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CLOTHING AND TEXTILES: SUPPLIES, PRICES, AND OUTLOOK FOR 1972

Paper by Virginia Britton
Consumer and Food Economics Research Division
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Clothing expenditures and prices.--Consumers spent an average of $275 per person on clothing and shoes in 1971, according to preliminary figures. Half of the increase in 1971 was caused by inflation, but half was a real increase--3 percent in terms of dollars of constant value (table 1).

The price level for apparel and upkeep continued to increase in 1971, though less rapidly than in any year since 1966. As normally occurs, the rise in the apparel and upkeep index (3.2 percent) was less than the rise in the all-items index of the Consumer Price Index (table 2).

Price advances were, as usual, unequal for the three apparel subgroups. Footwear frequently leads the price advance, but in 1971 women's and girls' clothing led by a small margin.

With a growing economy in 1972 and price increases of perhaps 3 percent under price controls, more dollars will be spent on clothing by the average person than in 1971, and expenditures in terms of dollars of constant value will show some further advance.

Supplies of raw materials.--Use of all fibers by U.S. mills during 1971 was estimated to have increased about one-tenth as textile activity revived from the slow level of 1970. Use of cotton gained 3.5 percent while use of manmade fibers gained nearly one-fifth. Given a continued recovery in textile activity, mill use of total fibers will probably increase further in 1972. On a per capita basis, about 51 pounds of fiber were used by U.S. mills in 1971, including 19 pounds of cotton, 1 of wool, and 31 of manmade fibers. In addition, there were substantial net imports of textile products.

From 1960 to 1971, while mill use of all fibers increased 64 percent, mill use of cotton declined 6 percent and wool declined 54 percent; manmade fibers increased nearly 250 percent. The result was that manmade fibers accounted for 61 percent of estimated total fiber use in 1971 compared with 29 percent in 1960.

Cotton supply in the United States, although extremely tight, is expected to be sufficient for domestic use and export until the 1972 harvest season. Our cotton stocks may decline nearly one-fifth by August 1, 1972 to the lowest level in two decades.

Table 1 -- Annual Expenditures on Clothing and Shoes

Years[1]	Per Capita Expenditures		Percent of Expenditures for Personal Consumption		Aggregate Expenditures	
	1958 Dollars	Current Dollars	1958 Dollars	Current Dollars	Billions of 1958 Dollars	Billions of Current Dollars
1929 ---------	149	77	13.0	12.1	18.2	9.4
1930-40 ------	122	51	11.8	10.7	15.6	6.5
1941-46 ------	151	100	11.8	12.9	20.7	13.7
1947-61 ------	144	140	9.0	9.4	23.5	22.9
1962-65 ------	160	170	8.4	8.3	30.6	32.4
1966 ------	185	204	8.7	8.6	36.4	40.3
1967[2] ------	184	213	8.5	8.6	36.6	42.3
1968 ---------	188	231	8.3	8.6	37.8	46.3
1969 ---------	192	248	8.3	8.7	38.8	50.3
1970 ---------	190	257	8.2	8.5	38.9	52.6
1971[3] --------	196	275	8.3	8.6	40.6	57.0

1/ Earlier years are grouped on basis of similarity in level of per capita expenditures in 1958 dollars.
2/ Revised data for 1967 to 1970.
3/ Preliminary figures.
Source: Department of Commerce.

Table 2 -- Annual Percentage Change in Selected Indexes of Consumer Prices

Index	1967	1968	1969	1970	1971
Consumer Price Index ----------	+2.9	+4.2	+5.4	+5.9	+4.3
Apparel and Upkeep Index[1] -----	+4.1	+5.4	+5.8	+4.1	+3.2
Men's and boy's clothing ----	+3.6	+5.7	+6.3	+4.2	+2.7
Women's and girls clothing --	+4.6	+5.9	+5.5	+3.8	+3.5
Footwear ----------	+4.9	+5.3	+6.2	+5.3	+3.2

1/ Also includes infants' wear, sewing materials, jewelry, and apparel upkeep services, for which separate indexes are not available.
Source: Bureau of Labor Statistics.

