Sex Roles, Socialization, and Occupational Behavior

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1983

Preparation of this paper was supported in part by a grant to the first author from National Institute of Mental Health. Order of authorship was determined by a coin toss. Grateful acknowledgement goes to Laura Skidmore for her assistance in preparing the manuscript.

Since 1940 there have been substantial changes in the character of women's labor force participation. First, there has been a steady increase in their rate of participation (see Table 1). This increase has been especially marked among married women and, particularly, among women with children (see Table 2). The first group of women to enter the labor market in increasing numbers were older, married women. During the 1960s and 70s the proportion of working women 25 to 45 years of age also increased dramatically (see Table 1). Although some of this increase reflects the increasing number of single women, childless couples, and divorced or separated mothers, these groups are not the major source of the change. The most marked increase has occurred among mothers living with their husbands. For example, the participation rate of married women with children under six years of age has increased from 9 percent in 1940 to 19 percent in 1960, and to 43 percent in 1980; all projections indicate that it will continue to increase in the future (Hoffman, in press; Hoffman and Nye, 1974; U.S. Department of Labor, 1980).

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The second major change that has occurred since 1940 is the range of jobs that women occupy. Women can now be found in almost all types of employment and they are beginning to make some inroads into higher status, higher salaried jobs. Much of the increase in women's participation in male stereotyped occupations has occurred since 1970. For example, in 1970 women painters, machinists, and engineers were a rarity; by 1979 women made up 5.2 percent of the painters, 3.0 percent of the machinists and 2 percent of the industrial engineers. Similarly, since 1970, the proportion of female judges and lawyers has risen from 6 to 13 percent and the proportion of female scientists has risen from 14 to 19 percent (U.S. Department of Labor, 1980). Even more substantial gains have been made in the proportion of women receiving college degrees in traditionally male fields. For example, the proportion of Ph.D.s awarded to women in the sciences jumped from 9 percent in 1970 to 23 percent in 1980 (Vetter, 1981). Likewise, women have substantially increased their proportion of B.A. degrees awarded in such male-dominated majors as engineering, agriculture, architecture, and business, thus increasing the supply of women for jobs in these fields (Lyson, 1981).

Despite these impressive gains the job market by and large remains segregated by sex. The great majority of women still hold jobs in traditionally female occupations (see Table 3) and earn degrees in female dominant or sex-neutral majors. Furthermore, since 1960 the proportion of women in female dominant fields (such as elementary school teaching and registered nursing) has either remained constant or has actually increased (for example, in clerical work, see Table 4). Of all the sex-neutral and traditional female B.A. degrees surveyed by Lyson (1981), only in education has the proportion of female participation increased. Thus, although women are entering the labor force in larger numbers, they still tend to be clustered in female-stereotyped jobs. In addition, there has been little movement of men into these traditionally female occupations.
outright discrimination undoubtedly contribute to these disparities, psychological factors also play an important role. In this chapter, the role these psychological factors play in promoting and reinforcing a sex-segregated labor market is explored. We focus primarily on the socialization experiences that shape children's abilities, personalities, self-concepts, attitudes, expectations, and values; all of which affect occupational decisions and labor-force participation. It is important to note that we are describing only one part of an overdetermined pattern. To a large extent, sex differences in occupational behavior reflect real pressures in the adult world that operate differently for men and women. In the next section these constraints and pressures are briefly described.
the fluctuating pressures of childrearing. If, for example, teaching and nursing have been particularly popular professions for women, it may reflect their being nurturant and stereotypically feminine occupations, but it may also reflect the fact that the former matches children's school schedules and the latter offers the possibility of flexible shifts and the continuous availability of intermittent jobs. Unfortunately, the availability of a large pool of labor for the occupations that fit childrearing responsibilities has allowed salaries and wages to remain low.

The higher priority assigned by couples to the husband's job has affected even the occupational pursuits of highly trained professional women. Geographical location is more likely to be determined by the husband's than the wife's job, and this affects both occupational choice and career paths within occupations. Furthermore, there is evidence that both men and women tend to expect the husband's job to be either more lucrative or more prestigious, and, as a result, may be disturbed when the wife's occupational success threatens to surpass the husband's. Some women may be motivated to lessen their work commitment to avoid this (Hoffman, 1977b; Komorovsky, 1977).

The different roles of men and women affect their occupational choice and career patterns not only directly but also through employers' hiring practices. Employment practices that discriminate against women often involve applying generalizations about women's conflicting role demands to all women applicants whether or not they fit in the particular case. Employers may not hire a young woman for fear she will quit if she becomes a mother, or because they may assume she will not accept a within-company geographical transfer if she is married. Other discriminatory practices that have affected women's occupational opportunities have even less of a rational basis. A particular obstacle to women's participation in the skilled trades is the exclusion of women from the skilled trade unions. This may be based on the belief that admitting women would depress wages, but it may also be based on a desire to preserve an aura of masculine elitism. Whatever the basis, discriminatory policies by employees, unions, and training and educational facilities are another important force that has brought about sex differences in the occupational distribution of the population.

There have been a number of inroads on this pattern in recent years. Because family size in the U.S.A. has decreased and the rate of maternal employment has increased even among mothers of preschool children, the intermittent employment style of women has been changing. The number of years during which a mother has preschool children has decreased, as has the likelihood that she will withdraw from the labor force during this period. This change has been augmented by the increased divorce rate, which affects both the need for employment and the motivation for establishing occupational competence.

