

AN INVESTIGATION OF THE SIZING OF COMMERCIAL PATTERNS

by

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Chapter 1

INTRODUCTION

Home sewing has been on the increase since the early 1960's. By the early 1970's the home sewing industry had become the second fastest growing industry in the United States (4).

Sewing is considered to be one of the most favored do-it-yourself activities. More than half the females, as well as an increasing number of males are sewing (8). It was estimated by the Simplicity Pattern Company that in 1970 the nation's 45 million home sewers contributed 350 million women's garments to the 1,250 million made in the United States (4).

According to Erwin (4), the trend towards home sewing, which began in the early 1960's, apparently was a result of teen-age interest in sewing. Many girls are learning to sew in classes in the Public schools and through 4-H Clubs sponsored by the Cooperative Extension Service (4).

In 1971, the American Fashion Home Sewing Council was organized to help promote the fashion sewing industry at all levels. The council helps retailers answer questions about pattern, fabrics and thread, so they can pass the information on to the consumers (4).

For the present, the trend towards home sewing seems to be steady. As Erwin states:

Fashion sewing is being looked upon in industry as a movement, not as a fad. With a rise in the cost of living expected to continue, the basic need for home sewing will remain. No matter what the economic cycle may be, according to this theory, fashion sewing will continue to be important. If money is available, consumers will want to sew more clothes to be more fashionable: if the supply of money should be reduced, there will be more crucial need than ever for the fashion sewer to make her own clothes (4).

The growth of the home sewing industry during the 1960's and 1970's has had a great impact on the sales of patterns, fabrics, notions, sewing machines and related products. By the early 1970's over \$3 billion was being spent each year on sewing items and equipment (4).

Most home sewing begins with the selection of a pattern. Harold Cooper, President of Simplicity, believes patterns are "the catalyst in the industry, offering lure, excitement, fashion ideas, and a desire to sew in addition to the purely physical means for getting the fashion look the customer wants" (8). The President of McCall's, Earl K. Angstadt, believes that patterns are very important to the industry. He recently stated, "We pattern companies have the principle responsibility because we are the industry's primary promotional thrust" (8).

Patterns are very important to both the home sewer and the fashion sewing industry. Patterns draw consumers and help other items in the home sewing industry sell. Cooper noted, "Patterns generate additional sales up to \$15 to \$50 per customer" (8). Many women who sew look to the pattern catalogue for inspiration and purchase patterns before they purchase the fabric (8).

Butterick and McCall's have reported that 1975 was the best year to date for sales. Jane Evans, president of Butterick Fashion Marketing, stated the "industry is back to its steady unit increase of two percent to three percent a year when looked at over five to seven year spans" (8).

The pattern market is dominated by four major companies, Simplicity, McCall's, Butterick and Vogue. Vogue is now owned by Butterick, but management has maintained the identity of each (2). In the past, Simplicity has dominated the market. According to 1974 figures, Simplicity's share of the market was 50 percent, followed by McCall's with 35 percent and Butterick with 15 percent (1). The first part of 1975 showed an increase in sales of patterns for both McCall's and Butterick.

Two separate philosophies of dress are shown in the four companies. The most common philosophy is to design patterns for mass approval and sales, in short, for the average consumer. Simplicity, McCall's and Butterick all reflect this philosophy and are responsible for 90 percent of pattern sales (2).

A different philosophy is apparent in the Vogue patterns. Vogue patterns are geared toward the fashion conscious seamstress with more experience in construction techniques. The sewer who uses Vogue patterns spends more time and effort on sewing a fashionable wardrobe. Vogue also offers more exclusive designs (2).

Price is one indicator of the two philosophies shown in the pattern companies. For example, Vogue patterns are more expensive than the other three companies which design for the

average home sewer (2). Butterick, McCall's and Simplicity cater more to the beginning sewers.

Butterick, Simplicity and McCall's are the only pattern companies which offer a complete line of patterns for all figure types, ages and both sexes (2). Vogue and the minor companies limit their line of patterns to Womens', Misses' and half-sizes. Spadea and Modes Royale are two of the minor companies. They serve mainly Misses' and Womens' sizes, but are very limited in their offerings (2).

The average home sewer finds it difficult to sew without a pattern. In order to make a garment which will be useful, the seamstress must select a pattern which is fashionable, with suitable lines for her figure and in the correct size. The most important decision to be made in order to construct a well-fitting garment is to select the correct size and figure type (12).

Selecting a pattern of the correct size will help to eliminate difficulties in cutting, altering and fitting of the garment, as well as decreasing the amount of time needed to construct the garment (4). The ability to understand sizing and to select the proper size is very important to the home sewer.

Purpose of Study

The purpose of this study was three fold:

- (1) To investigate the differences among the different sizes of Junior, Misses' and Half-Size figure types, within the same pattern company using the basic fitted shift.
- (2) To evaluate the differences, in centimeters among the

different sizes of each figure type. The patterns were compared in the following areas:

- A. Bodice - Side Seam (bust)
Backwaist length
Shoulder Seam
- B. Skirt - Waist
Hip

- (3) To investigate the differences in sizes among Butterick, McCall's and Vogue Pattern Companies.

At the present time over forty sizes are available in commercial patterns for women. The writer of this report investigated whether all these sizes are really necessary or whether they are more confusing than helpful. This report also investigated whether there was enough differentiation among sizes to warrant such a disparity in sizes.

