test was calculated using the data from the rank analysis. The calculated chi-square was 63.743, which was larger than the tabulated chi-square of 9.488, indicating a difference among the fabric choices.

To indicate the least significant difference among fabric choices ranked by the participants, the FRSMC test was calculated. The subtracted mean scores, which were less than the $LSD_{.05}$ value of 0.84, indicated no significant differences between: (1) wool/polyester blend and polyester fabrics, (2) wool/nylon blend and wool fabrics, (3) wool/nylon blend and acrylic fabrics, and (4) wool and acrylic fabrics (see Table XXIV).

TABLE XXIV

ORDERED TABLE OF MEANS FOR FABRIC PREFERENCES
FOR HOME SEWN MAN'S SUIT

Fabric Preference	Mean Rank	Subtracted Numbers			
		p.	w.p.	w.n.	w.
Acrylic (a.)	3.71	1.96	1.26	.36*	0*
Wool (w.)	3.71	1.96	1.26	.36*	
Wool/Nylon (w.n.)	3.35	1.60	.90		
Wool/Polyester (w.p.)	2.45	.70*			
Polyester (p.)	1.75				

*Note: Subtracted numbers which are less than $LSD_{.05}$ value of 0.84 indicated no significant difference between ranks of fabric preferences.

Fabric Worn Most During the Cold Weather

The participants were asked to rank given fabric choices that they preferred to wear during cold weather. Polyester fabric was preferred by 91 of the 110 respondents. Wool fabric was chosen to be worn by eight participants, and wool/nylon blend fabric was chosen to be worn most often by seven women. The remaining responses included nylon, cotton, and acrylic fabrics (see Table XXV).

Evaluation of Wool Characteristics

A "yes" or "no" response was requested for eight possible problem causing characteristics of wool wearing apparel. The characteristic most frequently considered a problem by approximately three-fourths (74.03%) of the participants was skin irritation and scratchiness

caused by wool fabric. Cleaning of wool, also, was considered by approximately three-fourths (74.22%) of the participants to be a problem. Approximately two-thirds (65%) of the participants considered home care a problem connected with wool fabric. Over half of the participants (58%) thought price to be of importance in choosing wool fabric. Less than half of the participants (41%), however, indicated that price was not a problem. Allergies to wool was a problem for approximately one-third (35%) of the participants who responded. Sewing skills required for wool fabric were not a problem for a majority (72%) of the respondents. Sewing skills, however, were considered a problem by a portion of the participants (28%). Wool fabric availability was not considered to be a problem for most (68%) of the participants. Thirty-nine persons did not respond to the question. Responses are shown in Table XXVI.

Experiences with Washable Wool Garments

One hundred and four participants checked one of five choices given to indicate their experience with washable wool fabric. Over one-third (36%) of the participants indicated that washable wool fabric could be improved, that some shrinkage did occur, and that fabric appearance changed somewhat after washing. Less than one-third (29%) indicated that they had never laundered washable wool fabrics. Satisfactory washing results were reported by some women (18%); highly satisfactory results by few women (9%). The smallest portion of women (5%) indicated that washable wool fabric, when washed, resulted in a

ruined garment. Fourteen participants did not respond to the question about washable wool experiences. Results are given in Table XXVII.

TABLE XXV

FABRIC WORN MOST OFTEN DURING COLD WEATHER
(N=110)

Fabric Choice	Frequency	Percentage
Polyester	91	82.73
Acrylic	1	.91
Wool	8	7.27
Wool/Nylon	7	6.36
Nylon	2	1.82
Cotton	1	.90
Total	110	99.99*

*Note: Total not 100 because of rounding.

TABLE XXVI

EVALUATION OF WOOL CHARACTERISTICS

Wool Characteristics	A Problem		Not a Problem		No Response
	No.	%	No.	%	Number
Irritates the skin, scratchy	77	74.03	27	25.96	14
Cleaning	72	74.22	25	25.77	21
Home Care	58	65.90	30	34.09	30
Price	50	58.14	36	41.86	32
Allergies	33	35.48	60	64.51	25
Not versatile for Oklahoma climate	31	38.75	49	61.25	38
Availability	25	31.64	54	68.35	39
Sewing skills	23	28.04	59	71.95	36

TABLE XXVII

EXPERIENCES OF RESPONDENTS WITH WASHABLE WOOL GARMENTS

Results	Frequency	Percentage
High Satisfactory--As Good as Before	10	9.6
Satisfactory--Minimum Change in Fabric	19	18.3
Room for Improvement--Some Shrinkage and Fabric Appearance Changed Some	38	36.5
Unsatisfactory--Garment Couldn't be Worn After Laundering	6	5.8
Have Never Laundered Washable Wool	31	29.8
Total	104	100

Purchasing Washable Wool

When the participants were asked whether or not they would purchase a washable wool garment or fabric, the majority (16%) indicated that they would and approximately one-third (38%) indicated that they would not purchase a washable wool garment. Three participants did not respond to the question. Responses are shown in Table XXVIII.