Maternal employment has also become more socially acceptable (Thornton and Freedman, 1980), and some nonemployed mothers of school aged children indicate they are beginning to feel somewhat defensive about being fulltime homemakers. Although it is not solidly documented, some observers believe that men may be increasing their childcare responsibilities, sharing somewhat more in the role traditionally assigned to women (Hoffman, 1983). It may also be that the increased employment of married women has diminished some of the pressure on men because they are now less likely to be the sole breadwinner. The decrease recently reported in men's drive for occupational success may reflect this shift (Hoffman, 1974; 1977b).
How do differences in the socialization of males and females affect their occupational behaviors? What psychological processes are involved? The various theories formulated to answer these questions fall into four general types: (1) those that view women's occupational behavior as affected by anxiety or lack of confidence; (2) those that focus on the restrictiveness of internalizing traditional sex roles; (3) those that focus on sex differences in acquired personality traits and skills; and (4) those that emphasize the value of the relevant occupational activities to each sex.

Several theories of the first type rely on the idea that the socialization of women fosters a more negative self-concept than men (Parsons et al., 1976). In support of this perspective some studies have found that both women and men tend to view the average woman as more passive, more submissive, more unskilled in business, less competent intellectually, and more excitable during minor crises than the average man (Broverman et al., 1972). Women who share this negative view of themselves may perceive fewer levels of the professional hierarchy as appropriate for them because they underestimate their skills and the accomplishments they have achieved (Eccles et al., 1983). Other such inhibitory attitudes include fear of success (Horner, 1972), fear of loss of femininity (Tangri, 1972), low expectations for future success (Crandall, 1969; Parsons et al., 1976), and low expectancy attributional patterns (Nicholls, 1975).

While theories of the first type assume that women avoid high level careers out of fear, anxiety, or lack of confidence, theories of the second type argue that socialization experiences encourage sex differences in occupational choices because these experiences limit the options men and women consider as viable for themselves. Typically, socializing agents present very traditional models to their children, and they do not encourage children to question the limitations associated with these models. As a result, when traditional ideology is internalized by men and women it is typically accepted as fact rather than opinion and the restrictions it places upon self-development are accepted as natural. Consequently, some women may never even consider any roles other than the traditional one of wife and mother; and although others may seek employment, they are very likely to choose occupations that conform to sex-role stereotypes.

In support of this perspective, children as young as six view occupations according to adult sex-role stereotypes (Garrett, Ein, and Tremaine, 1977). By the time adolescents reach high school and begin to make serious occupational plans, they have well-developed ideas regarding the sex-appropriateness of various occupations and family roles. Their ideas regarding the sex-typing of occupations mirror almost exactly the sex ratios found in them. Furthermore, both children's and adolescents' own occupational aspirations reflect their stereotypes of sex-appropriate occupations (Loft, 1971; Marini, 1980). Apparently, children and adolescents learn the cultural sex-stereotypes, accept them as valid, and make their occupational choices accordingly.

As further support of the impact of ideology on occupational choice, several investigators have demonstrated a relationship between sex-role ideology and occupational aspiration. Women who believe they should achieve success vicariously through their husbands have significantly lower educational objectives (Lipman-Bluman, 1972). Similarly, women with traditional views about sex roles have more
Socialization in the Family

Because the family is a primary agent of socialization, its influence on the child's adult occupation is great. Not only do the child's experiences in the family help to shape his or her personality, social attitudes, abilities, and motivational sets, all of which affect occupational roles, but because family membership defines the child's socioeconomic status, it affects opportunity structures as well. Thus, the family's influence on the child's choice of occupation is multifaceted and complex. To consider, then, how family influences affect sex differences in occupations, it is necessary to think quite broadly about the parents' role. It is not enough to say that parents are more likely to encourage their sons than their daughters to become doctors, or that parents are more likely to send sons to college, though both are true (Hoffman, 1977a; Mott and Haurin, 1982; Rosen and Aneshensel, 1978). We must also consider how boys' and girls' experiences differ in the family from early childhood on, for these early differences are also part of the preparation for adult occupations.

A number of different processes can be distinguished by which the family experience brings about sex differences. The following will be discussed: (1) children tend to identify with and model the same-sex parent; (2) parents reward and punish different behavior for each sex; (3) parents engage in direct teaching of how males and females are expected to behave; (4) boys and girls are exposed to different experiences through their play activities and their assigned household tasks; (5) parents' perceptions of sons and daughters are different, and these differences, by influencing interaction patterns, affect the children's self-concepts and views of others; and (6) parents have different academic and occupational goals for sons and for daughters.

Identification and Modeling

According to the Freudian concept of identification, the child's internalization of the standards and qualities of the same-sex parent arises out of the resolution of the Oedipus complex. The incestuous wishes for the parent of the opposite sex lead to anxiety about punishment and abandonment by the same-sex parent; the child's identification with that parent alleviates this anxiety. Other theories have also maintained that identification is based on the internalization of the parent into the self but have suggested other dynamics for its motivation. For example, Talcott Parsons (1955) suggested that the child identifies with the parent because the parent occupies an envied status. The parent is in control of all the resources -- love, physical coercion, material goods -- and the child identifies with the parent in order to occupy vicariously that preferable status. Unfortunately, Parsons' theories do not explain why the child identifies with the same-sex parent. Kohlberg's theory (1966) adds this missing dynamic by assuming that children first learn what their sex is and that it is unchangeable; they then identify with the parent of their own sex. According to Kohlberg, the female child identifies with the mother because she wants to learn how to become a competent adult, and she knows she cannot be father. Whatever the dynamics, identification with the same sex parent is a frequent explanation for the development of sex differences.
suggest that this relationship exists because girls need considerable impetus and support to overcome the effect of having a parental model who represents a lower level of achievement.