Definition of Terms

Grading - The decreasing or increasing of the measurement between sizes.

Ease - Extra room allowed in patterns. Is in addition to the actual body measurements.

Comfort Ease - Also referred to as wearing ease. Comfort ease is added to the body measurement on a pattern to allow for freedom of movement.

Design Ease - Fullness in addition to the comfort ease, used as a part of the garment design.

Chapter 2

REVIEW OF LITERATURE

People sew for many reasons. The most important reasons given are to save money, to achieve individuality in clothing, for greater self-expression and to meet the demand for variety (4). More people are sewing because styles are simple, fabrics are easier to handle and good sewing equipment is available. For some people sewing is a means of relieving tension (4).

At one time people sewed because of necessity. Little variety was available in ready-to-wear and it was more economical to make one's own clothes. Today many persons sew because it is "the thing to do" (8). It is now fashionable to wear clothes made at home. Half of the female population over the age of 12 is involved in home sewing (4,8).

All areas of the home sewing industry are trying to make sewing easier for the home sewers. New fabrics of better quality fibers and yarns are produced and more yard goods stores have emerged. In stores, patterns, fabrics, and notions are arranged so the home sewer makes one stop to obtain everything needed to construct a garment (8). A great many classes in sewing provided by fabric stores, pattern companies and public schools are available (4). The American Fashion Home Sewing Council was established in 1971 for the purpose of

promoting the fashion sewing industry in all phases of the industry (4).

Standard Sizing

The first step taken in the construction of a garment in the home is the selection of a pattern. After selecting the style of the garment, the seamstress must then determine what size pattern to purchase. Patterns come in many different sizes and different figure types with varying proportions. The selection of a pattern of the proper size eliminates much work in fitting and alteration.

Standard measurements for pattern sizes have been developed by the Measurement Standard Committee of the Pattern Fashion Industry (2,4). The use of these measurements went into effect in January, 1968. One major reason for developing new sizing standards was to make pattern sizes correspond more closely with ready-to-wear sizes (2). Before the Pattern Fashion Industry set up sizing standards, patterns were sized according to standards prepared by the Bureau of Standards (2,17). The former standard sizes were generally one size larger than ready-to-wear sizes (2).

Both figure types and sizes within the figure types were established. In selecting a pattern the figure type should be determined first, then the size within the figure type (4,5). Figure types are not necessarily associated with age, although Junior and Junior Petite sizes are designed with the smaller, young figure in mind (4).

In determining the correct figure type, overall height

can be used as an indicator. The use of height alone may be deceiving because the length of the neck, torso and legs may vary for people of the same height (15). Backwaist length is also a very important factor in determining the correct figure type (4).

In general, the lengthwise or vertical measurements determine the figure type (10). Six major figure types (4,6,12,16) have been established:

1. Junior petite - Height of 5' to 5'1". This figure is short and well developed with a small body structure. The Junior Petite figure has the shortest waist length.
2. Junior - Height of 5'4" to 5'5". This figure is well developed, but not as much as Misses'. The Junior figure is shorter than Misses' in both waist length and height. This type also has a higher bust.
3. Miss Petite - Height of 5'2" to 5'4". The figure is like the Misses' in bust and hips, but somewhat larger in the waist and one inch shorter in waist length. The Miss Petite figure is also narrower in the shoulder.
4. Misses' - Height of 5'5" to 5'6". This figure is well developed and well proportioned. The Misses' figure has a longer waist than Juniors and is the tallest of all figure types. This is the "average figure".
5. Womens' - Height of 5'5" to 5'6". This is the larger more mature figure. The Womens' figure type is the same height as the Misses' with a longer back waist length. This figure type is an extension of the Misses' figure type.
6. Half-Size - Height of 5'2" to 5'3". This figure type is fully developed with a shorter waist length than the Misses'. The Half-size figure has thicker hips, arms and waist, is shorter in all aspects and has narrow shoulders.

Once the correct figure type has been selected, the next step is to determine the proper size within the figure type. The body measurements used to determine the correct

size are bust, waist, and hip measurements (4,10,15). The vertical measurements determine the figure type, while the horizontal measurements determine the correct size (10). The same size in different figure types may have the same bust, waist and hip measurements, but will differ in height and bust level (10). According to Simplicity experts if figure types have similar bust, waist and hip measurements, the type with the correct back waist length should be selected. If the pattern does not have a waistline the same size from either figure type can be used (5).

The type of garment to be constructed partially determines the measurements which are used to select the proper size. If a dress, blouse, coat or jacket pattern is selected, the size should correspond with the bust measurement, unless the measurement is unusually large in proportion to other body measurements (6). When more than two inches difference between the high bust and full bust occurs, the high bust measurement should be used (15). The reason for using bust measurements in these cases is that it is much easier to alter the hip and waist measurements (2,6). When selecting a pattern for skirts and pants either the waist or hip measurement is used, depending on the style of the garment (2,6,15).

Approximately two out of every one hundred women have a "perfect" figure (18). Even with the large number of sizes most women will have to alter their patterns. The women whose measurements fall between the measurements of two sizes are often confused. Wilson (18) believed that in most cases the

smaller size should be selected and enlarged to give a better fitting garment. Others believe that several factors should be taken into account. The most important factor to consider is the type of fit to be achieved, next is the bone size and with that the stretch of the fabric (2,15).

