

thinner than a man's even when she is performing the same work equally well.

"There must be equal pay for equal work for both sexes as well as among the races. Pay should be based on the job done—not on who does the job," declares Mrs. Peterson, the Government's number one working mother. "The Federal Equal Pay Act was adopted last year, but far too few women are covered by the law. . . . The public, and particularly employers, must be educated to appreciate the many talents and good qualifications women bring to their jobs."

### Financial Reasons

Money is undoubtedly the main reason why women, and particularly mothers, work. They work to help support themselves and their children, to help buy a home or pay hospital bills, to send John or Jane to college. And the less the husbands make, the more likely the wives are to work.

In families where the husband earned less than \$3,000 a year, more than one-half of the mothers with children 6 to 17 years of age worked, according to the latest figures available from the U.S. Bureau of Labor Statistics. But when the husband's income was \$7,000 or more, the proportion dropped to three-tenths.

More than one-fourth of the mothers with children under six worked when their husbands earned under \$3,000, but only one-eighth of the mothers of these small children worked when their husbands earned \$7,000 or more per year.

The presence and age of the children in the family, however, has an even greater influence on whether a wife works than does the income of her husband. Most mothers stay home, when possible, to take care of their children, at least until they reach school age.

Among married women living with their husbands, the average proportion in the labor force varied from about one out of five for those with children under six to more than two out of five for those with school-age children only.

### More Work Part-Time

Of the more than 1.6 million working mothers with children under three, whose husbands are present, only about one-eighth have full-time jobs the year round. More than half work just part of the year at full-time jobs, and the other third fill part-time jobs. More than two-fifths of the million and a quarter working mothers who have at least one child three to five years old hold part-time jobs. But of the four and a half million mothers with children six to 17, about a third have full-time jobs the year round, a third work only part of the year and another third hold part-time jobs.

Working women, and particularly working mothers, have to hold tightly to their purse strings. Exploratory studies made by the U.S. Department of Agriculture show that working wives in several small towns spent about two-fifths of their total pay on such job-related expenses as transportation, lunches, taxes, paid help, office gifts and extra clothing. In addition, working mothers

often find that care of the children comes high.

Eight or nine out of every ten girls today will spend part of their lives in paid employment, according to the Women's Bureau of the U.S. Department of Labor. Most girls today start to work immediately after finishing school—usually when they are 17 or 18 years old. But after about four years, the majority quit work to get married and have children.

Most women today complete their families at a much younger age than did their mothers or grandmothers, giving birth to their last child when they are only about 26 years old.

Stimulated by the need for more money, lighter housekeeping tasks and better job opportunities, many wives return to work after being out only about eight to ten years. If they return to work when they are 30, these mothers will work on the average another 23 years.

Today the average age of all women workers is 41, as compared to 26 in 1900, and 37 in 1950. More than three times as many women 45 to 64 years of age work today as held jobs in 1940. In 1963 more than half of the women 45 to 54 years of age were gainfully employed, many of them having returned to work when their family duties diminished.

Grandma may not wear the pants in the family, but she will be doing her part in bringing home the pay envelope.

• Science News Letter, 85:250 April 18, 1964

### CHEMISTRY

## New Woolen Fabrics Wash Without Shrinking

► SOME WOOLEN FABRICS can now be machine washed without shrinking.

Fewer sweaters need come out of the washing machine several sizes smaller and passed from father to son. A new process now can "set" natural wool fibers to prevent the material from shrinking, tangling and meshing into felt.

Wool fiber can first be dipped in an amine solution, squeezed, then dipped in an acid chloride solution and squeezed again. This process, invented at the U. S. Department of Agriculture's Western Utilization Research Laboratory in Albany, Calif., creates a very thin polyamide coating which is grafted chemically to the wool fibers by a reaction between the two solutions.

The process is called Wurlan, a name derived from a combination of the laboratory initials WUR and the Latin word for wool, lana. The laboratory is part of the Department's Agricultural Research Service.

The idea came from a chemical experiment known as the "nylon rope trick." It consists of placing two non-mixing solutions, an amine and an acid chloride, into a chemist's glass beaker.

The two chemicals react at the point of contact to form a nylon substance composed of very large, densely bonded molecules. This substance, called a polyamide, can be drawn out of the beaker in the form of a thin wet strand or "rope."

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