
MOTHER'S OCCUPATIONAL STATUS AND CHILDREN'S SCHOOLING*

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After a long tradition of research on the intergenerational mobility of men, stratification studies in the late 1970s and 1980s began to include women in their analyses. Most studies, however, still rely primarily on characteristics of fathers to measure family background status. Using a large national cross-sectional data set, this study describes the influence of mother's occupational status on children's educational attainment. I compare the strengths of maternal and paternal influences and use birth cohorts to examine whether the relative influence of mothers has changed. The main findings are: Maternal occupational status has a strong effect on schooling, this effect is independent of father's education and occupation, it persists through the schooling career, and it is as important for sons as for daughters. Some evidence suggests that the influence of mother's occupation has increased while the influence of father's occupation has decreased. In contrast, mother's education has always been as important as father's education. In general, the findings underscore the positive effects of maternal labor force participation on child outcomes through the high-status jobs many married women now hold. At the same time, this study suggests that the independent influence of mother's socioeconomic status may lead to an accumulation of educational advantages and disadvantages in subsequent generations, possibly reducing the intergenerational mobility of families.

After stratification research was criticized in the early 1970s for focusing almost exclusively on men (Acker 1973), studies appeared that examined the intergenerational occupational mobility of women and the determinants of women's socioeconomic achievement (Tyree and Treas 1974; Treiman and Terrell 1975; Featherman and Hauser 1976; Sewell, Hauser, and Wolf 1980). This broadening in scope provided a more balanced view of the status attainment process and was particularly warranted by women's rapidly expanding economic roles in American society. Although women are now included in the stratification research agenda, empirical studies have retained their male biases in another respect. Analyses of intergenerational occupational mobility, including those focusing on women,

still compare the achievements of individuals with the achievements of their fathers (Roos 1985; Hout 1988), and most regression analyses of educational or occupational attainment, including recent ones, rely primarily on paternal characteristics to measure family background status (DiPrete and Grusky 1990; Grusky and DiPrete 1990).

Fathers have occupied a more central place in this literature than mothers for several reasons. First, because maternal and paternal status characteristics are highly correlated, it was often assumed that mother's characteristics would be of little help in explaining additional variance in educational and occupational outcomes. Second, because few mothers were working outside the home when status attainment research was developing, socioeconomic differences among employed mothers were not believed to be as consequential as socioeconomic differences among fathers. Third, data on the socioeconomic characteristics of mothers in nationally representative surveys have been scarce. Although several longitudinal surveys include detailed information on mothers, the key cross-sectional data sets in past stratification research, such as the *Occupational Change in a Generation Surveys* (Featherman

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and Hauser 1978) and the *NORC General Social Surveys* (Davis and Smith 1991), did not ask about mother's occupation.¹

Outside the stratification literature, the influence of mothers on children's achievement has been studied extensively. In response to the sharp increase in labor force participation of married women with children, psychologists, economists, and educational sociologists began to compare the children of employed mothers to the children of nonemployed mothers. In contrast to the typical status attainment study, this line of research focuses on young children rather than on adults and examines differences in intellectual ability and scholastic accomplishment rather than differences in completed education or occupational attainment (Schachter 1981; Blau and Grossberg 1992; Dronkers 1989). Initially, these studies were motivated by growing popular concern that a reduction in the time mothers were spending at home would have negative effects on their children's early achievements. By emphasizing the more traditional role of mothers as a socializing agent in the home, much less attention was paid to the possibly positive effects of the incomes and occupations of working mothers. Although economic studies sometimes acknowledge that working mothers' financial resources contribute to child outcomes (Desai, Chase-Lansdale, and Michael 1989), little is known about whether socioeconomic differences among employed mothers affect educational and socioeconomic achievements of adults; nor is it known whether this influence is comparable to that traditionally exerted by the father.

I compare the influence of mothers' occupational and educational statuses with those of fathers and assess whether the socioeconomic

influence of mothers on adult attainment has changed over time. The analysis focuses on outcomes in schooling, because most of the influence of parental status on a person's adult socioeconomic achievement is mediated by educational attainment (Blau and Duncan 1967; Featherman and Hauser 1978). If mothers are employed, does their occupational status have a significant effect on their children's educational attainment? Is this influence independent from, and equal to, the influence of fathers? How do the children of nonemployed mothers compare to the children of employed mothers with various occupations? Do the effects of father's socioeconomic status on children's educational attainment differ in dual-earner households? Are maternal effects on men's achievements similar to maternal effects on women's achievements? How have the effects of maternal and paternal socioeconomic status changed over time?

To answer these questions, I analyze the *National Survey of Families and Households* (NSFH) (Sweet, Bumpass, and Call 1988), which is the first large nationally representative cross-sectional data set that includes information on the occupation and education of both parents. I analyze cohorts born before the 1960s and rely on retrospective information provided by adult respondents about their families of origin. To compare the contributions of fathers and mothers within families, I focus on two-parent families. Although the number of female-headed households has increased since the 1960s, few adult respondents in the NSFH grew up in such households, because the vast majority were born before the 1960s.² To examine changes in the influence of mother's occupational and educational statuses, I compare birth cohorts. Assuming that selective attrition through mortality does not lead to major biases, cohort differences in a single cross-section are reasonable approximations of change, because most people finish their schooling before age 24 and few people return to school later in life. A similar design was used to study

¹ Socioeconomic information on mothers is sometimes available for respondents who grew up in female-headed households and is occasionally included in measures of family income. The 1957 survey of high school seniors in Wisconsin, another key source of information in stratification research, contained a question on mother's occupation (Sewell and Hauser 1975:195), but to my knowledge, no published analysis has included this variable. The *National Election Survey*, a data set that has also been used for analyses of trends in the stratification process (Semyonov and Roberts 1989), includes information on mother's occupational class (though not on detailed occupation), but does not include information on mother's education.

² This is not to say that the NSFH contains few single-parent households. In fact, these households were oversampled. My focus is on the family of origin of the respondents, not on their families of procreation. How educational attainment depends on family structure is an important question that has recently been studied extensively (Astone and McLanahan 1991).

trends in educational stratification in pioneering work by Hauser and Featherman (1976) and Mare (1981).

MATERNAL EFFECTS ON ACHIEVEMENT: PAST RESEARCH

Several researchers, both inside and outside the status attainment literature, have included *mother's education* in their regression models and found positive effects on a person's intellectual ability, completed schooling, and adult occupational status, net of the influence of father's education and occupation (Sewell and Hauser 1975; Mare 1981; D'Amico, Haurin, and Mott 1983). The independent effect of mother's education is generally linked to the genetic transmission of cognitive abilities and the social transmission of maternal cultural capital in the home. Some authors found that the influence of mother's education on school-related outcomes is stronger than that of father's education and regard this as evidence favoring a cultural socialization hypothesis (Leibowitz 1974; Murnane, Maynard, and Ohls 1981). Because mothers spent more time with their children than did fathers, so the reasoning goes, mother's cultural resources are more important, and mother's education should have a stronger effect than does father's education. Whether the influence of mother's education is stronger than that of the father remains uncertain, however, because the effect of father's education is calculated net of his occupation or income, whereas the effect of mother's education is typically not controlled for her occupation. Hence, these analyses leave open the possibility that differences in mother's education partly tap socioeconomic differences among mothers.