**Patterns of Parental Rewards and Punishments**

Parents tend to reward certain behaviors and punish others differentially according to the sex of the child (Block, 1979). This pattern results in part from a deliberate attempt to train children for their socially defined sex role; it is also the consequence of parents responding to their children in accordance with their own stereotypes about males and females. Parental differentiation may also reflect, to some extent, differences in the children themselves.

Both sexes, but especially boys, are rewarded for behavior that is judged sex appropriate and punished for behavior considered sex inappropriate. Data indicate, for example, that boys in the toddler stage elicit negative responses when they play with dolls (Fagot, 1974), an activity encouraged in girls. Similarly, a wide variety of behaviors, role playing, modeling, play activities, and mannerisms are rewarded and punished by parents in accordance with prescribed sex roles. For example, daughters' bids for dependency, contact and adult proximity are more likely to be rewarded than are sons' (Fagot, 1974). It has been suggested, though not yet demonstrated, that parents show more unambivalent delight in their sons' physical exploits than their daughters', presumably because parents feel more protective toward daughters (even during the earliest years when there is no rational basis for considering them more vulnerable) and because parents take a particular pride in their sons' daring accomplishments (Hoffman, 1977a). Furthermore, fathers of preschoolers, when involved in teaching their child a task, responded more positively to their daughter's attempts to deviate from the task for interpersonal interaction, than their son's attempts; they steered their sons back to the business at hand (Block, Block, and Harrington, 1974).

Several notable aspects of these differences in the patterns of reward and punishment received by boys and girls are important in shaping later occupational orientations. First, in addition to the reinforcement of explicit sex roles, boys may be receiving more of a push toward independence and achievement than are girls. If the reinforcement practices of parents encourage girls' bids for help and interpersonal closeness but push boys toward independence and task concentration, the two sexes may be learning different ways of coping with difficult situations. Hoffman (1972), for example, has suggested that these differences may teach girls to rely on others rather than to tackle problems directly and independently despite obstacles. Furthermore, if girls come to believe that they need others or can rely on others to handle problems, interpersonal relationships may become very important. Consistent with this line of reasoning are achievement orientations and occupational preferences that indicate more affiliative and interpersonal involvements for women than for men (Hoffman, 1972; Horner, 1972; Veroff, Douvan and Kulka, 1981); but whether or not this is a result of this particular pattern of reward contingencies has not yet been determined. Other aspects of early childhood experiences and adult pressures could also engender this affiliative orientation in women.

It is worth noting that coping styles, once adopted, can become self-reinforcing as long as they work. For example, if two children each tackle a penny gum machine and one asks for and receives help when the task becomes difficult but the other continues efforts on his own, both are rewarded with gum, but one is also
social class, ethnic and regional variations in their nature and extent. Nonetheless, the differences already obtained clearly indicate socialization toward the traditional sex roles. Parents teach children the skills and values that they expect will be useful to their children when they grow up. To a large extent, these expectations are based on what the parents learned in their own childhood and from their own experiences. As such, parental teaching is often somewhat conservative; it does not incorporate the most recent social changes. For example, since much of what little girls are taught is preparation for the adult role of mother, domestic skills are emphasized more than occupational skills. This pattern of socialization may have been appropriate when family size was greater and the caring for young children stretched out over a greater proportion of a woman's life than is now the case. Similarly, it may have been appropriate when mothers were not likely to be employed. At present, however, women spend more years actively involved in occupational pursuits than in mothering; traditional sex-role training no longer adequately prepares girls to fit into the new adult roles (Hoffman, 1977a).

If one has not been taught to use a hammer, fix a bike, or swing a bat, one has failed to obtain certain occupationally relevant skills and interests. It has been observed that girls' occupational goals are more restricted and less varied than boys' and that girls, in discussing adult roles, talk more about parenthood whereas boys talk more about occupations (Tittle, 1981). This may in part reflect the fact that girls are taught fewer occupation-relevant skills and perhaps are given less information about and orientation toward occupations.

Other Experiences: Work and Play

Boys and girls also differ in a wide range of experiences related to their play activities and their household tasks. For example, boys and girls are given different toys. The toys for girls are the playthings of the mother role -- dolls, dishes, miniature household appliances; in contrast, boys are given toys that represent the world of work -- trucks, tools, and building equipment (Kacerguis and Adams, 1979). This differentiation starts even in infancy, as evidenced by a study of adults left alone with an infant identified as either a male or female. When the infant was identified as a male, "he" was handed a terrycloth football by the subject; when the infant was identified as a female, "she" was handed a stuffed doll (Seavey, Katz, and Zalk, 1975). Recent research has suggested that the sex typing of toys does more than communicate sex roles to children. Boys' toys, more than girls' toys, afford inventive possibilities, encourage manipulation, and provide more information about the physical world (Block, 1979). Furthermore, research suggests that some of the "masculine" toys, particularly blocks and building materials, develop skills that enhance abilities in dealing with spatial relationships and mathematics (Connor, Shackman, and Serbin, 1978). The data of Newson and Newson (1979), on the other hand, suggest that the toys and play activities of girls may be particularly valuable for verbal development. Since these very skills are often cited as sex differences in abilities throughout the life cycle (Maccoby and Jacklin, 1974), it is quite possible that children's play is part of the preparation for adult occupations.