All patterns are based on the same standard body measurements. Bane (2) stressed that sizes are uniform for all companies because they are all sized according to the same body measurements. Although they are fairly consistent in size from one brand to another, they may vary in shoulder slope, dart position, and armhole curve (15). This is why some women feel one brand of pattern fits better than another.

Sizing of Patterns

Each pattern company has a sample size dress form for one size in each figure type (2,4). In Misses' sizes either a size 10 or size 12 dress form is used. The dress forms are made to conform with the standard measurements set up by the Pattern Fashion Industry (2).

Garments are first designed for the model size in each size range. Once the design has been worked out and approved it is graded to larger and smaller sizes (2,14). Today a great deal of the grading is done by computer, but some steps still must be done by a grader (3). The measurements used to grade the patterns are scaled, but the human body is not in such exact proportions. As Price stated (14), "the proportion of the pattern will vary according to the experience, the accuracy and the personal judgment of the grader".

Even though the patterns are made to correspond with body measurements, the pattern pieces will be larger than the measurements on the pattern envelope. Three components make up the total size of a pattern: 1) the body measurement, 2) fitting or comfort ease and 3) style or design ease (2). The addition of ease to each pattern contributes to the fact that there may be a slight variance in the sizing of patterns.

When a garment is designed, it is designed with enough ease to allow for comfort and freedom of movement (2,12,16). The amount of comfort ease varies among sizes for the smaller sizes do not need as much ease as the larger sizes (18). More ease is needed for the larger parts of the body.

A standard amount of comfort ease to be added has not been required by the Pattern Fashion Industry. Comfort ease varies according to the style and cut of the garment, the figure type for the garment and the type of fabric which will be used to construct the garment. All of these factors are considered when determining the amount of comfort ease to be used (2,12,16). Sports clothes need more comfort ease than regular street clothes because more movement is required for sports (18). Thicker fabrics require more ease because of the bulk and stretch knits require less ease (2,16).

Design ease is decided upon by the designer. The designer decides how he/she wants the garment to fit and how much fullness the design will have (2). Design ease varies according to the garment style, current fashion silhouette and the effect the designer is trying to create (12,16). In alterations,

design ease should not be adjusted or the lines of the design will be changed.

Chapter 3

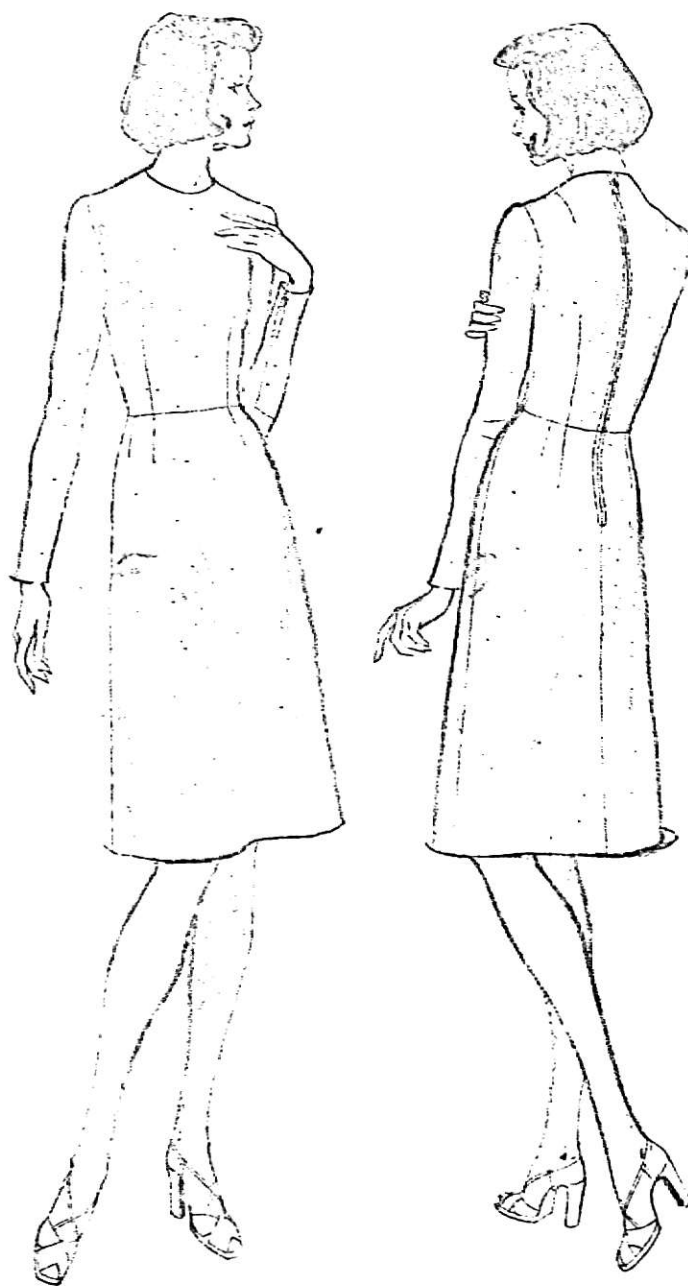
PROCEDURE

The differences among sizes within a size range for three companies were investigated, using the basic fitted shift (Figure 1). The Junior, Misses' and Half-sizes were compared in Butterick, Vogue and McCall's patterns. The differences in sizes within one company were investigated, as well as the differences in sizes among the three pattern companies.