While mother's education is often considered a "control variable" or just another "family background factor," the influence of *mother's labor force participation* has been studied more systematically. Although most researchers analyze differences in sex-role attitudes, self-esteem, social adjustment, and delinquency (Hoffman 1974, 1989), some have also examined effects of mother's employment on achievement. Evidence for the presumed negative effect of mother's employment on school-related outcomes seems to be weak or conditional upon other characteristics (Murnane et al. 1981; D'Amico et al. 1983; Heyns and Catsambis 1986). Blau and Grossberg

(1992), for example, found negative effects on intellectual ability in the first year of the child's life, but positive effects in subsequent years. Desai et al. (1989) found that the negative effect of maternal employment on intellectual ability is limited to high-status households and argued that highly educated mothers generally do not find equally well-educated child-care providers in the marketplace. While these studies offer a more complete model of how achievement depends on family background, they are based on the traditional view that mothers are the dominant cultural socializers in the home, and hence are less concerned with the socioeconomic aspects of the mother role.

Several economic and demographic studies have argued that the negative effects of mothers' employment may be offset by economic advantages (Haveman, Wolfe, and Spaulding 1991). A mother who works outside the home has less time available for her child, which may narrow her role as a cultural socializer in the home; but she also brings in financial resources that may enhance her child's progress in school. To test this hypothesis, several researchers have included measures of *maternal earnings* in their analyses, but generally they have found mixed or weak effects on early achievement, net of maternal education. Hill and Duncan (1987), for example, found positive effects of mother's earnings on the completed education of daughters, but not on that of sons.³ Desai et al. (1989) and Blau and Grossberg (1992) found positive but nonsignificant effects of mother's earnings on the intellectual ability of one- to four-year old children. Because researchers typically consider maternal income and labor force status simultaneously, maternal employment effects are somewhat difficult to interpret. Because nonemployed mothers have zero income, the employed-mother effect essentially compares nonemployed mothers with employed mothers who have negligible earnings. To assess the effect of maternal employment, comparisons of the children of nonemployed mothers to children of employed mothers with different levels of income would be preferable.

³ In their classic analysis of the sample of Wisconsin high school seniors in 1957, Sewell and Hauser (1975:76) briefly considered the socioeconomic roles of mothers. They showed that maternal and paternal income effects on schooling are equal and used total family income in the remainder of their analyses.

While the role of father's occupation has been at the center of stratification research for decades (Blau and Duncan 1967; Featherman and Hauser 1978), *maternal occupation* has received little attention in the literature on achievement. In their classic comparison of the status attainment processes of men and women, Treiman and Terrell (1975:177) reported in a footnote that among adult women who grew up in dual-earner households, mother's occupational status has a weak but positive effect on highest grade of schooling completed, net of the influence of parental education and father's occupation. In an analysis of young men's and women's schooling transitions in 1967, D'Amico et al. (1983) found significant positive effects of mother's occupational status on a daughter's probability of completing college, but not on the earlier schooling transitions.⁴ While these analyses suggest that the influence of mother's occupational status on achievement, net of parental education and father's occupation, is limited, the rapidly changing economic role of mothers in American society calls for a more systematic assessment of the mother role.

TRADITIONAL AND MODERN INFLUENCES OF MOTHERS: HYPOTHESES

That children of high-status parents have better chances of getting ahead in school is in part explained by the inheritance of genes that favor academic ability, and in part by a set of parental activities that favor achievement net of ability. Three kinds of activities have been considered in the sociological literature: the transmission of economic resources, the transmission of cultural resources, and the instilling of aspirations and expectations through role modeling. Schooling depends on parents' *financial resources*, because high-status parents are better able and more willing to finance college education (Steelman and Powell 1991). Income may also affect children's achieve-

ments in earlier stages of their schooling careers, because parents who are better off financially can send their children to high-quality elementary and secondary schools and can offer a better learning environment in the home (e.g., less crowded housing and more learning materials) (Murnane et al. 1981). Parents' *cultural resources* play a role as well, because parents engage in activities with their children that are relevant to the schooling process. By reading to the child, playing with the child, helping with homework, and talking about accomplishments or frustrations in school, parents may increase the reading and language skills of their sons and daughters (Hess and Shipman 1965) and nourish a certain cultural style that is believed to be rewarded in school (DiMaggio 1982). Parents also affect the schooling of their children indirectly, by molding their occupational *aspirations* and socioeconomic *expectations*. Parents set certain lifestyle standards that the child incorporates when he or she chooses an occupational career, and they put different levels of pressure on their children to perform well in school. Children are also affected by the definitions of socioeconomic success that parents communicate to them (Woelfel and Haller 1971).

The Traditional Role of Mothers

When the labor force participation of married women with children is low, mothers do most of the socialization at home. Studies in the literature on child development have shown that mothers engage in school-related activities with their children more often than do fathers. For example, mothers encourage and help children to do homework, they read books to their children, listen to their children read, talk more with their children, and play more with their children (Russell and Russell 1987). Other child development studies have shown that family influences on cognitive development and school grades depend to a large extent on how mothers communicate with their children. In a classic study, Hess and Shipman (1965) showed that high-status mothers foster the cognitive abilities of their children by relying on elaborate language codes. Later studies have replicated this finding and established additional influences of mother-child interaction on school readiness (Hess, Azuma, Kashiwagi, Holloway, and Wenegrat 1987), language de-

⁴ Similar findings apply to countries outside the United States. Dronkers (1989), for example, analyzed data on a cohort of Dutch students and found that, net of father's occupation and education and mother's education, children of mothers employed in professional occupations had higher educational test scores than did children of mothers employed in other occupations.

lay (Wulbert, Inglis, Kriegsman, and Mills 1975), and verbal ability (Price, Hess, and Dickson 1981). In short, when sex roles are traditional, the mother's cultural resources will be a more salient influence on children's schooling than will those of the father. The mother's socializing role is particularly relevant in the early stages of the child's educational career, because that is when children interact most with their mothers.

Other aspects of the family of origin have traditionally depended on the father. When the family's financial resources depend largely on the father's work, socioeconomic differences among fathers should be more influential than are socioeconomic differences among mothers. Although paternal financial resources are relevant throughout the schooling career, these resources are particularly important when teenagers are deciding whether and where to go to college. Even in a traditional setting, however, a mother's economic role may not be negligible. For example, mothers were often employed part-time when the family experienced life-cycle-related periods of financial stress, and such life-cycle squeezes were sometimes caused by the high cost of children's schooling (Oppenheimer 1982). Because the father was the prime breadwinner, he probably also was the central model of socioeconomic achievement. Traditionally, this was probably more true for sons than for daughters, simply because men were more focused on an occupational career than were women. Social psychological research has shown, for instance, that for boys, fathers are the most important occupational role model as well as the most important source of communication about work and occupations (Saltiel 1985). For girls, fathers and mothers appear to be equally important role models.

The Changing Role of Mothers

Has the influence of fathers and mothers changed as sex roles have become more liberal? To answer this question, I distinguish three changes in sex roles: increasing numbers of married women in the labor market, changes in the nature of married women's work, and general changes in attitudes towards sex roles. To formulate testable hypotheses, I focus on three specific questions regarding the mother's influence. How do mothers affect their children's schooling when they participate in

the labor market? How do mothers affect their children's schooling if they are not working for pay? How do children of employed mothers fare compared to children whose mothers are not working outside the home?

With an increasing number of women in the labor force and an especially sharp rise in the number of working women with young children, the percentage of families in which the wife contributes to the family income has risen sharply, from 32 percent in 1950 to 69 percent in 1980 (Sørensen and McLanahan 1987). Next to a rise in the number of mothers who are employed, there has been an increase in their hours of paid work. Because this has led to an increase in the mother's financial contribution in dual-earner families, we would expect increases in the schooling advantage of children of employed mothers (all else being equal). These changes are particularly relevant in later stages of the schooling career when schooling is most dependent on parental financial resources.