Another difference in children's play is where it occurs. Boys are allowed by their parents to play on their own away from home more than girls are (Saegert and Hart, 1976; Collard, 1964). This greater opportunity for independent exploration of the environment may provide boys with a richer experience for learning to cope independently and may serve to increase their confidence in their innerpersonal resources.
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Socialization and Occupation

The sexual vulnerability of females and concern with premarital pregnancy were the most common sources of worry about adolescent girls. While parents are aware of the higher accident rates of adolescent boys, particularly in automobiles, this was cited less often as a reason for concern (Hoffman, 1977a). Consistent with these parental views, daughters typically are also more closely supervised at all ages (Saegert and Hart, 1976; Gold and Andres, 1978).

The fact that girls are seen as more delicate and vulnerable and are treated accordingly seems likely to affect their self concept. Thus, if girls see themselves as less potent and effective than boys, if they have less confidence in their independent abilities, are less comfortable with leadership, and exhibit less daring, as some studies suggest (Block, 1979), these perceptions are quite consistent with their parents' orientations toward them. Girls are also interrupted when they are talking more often than boys are, providing a message, perhaps, about how important their parents think their contributions are (Greif, 1979). It is not surprising, then, that parents have lower academic and occupational aspirations for daughters.

Parents also tend to respond differently to the academic achievements of boys and girls. In a large scale study of beliefs about mathematical ability, parents believed that daughters have to try harder than sons to do well in mathematics despite the fact that the boys and girls in the study had done equally well in math throughout their school careers and reported doing the same amount of math homework. Their teachers also rated the boys and girls as having worked equally hard in math class. Thus, the parental belief that girls have to work harder than boys does not appear to be grounded in reality (Parsons, Adler, and Kaczała, 1982). Parents' belief that their daughters have to try harder to do well in math is apparently shared by their daughters; data suggest that girls more so than boys, believe they need to work very hard to do well in math and that girls to a greater extent than boys attribute their success in math more to effort than to ability. It has been argued that attributing one's success to effort is not as ego enhancing and confidence building as attributing it to ability. Attributing one's successes to effort leaves one in doubt about the probability of succeeding in the future at more difficult tasks. Girls, then, could be expected to have lower future expectations for success in math-related fields; in fact, they do (Eccles et al., 1983).

Although parents tend to respond to their children in accordance with sex-role stereotypes whether or not they have children of the opposite sex, their response may be influenced by the sex composition of their family. In an all-girl family, for example, the child's self concept may be less likely to suffer from the presence of a male sibling who is accorded higher status. Further, parents may sometimes have higher occupational aspirations for a daughter's achievement when there is no son (Adams and Meidam, 1968). Indeed, women with no male siblings are disproportionately represented among very high achieving women. Absence of male siblings was a major factor distinguishing women in high executive positions (Hennig and Jardim, 1977).

Parental Expectations

Perhaps parents sustain the sex differences in occupational patterns most directly and visibly through the goals they have for their children. Typically, parents have different aspirations for sons and daughters with respect to personal characteristics, educational attainment, and occupational roles; and parental expectations and encouragement have been shown to affect their children's
found that it was maternal encouragement for the daughters' educational progress that increased their daughter's eventual occupational status.

Higher educational and occupational expectations for sons than for daughters may be less characteristic of black parents in the United States than of white parents. If so, this could explain data obtained from children suggesting a pattern among blacks opposite that of whites: Black girls may have higher aspirations than black boys (Dorr and Lesser, 1980).

Conclusions

The influence of the family, and parents specifically, in bringing about sex differences is clear. Six different socialization processes have been delineated here: identification with parents, parental patterns of reward and punishment, parent teaching, children's household tasks and play activities, parental stereotypes that affect interaction patterns and the children's self concepts, and parental expectations for their children. Each of these processes provides boys with socialization experiences somewhat different than those of girls, and reinforces the prevailing sex roles. By these patterns the child learns the 'sex appropriate' behavior and attitudes and is motivated to conform. Furthermore, several of these processes may facilitate males' learning independent coping styles and valuing achievement per se, while increasing females' interpersonal involvements and abilities. Different skills are learned and different self-concepts generated. Boys, to a greater extent than girls, are given training and encouragement specifically geared toward work in the labor market. Girls' experiences tend to involve socialization for parenthood more than the world of work. While these differences may not be large, they are consistent and accumulative across many years. Thus, it should come as no surprise that these same boys and girls end up in different occupations and exhibit different patterns of employment when they reach adulthood.

Furthermore, each of the family socialization processes discussed tends to have a built-in conservatism. If a child models the parent, the child is modeling the style of a previous generation. In a rapidly changing society, parents may represent out-dated models for the adult world their children will face. This is particularly true for sex roles. The full time homemaker-mother, for example, may represent skills and values that are not appropriate for a daughter who will reach adulthood at a time when most mothers are employed. If modeling processes are conservative, other childrearing patterns may be even more so. Parents often use their own parents as models in their childrearing techniques and invoke values they were taught in childhood --an influence from two generations back. Childhood socialization patterns involve preparing children for adult roles, but these patterns have evolved slowly over past years. They are not consciously designed for each new generation. They represent a previous time when daughters were indeed reared for motherhood and sons for occupations. Thus, as the new generation -- responding to the social changes in family size, marital stability, longevity, economic conditions, and technological developments -- moves into occupations, each sex is more geared for those fields that call on the values, skills, and self-concepts developed in the family, and each is affected by the gender labeling of occupations.
preferences. It produced the greatest attitude change among children who viewed it at school as part of an intensive intervention program including discussions as well as viewing. Girls in general, and girls with interest in science and technology in particular, seemed to be affected the most by exposure to the series. Not only did their stereotypes regarding appropriate behaviors for males and females become less sex typed; their interest in scientific and/or technological careers also increased. Thus, for a select few, exposure to Freestyle opened new career interests and options.