Wool production (all apparel class) in the United States has been declining, and a further decrease is expected in 1972. Imports of raw apparel wool will continue, though world wool prices may be higher than in 1971. The reduced value of the U.S. dollar relative to other currencies will tend to increase further the prices of foreign wool to U.S. mills.

For manmade fibers, U.S. producing capacity is expected to be 5 percent higher by July 1972 and 12 percent higher by March 1973 than in November 1971. More than half of the projected increases are for polyester. In 1971 our overall producing capacity for manmade fibers was perhaps nearly 20 percent greater than our actual production.

In part, the trend toward noncellulosic fibers is related to some of their market advantages. Domestic production of noncellulosic fibers is concentrated in a few firms, and prices of these fibers are predictable and relatively stable. Four companies account for 65 percent of our noncellulosic fibers, and five companies account for 80 percent of our polyester. Most producers of noncellulosic fibers sell directly to textile mills and can link their production schedules to mill demands with a minimum of financial risk to both.

Future growth of imports of manmade fiber textiles and wool textiles and of apparel will be restrained by the bilateral non-cotton textile agreements which became effective October 1, 1971 with Japan, Hong Kong, Taiwan, and South Korea. Imports of cotton textiles are already limited by a similar agreement. These quotas and the reduced value of the U.S. dollar are expected to decrease competition for domestic producers of textiles and apparel products by limiting low-price imports.

U.S. production of hides (chiefly from cattle) will probably increase moderately in 1972, but not necessarily result in greater domestic production of leather. Chiefly because of the decline in U.S. production of leather shoes, which account for about eight-tenths of hides used, domestic manufacturers used 18 percent fewer equivalent cattle hides in 1970 than 10 years earlier. Our net exports of hides amounted to a third of our production in equivalent cattle hides in 1970.

Our supply of shoes is not, however, wholly dependent on our leather production because of large quantities of shoes with nonleather uppers and of imported shoes. Of the total U.S. supply of 795 million pairs of nonrubber footwear in 1970, 70 percent was domestically produced--49 percent with all-leather or part-leather uppers and 21 percent with nonleather uppers. (The proportion of U.S. production that had nonleather uppers was slightly higher in the first 11 months of 1971). Imports accounted for about 30 percent of our shoe supply--half with all- or part-leather uppers, and half with nonleather uppers.

About half of shoe imports, by value, were vinyl shoes and sandals selling at about $2, and a quarter were leather sandals. The reduced value of the dollar may increase the price of imported shoes unless foreign manufacturers absorb the cost. This increase is not expected to have much effect on consumers' purchases of the imports selling at about $2, but it may affect

purchases of imports at medium and upper prices. While vinyl shoes are imported from the Far East, leather shoes are largely from Italy and Spain. In July 1971, Italy started a system for keeping shoe exports to the United States close to the 1970 level.

Development of flammability standards and enforcement.--Flammability standards have gone into effect for large carpets and rugs and for small carpets and rugs, and a standard will go into effect in 1972 for children's sleepwear. A proposed standard for flammability of mattresses has been issued for comment by the public and industry. These standards, issued by the U.S. Department of Commerce (DOC), are summarized in table 3. In addition, a draft of a proposed standard for blankets is under review in the Office of Flammable Fabrics, National Bureau of Standards at DOC. Also during 1972, the Bureau will institute testing for flammability of children's dresses, upholstered furniture, and draperies.

For children's sleepwear, an earlier mandatory compliance date than July 28, 1973 was not feasible because the machinery and the procedures do not presently exist for fire-retardant treatment of about 80 percent of the volume of sleepwear now being marketed. Industry sources claim that the flammability standard for children's sleepwear will make it difficult for the consumer to purchase lightweight, cool, absorbent nightwear for hot-weather use; that durable-press blends will not be available; that many nightwear items will have reduced service life, perhaps by 33 to 50 percent; and that children's nightwear will cost substantially more, perhaps 25 to 50 percent. DOC estimated that a garment might cost as much as $1 more as a result of meeting the standards. Efforts toward protection of children are further complicated by several alternatives to the consumer's purchase of flame-resistant sleepwear for children: The purchase of sizes larger than 6X, the purchase for home sewing of untreated fabrics not intended for children's sleepwear, and the use of untreated or used dresses or undergarments or items labeled as "playwear" or "sportswear." Of course, sleepwear may be omitted altogether. Sears and J. C. Penney Co. have noted poor sales of flame-resistant apparel and protectors for mattresses and pillows and concluded that the concern for fire risk is small. A public hearing will be held by DOC on February 24, 1972, on petitions for amending the flammability standard for children's sleepwear.