While mothers' increased financial contributions may alter schooling differences between children of employed mothers and children of nonemployed mothers, they do not necessarily affect the socioeconomic influence of employed mothers themselves (i.e., differences between mothers who work in high-status occupations and mothers who work in low-status occupations). A more subtle argument is that the relationship between occupational status and earnings among employed mothers has increased over time, partly because of affirmative-action legislation and partly because of married women's increased commitment to an occupational career. If the effect of occupational status on earnings among married women has increased, and if differences in parental income affect schooling outcomes, then the effect of maternal occupational status among employed mothers has probably increased.

There are also reasons to suspect that mothers have become less influential over time. Some authors believe that because married women's labor force participation has increased, children and young adults spend much less time with their mothers than before. Assuming this assessment is correct, I expect that, net of parental income, the children of employed mothers have a disadvantage in school compared to the children of mothers who do not work outside the home. Because the labor market participation of employed mothers is

now more extensive, I also expect that differences in socialization between the two groups of mothers have increased, leading to an increased disadvantage for children raised in dual-earner families (all else being equal). On the surface, reductions in mother's time at home and increased contributions of mothers to family income lead to opposite predictions regarding the effects of maternal employment. Because financial resources are relevant primarily in later stages of the schooling career, while cultural socialization is believed to be most salient in earlier stages, I expect a differential effect of these changes, depending on the schooling transition examined.

Hypotheses about the negative impact of maternal employment are based on the assumption that the time a mother spends in the labor force is inversely related to the time she spends with her children. Psychological studies, however, have found little evidence that mothers in dual-earner households interact with their children less frequently (Hoffman 1989). But even if they do, they may compensate for the time away from home by providing more intensive socialization at home (Blau and Grossberg 1992; Hoffman 1974, 1989). Their cultural socialization may also be more efficient and more strongly focused on educational goals owing to their experiences in the labor market. More important, the socialization practices of employed mothers will depend on the work they do. Mothers employed in professions, for example, may be focused more strongly on the value of education than are mothers employed in clerical positions. Hence, it is important to go beyond a simple comparison of employed and nonemployed mothers and consider occupation when assessing the impact of maternal employment on children's schooling.

In response to the slow but steady shift toward more egalitarian sex-role attitudes, society has begun to take women's economic roles and occupational status more seriously (Davis 1984). As a result, mothers may be an increasingly important role model of socioeconomic achievement for their children, particularly for their daughters. Similarly, mothers may now exert more pressure on their children to do well in school and, hence, have a stronger impact on the aspirations and expectations of their children. Research examining the employed mother as a role model has focused primarily on children's attitudes towards sex roles, but has

also found that daughters of employed mothers are more likely than others to name their mothers as someone they want to resemble most later in life (Hoffman 1974). As a result, I expect that, net of parental cultural and economic resources, children of employed mothers do better in school than do other children, and that this difference has increased over time. I also expect that among employed mothers, differences in occupational status are becoming more important. In comparison to mothers who work in low-status occupations, professional and managerial women may now be a more realistic role model of occupational success and exert stronger pressures on their children's educational accomplishments than before.

In formulating the above hypotheses, I have focused primarily on the importance of mothers and have neglected more general arguments about the declining influence of family background *per se*. Stratification researchers have long argued that achievement has replaced ascription as the dominant criterion for the distribution of social and economic rewards in society. There is positive evidence for a declining influence of socioeconomic background when examining differences in occupational attainment (Hauser and Featherman 1976), but mixed evidence for differences in schooling (Mare 1981; Grusky and DiPrete 1990). The more general debate about the influence of family background suggests that it is important to examine changes in the absolute influence of mothers as well as changes in the influence of mothers relative to fathers.

FINDINGS

The *National Survey of Families and Households* (NSFH) is a large, nationally representative sample of households in the U.S. population. In each household, one adult was randomly selected as the primary respondent. Interviews were conducted in 1987 and 1988 (for details, see Sweet et al. 1988).

The Working Mother

Women's labor force participation has been described extensively, but few studies have examined this issue from the children's perspective. The NSFH asked respondents if their mothers worked on a paid job for at least 12 months between the time they were born and

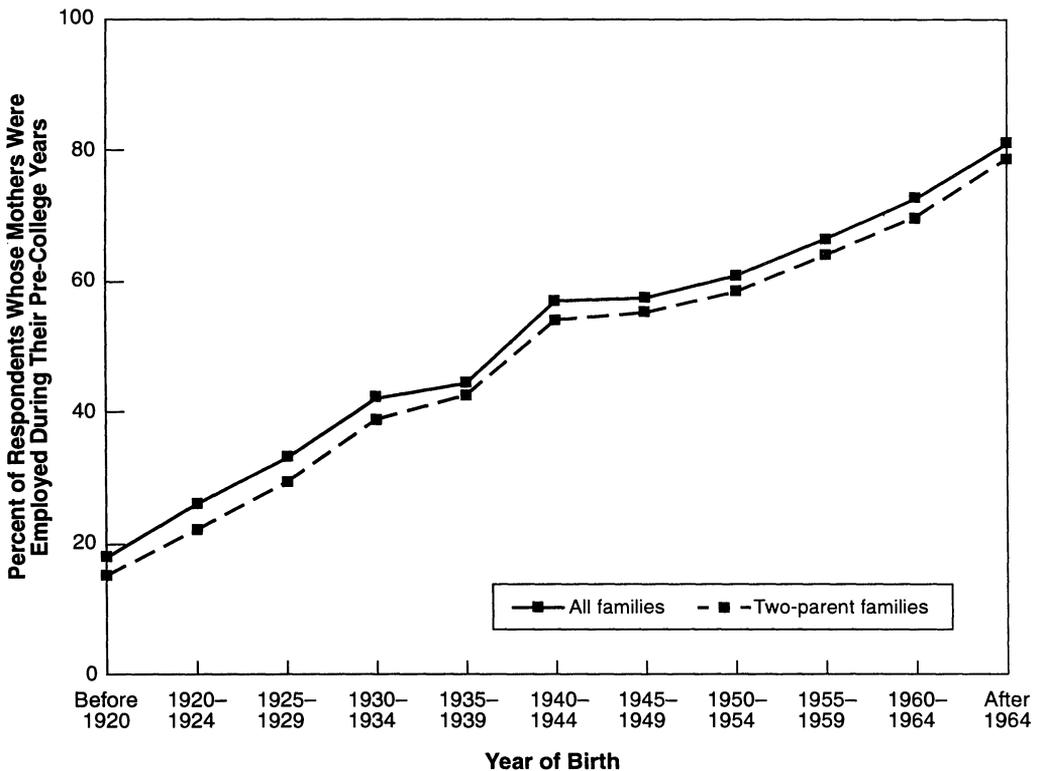


Figure 1. Percentage of Respondents Whose Mothers Were Employed During Respondent's Pre-College Years, by Year of Birth: National Survey of Families and Households, 1987 to 1988

the time they turned 18. Figure 1 describes how mother's employment has changed across birth cohorts. Of respondents born before 1920, about 20 percent had mothers who were employed at some point before they reached college age. Since then, the percentage has increased steadily and dramatically to a high of 80 percent for cohorts born in the mid- and late 1960s. This comparison may be affected by less accurate recall of past experiences in older birth cohorts, but the bias is not likely to be large. The overall levels in Figure 1 are generally higher than the corresponding levels reported by mothers. For example, while 80 percent of respondents born in the late 1960s reported having mothers who were employed, only 60 percent of married women with 10-year-old children in 1980 were employed (Sweet and Bumpass 1987:149). These differences can be explained in part by the fact that the latter measures pertain to mothers' labor force participation at a given point in time, whereas the former pertain to mothers' labor force participation throughout the respondent's

childhood and early adolescence. The numbers for children may also have a downward bias, however, because children in large families are overrepresented in the "children sample" (Blake 1989), and mothers of large families are less likely to be employed.