It is not really surprising that the exposure to seven hours of nontraditional programming had only a limited impact on most children, given the massive amount of conventional television they watch and the overdetermined pattern of sex role socialization in the home. Large-scale changes in sex roles will depend on two processes. First, the stereotyped norms will need to become less rigid, making nontraditional choices more acceptable. Only then can change be expected at second more personal level, the level of occupational choice. It is impressive that Freestyle was effective in stimulating some change at both levels; the children exposed at school developed more supportive attitudes toward non-traditional choices especially for females; in addition, a small subset of females became more enthusiastic about possible non-traditional occupations in the sciences and technological fields.

In summary, the results discussed in this section suggest two conclusions. First conventional television today is at least reinforcing traditional sex-typed occupational choices and behaviors. Second, television can be used to broaden males and females occupational beliefs. To be an effective intervention tool, however, prime time commercial and public television will have to change dramatically, or video programs will have to be used as part of a comprehensive career education and training program. Neither is happening to any great extent at present; but both could happen if the demand for such programming increased. However, given the conservative nature of parents and society at large, the likelihood of such demand emerging in the near future seems rather low.

Socialization in the Schools

For at least twelve years, most children spend six hours a day, five days a week, nine months a year in schools. During this time, some children acquire the cognitive skills and knowledge necessary for adulthood while others, unfortunately, emerge ill-prepared. There is little doubt that schools prepare some children better than others. By and large, female and minority children are often poorly served by the school system in terms of adequate preparation for adult life. Many leave school with inadequate career counseling, with skills that cannot yield a living wage, or with inferior skills across a wide range of areas. As a consequence, they often find themselves unable to compete successfully for many jobs and for many advanced-training opportunities. In this section we review the schooling processes that have yielded important sex differences in student training, in students' self concepts, and in students' career goals. The focus is on classroom experiences, counseling, textbooks, and vocational education. We also discuss briefly a set of more subtle influences, such as peer interaction, access to
behavior preferences that boys and girls have when they enter school, but not strong evidence that preschool teachers create new sex differences.

Teacher effects: Primary and secondary school. Extensive observations in primary and secondary school classrooms have led several investigators to conclude that the quantity, quality, and type of interactions boys and girls have with some of their teachers are different. In general, teachers tend to interact more with boys than girls, especially in mathematics and science classes. For example, as early as second grade, boys get more math instruction than girls, and girls get more reading instruction (Leinhardt, Seewald, and Engel, 1979). In high school, math teachers are more likely to encourage the academic abilities and interests of the boys, to joke with the boys, and to make public statements indicating high expectations to the boys (Becker, 1981). As at the preschool level, boys also typically receive more criticism, especially for misbehaving. Finally, sex differences in the interaction patterns between teachers and students are often most extreme for more highly able students. For example, boys with high math ability often receive more praise for their achievements and have more interaction with teachers in general than girls of comparable math ability (Parsons, Kaczala, and Meece, 1982).

It should be noted, however, that all of these sex differences are quite small and do not occur in all classrooms. One-third to one-half of all teachers observed do not treat boys and girls differently. The picture is further complicated when one considers the few studies that have actually attempted to relate teacher-student interaction patterns in classrooms to students' attitudes, perceptions, and motivation. Parsons, Kaczala, and Meece (1982) tested the relationships among student-teacher interaction patterns and students' estimates of their own mathematical abilities, the difficulty of math courses, and their plans to continue taking math. Although they found a significant relationship between the teacher's expectations for students and the students' estimates of their own math ability, they did not find evidence of a strong relationship between daily teacher-student interaction patterns as observed in the classroom and the students' attitudes or plans.

In summary, observational studies of student-teacher classroom interaction patterns yield small but fairly consistent evidence that boys and girls have different experiences in their classrooms. However, as is true with the preschool studies, these differences seem to be as much a consequence of preexisting differences in the students' behaviors as of teacher bias. Nonetheless, when differences occur, they do appear to reinforce sex-stereotyped expectations and behaviors.

Studies relying more on case-study approaches have provided stronger evidence of the impact of teachers on students' career plans and decisions. For example, women working in male-dominated fields, such as engineering, often report that a particular teacher played a very important role in shaping their career choice (Casserly, 1979). Unfortunately, few students encounter a teacher who encourages them to consider a wide range of careers. Instead, most teachers, like most parents, reinforce traditional behavior and occupational plans for both boys and girls independent of where the student's interests or talents might lie. For example, mathematically-gifted girls are less likely to be identified as such by their teachers than are comparably talented boys. Similarly, girls who drop out of the math curriculum, or out of other nontraditional majors in college, often
career information from their school counseling office are still given materials and information that reinforce traditional sex-typed choices.

Granted that these results suggest that counselors are not exposing students to a broad range of career options, do counselors really play a very important role in shaping students' career decisions? Most studies suggest that they do not. Students consistently indicate that their counselors have very little influence on either their decisions regarding which courses to take or their long-range occupational plans (Armstrong and Price, 1982; Eccles (Parsons) et al., 1983). This minimal level of counselor influence results from two basic causes: (1) students interact very little with their counselors and (2) when making occupational decisions, students rely more heavily on other sources, such as their own interests and the suggestions of their parents and friends.

Thus, it appears that counselors either have minimal impact on occupational choice or act to reinforce traditional choices. But because they are in such a central advising role during the years when vocational choices are taking shape, it seems they could play a more positive role in promoting educational and vocational equity. Evaluations of programs that have attempted to use counseling as a means of increasing nontraditional vocation choices support this suggestion. These studies are discussed in more detail later.