Machine Laundering of Washable Wool

The participants were asked how they cared for washable wool fabric. Almost half (44%) answered that they would always dry-clean washable wool fabric. Thirty-five percent indicated that they would

sometimes launder washable wool fabric. Twenty percent responded that they would always machine launder washable wool fabric (see Table XXIX).

TABLE XXVIII

PURCHASING WASHABLE WOOL GARMENTS
(N=118)

Response	Frequency	Percentage
No	44	38.3
Yes	71	61.7
No Response	3	
Total	118	100

TABLE XXIX

PREFERENCES FOR MACHINE LAUNDERING
OF WASHABLE WOOL
(N=104)

Response	Frequency	Percentage
Always	21	20.2
Sometimes	37	35.6
Always Dry-Clean	46	44.2
	104	100

Effect of Dry-Cleaning on Purchase of Wool

When the participants were asked how much effect the cost of dry-cleaning would have on their purchasing of wool fabric, almost all (81%) indicated that it had some effect. Nine percent answered that dry-cleaning had little effect on the purchase of wool fabric. Eight percent responded that the cost of dry-cleaning had no effect on their purchase of wool fabric. Four persons did not respond. Responses are shown in Table XXX.

TABLE XXX

EFFECT OF DRY-CLEANING ON PURCHASE OF WOOL
(N=114)

Response	Frequency	Percentage
Little Effect	11	9.6
No Effect	10	8.8
Some Effect	93	81.6
Total	114	100

How are Wool Garments Worn

The participants were asked how or in what combinations they wore wool garments. When asked if wool garments were worn over a blouse, skirt, or something else to keep wool garments from touching the skin, approximately three-fourths (73%) of the women answered yes. Seven women did not respond to the question (see Table XXXI).

TABLE XXXI

PREFERENCE FOR WEARING WOOL GARMENTS
(N=111)

Response	Frequency	Percentage
Over Another Garment	81	73
Next to Skin	30	27
Total	111	100

Medically Diagnosed Allergy to Wool

Participants were asked if they or a member of their household had a medically diagnosed allergy to wool. One-fourth of the women indicated that they did have a medically diagnosed allergy to wool. Results are given in Table XXXII.

TABLE XXXII

MEDICALLY DIAGNOSED ALLERGY TO WOOL
(N=114)

Response	Frequency	Percentage
Yes	29	25.4
No	85	74.6
Total	114	100

Wool or Wool Blend Garments in Wardrobes

Wool or wool blend sweaters (167) were found most often in the 118 participants' wardrobe. Skirts (98) were listed next in frequency, followed by wool coats (81), slacks (77), jackets (70), and wool dresses (68). A total of 12 other garments were also listed. A summary is given in Table XXXIII.

TABLE XXXIII

NUMBER OF WOOL OR WOOL BLEND GARMENTS IN WARDROBES

Garment	Numbers
Sweaters	167
Skirts	98
Coats	81
Slacks	77
Jackets	70
Dresses	68
Other	12
Total	573

Wool or Wool Blend Garments that Could be Added to Wardrobe

Wool slacks (56) were the most often selected garment to be added to the participant's present wardrobe. Sweaters (49), jackets (48), skirts (44), and coats (43) were listed next by the participants.

Dresses (27) were least desired to be added to the present wardrobe. A summarization of garments is given in Table XXXIV.

TABLE XXXIV

WOOL GARMENTS THAT COULD BE ADDED TO PRESENT WARDROBE

Garment	Numbers
Slacks	56
Sweaters	49
Jackets	48
Skirts	44
Coats	43
Dresses	27
Other	4
Total	271

Polyester fabric was chosen by the participants more often than was any other fabric for men's and women's tailored suits. The blended wool fabrics of wool/nylon and wool/polyester were more often preferred for tailored men's suits disregarding or regarding price and were more often preferred than were wool fabrics.

Wool fabric appearance was liked most by the participants. The durability of wool was listed second highest of the liked characteristics. No significant difference among ranks for wool fabric problems was revealed.

The most common problem indicated by the participants was irritation to the skin caused by wool fabric. Allergy to wool fabric was

indicated to be a problem by approximately one-third of the participants. Approximately three-fourths preferred to wear wool garments over another garment, rather than next to the skin. One-fourth of the participants indicated that either they or a member of their household had a medically diagnosed allergy to wool.