The differences among sizes were evaluated in centimeters. The patterns were compared at the side seam (bust), backwaist and shoulder seam of the bodice, and the waist and hip of the skirt.

Patterns of the fitted shift were obtained from Butterick, Vogue and McCall's pattern companies. The patterns used were Butterick #3002 (Misses'), Butterick #3003 (Half-size), Butterick #3004 (Junior), Vogue #1004 (Misses'), McCall's #300 (Junior and Misses') and McCall's #400 (Half-size).

For ease of comparison each pattern was traced on to tracing paper using a different color line for each size. All the bodice fronts for each size in one figure type for one company were traced. This method was repeated for the bodice back, skirt front and skirt back. Each company and figure type is on a separate template. The templates of the patterns are in Appendix A.



Basic Fitted Shift

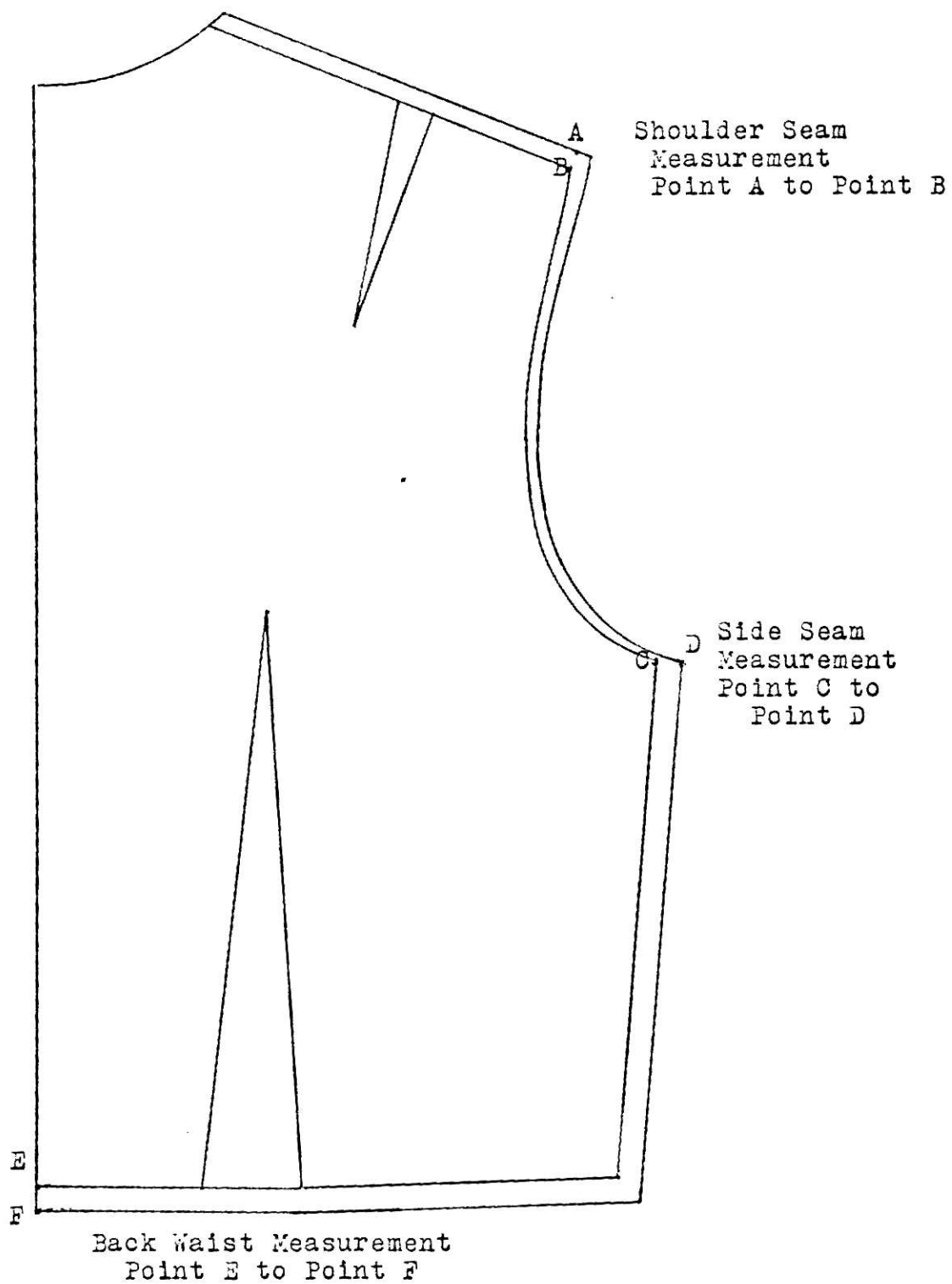
Figure 1

After all the patterns had been traced, measurements were taken in centimeters. The bodice side seam measurements were taken from both front and back bodice at the underarm point. The backwaist length was obtained from the center back of the bodice. Measurements for the shoulder seam were taken at the shoulder-armhole intersection (Figure 2).