Textbooks and Literature

Children also learn about appropriate occupations from the books they read in school. The ubiquity of sex-role stereotyping in textbooks and in the literature children read during the school years has been amply documented. Repeatedly, both textbooks and children's literature have been found to be biased against women in three ways: Women are portrayed less frequently than men, in unflattering ways more often than men, and in a much narrower range of activities and occupations than men (Women on Words and Images, 1972). These differences are especially marked in materials written for the upper grades and for science and math courses (Saario, Jacklin, and Tittle, 1973). Although there have been some changes in recent years, these biases are still evident (Wirtenberg, Murez, and Alepekto, 1980). Furthermore, because schools and teachers often follow the practice of using revised editions of familiar texts, of using texts for as long as possible, and of assigning familiar literature to the students, it is likely that students are still being exposed to the more sex-typed books published before 1975.

But do the stereotypes in either textbooks or children's literature contribute to the sex-typed occupational choices students make? Again, this is a very difficult question to answer. Because sex stereotyping is so pervasive across all major textbook series, there are no naturally occurring comparison groups. There is some evidence that exposing children to books that contain nontraditional models and provide examples of boys doing traditional female activities and girls doing traditional male activities can change children's stereotypes and behaviors (McArthur and Eisen, 1976; Wirtenberg et al., 1980). For example, girls do persist longer at a mechanical puzzle after they have read stories depicting females rather than males mastering mechanical tasks. Therefore, it is likely that textbooks are, at the very least, reinforcing existing stereotypical beliefs about appropriate occupations. It is also likely that textbooks could be used to broaden children's career beliefs. This possibility is discussed in more detail later.
like competitiveness, that have been linked to success in several occupations. In fact, until recently, girls' participation in many organized sports was not even allowed. Because they have not been as active in sports, academically competent girls may have had fewer failure experiences while they were growing up. They have consistently done well in school. In contrast, many academically competent boys have had the opportunity to experience both success and failure in athletics. Such experiences may teach boys effective strategies for dealing with failure.

Changes in the pattern of participation in sports, however, has been one of the most dramatic consequence of Title IX of the Educational Amendments passed by Congress in 1972. Title IX mandates that "no person . . . shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance." Since the passage of Title IX there has been a dramatic increase in female participation in interscholastic sports programs. In 1971, only 7 percent of interscholastic high school athletes were female; by 1981 the figure had jumped to 35 percent. The number of high schools with interscholastic female basketball teams jumped from 4856 to 17,167. Results have been equally impressive at the college level: The number of female intercollegiate athletes doubled between 1971 and 1977 and the percentage of sports scholarships awarded to females jumped from 1 percent in 1973-1974 to 22 percent by 1981 (National Advisory Council on Women's Educational Programs, 1981).

Many of these gains represent hard-fought battles. Title IX gave parents and female students interested in athletics the legal basis to fight for equity. And many did: Over one fourth of all complaints of discrimination filed under Title IX have been related to athletic discrimination (National Advisory Council on Women's Educational Programs, 1981). Whether this increase in the female participation rate in athletics will have any major impact on the occupational behavior patterns of boys and girls remains to be seen. But at the very least, women now have the opportunity to use their athletic skills to get a college education just as men have been doing for years.

Other School Influences

A variety of other, more subtle school influences have been proposed as important mediators of sex-typed occupational choices. By and large, neither experimental nor correlational work has been done on these variables to establish their link to sex-stereotyped occupational behavior. Instead, the bulk of the work has focused on documenting the existence of these influences and on documenting that their occurrence is sex-linked. Among these factors are peer influence, classroom dynamics, and the availability of models.

Peers. Although students themselves do not think that peers are a major influence on their occupational decisions (Armstrong and Price, 1982; Eccles et al., 1983), other sources suggest that peers do play an important role. First, peers, especially boys, are more likely than adults to reinforce sex appropriate behavior and to punish "sissy"-like behavior in boys (Fagot and Patterson, 1969; Langlois and Downs, 1980; Massad, 1981). This fact, coupled with the importance to adolescents of peer acceptance and popularity, suggests that peers have the power to either encourage or discourage nontraditional vocational choices. Other findings document this power; for example, the presence of supportive male friends, as well as female colleagues, facilitates women's nontraditional career choices (Angrist and Almquist, 1975; Parsons, Frieze, and Ruble, 1978). Similarly, a wide variety of
But can schools be used as a means to change the segregation of the sexes in the labor market? Can schools help children to broaden their perspectives or potential vocations? Numerous studies indicate they can. Although government policy makers have been unwilling to intervene on a large scale in the family, they have been much more willing to use the schools as a vehicle for policy implementation. In fact, in the past ten years the federal government has engaged in two such large-scale efforts to increase the participation of females in more traditionally male subjects, activities, and vocational training programs. Several state governments have also mandated changes in the public schools designed to equalize access of females and males to all sectors of the labor market.

Experience with the implementation of these federal and state programs suggests that schools can be effective change agents given the following conditions:

1. The provision of federal money coupled with active monitoring of schools, and provision of both pre-service and in-service training for teachers and counselors: Extensive in-service retraining is essential for the teachers and counselors currently in the educational system, especially for those trained prior to 1965. But the need for modification of existing teacher training programs is equally great. In a recent analysis of teacher-training materials, Sadker and Sadker (1980) found that very little attention is given to the issue of sex stereotypes and occupational planning. Augmenting the training that future teachers and counselors get regarding the need to help students move beyond sex stereotypes in their career planning would be a very cost effective intervention.