Samples, Variables, and Models

Because my central aim is to compare the influence of fathers and mothers, subsequent analyses focus on children raised in two-parent families (families in which both parents, biological or not, were present when the respondent was 16 years old). The analysis is limited to respondents who were age 24 or older at the time of the survey, because persons younger than 24 may not have completed schooling. Initial analyses showed that maternal effects are stronger for blacks than for whites. Because the number of blacks in my subsample was too small for making cohort comparisons, I limited the analysis to non-Hispanic whites. I apply weights to account for oversampling of several

population subgroups (Sweet et al. 1988). Children are the unit of analysis, not mothers—that is, I examine how an individual's completed schooling depends on parental status characteristics, rather than how parents affect their children's educational attainment.

Following Mare (1980, 1981), I estimate logistic regression models for individual-level observations to analyze discrete transitions in the educational career. I focus on three transitions: the odds of obtaining a high school diploma (including passing a high school equivalency test), the odds of entering college given high school graduation, and the odds of obtaining a Bachelor's degree given entrance to college. Because few people fail to enter high school, I do not consider the earlier transitions, but include persons who never enrolled in high school in the model for obtaining a high school diploma. I analyze discrete schooling transitions rather than completed years of schooling, because it is important to examine whether the role of mothers is confined to the early stages of the educational career. Because the expansion of higher education in American society has made educational opportunities less relevant at younger ages, a maternal effect that diminishes across schooling transitions would lead to some skepticism regarding the future role of mothers in the stratification process.

The models include the following variables: father's and mother's completed years of schooling (E_i^f and E_i^m), whether the mother was employed between the time the respondent was born and turned 18 ($W_i = 1$ if she worked outside the home, 0 otherwise), the socioeconomic index (SEI) of father's occupation when the respondent was 16 (O_i^f), and the socioeconomic index of mother's last occupation before the respondent turned 18 (O_i^m).⁵ Although information on duration of employment would be valuable, such data are somewhat limited. As is often the case with retrospective data, information on parental income is not available.

⁵ Mother's occupation refers to a paid job held for at least 12 months. Occupations held by the mother before the respondent was born were not recorded. The socioeconomic index scores for mothers' occupations are obtained from a scale based on the entire labor force rather than on the male labor force (Stevens and Cho 1985). All socioeconomic index scores were based on the characteristics of occupations in the labor force of 1980 (Sweet, Bumpass, and Call 1988).

In past research on social stratification, education has often been considered an indicator of both cultural and cognitive resources, whereas in the absence of income data, occupation has been treated as an indicator of socioeconomic resources. Although such variables capture the theoretical mechanisms indirectly, the arguments about role modeling and financial resources suggest that most of the change would occur in the influence of maternal occupational status. I also include the number of siblings (S_i) because sibship size affects children's educational attainment (Blake 1989) and is related to mother's status characteristics and labor force participation. To assess how effects have changed, I include respondent's birth cohort measured in single years of birth (C_i). The variable C_i is rescaled so that the most recent cohort (1963) takes on a value of 0, and the oldest cohort (1900) takes on a value of -63. A main effect of year of birth is included in all models, because recent cohorts have higher levels of schooling and better educated parents than do older cohorts. Differences by sex are considered in a separate section.⁶ To evaluate whether effects of fathers are biased in previous analyses of educational attainment, I first estimate baseline models which omit maternal occupation and employment variables (Model A). My calculation of omitted variable bias is conservative, because it is based on models used by Sewell and Hauser (1975) and Mare (1981), which already included mother's education. For the i th individual and the j th transition, the baseline model (Model A) is:

$$\log P_{ij}/(1 - P_{ij}) = \beta_0 + \beta_1 C_i + \beta_2 S_i + \beta_3 E_i^f + \beta_4 E_i^m + \beta_5 O_i^f. \quad (\text{Model A})$$

Model B adds maternal occupation and employment:

$$\log P_{ij}/(1 - P_{ij}) = \text{Model A} + \beta_6 O_i^m + \beta_7 W_i. \quad (\text{Model B})$$

Because Model B applies to all children, regardless of maternal employment status, I assigned an SEI score to mothers who were not employed. The value which is assigned affects only the coefficient for W_i , not the other coefficients. I assigned nonemployed mothers a

⁶ Including a main effect of sex does not alter the main conclusions derived from Tables 1 through 6.

score of 0, so that the effect of mother's employment status (β_7) measures whether children of mothers who were employed in occupations with an SEI score of 0 have higher (or lower) log odds of completing a certain transition than do children of mothers who were not employed. The two groups have equal odds when the SEI score of employed mothers is $O_i^m = -\beta_7/\beta_6$.⁷ Because a dichotomous variable for maternal employment is included in Model B, the effect of mother's occupational status (β_6) applies to employed mothers only.

Because the relative influences of fathers' and mothers' status attributes may depend on whether the mother was employed, Model C includes interactions of mother's employment with father's education, mother's education, father's occupation, and number of siblings:

$$\begin{aligned} \log P_{ij}/(1 - P_{ij}) = & \text{Model B} + \beta_8 W_i S_i \\ & + \beta_9 W_i E_i^f + \beta_{10} W_i E_i^m \\ & + \beta_{11} W_i O_i^f. \quad (\text{Model C}) \end{aligned}$$

In Model C, the main effects of sibship size (β_2) and the first three parental status characteristics (β_3 , β_4 , and β_5) refer to respondents whose mothers were not employed. Because $W_i = 1$ when mothers work outside the home (0 otherwise), the interaction effects (β_8 , β_9 , β_{10} , and β_{11}) tell whether effects are stronger or weaker for respondents whose mothers were employed. The effect of mother's employment status in Model C refers to the difference in log odds between the two groups when all independent variables—not just mother's occupation—are 0.

Effects of mother's employment status should be interpreted with care. If mothers' decisions to work outside the home depend on how well their children are doing in school, there may be simultaneity bias in the effect of mother's labor force participation. Bias may also arise if women decide jointly on invest-

ments in children and career. There are three reasons why I do not correct for such biases. First, Blau and Grossberg (1992) used instrumental variable (IV) estimation to correct for biases in the effect of mother's labor force participation on children's cognitive development. Comparing ordinary least squares (OLS) and IV point estimates, they showed that biases in the OLS coefficients are modest. Second, IV estimation requires strong assumptions. To identify the model, at least one variable must affect mother's labor force participation without affecting children's schooling. Even with rich data sets like the NSFH, it is difficult to come up with a variable that meets these assumptions while providing a plausible model of female labor force participation in the parental generation. Third, IV estimation leads to a substantial loss of precision, which is highly undesirable when the bias is small. There is no sample selection bias in the effect of mother's occupation, despite the fact that I only have occupation scores for only about one-half the sample (children with employed mothers). Assuming simultaneity bias is modest, selection occurs on the independent variable, which generally does not bias coefficients as long as the functional form is specified correctly (Berk and Ray 1982).