Two measurements were taken from the skirt (Figure 3). Measurements for the waist were taken at the waist and side seam intersection for both the front and back. The hip measurements were obtained on the side seam at the hip level for both front and back. The hip level for Misses' and Junior sizes is nine inches below the waist, and the hip level for Half-sizes is seven inches below the waist. All measurements were recorded (Table 1-6).

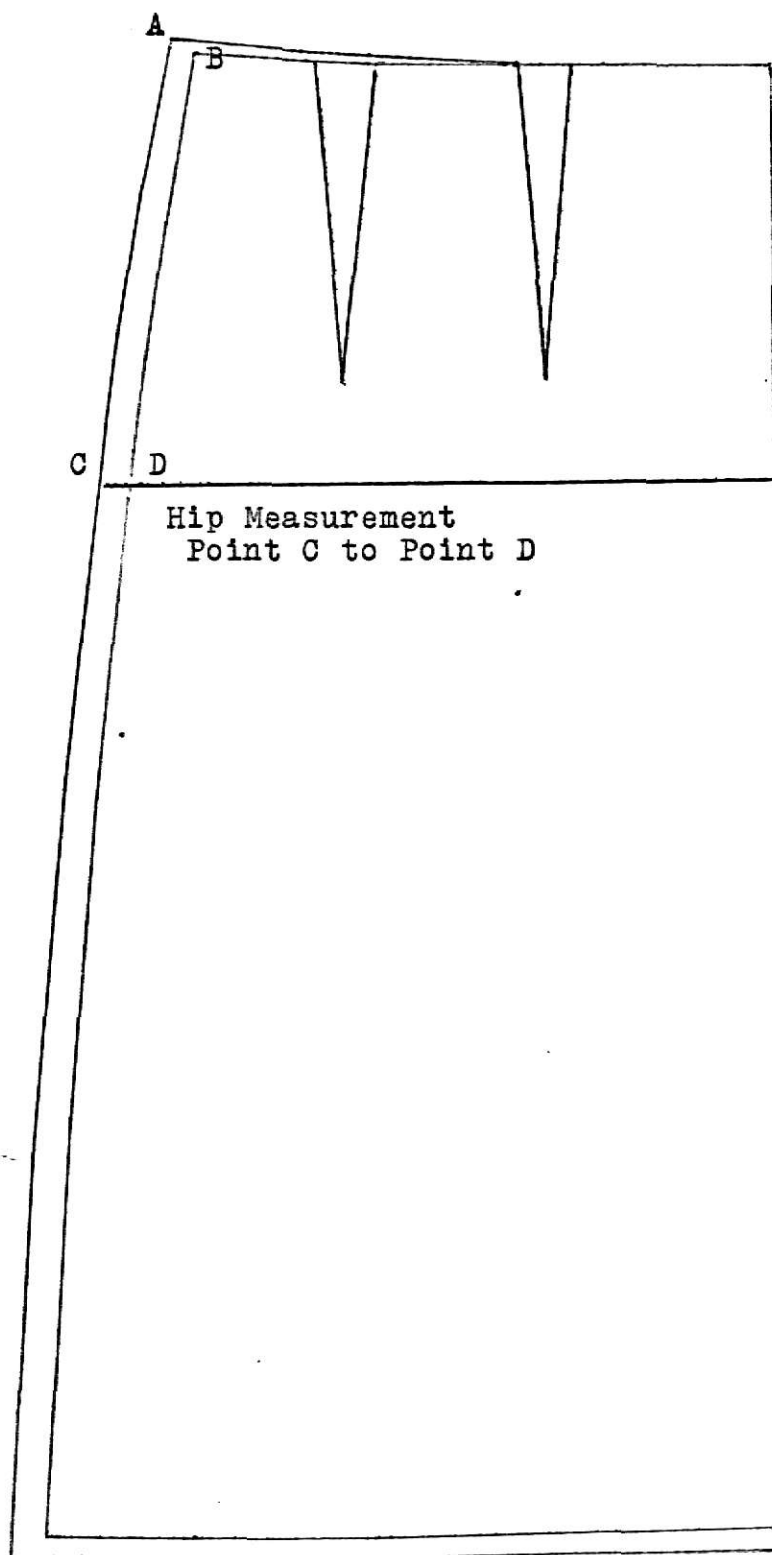
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Position of Bodice Measurements
Figure 2

Waist Measurement
Point A to Point B



Position of Skirt Measurements
Figure 3

Chapter 4

RESULT AND DISCUSSION

Simplicity, McCall's and Butterick are the only pattern companies which have a complete line of patterns for all figure types, all ages and both sexes. Vogue limits its line to Misses' and Half-sizes. This is done to provide the seamstress with more advanced and exclusive designs (2). Vogue does not carry all figure types hence, the sizes which could be compared in this report were limited.

The pattern chosen for this report was the basic fitted shift. The basic shift is made to fit the body measurements with little comfort ease and no design ease (2). Using the basic fitted shift pattern the seamstress may determine what alterations need to be made.

The basic shift is fitted close to the body with darts and a waistline seam. With this shift, alterations may be made for both horizontal and vertical measurements. Once the seamstress has made the necessary alterations on the basic shift, the same alterations may be made on all other patterns of the same size and company. McCall's makes this process easier by printing the pattern on a nonwoven material that can be cut out, sewn and fitted.