2. Special attention must be focused on secondary schools: Most secondary school students make decisions that have significant ramifications for their future. For example, it is at this point that many decide whether they will go to college, will receive postsecondary vocational education, or will enter the job market directly. In some cases they even decide which occupations to prepare for and which to ignore. As a consequence, they select some high school courses and not others. These decisions can have significant life-long implications in terms of the occupational options open to them. Consequently, it is very important that adequate and accurate career counseling and guidance be provided during these years.

3. The provision of female role models in courses stereotyped as masculine and of male role models in courses stereotyped as feminine: Live nontraditional role models can stimulate students to consider new options for themselves. Without such role models and without the opportunity to talk with them, students typically ignore advice that runs counter to their stereotypic beliefs.

4. The provision of a broad base of support for men and women who elect a nontraditional path, including active career counseling programs and involvement of potential employers: Nontraditional choices must be nurtured. Cultural change is a very slow process and can be quite painful for the pioneers. Additional supports are necessary for these students, especially during the adolescent years.

Given these conditions and comprehensive, active programs that include follow-up support for students making nontraditional choices, schools can be successful in changing occupational sex ratios (Graesser and Rose, 1982; Stage et al., in press). But let us be more specific about what schools might do.

Teachers. Although teachers typically reinforce traditional vocational choices, they can get students to consider other options and can help students
grade, girls are more likely to take advanced math courses and to at least consider math related vocations (Casserly and Rock, 1980).

Counselors. A variety of programs have used counselors as a means of broadening students' vocational decisions. Many such programs now exist as part of the national effort to encourage the entry of women into scientific, technical, and mathematical occupations. These programs have used a variety of intervention strategies: such as, special math classes open only to females, often taught by females (Stage et al., in press). Some of these classes have been designed to provide females with remedial training in math skills; others have enabled women to work and become familiar with mechanical and electrical tools. Still others have focused on helping women overcome anxiety about their math skills and technical expertise. Many of the most effective classes have used a combination of all these strategies.

Other intervention programs have involved counselors more directly. Counselors have developed extensive career-awareness programs that bring in women who work in nontraditional fields. In the most successful programs, these women discuss their feelings both about their jobs and about the impact of their nontraditional careers on their family life. Counselors have also been involved in programs designed to recruit potentially interested female students into math and science courses and to encourage these students to pursue careers in math and science.

Not surprisingly, intervention programs that have been limited in scope and brief in length have not been very effective in changing either students' attitudes or occupational choices. Programs that have been the most effective in getting females to consider nontraditional occupations are those that make use of role models and extensive career-awareness counseling; that involve teachers, counselors, parents, and students in a rigorous comprehensive program; and that have an explicit, active commitment to recruiting minority women. Whether programs such as these will also be successful at changing long-range occupational patterns has yet to be evaluated; preliminary reports, however, look promising (Hall, 1980; Stage et al., in press).

Vocational Programs. Secondary schools can also play a more active role in increasing nontraditional enrollment in vocational programs. In 1976 the government passed the Vocational Education Amendment (P.L. 94-482) authorizing grants to states to assist them "to develop and carry out such programs of vocational education within each state so as to overcome sex discrimination and sex stereotyping in vocational educational programs." Evaluations of the progress that has been made under this law are beginning to emerge. Only a few states and local school systems have made substantial progress (Harrison, 1980); these share the following characteristics:

1. A strong commitment to both sex equity and to vocational education itself at all levels within the district;

2. A strong commitment to sex equity in the surrounding community, especially among potential employers;

3. Active counseling programs that include career-awareness days and other programs designed to alert students, teachers, and parents to equity issues, and to encourage nontraditional choices;
are not designed to encourage nontraditional occupational choices, by helping young mothers complete school they should increase their job prospects.

Summary and Conclusions

At the present time the employment patterns of women in the United States are in the midst of a great change. Women's labor force participation has increased throughout the life cycle. Because of smaller families and increased longevity, the years when a woman has young children occupy a smaller proportion of her adult life. Furthermore, children have become less of a deterrent to employment; most mothers now work. Employment rates are also higher because of the greater numbers of women who are now heads of households. Despite this increased commitment to the labor force, women are still heavily concentrated in traditionally female occupations, and within occupations are employed at lower levels than men and receiving lower wages. Although these differences result in large part from the different pressures of adult life on women and men and from discriminatory practices, they also result in considerable part from the different socialization experiences of males and females.

Boys and girls are socialized differently from birth. Sex stereotypes are such an integral part of parents' attitudes that, even without consciously knowing it, their perceptions and interactions are affected by these views. Furthermore, the patterns begun in the family are reinforced in the schools, by the peers, and by the portrayals of males and females in the mass media.

In view of the new social roles evolving for women, and of the significance of work in their lives, it seems important to consider how the pattern of sex-stereotyped occupational assignment might be interrupted. How might socialization patterns be changed so that both males and females could be encouraged to develop the full range of their potential, to develop their talents, to seek the appropriate training, and to obtain jobs unfettered by the restrictions of sex-stereotyped socialization?

In considering where social policy might be most effective, we come to a paradox. It seems apparent from the materials reviewed in this chapter that the family is a major source of the socialization patterns that lead to job segregation. If, magically, the differences between boys' and girls' family experiences could be eliminated, the internal barriers to sex integration in occupations would be enormously diminished. Whether a comparable change in the schools, peer groups, or mass media would yield as great an impact is unclear. The implication of these results, of course, is that families should change their socialization practices. But how might such a change in the family be brought about? It is very difficult to change parents' childrearing patterns by social policy. It is much easier to mandate changes within the schools. Consequently, even though schools may not be the major source of the problem, they are probably an easier target for policy influence.