The Influence of Mother's Occupation

Goodness-of-fit statistics for all models are presented in Table 1. Parameter estimates of Models A, B, and C are presented in Table 2 for high school graduation, Table 3 for college entrance, and Table 4 for college graduation. For all transitions, the influence of mother's occupational status appears to be strong, statistically significant, and independent of the effect of father's occupation. A one-point increase in mother's SEI score, which is measured on a nine-point scale, is associated with a 24 percent increase in the odds of obtaining a high school diploma ($100[e^{.212}-1]$), a 15 percent increase in the odds of entering college, and an 11 percent increase in the odds of obtaining a Bachelor's degree. Although maternal occupational effects are weaker in later transitions, this is also true for the effects of fathers' occupational status, in line with earlier analyses of educational transitions (Mare 1980; Grusky and DiPrete 1990). Hence, the relative importance of mother's occupational status

⁷ To see this, equate the expected log odds for children of not-employed mothers,

$$\begin{aligned} \log [P_{ij}|W_i = 0/1 - P_{ij}|W_i = 0] = & \beta_0 + \beta_1 C_i \\ & + \beta_2 S_i + \beta_3 E_i^f + \beta_4 E_i^m + \beta_5 O_i^f, \end{aligned}$$

to the expected log odds for children of employed mothers,

$$\begin{aligned} \log [P_{ij}|W_i = 1/1 - P_{ij}|W_i = 1] = & (\beta_0 + \beta_7) + \beta_1 C_i \\ & + \beta_2 S_i + \beta_3 E_i^f + \beta_4 E_i^m + \beta_5 O_i^f + \beta_6 O_i^m. \end{aligned}$$

Table 1. Log-Likelihood Ratio Chi-Square Tests for Logistic Regression Models of Schooling Transitions: Adults Ages 24 and Older, National Survey of Families and Households, 1987 to 1988

Model/Comparison	Schooling Transition			Degrees of Freedom
	High School Degree	College Entrance	Bachelor's Degree	
<i>Models</i>				
A (Baseline)	1,050.8**	869.6**	175.2**	—
B (Model A + maternal employment and occupation)	1,077.8**	890.7**	197.2**	7
C (Model B + interactions with maternal employment)	1,090.4**	919.5**	213.0**	11
D (Model C + interactions with linear cohort variable)	1,111.1**	954.0**	251.1**	21
E (Model D + categorical main effects of birth cohort)	1,191.1**	1,019.8**	279.7**	28
F (Model E + interactions of occupation and categorical birth cohort)	1,213.6**	1,045.4**	299.6**	42
G (Model C + main effect of sex and interaction of sex and birth cohort)	1,092.6**	1008.2**	244.1**	13
H (Model G + all other interactions with sex)	1,109.2**	1,029.7**	255.0**	23
<i>Comparisons</i>				
Model B vs. Model A (Maternal employment and occupation)	27.0**	21.1**	22.0**	2
Model C vs. Model B (Interactions with employment)	12.6*	28.8**	15.8**	4
Model D vs. Model C (Linear change in effects)	20.7*	34.5**	38.1**	10
Model F vs. Model E (Nonlinear vs. linear change in occupation effects)	22.5	25.6*	19.9	14
Model H vs. Model G (Sex difference in effects)	16.6	21.5*	10.9	10
Number of cases	6,092	5,374	3,067	

* $p < .05$ ** $p < .01$

Note: Fit assessed by $-2 \times \log(L_0/L_1)$, where L_1 is likelihood of fitted model and L_0 is likelihood of intercept models in the first eight rows (Model A through H) and comparison models in the last five rows.

persists across the schooling career, in contrast with hypotheses emphasizing the traditional socializing role of mothers during the pre-college years. The declines in both parents' influences across schooling transitions may be due to the fact that as the child matures, family influences begin to compete with a range of environmental influences that are partly independent of the family of origin, such as peer groups and school settings (Alwin and Thornton 1984). Others have linked such declines in parental influences to a process of differential attrition in which the average intellectual ability of students from low-status backgrounds begins to improve relative to that of students from high-status backgrounds (Mare 1980).

Although maternal occupational status has an important net effect on schooling, biases in the effects of fathers are modest when this variable is omitted. Comparing Models A and B,

the effect of father's occupational status is reduced by 4 to 9 percent when maternal occupational status is added to the model. Hence, previous studies have not overestimated the role of fathers much by excluding relevant characteristics of mothers. That paternal socioeconomic effects are only weakly affected by adding maternal socioeconomic effects suggests that despite high degrees of assortative mating on socioeconomic status (Kalmijn 1991; Mare 1991), parental characteristics are not complete substitutes. Such an accumulation of parental influences may have unintended consequences for the intergenerational mobility of families. If the status characteristics of mothers contribute to those of their children and this influence is independent of the status of fathers, as is shown here, differences in opportunities between children of high-status fathers and children of low-status fathers may be enlarged, given marital homogamy.

Table 2. Coefficients for Regression of Obtaining a High School Degree on Selected Independent Variables: National Survey of Families and Households, 1987 to 1988

Independent Variable	Model A	Model B	Model C
Respondent's year of birth (-63 to 0)	.307** (.030)	.350** (.033)	.359** (.033)
Father's education (0 to 17)	.125** (.016)	.126** (.016)	.133** (.021)
Mother's education (0 to 17)	.101** (.018)	.093** (.018)	.108** (.022)
Father's occupation (1 to 9)	.321** (.046)	.295** (.047)	.379** (.065)
Mother's occupation (0,1 to 9)	—	.212** (.068)	.271** (.072)
Mother employed (0 to 1)	—	-.921** (.189)	.274 (.388)
Number of siblings	-.148** (.016)	-.162** (.016)	-.141** (.019)
Father's education × mother employed	—	—	-.019 (.033)
Mother's education × mother employed	—	—	-.049 (.037)
Father's occupation × mother employed	—	—	-.190* (.094)
Number of siblings × mother employed	—	—	-.066 (.035)
Intercept	.286 (.227)	.747** (.247)	.282 (.284)
Number of respondents	6,092	6,092	6,092

* $p < .05$ ** $p < .01$ (two-tailed tests)

Note: Numbers in parentheses are estimated standard errors. Coefficients are maximum-likelihood estimates. Coefficients for year of birth are multiplied by 10.

Effects of maternal employment status (Model B) are negative for all transitions, showing that children of nonemployed mothers have better chances of getting ahead in school than do children of mothers who work at low-status jobs (jobs with an SEI score of 0). An alternative assessment can be made by examining what kinds of jobs mothers need to hold for their children to be equally well off in school as children of mothers who stay at home. To estimate this point of equality, I consider the effects of occupational status and employment simultaneously. According to Model B, children of nonemployed mothers have the same odds of completing high school as children of mothers who work at jobs with an SEI score of 4.3 $[-.921/.212]$. The odds of entering college are equal when mothers have an SEI score

Table 3. Coefficients for Regression of College Entrance Given High School Graduation on Selected Independent Variables: National Survey of Families and Households, 1987 to 1988