The Simplicity patterns could not be compared because

Simplicity no longer makes a basic fitted shift with a waist-line. In the Vogue pattern line only the Misses' sizes could be compared. Patterns are made in both Misses' and Half-sizes but only the Misses' sizes are available in the basic fitted shift. McCall's produces patterns in all size ranges, but the Misses', Junior and Half-sizes are the only figure types available in the basic fitted shift. The Butterick Company was the only company which carried the complete range of sizes in the basic fitted shift.

Another reason for using Misses', Junior and Half-sizes for this investigation was the number of patterns printed in these figure types. By investigating pattern catalogues it is evident that the majority of designs are designed for the Misses figure type. Less than half as many patterns are produced in Junior sizes and less than one-fourth as many Half-size patterns (2).

In the Misses' size range, the sizes from 6 through 18 were compared. As shown in Table 1, the patterns from all three companies, Butterick, McCall's and Vogue seemed to follow a similar rate of progression from size to size. On the side seam of the bodice there was very little difference between the size 6 and size 8 and between the size 8 and size 10. The difference between a size 6 and size 8 was less than half the difference between the size 16 and size 18. For all three companies more width was added to the back side seam than the front. The overall difference between the smallest and largest size is much the same for the three companies.

Table 1

Differences in Bodice Measurements in Centimeters for
Misses Sizes

Butterick	Sizes 6&8	Sizes 8&10	Sizes 10&12	Sizes 12&14	Sizes 14&16	Sizes 16&18	Total
Side Seam							
Front	.5	.8	.8	1.2	1.3	1.25	5.85
Back	.7	.7	1.1	1.5	1.2	1.4	6.6
Shoulder							
Front	.25	.3	.2	.25	.3	.4	1.7
Back	.2	.2	.1	.3	.4	.2	1.4
Back waist Length	.75	.5	.9	.4	.4	.8	3.75

McCall's

Side Seam							
Front	.6	.7	.9	1.1	1.15	1.25	5.7
Back	.75	.7	1.1	1.2	1.25	1.35	6.35
Shoulder							
Front	.2	.1	.1	.05	.25	.2	.9
Back	.2	.2	.3	.15	.35	.3	1.5
Back waist Length	.6	.35	.9	.7	.4	.8	3.75

Vogue

Side Seam							
Front	.5	.6	1.05	1.3	1.0	1.05	5.5
Back	.8	.7	1.3	1.1	1.5	1.3	6.7
Shoulder							
Front	.2	.15	.4	.35	.25	.3	1.65
Back	.2	.15	.5	.3	.05	.2	1.4
Back waist Length	.65	.75	.6	.5	1.0	.75	4.25

The difference in shoulder seams of the Misses' bodice seemed to be very little among sizes. The total differences between the largest and smallest sizes was not as great as the total differences of the side seam. No pattern of progression was set by the measurements.

Differences in backwaist lengths was very similar for Butterick and McCall's in the Misses' sizes. The total difference between the largest and smallest sizes was the same for both companies. Vogue showed a slightly larger difference.

Table 2 shows the differences among the Junior sizes in the bodice. As with the Misses' sizes there were greater differences between the larger sizes than between the smaller sizes. The Junior sizes did not have as great a difference among sizes as did the Misses'. No scaled increase was evident, as the sizes increased at irregular intervals.

The total differences between the largest and the smallest size was similar for both Butterick and McCall's. For Butterick, the bodice side seam was larger in the back than in the front and McCall's added the same amount of width to front and back. The total difference between the largest and smallest was the same for both companies, but the difference between each size was not the same for both companies. No set measurement was observed as a difference between two sizes for the two companies.

Table 2
Differences in Bodice Measurements in Centimeters for
Junior Sizes

Butterick	Sizes 5&7	Sizes 7&9	Sizes 9&11	Sizes 11&13	Total
Side Seam					
Front	.7	.6	.6	.85	2.75
Back	.6	.7	1.15	1.0	3.45
Shoulder					
Front	.2	.25	.15	.25	.85
Back	.45	.05	.3	.1	.9
Back waist Length	.4	.6	.75	.35	2.1
McCall's					
Side Seam					
Front	.6	.6	.9	.9	3.0
Back	.65	.6	1.0	.9	3.15
Shoulder					
Front	.15	.1	.15	.2	.6
Back	.1	.1	.15	.3	.65
Back waist Length	.5	.6	.55	.75	2.4

The difference between sizes appears to be more consistent among the half-sizes, as is shown in Table 3. For the smaller sizes, the variation between sizes was as great as the larger sizes. For the Half-sizes the increase from one size to the next on the side seam ranges from 1.1 to 1.4 centimeters.

McCall's and Butterick had a similar difference among the side seam sizes and the shoulder seam sizes. The back waist lengths were within .05 centimeters in total size differences. This measurement should be similar since these lengths are established in the standard measurements and no ease is required in this area.