Actions enforcing the Flammable Fabrics Act and the flammability standards established under it were taken by the Federal Trade Commission (FTC) in 1971. The FTC found dangerously flammable certain items, mostly imported, such as organdy, silk organza, brocade lace, nylon scarves, children's sweat shirts if worn with fleecy sides exposed, ladies' pajamas, feathered cuffs on dresses and jump suits, and fake fur car coats. In October 1971, the FTC found some shag rugs being produced in the United States to be dangerously flammable. The FTC is applying the flammability standards also to wigs and hairpieces since the DOC determination that these are apparel.

The FTC announced in November 1971 that it had set up a Flammable Fabrics Information Center designed to provide consumers and others with information about FTC actions involving enforcement of the Flammable Fabrics Act. Any person may telephone questions, toll free, (800) 424-8589, Monday through Friday, from 9 a.m. to 5 p.m., Eastern Time. The FTC will issue a press

Table 3 -- Flammability Standards Issued

Items Covered	Standard Takes Effect on Items Manufactured After--	Coverage	Nature of Standard
Large Carpets and Rugs (All large items.)	April 1971	All items must meet the standard.	In a controlled test using a lighted pellet to simulate a lighted match, a fire goes out after spreading less than 3 inches.
Small Carpets and Rugs (Items no longer than 6 feet with an area no greater than 24 square feet. Bath mats are included.)	December 1971	Any item not meeting the standard must be so labeled.	Same test as for large carpets and rugs.
Children's Sleepwear (Pajamas, nightgowns, robes, and other sleepwear, in sizes up to and including 6X, as well as fabrics intended for use in children's sleepwear.)	July 1972 to July 1973	All garments not meeting the standard must be labeled: "Flammable (Does not meet the U.S. Department of Commerce Standard DOC FF-3-71. Should not be worn near sources of fire."	Fabrics and garments must not ignite and burn when tested in a vertical position by a brief exposure to flame. Provision is also made for fabrics which melt and drip on contact with flame.
	July 28, 1973	All garments must meet the standard.	
Mattresses (Mattresses, mattress pads.)	--		Proposed standard requires that three cigarettes be burned on specified mattress locations, both on the bare mattress and between two sheets on the mattress without causing the mattress to ignite. (Cigarettes have been found to be the principal cause of bedding fires).

release only when some formal action is taken by the FTC with respect to flammable products. The FTC will not publish lists of retailers who may have sold the flammable products, but this information can be obtained by calling the toll-free number.

Flammability of garments and household textiles.--To understand and interpret flammability standards, the consumer should understand factors affecting degree of flammability--the combination of fabrics and findings used, the fibers from which they are made, and special finishes used. A garment may be flammable because one part or fiber supports combustion readily. The weight and construction of the fabric affect flammability, with a heavy tightly-woven fabric having more flame resistance than a sheer or pile fabric. Flame resistance is improved by the application to some fabrics of special flame retardant-finishes, but these are affected by the method and amount of subsequent laundering and drycleaning The flammability of various fibers may be summarized briefly as follows--1/

Some fibers are naturally flame-resistant: Wool, silk, glass, modacrylic, vynyon, and saran.

Some fibers can be given a flame-retardant treatment with, however, some loss of other properties such as dirability and aesthetics. Without treatment, the following fibers ignite readily and are not self-extinguishing: Cotton, linen, acetate, triacetate, and rayon.

Some fibers are not readily ignited, but when ignited, they burn and have other unpleasant reactions: Spandex, rubber, some olefins, nylon, and polyester.

Acrylic ignites and burns readily.

Development of flame-retardant finishes and fabrics.--Development of several flame-retardant finishes have been reported recently.