When the participants were asked about some other problems, home care and price of wool fabric and garments were indicated to be a problem for a majority. Over one-third indicated that wool was not versatile for Oklahoma climate. Less than one-third indicated that wool was not available. Over one-fourth indicated a problem in sewing skills used on wool.

More than one-third of the women indicated that their experiences with washable wool garments needed improvement. Almost half indicated that they would dry-clean washable wool fabric. More than half of the women, however, indicated that they would purchase washable wool fabric.

More wool garments were presently in personal wardrobes than were the number of wool garments to be added to wardrobes. As might be expected, sweaters were the most often reported wool garment in the present wardrobe and were often reported to be added to wardrobes. The number of wool garments indicated in present wardrobes was 573, more than twice the number of wool garments to be added to wardrobes.

Based on the findings, the following implications are drawn regarding the selection or rejection of wool. Perhaps the participants preferred polyester for the convenience of laundering in the home as opposed to taking wool garments to the dry-cleaners. Generally, blended wool fabrics cost less than wool fabrics. The results show that perhaps

consumers need to be better informed of the launderability of washable wool. Since the mid-sixties when wool was more often worn, panty hose were not yet on the market for the consumer. Panty hose might protect the wearer from the skin irritation of wool, especially when wearing unlined wool slacks and skirts. Slacks and sweaters were the most often chosen garments to be added to present wardrobes which might be more comfortable with lowered thermostats.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of the study was to determine the reasons for consumer selection or rejection of wool apparel and fabric. Another purpose was to determine if there were possible effects of income level, population density, education, and age with respect to decisions concerning the use of wool in apparel and fabric by a selected group of consumers. Data were obtained through the use of a questionnaire administered to 119 women members of six county Extension Homemaker lesson training meetings during July, August, or September, 1977.

Findings from the study indicated that regardless of price, garment for male or female, ready-to-wear or home sewn garments, or garments for cold weather, polyester fabric was the most preferred fabric of the five choices given. When fabric preferences for tailored men's suit, regarding or disregarding price, were considered, however, wool/polyester blend fabric and wool/nylon blend fabric were both ranked high, and were not significantly different. Blends of wool/polyester and wool/nylon were preferred by the group tested rather than wool fabric. Wool/polyester blend fabric was ranked first once and ranked second in the rank analysis five of the six times. Preference for wool/nylon blend fabric was ranked third four of six times. The findings from the study on fabric preference may indicate that the participants preferred polyester for the easy care of women's garments

and for men's garments wool blends were preferred for their appearance and additional warmth in cold weather. Wool fabric ranked last three times and fourth three times. Acrylic and wool fabrics were the least preferred fabric choices of the five choices given. The findings from the study may indicate that the participants did not prefer wool primarily for the dry-cleaning cost, or the doubts concerning washable wool launderability and the risk involved.

There was no significant difference among the ranks of wool problems. Appearance, warmth, durability, and ease in tailoring were the most preferred in wool wearing apparel. There was no significant difference between ranks of the women's preferences to (1) durability and appearance, (2) warmth and appearance, (3) durability and warmth, (4) warmth and ease in tailoring, and (5) water repellence and fire resistance. The findings show no significant difference between the wool problems and characteristics of wool which may indicate the participants were not aware of the wool characteristics.

Most of the participants did not want to machine launder washable wool, only a small portion (20%) of the participants would always machine launder machine washable wool. When the group was asked about their experiences with washable wool fabric, approximately one-third (37%) indicated a need for improvement of the fabric. Almost one-third (31%) had never laundered washable wool fabric. Approximately two-thirds (62%) indicated they would purchase washable wool fabric. A majority of participants (81%) indicated that dry-cleaning of wool had some effect on their purchase of wool fabric. The study may indicate the participants were not choosing wool because of

dry-cleaning cost and the fear of a ruined garment if machine washable wool were laundered. Although most of the participants (62%) indicated they would purchase washable wool fabric, more (80%) indicated that they did not want to machine launder washable wool.

Approximately three-fourths (73%) preferred to wear wool garments over another garment rather than next to the skin. A medically diagnosed allergy to wool was a problem for one-fourth (25%) of the group or for a member of the household of the 114 respondents who answered question 18. Even a greater number of participants (35%) indicated allergy was a problem when asked to check a list of wool problems. These results may indicate that wool fabric was ranked low because of skin irritation and a medically diagnosed allergy to wool fabric.