Table 3

Differences in Bodice Measurements in Centimeters for Half-sizes

Butterick	Sizes 12 $\frac{1}{2}$ &14 $\frac{1}{2}$	Sizes 14 $\frac{1}{2}$ &16 $\frac{1}{2}$	Sizes 16 $\frac{1}{2}$ &18 $\frac{1}{2}$	Sizes 18 $\frac{1}{2}$ &20 $\frac{1}{2}$	Total
Side Seam					
Front	1.2	1.2	1.1	1.1	4.6
Back	1.3	1.4	1.15	1.4	5.25
Shoulder					
Front	.2	.3	.25	.3	1.05
Back	.2	.3	.2	.3	1.0
Backwaist Length	.55	.8	.4	.2	1.95
McCall's					
Side Seam					
Front	1.2	1.5	1.0	1.4	5.1
Back	1.2	1.4	1.2	1.15	4.95
Shoulder					
Front	.2	.25	.2	.25	.9
Back	.3	.3	.25	.2	1.05
Backwaist Length	.5	.7	.4	.4	2.0

As with the bodices, the skirt measurements for the Misses' sizes showed a much smaller difference among the smaller sizes. The skirts differed from the bodices in that the same amount within .2 centimeters was added to the front and back side seams. No large difference among the three pattern companies in the variation between sizes was apparent. The similarity can be seen in Table 4. As with the bodices there was no scaled increase from size to size, although the amount added increased as the size increased.

Table 4

Differences in Skirt Measurements in Centimeters for
Misses Sizes

Butterick	Sizes 6&8	Sizes 8&10	Sizes 10&12	Sizes 12&14	Sizes 14&16	Sizes 16&18	Total
Waist							
Front	.7	.5	.9	1.1	1.1	1.2	5.5
Back	.8	.5	.9	1.1	1.0	1.3	5.6
Hip							
Front	.8	.6	1.0	1.25	1.2	1.3	6.15
Back	.75	.6	.95	1.4	.95	1.3	5.95
McCall's							
Waist							
Front	.65	.7	.7	.9	1.25	1.0	5.2
Back	.65	.5	.95	.7	1.2	1.2	5.2
Hip							
Front	.6	.7	.9	1.3	1.2	1.3	6.0
Back	.6	.6	.9	1.2	1.35	1.35	6.0
Vogue							
Waist							
Front	.5	.55	.8	.95	1.4	1.1	5.3
Back	.8	.5	.9	1.0	1.5	1.0	5.7
Hip							
Front	.7	.7	.65	1.35	1.4	1.15	6.05
Back	.6	.8	.7	1.3	1.2	1.0	5.6

The Junior sizes showed no set progression in the differences between sizes. The difference between the size 11 and size 13 of the Butterick patterns was slightly larger than the other sizes. The total difference between the skirt sizes, as seen in Table 5, was within .25 centimeters in both McCall's and Butterick patterns.

Table 5

Differences in Skirt Measurements in Centimeters for Junior Sizes

Butterick	Sizes 5&7	Sizes 7&9	Sizes 9&11	Sizes 11&13	Total
Waist					
Front	.55	.7	.45	1.0	2.7
Back	.7	.5	.6	1.0	2.8
Hip					
Front	.45	.55	.65	1.1	2.75
Back	.65	.5	.85	1.0	3.0
McCall's					
Waist					
Front	.5	.5	.75	.8	2.55
Back	.45	.75	.6	.8	2.6
Hip					
Front	.5	.7	1.0	.8	3.1
Back	.6	.7	.95	.7	2.95

For the Butterick patterns a slightly larger difference in increase was evident for the largest size. The total difference was nearly the same for Butterick and McCall's but

the width had been distributed differently. Butterick added more to the front waist of a size 7 and less to a size 9, whereas McCall's added more to the size 9 and less to the size 7.

Table 6

Differences in Skirt Measurements in Centimeters for Half-sizes

Butterick	Sizes 12 $\frac{1}{2}$ &14 $\frac{1}{2}$	Sizes 14 $\frac{1}{2}$ &16 $\frac{1}{2}$	Sizes 16 $\frac{1}{2}$ &18 $\frac{1}{2}$	Sizes 18 $\frac{1}{2}$ &20 $\frac{1}{2}$	Total
Waist					
Front	1.5	1.3	1.1	1.6	5.5
Back	1.3	1.1	1.4	1.55	5.35
Hip					
Front	1.35	1.3	1.3	1.6	5.55
Back	1.3	1.2	1.4	1.6	5.5
McCall's					
Waist					
Front	1.0	1.4	1.0	1.5	4.9
Back	1.2	1.3	1.2	1.45	5.2
Hip					
Front	1.2	1.4	1.1	1.65	5.35
Back	1.3	1.25	1.15	1.5	5.2

Table 6 shows that there was a much larger difference among sizes of the Half-sizes figure type. Again, the same amount had been added to both the front and the back. The amount added to each size was much more consistent for the Half-sizes in both Butterick and McCall's. The total differences between

the largest and smallest sizes was nearly the same for both companies.

Chapter 5

CONCLUSIONS

A pattern is a necessary item for most home sewers. The selection of a pattern is the first step in the process of constructing a garment. Deciding on the correct size is a problem for many persons. With over forty sizes available choosing the correct size may be a confusing experience.

Finding the correct size is a two step process. The figure type must be determined first, then the size within that figure type must be determined. Figure type is selected by using two major measurements i.e., overall height and back waist length. The main difference in sizes of patterns between figure types is usually found in the lengthwise measurements. Sizes within the figure type are selected using bust, hip and waist measurements.

The Measurement Standard Committee of the Pattern Fashion Industry set up standard measurements for use by the pattern companies. These measurements do not represent the actual size of the pattern pieces, but represent actual body measurements for which the pattern is made to fit. In addition to the body measurements, comfort ease and design ease are added.