- For cotton tufted rugs, commercially practical procedures are being developed for applying durable flame-retardant treatments at reasonable cost. Promising results have been obtained with two different methods for applying three of the flame-retardant finishes developed at USDA's Southern Marketing and Nutrition Research Division (SMNRD)--THPOH-amide, THPC-cyanamide, and THPOH-ammonia cure.

- Cotton knits and cotton sleepwear have been made flame retardant and durable to home laundering when treated with three finishes developed at SMNRD--THPOH-NH_3, THPO-THM-urea, and THPC-cyanamide.

1/ For further details, see Blandford, Josephine M. and Gurel, Lois, M., Fibers and Fabrics. U.S. Department of Commerce, National Bureau of Standards, Consumer Information Series 1, 1970. U.S. Government Printing Office, Washington, D.C. 20402, 65 cents a copy.

- Cotton printcloth and sateen have been treated effectively at SMNRD with a finish based upon essentially pure THP.

- For children's sleepwear of cotton knits, the THPOH-ammonia cure developed at SMNRD is the best available on the basis of hand, flame resistance, and other features, according to one manufacturer.

- Wool chars but does not melt or ignite and remains flame resistant after drycleaning, after application of a flame-resistant treatment under development at USDA's Western Marketing and Nutrition Research Division. The treatment does not seem to affect color, tensile strength, or desirable properties of wool. Whether the treatment can be used along with other treatments that impart shrink resistance and oil and water repellency is not yet known.

- A new system for imparting durable fire-retardant to cellulosic materials including cotton, rayon and paper has been reported by Monsanto Co. 2/. The process uses a phosphorus compound, a reactant resin and a catalyst. Possible uses include children's knit sleepwear fabrics, cotton flannelette, mattress ticking, drapery and upholstery fabrics.

- A melt-resistant finish for nylon, polyester, and other manmade fibers has been developed in Japan. Use is expected for work clothes, and men's slacks, suits, and coats.

Flame-retardant finishes on cotton are destroyed at a faster rate (perhaps twice as fast) by detergents containing carbonate than by those with phosphate, according to laundry tests at SMNRD. Chlorine bleach also destroys flame-retardant finishes.

Several flame-retardant fabrics have been announced.

For children's sleepwear:

- Tricots and laces from a variety of fibers (Indian Head);

- Flannel (cone Mills);

- Acetate-polyester, tricot, polyester, printcloth, and polyester batiste (Lowenstein, Inc.); and

- Fabrics for a baby's blanket-sleeper of 80 percent modacrylic and 20 percent acrylic without chemical treatment (Riegel Corp.).

2/ Mention of specific products and companies does not imply recommendation or endorsement by USDA of those products and companies over others not mentioned.

Others include:

- Pile fabrics of Kynol (a fire-retardant fiber described as a "novaloid") and modacrylic (Collins and Aikman);

- Fibercoat, which is a lightweight glass cloth with one cotton face, for use in draperies and wall coverings; and

- Nomex, a type of nylon which does not drip or melt, is being tried for pajamas and linens in hospitals as well as for suits for workers in hazardous situations.

Other product developments.--Product developments announced during the past year consisted largely of improved finishes, particularly for durable press and washability as well as fire-retardance discussed earlier.

Improvement of cotton fabrics is promised by research underway at USDA's SMNRD. Work on durable press properties includes the following--

- Cotton and cotton blends that have been treated for durable press remain smooth and durably creased after laundering and line drying as well as tumble drying (the common requirement), by improvement of the mild-cure process for durable press.

- Garments made from durable-press cottons can be altered and pressed at home or at the store when a catalyst is added to the durable-press finish.

- Improvement of cotton raincoats is sought in research on durable-press finishes that are durably water repellent, but permit fabrics to be laundered effectively.

Work on abrasion resistance of cotton at SMNRD includes the following--

- For knit goods, improvements in abrasion resistance have been obtained by use of polyvinyl alcohol and by a variation of the slack mercerization technique.

- Mercerization of cotton with liquid ammonia (developed originally in Europe): Its advantages--better resistance to abrasion, dimensional stablility, and tensile properties--have encouraged the development of processing equipment for continuous treatment of woven fabric and its adaptation to circular knit goods.