Independent Variable	Model A	Model B	Model C
Respondent's year of birth (-63 to 0)	.022 (.022)	.028 (.024)	.029 (.024)
Father's education (0 to 17)	.066** (.012)	.066** (.012)	.052** (.016)
Mother's education (0 to 17)	.117** (.014)	.100** (.014)	.120** (.019)
Father's occupation (1 to 9)	.251** (.021)	.241** (.021)	.337** (.031)
Mother's occupation (0,1 to 9)	—	.139** (.031)	.190** (.034)
Mother employed (0 to 1)	—	-.431** (.113)	.458 (.292)
Number of siblings	-.096** (.014)	-.098** (.014)	-.090** (.018)
Father's education × mother employed	—	—	.028 (.023)
Mother's education × mother employed	—	—	-.058* (.028)
Father's occupation × mother employed	—	—	-.199** (.043)
Number of siblings × mother employed	—	—	-.012 (.030)
Intercept	-2.315** (.172)	-2.076** (.185)	-2.482** (.224)
Number of respondents	5,374	5,374	5,374

* $p < .05$ ** $p < .01$ (two-tailed tests)

Note: Numbers in parentheses are estimated standard errors. Coefficients are maximum-likelihood estimates. Coefficients for year of birth are multiplied by 10.

of 3.1, and for college graduation the groups are equal at an SEI score of 6.2. Because the average socioeconomic status of employed mothers is about 3.2, these results show that the children of nonemployed mothers are doing as well as, or somewhat better in school, than children of the average employed mother. They are doing worse, however, than the children of most professional and managerial women, who have SEI scores in the 6 to 8 range.

Whether the mother was employed not only affects outcomes in schooling, it also changes the process of educational attainment. Adding interactions of mother's employment status with parental education, father's occupation, and number of siblings, leads to a statistically significant increase in fit for all three transitions (Model C, Table 1). As expected, this im-

Table 4. Coefficients for Regression of College Graduation Given College Entrance on Selected Independent Variables: National Survey of Families and Households, 1987 to 1988

Independent Variable	Model A	Model B	Model C
Respondent's year of birth (-63 to 0)	-.135** (.031)	-.094** (.032)	-.093** (.032)
Father's education (0-17)	.047** (.015)	.047** (.015)	.087** (.021)
Mother's education (0-17)	.022 (.017)	.006 (.018)	-.034 (.025)
Father's occupation (1 to 9)	.162** (.023)	.148** (.023)	.141** (.033)
Mother's occupation (0,1 to 9)	—	.105** (.033)	.087* (.037)
Mother employed (0 to 1)	—	-.651** (.142)	-.471 (.373)
Number of siblings	-.057** (.019)	-.072** (.020)	-.029 (.026)
Father's education × mother employed	—	—	-.079** (.030)
Mother's education × mother employed	—	—	.084** (.037)
Father's occupation × mother employed	—	—	.022 (.047)
Number of siblings × mother employed	—	—	-.108** (.041)
Intercept	-1.356** (.219)	-.849** (.245)	-.951** (.296)
Number of respondents	3,067	3,067	3,067

* $p < .05$ ** $p < .01$ (two-tailed tests)

Note: Numbers in parentheses are estimated standard errors. Coefficients are maximum-likelihood estimates. Coefficients for year of birth are multiplied by 10.

provement is primarily due to differences in the role of father's socioeconomic status. For high school graduation, the effect of father's occupation is 46 percent among male-breadwinner families (mother not employed) ($100[e^{.379}-1]$), and 21 percent among dual-earner families (mother employed) ($100[e^{.379-.190}-1]$). For college entrance, the difference is of similar magnitude (40 percent versus 15 percent), but there is no difference for college graduation. Probably the main reason why paternal occupational effects are stronger in male-breadwinner families is that father's characteristics do not compete with occupational characteristics of the mother. In a similar fashion, the net effect of maternal education should be stronger in traditional families because it doesn't compete

with maternal occupation. This appears to be true for high school graduation and college entrance, but not for college graduation. Note that mother's occupation has a stronger effect on the first two transitions once I allow the effect of father's occupation to differ depending on maternal employment status (31 percent versus 24 percent for high school graduation and 21 percent versus 15 percent for college entrance). This is probably due to the fact that effects of paternal occupation are weaker in dual-earner households than in male-breadwinner families, a difference that Model B does not take into account.

The size of the family of origin, as indicated by the number of siblings, has a negative effect for both groups. This finding is consistent with earlier research and has generally been linked to the dilution of parental resources such as time and money in large families (Blake 1989). The novel finding in Tables 2 through 4 is that the negative effects of sibship size on high school graduation and college graduation are stronger if the mother is employed. For each additional sibling, the odds of graduating from high school are reduced by 13 percent in traditional families and by 19 percent in dual-earner families. For college graduation, the effects are 3 percent and 13 percent respectively. These differences suggest that time constraints play a larger role in the educational socialization of children if the mother is working outside the home.

The Influence of Fathers and Mothers Compared

To compare paternal and maternal influences directly, Table 5 presents the effects and estimated standard errors for the two types of families separately. Among dual-earner families, mother's occupational status has a stronger impact on the first two transitions than does father's occupational status, whereas father's occupation is more important for college graduation. The effects of maternal education in these families, however, tend to be somewhat smaller than the effects of paternal education. Because the statuses of parents are positively correlated, it is important to test whether these differences are statistically significant. The parental correlation in the sample makes the covariance between the estimates of fathers' and mothers' effects more negative,

Table 5. Coefficients Showing Differences Between Effects of Fathers' Occupation and Education and Effects of Mothers' Occupation and Education (Model C): National Survey of Families and Households, 1987 to 1988

Parental Characteristic	Schooling Transition		
	High School Degree	College Entrance	Bachelor's Degree
<i>Dual-Earner Families</i>			
Father's occupation	.189	.138	.163
Mother's occupation	.271	.190	.087
Difference	-.082 (.108)	-.051 (.048)	.076 (.053)
Father's education	.114	.080	.008
Mother's education	.059	.062	.050
Difference	.056 (.048)	.018 (.032)	-.041 (.041)
<i>Male-Breadwinner Families</i>			
Father's education	.133	.052	.087
Mother's education	.108	.120	-.034
Difference	.025 (.038)	-.068* (.030)	.121** (.040)

* $p < .05$ ** $p < .01$ (two-tailed tests)

Note: Differences are effects of fathers minus effects of mothers. Numbers in parentheses are estimated standard errors. Coefficients are maximum-likelihood estimates.

thereby increasing the standard error of their differences (Kmenta 1986:403, 419). In other words, if the effect of fathers is overestimated, the effect of mothers tends to be underestimated (and vice versa), leading to larger differences in paternal and maternal effects than exist in reality.

Tests are obtained using reparameterizations of the original model that take the following form:

$$\log P_{ij}/(1 - P_{ij}) = \beta_0 + \beta_a(E_i^f + E_i^m) + \beta_d \frac{1}{2}(E_i^f - E_i^m) + \dots$$

In this parametrization, the effect of E_i^f is $\beta_a + \frac{1}{2}\beta_d$ and the effect of E_i^m is $\beta_a - \frac{1}{2}\beta_d$. Hence, the average effect is β_a and the difference between the effects of father's and mother's education is β_d . Although the differences shown in Table 5 appear large from a substantive point of view, the hypothesis that effects are equal cannot be rejected. Hence, if a mother is employed, the effect of her occupational status on the educational opportunities of her children

equals the effect of father's occupational status. The only significant difference occurs for male-breadwinner families: Maternal education has a stronger effect than does paternal education for the odds of entering college, while the reverse is true for the odds of obtaining a Bachelor's degree. While this lends some support to the notion that the relative influence of mothers declines as the schooling process continues, this pattern is not observed for dual-earner households.