The major pattern companies, Vogue, Butterick, McCall's and Simplicity all use the standard measurements in sizing

their patterns. Although they all use the same measurements for sizing, a size 10 pattern will not have exactly the same measurements in all brands. This occurs because the designer has the freedom to select the amount of ease for each style.

From the comparisons in this report, the differences among sizes in one size range or figure type seemed to be fairly consistent. The same size in each company may not be exactly the same, but the differences between sizes was nearly the same. With the difference between consecutive sizes for the three companies being nearly the same, this would indicate that sizes are consistently established.

From the data presented in the tables, it appeared that Misses' sizes were not evenly graded. The difference among the smaller sizes was about half that of the larger sizes. This difference seems to be due to the fact that the difference between the body measurements in the smaller sizes is one half of the difference between the larger sizes. In Junior sizes, the difference in body measurements was a third of the difference of the larger sizes. The Half-size was the only figure type which had a consistent difference among sizes. In half-sizes there was a difference of five centimeters between each size.

In the Misses' sizes there was a small difference between the small sizes, namely 0.5 to 0.8 centimeters. Smaller sizes would be easier to alter if a seamstress was between sizes, because there was a smaller difference between two sizes.

As was stated earlier, most pattern designs are available in Misses' sizes. Home sewers often must select a pattern in

a different figure type from their own to obtain the desired style. The same size in a different figure type will have the same bust, hip and waist measurements. The seamstress will therefore have to alter in length if the pattern is obtained from another figure type.

Since the main difference between some figure types and sizes was the length, it would be possible to cut down on the number of figure types. McCall's no longer carries patterns in the Misses Petite range. Instead they produce a "PetiteAble" pattern. This pattern is printed in Misses' size and is marked for easy adjustment to shorten the length (13). Vogue believes that any patterns of Vogue, except those marked "no provision for lengthening or shortening above the waistline" can be converted from Misses' to Misses Petite (11). Vogue has worked out easy adjustments that can be made on all Misses' patterns.

With only 2 out of 100 women having a "perfect figure" it appears that the large number of sizes is not that important. The concentration and focus should deal with developing sizes which can be easily altered.

Since few women fit just one size perfectly, McCall's has developed three size patterns. Three sizes are on one pattern. If someone needs one size bust and another size hip, this can be accomplished by changing cutting lines as is required by the figure (9).

This report showed that the difference among sizes of patterns was not consistent from one size to the next. The reason was that the differences between standard measurements

were not the same. The larger sizes should have smaller intervals in the Misses' sizes as there was among the smaller sizes. A smaller difference would help the home sewer to find a pattern closer to her own measurements. Since length is easier to alter than the bust or hips, there is not a need for so many figure types which vary mostly in length. As stated earlier there are too many sizes for the home sewer. Perhaps a regrouping of sizes would make the task of selecting a pattern size easier. This might be done by creating fewer figure types with sizes within them that would fit more figures.

More research is needed in creating sizes which will better serve the home sewer. Since few women fit into the present sizes exactly, there is a need to create sizes which will fit more women and sizes that can easily be altered to fit adequately. An area which should be explored further is the use of computer patterns. With these patterns the home sewer would be able to obtain a pattern created with the appropriate dimensions.

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AN INVESTIGATION OF THE SIZING OF COMMERCIAL PATTERNS

by

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AN ABSTRACT OF A MASTER'S REPORT

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Home sewing has been increasing since the early 1960's. More than half the females and an increasing number of males are sewing. The home sewing industry had become the second fastest growing industry in the United States by the early 1970's.

The average home sewer finds it difficult to sew without a pattern. When a pattern is to be used, the seamstress must be able to select the correct size and figure type in order to construct a well fitting garment.

At the present time over forty sizes are available in commercial patterns for women. This report investigated whether all the sizes are really necessary and if there was enough differentiation among sizes to warrant such a disparity in sizes.

The purposes of this report were to investigate the differences among the sizes of Junior, Misses' and Half-Sizes in one company and to investigate the differences in sizes between Butterick, McCall's and Vogue pattern companies. The differences among sizes of each figure type were evaluated in centimeters. The patterns were compared in the following areas: the bodice side seam, back waist length and shoulder seam and the skirt waist and hip.

The basic fitted shift pattern from Butterick, Vogue and McCall's was used for the investigation. In order to compare the patterns, each pattern was traced on to tracing paper using a different color line for each size. The bodice

fronts for each size in one figure type and for one company were traced together. This method was repeated for the bodice back, skirt front and skirt back.

After all the patterns had been traced, measurements were taken in centimeters. The measurements were taken at the points mentioned above.

In both Misses' and Junior sizes the difference between consecutive sizes was not consistent. A much smaller difference was noticed among the smaller sizes. The difference among sizes was much more consistent in the Half-Sizes. A larger size difference was apparent between sizes of the Half-Size range.

In most cases, the total difference between the largest and smallest sizes was similar among the three companies. The difference between the same two sizes in all three companies is nearly the same. The differences among the sizes of one figure type is not consistent, except for the Half-Sizes.

Few women fit exactly into one of the pattern sizes available. Since most of the patterns are available in Misses' sizes, many home sewers must select a pattern from a figure type they do not fit into as well. Pattern companies should concentrate on developing pattern sizes which can easily be altered.