Participants were asked to list the number of wool garments in their personal wardrobes and then asked to list the number of wool garments that they would like to add to their personal wardrobes. The number of wool garments in present personal wardrobes was more than two times greater than the number of wool garments to be added to wardrobes. Women do not seem to be replacing or updating their future wardrobes with as many wool garments as they have had in the past, but when they do, slacks and sweaters will be the choice.

Recommendations for further studies include the following:

1. Investigate wool wearing apparel attitudes of male white collar workers.

2. Conduct a survey or wool fabric attitudes among students who have tailored garments.

3. Pretest and test the attitudes toward wool with a group of home sewers purchasing washable wool fabric.

4. Investigate the attitudes of women working outside the home toward wool wearing apparel.

5. Conduct a survey of wool fabric attitudes with a selected group of consumers in another region of the United States.

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APPENDIXES

APPENDIX A

LETTER OF APPROVAL FOR CONDUCTING RESEARCH WITH EXTENSION HOMEMAKER GROUPS IN THE SIX COUNTIES

Courthouse, Room 103
Stillwater, OK 74074
June 22, 1977

Janice L. Sharkey
Extension Home Economics - 4-H
Courthouse, Room 103
Stillwater, OK 74074

Dear Janice:

In regard to your research for your Masters, it will be satisfactory to conduct the research in the counties in the Central District that you need to use in the research project.

This has previously been approved by Dr. Taggert, Associate Director of Cooperative Extension.

Sincerely,

Edward Gregory
District Extension Director
Central District

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APPENDIX B

QUESTIONNAIRE

OPINION QUESTIONNAIRE

Your willingness to be of assistance in this research project is greatly appreciated. Please check or fill in answers as appropriate to each question. There are no right or wrong answers. Since your name is not required, please be as honest in your answers as possible. This is not a test. Results will be reported in groups, not by individuals.

1. Indicate your age. (check one)

   _____20-29
   _____30-39
   _____40-49
   _____50-59
   _____60-69
   _____70-79
   _____80 and above

2. Estimate the approximate total of your household income for the past 12 months. (check one)

   _____Below $4,999
   _____$5,000 to $7,999
   _____$8,000 to $10,999
   _____$11,000 to $13,999
   _____$14,000 to $16,999
   _____$17,000 to $19,999
   _____$20,000 to $24,999
   _____$25,000 to $29,999
   _____$30,000 to $40,000
   _____Above $40,000

3. Indicate the number in the household at the present time. (check one)

   _____1
   _____2
   _____3
   _____4
   _____5
   _____6
   _____7 or more

4. Indicate the answer which best describes your educational background. (check one)

   _____A. 8th grade or less
   _____B. Some high school
   _____C. High school grad
   _____D. High school & some college or technical training
   _____E. College graduate
   _____F. Advanced degree beyond bachelors

5. Indicate the answer which best describes your living situation. (check one)

   _____A. Presently living outside of city or town limits
   _____B. Presently living in a town under 5,000 population
   _____C. Presently living in a town between 5,001 and 25,000 population
   _____D. Presently living in a city 25,000 to 75,000 population
   _____E. Presently living in a city 75,000 population and over

6. Rank the following wool characteristics of how you feel about wool wearing apparel. 1 is most liked. 6 is least liked.

_____A. Durability	_____D. Appearance
_____B. Fire resistant	_____E. Additional warmth
_____C. Water repellent	_____F. Ease in tailoring

7. Rank the following problems or disadvantages of wool in wearing apparel. 1 for least problem. 7 for most problem.

_____A. Drycleaning	_____E. Expensive
_____B. Moth holes	_____F. Irritates skin
_____C. Doesn't hold press	_____G. Medically diagnosed allergy to wool
_____D. Doesn't hold shape-becomes baggy at knees or seat area	

8. If you were going to tailor a suit for a female and a male, which fabric would you most likely choose? Disregard price. Rank your choices 1-5. 1 is first choice. 5 is last choice.

Female		Male
_____	polyester	_____
_____	acrylic	_____
_____	wool	_____
_____	wool & polyester blend	_____
_____	wool & nylon blend	_____
_____	other_____ (please list)	_____

9. Suppose you were going to buy a suit for a female and price was considered for the purchase. Which fabric would you choose? Rank your choices 1-5. 1 is first choice. 5 is last choice.

Ready-to-Wear		Home Sewn
_____	polyester	_____
_____	acrylic	_____
_____	wool	_____
_____	wool & polyester blend	_____
_____	wool & nylon blend	_____
_____	other _____ (please list)	_____

10. Suppose you were going to buy a suit for a male and price was considered for the purchase. Which fabric would you choose? Rank your choices 1-5. 1 is first choice. 5 is last choice.