- For knit goods, blends of cotton with no more than 35 percent polyester increased resistance to flat abrasion and increased bursting strength while maintaining good moisture absorption.

SMNRD also reports that cotton lace that stretches was made by treating cotton lace with a process originally developed to give stretch to woven cotton.

Improvements in cotton fabrics announced by manufacturers included the following--

- Shrink-No-Mor knit fabrics of cotton and cotton blends are guaranteed to shrink no more than 1 percent in length when washed and tumble dried.

- Reduction in formaldehyde fumes from durable-press fabrics is promised by a new develepment under the Permafresh trademark.

- Four new formulations of anti-microbial chemicals to be sold under the Sanitized trademark have been developed to be compatible with specific finishes and techniques used for treating pillow and mattress tickings.

Improvements for wool reported from research by USDA's Western Marketing and Nutrition Research Division were as follows--

- Woven fabrics of 100 percent wool that can be machine washed and tumble dried without felting and shrinkage and that suffer little from mechanical shrinkage are being produced experimentally by the WUR-SET process developed at the Division.

- Hand knitting yarns may become the first application of the Division's electrical plasma treatment for wool and wool blends which produces yarns that are soft, strong, and resistant to repeated machine laundering.

Improvements for wool by the industry included the following announcements--

- The Superwash label for wool means that the garment can be machine washed at 40° C., spun dry or machine wrung. The label applies to both the batch and continuous resin process of the Wool Bureau, and may be licensed for other processes that meet the same standards.

- A new chemical process for wools which gives twills and poplins as much as an 18 percent stretch in the filling direction has been developed at the Wool Bureau. Some of the new stretch wools are expected for fall 1972.

- A process of dyeing grey woolen fabrics two colors in a wide range of color combinations in a single dye bath has been adapted for apparel fabrics from the original use on carpeting. The resultant dyes are faster to washing, and woven goods can be dyed to an exact match of knitted coordinates.

Several improvements for manmade fibers and fabrics have been announced.

Those for polyesters include--

- A new T-102 polyester fiber which permits multicolor effects with one dye bath opens up a new field of fashion possibilities, according to the producer.

- Polyesters treated with Fantessa are reported to be cooler, more comfortable, and faster to dry for the life of the fabric. The process gives polyesters superior soil release and reportedly eliminates soil redeposition.

- A method of removing the glitter from polyester foam improves its bonding with fabrics and preshrinks the foam for bonding to preshrunk fabrics.

Special finishes recently announced for polyester knits are--

- An anti-snag finish, said to last at least 10 washings, has been developed by Ouachita-Adamo Corp.

- A process, Hydrotex, is said to add bulk, drapeability, dimensional stability, crease and abrasion resistance, and to improve sewing and cutting properties. The finish is durable to five home launderings and five drycleanings.

- A postcure durable press process for double-knits of polyester-cotton blends has been announced by Koratron Corp. and cooperators. The treated fabrics are said to have no more than 2 percent initial shrinkage and no progressive shrinkage.

Announcements regarding some manmade fabrics include the following--

- Intimate blend of acrylic and polyester for double knits is reported to have the appearance, performance, and hand of worsted. The blend can be tailored like worsted and can be machine washed and dryed.

- Blends of 50 percent linen and 50 percent polyester are promised to combine the advantages of linen with easy care properties in fabrics for household textiles and apparel.

- A greater variety of Qiana, the luxury nylon, is expected with a broadened range of deniers and yarn sizes for both knitting and weaving, including double knit yarns and slubbed yarns. When Qiana was introduced in 1968, it was seen in few dresses selling for less than $150, but in 1971 it was used in branded dresses selling as low as $50.

Static electricity in manmade fibers, a problem to some consumers, has been attacked in various ways. Some anti-static processes are permanent, but some become ineffective with continued washing or drycleaning. A small amount of X-static, a modified nylon yarn, can be blended with other yarns to eliminate static buildup. A new Orlon acrylic fiber is reported to have built-in anti-static properties. Various methods are being used in the anti-static hosiery for men. Naslon, a stainless steel fiber developed in Japan is expected to be used in work clothing and carpets to remove static electricity. This type of fiber is also produced in the United States by Brunswick Corp.