Changes in the Relative Influence of Fathers and Mothers

To assess how parental influences have changed over time, Model D interacts the variables of Model C with birth cohort:

$$\begin{aligned} \log P_{ij}/(1 - P_{ij}) = & \text{Model C} + \beta_{12}C_iS_i \\ & + \beta_{13}C_iE_i^f + \beta_{14}C_iE_i^m + \beta_{15}C_iO_i^f \\ & + \beta_{16}C_iO_i^m + \beta_{17}C_iW_i + \beta_{18}C_iW_iS_i \\ & + \beta_{19}C_iW_iE_i^f + \beta_{20}C_iW_iE_i^m \\ & + \beta_{21}C_iW_iO_i^f. \end{aligned} \quad (\text{Model D})$$

Model D allows parental effects to change linearly across single-year birth cohorts and provides a modest but statistically significant improvement over models that assume that effects are constant (Table 1). To assess which effects have changed, I focus on the estimated interaction parameters. Because the original model contains interactions with mother's employment status, it is somewhat tedious to assess whether changes in parental effects are statistically significant *within* the two types of families (male-breadwinner families and dual-earner families). Based on simple reparameterizations of Model D, Table 6 presents changes in effects for the two groups separately.⁸ Because coefficients for cohort (year of birth) were multiplied by 10, interaction effects can be interpreted as change per decade.

⁸ Because $W_i = 1$ if mothers are employed (0 otherwise), β_{13} , β_{14} , and β_{15} apply to changes in the effects of parental education and father's occupation when mothers are employed. When $W_i = 1$ if mothers are *not* employed (0 otherwise), β_{13} , β_{14} , and β_{15} apply to changes in the effects of parental education and father's occupation when mothers are not employed. These changes can also be obtained by considering $\beta_{13} + \beta_{19}$, $\beta_{14} + \beta_{20}$, and $\beta_{15} + \beta_{21}$ in the first parameterization.

Table 6. Coefficients Showing Linear Change in Effect of Parental Education and Occupation on Schooling Transitions (Model D): National Survey of Families and Households, 1987 to 1988

Parental Characteristic	Schooling Transition		
	High School Degree	College Entrance	Bachelor's Degree
<i>Dual-Earner Families</i>			
Father's occupation	-.040 (.054)	-.010 (.028)	-.070* (.036)
Mother's occupation	.080 (.048)	.001 (.027)	.089** (.033)
Father's education	.018 (.019)	.016 (.014)	.046* (.021)
Mother's education	-.017 (.022)	.001 (.016)	-.009 (.023)
<i>Male-Breadwinner Families</i>			
Father's occupation	.049 (.045)	-.013 (.019)	-.024 (.022)
Father's education	.009 (.014)	.027* (.010)	.008 (.014)
Mother's education	.008 (.016)	.034** (.012)	.019 (.016)

* $p < .05$ ** $p < .01$ (two-tailed tests)

Note: Coefficients are changes in effects per decade. Numbers in parentheses are estimated standard errors. Coefficients are maximum-likelihood estimates.

The evidence in Table 6 suggests that effects of mother's occupational status increase at the expense of the effects of father's occupational status. The effect of mother's occupational status on the odds of graduating from college (given college entrance) increases by 9 percent per decade ($100[e^{.089}-1]$), whereas the effect of father's occupation decreases by 7 percent per decade ($100[1 - e^{-.070}]$). Together, these trends produce a statistically significant convergence of paternal and maternal effects in dual-earner families (i.e., a significant decline in the difference between effects of father's and mother's occupation).⁹ A similar—but not statistically significant—pattern holds for the odds of high school completion: Mother's occupational influence increases by 8 percent per decade while that of fathers decreases by 4 percent per de-

⁹ The change in the difference between the two effects is $-.159$ per decade with an estimated standard error of $.055$.

cade.¹⁰ No changes are found for the decision to enter college.

The declining effect of paternal occupation on college graduation is partly offset by a modest, but statistically significant, increase in the effect of paternal *education* on college graduation. Is the increase in the influence of employed mothers matched by a corresponding decrease in the influence of nonemployed mothers? This would be plausible if mothers who began to enter the labor force in recent decades were more likely to favor their children's schooling. Table 6 provides no support for such a selection effect. Effects of maternal education for nonemployed mothers are stable, except for a slight but significant increase (rather than a decrease) in the effect of maternal education on the odds of entering college.

Results in Table 6 assume that changes are linear. Model E (Table 1) evaluates the trend in greater detail. I divided the data into nine cohorts and replaced the main effect of cohort (β_1) in Model D with eight dummy variables for cohort while retaining the interactions of the independent variables with the linear cohort variable. Subsequently, Model F (Table 1) replaces the interactions of linear cohort and parental occupation (β_{15} , β_{16} , and β_{21}) by 3×8 cohort interactions. Comparing the fits of Models E and F, the nonlinear representation leads to a marginal improvement. Point estimates of Model F for high school graduation and college graduation are presented in Figure 2. While these estimates fluctuate considerably owing to the small sample size in each cohort, they generally confirm a convergence in the effects of paternal and maternal occupational statuses on children's odds of graduating from college. For high school graduation, the change seems to occur later in time, and the pattern changes from mothers and fathers being equally important in early cohorts to mothers being more important than fathers in recent cohorts.

¹⁰ One reason the paternal effect declines and the maternal effect does not may be that the number of households with stepfathers has increased faster than the number of households with stepmothers. Because stepfathers have a smaller effect on adult attainment than do biological fathers (Biblarz and Raftery 1993), such a change in family composition could explain part of the trend. However, this explanation is inconsistent with changes in the effects of parental education.

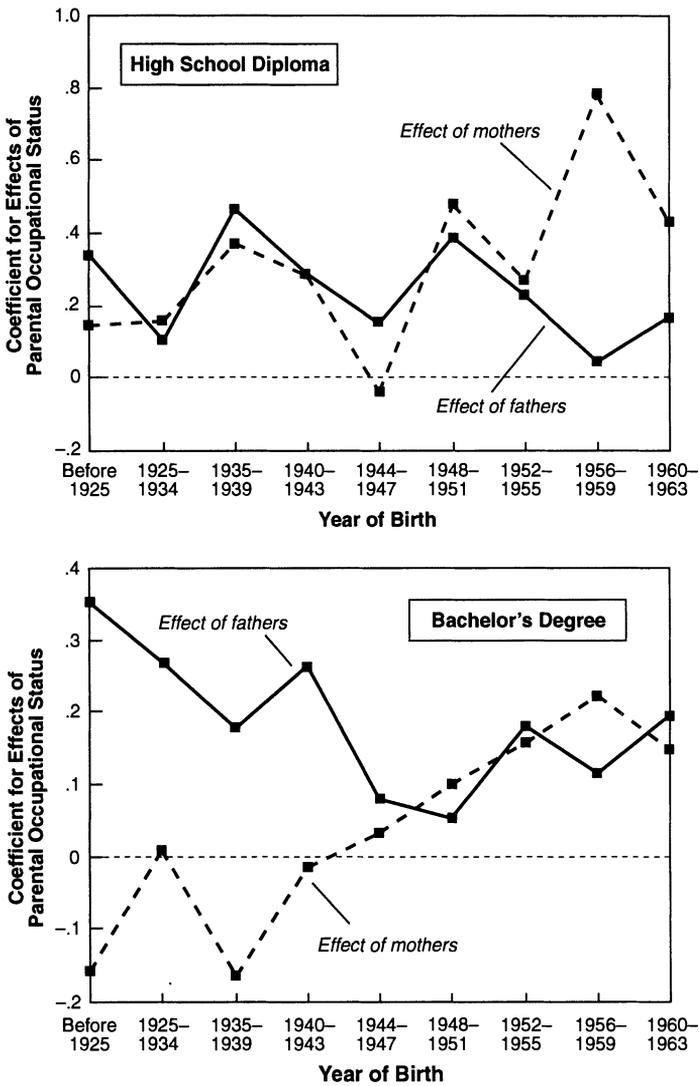


Figure 2. Coefficients for Effect of Father's and Mother's Occupational Status on Selected Schooling Transitions, by Respondent's Year of Birth: National Survey of Families and Households, 1987 to 1988