Ready-to-Wear		Home Sewn
_____	polyester	_____
_____	acrylic	_____
_____	wool	_____
_____	wool & polyester blend	_____
_____	wool & nylon blend	_____
_____	other_____ (please list)	_____

11. Which fabric do you wear most often during the cold winter season? (check one)

_____polyester
_____acrylic
_____wool
_____wool & nylon blend
_____nylon
_____cotton
_____other_____

12. Indicate whether or not these characteristics are a problem to you regarding wool wearing apparel.

	Problem	Not a Problem
1. allergies	_____	_____
2. irritates the skin, scratchy	_____	_____
3. cleaning	_____	_____
4. sewing skills	_____	_____
5. not versatile for Oklahoma climate	_____	_____
6. price	_____	_____
7. availability	_____	_____
8. home care	_____	_____
9. list others	_____	_____

_____

_____

13. Consider your experiences with washable wool garments. What are your results after laundering? (answer one)

_____1. Highly satisfactory--as good as before
_____2. Satisfactory--minimum change in fabric
_____3. Room for improvement--some shrinkage & fabric appearance changed some
_____4. Unsatisfactory--garment couldn't be worn after laundering
_____5. Have never laundered washable wool

14. Would you purchase a washable wool fabric or garment?

_____yes _____no

15. Would you machine wash it?

_____always _____sometimes _____always dry-clean

16. How much effect does the cost of dry-cleaning have on your purchasing wool fabric?

_____no effect _____little effect _____some effect

17. When you wear wool garments, do you wear them over a blouse, skirt, or something else to keep them from touching your skin?

_____yes _____no

18. Do you or a member of your household have a medically diagnosed allergy to wool?

_____yes _____no

19. Estimate the number of wool or wool blend garments you now have in your wardrobe.

____sweaters ____slacks ____dresses ____coats
____skirts ____jackets ____others

20. If you could add wool garments to your present wardrobe, how many of each of the following would you add?

____sweaters ____slacks ____dresses ____coats
____skirts ____jackets ____others

APPENDIX C

LETTER TO EXTENSION HOME ECONOMISTS

Room 103, Courthouse
Stillwater, OK 74074
July 1, 1977

Dear _____:

I am doing a study on consumer attitudes and need your help. Your participation as an Extension Home Economist has been approved by Mr. Ed Gregory and Dr. Bill Taggert. This study will be conducted in six counties in the Central District and your county is one of the counties selected to be surveyed.

Enclosed are the questionnaires to be administered at your July Extension Homemakers leaders training meetings. Also included are instructions for you to follow in administering the questionnaires.

I sincerely appreciate your helping me with this study. Please help me meet the deadlines by mailing me back the questionnaires as soon as possible in the enclosed self-addressed envelope.

Sincerely yours,

Janice L. Sharkey
Extension Home Economics - 4-H
Payne County

APPENDIX D

EXTENSION HOME ECONOMIST'S QUESTIONNAIRE INSTRUCTIONS

QUESTIONNAIRE INSTRUCTIONS

Give each of the Extension Homemakers a copy of the questionnaire at the beginning of your July Extension Homemakers leaders lesson. This should be given to them at the beginning and all should be instructed at the same time, so that everyone received the same information and instructions.

Would you please tell them:

1. The information will be used in a clothing research project.
2. Do not identify questionnaire with their name.
3. Answer all questions on the survey without consulting anyone else for answers (including Extension Home Economist).
4. Answer <u>all</u> questions.

As soon as all the homemakers have completed the questionnaire, place the anonymous questionnaires in the enclosed self-addressed envelope and mail them to me.

VITA

Janice Sharkey Williams

Candidate for the Degree of

Master of Science

Thesis: CONSUMER ATTITUDES TOWARD WOOL WEARING APPAREL

Major Field: Clothing, Textiles and Merchandising

Biographical:

Personal Data: Born in Enid, Oklahoma, December 12, 1947, the daughter of Mr. and Mrs. Harold L. Sharkey.

Education: Graduated from C. E. Donart High School, Stillwater, Oklahoma, in May, 1965; received Bachelor of Science degree in Home Economics from Northwestern Oklahoma State University in 1969; completed requirements for the Master of Science degree at Oklahoma State University in July, 1978.

Professional Experience: Classroom teacher, Chetopa, Kansas, 1969; Extension Home Economist, Ellis County, Oklahoma, 1969-71; Extension Home Economist, 4-H, Oklahoma County, Oklahoma, 1971-73; Extension Home Economist, 4-H, Payne County, Oklahoma, 1973-78.