Some waterproofing finishes have been reported. An ultrafine powder, called Silanox, promises to waterproof a variety of products, including rainwear. The powder supports water droplets which roll off when tilted as little as one degree. The powder can also be used to increase the wet-strength of items such as disposable diapers. A new finish ACT, is reported to impart water and stain repellency to knits, open weaves, and pile fabrics, as well as to conventional woven fabrics.

Improved hides and leathers have been reported. The superior bedpads of shearlings (sheepskins with the wool evenly clipped) when tanned by the glutaraldehyde process developed at USDA's Eastern Marketing and Nutrition Research Division have proved successful in three years of tests in institutions. The shearlings have maintained their original shape after 54 launderings in a washer and dryer. This tanning process and a process for wash-fast leather dyes developed by the Division are being used on leather for shorts, shirts, and golf gloves.

A change in emphasis is occurring among the leather substitutes--from those that compete with high-quality leather to those that compete with low-cost imports. Corfam, the breathable leather substitute, will no longer be produced because of its unprofitability, DuPont announced in March 1971. The available supply of Corfam should last three or four years, according to a leather goods supplier who has purchased the inventory. The Corfam plant has been sold and will be reassembled in Poland to produce Polcorfam to be sold in every country except the United States and Japan. Aztran, also a leader in leather substitutes, will no longer be produced, B. F. Goodrich announced in December 1971. Owners of Corfam shoes found them easy to care for, durable, and resistant to scuffs and water, but some considered them expensive, a USDA study reported. 3/ Low cost was the chief advantage ascribed to other synthetic materials for shoe uppers. An increase in use of expanded vinyl and

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3/ U.S. Department of Agriculture, Statistical Reporting Service. Consumer Attitudes Toward Leather in Shoes and Clothing. U.S. Department of Agriculture, Marketing Research Report 922. 1971. For sale for $1 from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

other synthetic materials is expected in order to compete with low-price imports. Some of these require textile backing. A polymeric shoe material, 50 percent wool and manmade fibers and 50 percent polymers with a microporous coating, is being tested.

Other developments in standards and labels for textile products.--The Federal Trade Commission issued in December 1971 a trade regulation rule requiring that articles of wearing apparel bear permanent care labels clearly disclosing instructions for their care and maintenance. Piece goods for making wearing apparel must be accompanied by care labels which home sewers can affix permanently to the goods by sewing, ironing and similar home methods. The rule becomes effective for all articles manufactured on or after July 3, 1972. The rule covers all garments and hosiery, both domestic and imported. Excluded are other footwear, as well as headwear and handwear. Exemptions may be permitted for articles which would be substantially impaired by a permanently affixed label and for articles which retail at $3 or less and are completely washable. The care labeling instructions must fully inform the purchaser about regular care and maintenance such as washing, drying, ironing, bleaching, drycleaning, and other procedures, and the label must warn the purchaser as to other regular procedures, such as bleaching, which would harm the article. The FTC said that care labels are necessary because the large number of fabrics on today's market--perhaps 10 million different kinds at one time--have made it almost impossible for consumers to know from personal experience how to care for a specific product.

About 70 percent of all apparel produced by members of the American Apparel Manufacturers Association was estimated to carry care instructions in 1971--an increase from 60 percent in 1970 and 50 percent in 1969. The instructions appeared on hang tags, permanent labels, and polyethylene bag covers.

The FTC issued complaints of misbranding and false advertising of textiles against various manufacturers and sellers as the FTC continued its efforts to enforce the labeling acts for wool products, fur products, and textile fiber products. About 2600 laboratory tests on fabrics are run each year by the FTC--about 20 percent were tests for fiber labeling and 80 percent for flammability in the 1970-71 fiscal year.

Voluntary standards for body size measurements of apparel have been approved by the National Bureau of Standards and are now in effect for--

- Boys' apparel (into effect in 1970). Printed copies are now available for slims (sizes 6 to 24), regulars (sizes 2 to 24), and huskys (sizes 6 to 24).