This is not to say that family patterns are not changing. As adult roles change, childrearing patterns also change in response (Hoffman, 1977a) but the process is a slow one. There has already been some decrease in gender stereotyping in families and there is evidence that the change occurs more rapidly in families where the mother is employed (Hoffman, 1979). Change might be accelerated by
encourage boys and girls to consider nontraditional vocations; boys and girls may then be more willing to consider these occupations on their own.

Schools can also play an important role by providing continuing education programs. One important reason that women's average wages are lower than men's is the high dropout rate of women because of pregnancy. Programs to enable teenage mothers to continue their education and vocational training can interrupt the cycle of poverty that teenage pregnancy begins. Programs also are important for reeducating older women whose earlier training was cut short either by family responsibilities or because they had not anticipated their eventual need for occupational competence. Similarly, programs for redirecting men into new job opportunities, among them occupations previously labeled appropriate to females such as nursing or secretarial work, might broaden their employment prospects.

In initiating and executing the kind of changes advocated in this chapter, school personnel must work with the community and with parents. Without the support of the community and the students' families, school-based intervention programs have little likelihood of success. To gain this support, a community education program must be launched before major changes are introduced in the school. Such a program should focus on two issues: (1) the importance of students developing their full potential, and (2) the need for all students to prepare themselves for a job that will provide a living wage. Parents must be provided with statistics that show how the roles of men and women are changing. Then the need for both boys and girls to prepare for the possibility of supporting themselves and their families can be discussed. In this way, parents can become allies in the schools' efforts to provide the best possible career counseling for both boys and girls.

Socialization patterns play an important role in perpetuating the sex differences in occupational roles. They operate as a constriction, slowing change when change is called for. Social policy, carefully planned and directed, can interrupt this pattern and ease the transition.


Stage, E. K., Kreinberg, N., Eccles, J., and Becker, J.R. Increasing the participation and achievement of girls and women in mathematics, science, and


Table 2

Labor Force Participation Rates of Mothers With Children Under 18, 1940–1980

<table>
<thead>
<tr>
<th>Year</th>
<th>% of Mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>56.6</td>
</tr>
<tr>
<td>1978</td>
<td>53.0</td>
</tr>
<tr>
<td>1976</td>
<td>48.8</td>
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<tr>
<td>1974</td>
<td>45.7</td>
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<tr>
<td>1972</td>
<td>42.9</td>
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<tr>
<td>1970</td>
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<tr>
<td>1968</td>
<td>39.4</td>
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<tr>
<td>1966</td>
<td>35.8</td>
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<tr>
<td>1964</td>
<td>34.5</td>
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<tr>
<td>1962</td>
<td>32.9</td>
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<tr>
<td>1960</td>
<td>30.4</td>
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<td>1958</td>
<td>29.5</td>
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<td>1956</td>
<td>27.5</td>
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<td>1954</td>
<td>25.6</td>
</tr>
<tr>
<td>1952</td>
<td>23.8</td>
</tr>
<tr>
<td>1950</td>
<td>21.6</td>
</tr>
<tr>
<td>1948</td>
<td>20.2</td>
</tr>
<tr>
<td>1946</td>
<td>18.2</td>
</tr>
<tr>
<td>1940</td>
<td>8.6</td>
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<table>
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<tr>
<th>Occupation Group</th>
<th>August 1979</th>
<th>Annual Average</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>1978</td>
<td>1970</td>
<td>1960</td>
<td></td>
</tr>
<tr>
<td>Total employed (in thousands)</td>
<td>40,335</td>
<td>38,881</td>
<td>29,667</td>
<td>21,874</td>
<td>100.0</td>
</tr>
<tr>
<td>Percent</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
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</tr>
<tr>
<td>Professional and technical workers</td>
<td>15.3</td>
<td>15.6</td>
<td>14.5</td>
<td>12.4</td>
<td></td>
</tr>
<tr>
<td>Managers and administrators (except farm)</td>
<td>6.8</td>
<td>6.1</td>
<td>4.5</td>
<td>5.0</td>
<td></td>
</tr>
<tr>
<td>Sales workers</td>
<td>7.0</td>
<td>6.9</td>
<td>7.0</td>
<td>7.7</td>
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</tr>
<tr>
<td>Clerical workers</td>
<td>34.9</td>
<td>34.6</td>
<td>34.5</td>
<td>30.3</td>
<td></td>
</tr>
<tr>
<td>Craft and kindred workers</td>
<td>1.9</td>
<td>1.8</td>
<td>1.1</td>
<td>1.0</td>
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</tr>
<tr>
<td>Operatives, including transport</td>
<td>11.6</td>
<td>11.8</td>
<td>14.5</td>
<td>15.2</td>
<td></td>
</tr>
<tr>
<td>Nonfarm laborers</td>
<td>1.4</td>
<td>1.3</td>
<td>.5</td>
<td>.4</td>
<td></td>
</tr>
<tr>
<td>Private household workers</td>
<td>2.6</td>
<td>2.9</td>
<td>5.1</td>
<td>8.9</td>
<td></td>
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<tr>
<td>Other service workers</td>
<td>17.0</td>
<td>17.7</td>
<td>16.5</td>
<td>14.8</td>
<td></td>
</tr>
<tr>
<td>Farmers and farm managers</td>
<td>.4</td>
<td>.3</td>
<td>.3</td>
<td>.5</td>
<td></td>
</tr>
<tr>
<td>Farm laborers and supervisors</td>
<td>1.2</td>
<td>1.0</td>
<td>1.5</td>
<td>3.2</td>
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