- Women's patterns and apparel (into effect in 1970). Printed copies are now available for:

  junior petite (sizes 3P to 15P),
  juniors (sizes 3 to 17),
  misses petite (sizes 8P to 18P),
  misses (sizes 6 to 22),
  misses talls (sizes 10T to 22T),
  women (sizes 34 to 52),
  half sizes (sizes $12\frac{1}{2}$ to $26\frac{1}{2}$).

- Young men's apparel, (into effect in May 1971). Printed copies are expected to be available in March 1972 for shorts, regulars, and longs, in sizes 32 to 42.

A revised standard has been proposed for girls' apparel. Interested parties have until March 3, 1972 to file comments with the Bureau on measurements for slims, regulars, and chubbies, in sizes 7 to 16.

Developments in knitted fabrics.--The knitting industry estimates that knits accounted for more than a third of all apparel fabrics in 1970 and will continue to increase. In addition to the special properties of knits, rapid fashion changes, approximating six to eight seasons a year, have played a part in the growth of knits. Manufacturers of knit fabrics are able to respond quickly to fashion changes because of the flexibility of the knitting process and the relative profitability of short production runs compared with weaving.

To compete with knits, stretch is being added to woven fabrics by using textured polyester filament, by blending spandex with polyester-rayon and polyester-cotton, by adding anidex (a stretch fiber), by mechanical shrinkage, and by chemical treatment. It seems likely, furthermore, that woven fabrics will continue to be used for durable staples such as jeans, as well as for tailored suits and other garments that are highly constructed.

Knitted fabrics, providing stretch and wrinkle-resistance, have long been widely used in cotton underwear for men and children and nightwear for children. Knits have also been important for underwear and nightwear for women and girls, hosiery, sportswear, and sweaters of various fibers--cotton, wool, acetate, rayon, nylon, acrylic, and polyester. In recent years knitted fabrics have become popular for women's dresses, slacks, and suits and are increasingly used for men's slacks, sport jackets, shirts, and suits.

Double weft knits (sold mostly for women's clothing) have been the fastest growing segment of the industry, but there has been some recent slowdown and clearance sales. For example, the local G. C. Murphy Co. offered textured polyester double knit fabric for $2.99 a yard at sales in November 1971.

Modified raschel and tricot knits are expected to be increasingly important for men's suitings in wool blends and cotton blends during the coming years. These warp knits are more stable than double weft knits and present less tailoring problems. Although warp knits were expected to be lower-priced than double weft knits for men's clothing, manufacturers see little difference in prices thus far.

Knit fabric standards, developed and endorsed in June 1971 by fabric manufacturers' and distributors' associations, set 50 penalty points per 100-yard length as the maximum count of imperfections before first-quality goods become "seconds." Penalties increase from 1 point for a defect of 3 inches or less up to 4 points for a defect over 9 inches. Some clothing manufacturers object that the standards are too loose and that no penalty points are assigned for

barré (a bar or stripe effect, usually in the filling direction), bowing (distortion in warp and filling alignment), and pin holes. The standards are not performance standards and are not related to snagging, pilling, shrinkage control, abrasion resistance, bursting strength, and wearability.

In summary.--Average expenditure for clothing and shoes in 1972 is expected to be higher than the $275 per person in 1971. In spite of rising prices, some increase is expected also in expenditures in terms of dollars of constant value. Large supplies of raw materials plus some imports of raw materials and finished products will provide a wide selection of clothing and shoes for consumers during 1972.

Progress has been made in the past year on standards and labels, and more can be expected in the years ahead. Flammability standards went into effect in 1971 for carpets and rugs, and will go into effect the middle of 1972 for children's sleepwear. A flammability standard for mattresses has been proposed. The requirement for permanently affixed care labeling for waring apparel and piece goods also goes into effect the middle of 1972. A voluntary standard for body size measurements for young men became effective in 1971, and a revised standard for girls has been proposed.

Product developments announced during the past year consisted largely of improved finishes, particularly for fire-retardance, durable press, and washability. Improvements for cotton, wool, and manmade fabrics and for hides and leathers have been reported. Finishes are being adapted and developed for knitted fabrics which comprise an increasing proportion of apparel fabrics.