Changes in the effects of maternal employment in Model D are somewhat difficult to interpret owing to the interactions between employment status and the other independent variables, all of which are also allowed to vary across cohorts. To evaluate these effects, I calculated predicted probabilities of making the three schooling transitions for two cohorts: persons born in 1940 and persons born in 1960. Predictions are calculated holding all variables constant at cohort-specific averages. Children of nonemployed mothers are compared to children of employed mothers at three levels of occupational status: jobs with an SEI score of

1.5 (e.g., cleaners and janitors), jobs with the average SEI score for the particular cohort, and jobs with an SEI score of 8.5 (e.g., college teachers). Results are presented in Table 7. In the 1940 cohort, children of employed mothers, regardless of mother's occupation, have somewhat lower probabilities of graduating from high school and college than do children of nonemployed mothers. The children of the average employed mother also have somewhat lower chances of going to college than do the children of nonemployed mothers. However, differences between the probabilities for children of employed and nonemployed mothers

Table 7. Predicted Probability of Making Selected Schooling Transitions by Mother's Employment and Occupational Status, for Children Born in 1940 and 1960: National Survey of Families and Households, 1987 to 1988

Schooling Transition/ Maternal Characteristic	Year of Birth	
	1940	1960
<i>High School Degree</i>		
Mother not employed	98.3	99.8
Mother employed, SEI score 15	80.1	95.9
Mother employed, average SEI score	85.6	98.6
Mother employed, SEI score 85	94.5	99.8
<i>College Entrance</i>		
Mother not employed	66.5	83.0
Mother employed, SEI score 15	54.4	66.1
Mother employed, average SEI score	62.9	75.6
Mother employed, SEI score 85	81.4	87.9
<i>Bachelor's Degree</i>		
Mother not employed	59.3	64.8
Mother employed, SEI score 15	54.5	37.9
Mother employed, average SEI score	55.2	49.6
Mother employed, SEI score 85	57.0	70.1

change between the two cohorts. For high school graduation, the advantage of children of nonemployed mothers is smaller in 1960 than in 1940. For college graduation, the children of high-status mothers in the 1940 cohort were at a disadvantage compared to children of nonemployed mothers, whereas in the 1960 cohort they have the highest probability of graduation.

Fathers and Sons, Mothers and Daughters

Because the transmission of educational advantages across generations works in part through the models of socioeconomic success that parents provide, several authors have hypothesized that the influence of the same-sex parent on children's educational attainment is greater than the influence of the other parent (Rosen and Aneshensel 1978). In other words, fathers are the main model of achievement for sons, while mothers are the main role model of achievement for daughters. If the influence of mother's occupational status is limited to daughters, her role would fit the more tradi-

tional scenario of parental influences. If sons, on the other hand, are equally affected by their mothers' socioeconomic status, this would be stronger evidence that mothers have begun to play a similar role in the status attainment process as fathers. Model G (Table 1) evaluates the interaction of parent's and respondent's gender by first adding a main effect of respondent's sex (G_i) and an interaction of sex by cohort to Model C:

$$\log P_{ij}/(1 - P_{ij}) = \text{Model C} + \gamma_{12}G_i + \gamma_{13}C_iG_i. \quad (\text{Model G})$$

Subsequently, I add interactions of family background variables and sex,

$$\log P_{ij}/(1 - P_{ij}) = \text{Model G} + \gamma_{14}G_iS_i + \gamma_{15}G_iE_i^f + \gamma_{16}G_iE_i^m + \gamma_{17}G_iO_i^f + \gamma_{18}G_iO_i^m + \gamma_{19}G_iW_i + \gamma_{20}G_iW_iS_i + \gamma_{21}G_iW_iE_i^f + \gamma_{22}G_iW_iE_i^m + \gamma_{23}G_iW_iO_i^f. \quad (\text{Model H})$$

Comparing Models G and H shows that allowing parental effects to differ by sex produces only modest improvements (Table 1). In line with findings for an earlier period (Treiman and Terrell 1975; Hauser and Featherman 1976), this shows that, on the whole, the process of educational attainment is much the same for men and women.

To evaluate whether individual effects differ, Table 8 presents differences between the sexes in the effects of parental status. Results in Table 8 show little difference between the effects of different-sex and same-sex parents. Among respondents whose mothers were employed, father's socioeconomic status is significantly more important for college entrance for men than for college entrance for women, whereas among respondents whose mothers were not employed, mother's education is significantly more important for women than it is for men. The differences in Table 8 are generally weak, and some differences deviate from the expected pattern. Since only four of the 18 sex differences are statistically significant, the findings should be interpreted with caution. Clearly, however, mother's occupational status is not more important for daughters than for sons, further confirming that the mother's role is very much like that of the father.

Table 8. Differences Between Males and Females in the Effect of Parental Characteristics (Model H): National Survey of Families and Households, 1987 to 1988

Parental Characteristic	Schooling Transition		
	High School Degree	College Entrance	Bachelor's Degree
<i>Dual-Earner Families</i>			
Father's occupation	.153 (.137)	.132* (.061)	-.081 (.066)
Mother's occupation	.068 (.146)	.031 (.068)	-.028 (.075)
Father's education	-.118* (.052)	-.068* (.034)	.018 (.044)
Mother's education	-.041 (.060)	-.053 (.044)	-.023 (.056)
<i>Male-Breadwinner Families</i>			
Father's education	-.060 (.042)	-.003 (.032)	.002 (.042)
Mother's education	.018 (.045)	-.098** (.038)	-.035 (.050)

* $p < .05$

** $p < .01$ (two-tailed tests)

Note: Differences are effect for men minus effect for women. Numbers in parentheses are estimated standard errors. Coefficients are maximum-likelihood estimates.

CONCLUSIONS

The main result of my analyses is that the occupational status of employed mothers has a substantial effect on their children's schooling, an effect that is independent of, and about as strong as, the influence of father's occupation in dual-earner families. While previous studies have established the importance of mothers for schooling outcomes at an early age, my analyses indicate that their influence extends to the later stages of their children's schooling career. In addition, the evidence suggests that the influence of maternal occupational status on college graduation has increased across birth cohorts at the expense of the father's influence. Because there was no corresponding decrease in the influence of mother's education in the traditional male-breadwinner families, it is unlikely that the increase in mother's labor force participation has been selective with respect to the ability of mothers to pass on advantages to subsequent generations. In combination, my analyses suggest that the economic resources and occupational role models that mothers provide are now as important as those tradition-

ally provided by fathers. Because the mothers of most individuals who are currently in school work outside the home, and because this is unlikely to change in the near future, the significant influence of mother's socioeconomic status can be regarded as an ascriptive force in the contemporary reproduction of educational inequality. Further research should assess the occupational influence of mothers on adult attainments in single-parent households. In light of the recent increase in female-headed families, such an assessment is particularly relevant for current and future generations of students.

An unresolved issue is whether paternal and maternal effects can truly be attributed to the father and mother, or whether they reflect the influence of a more general family climate, or simply the intergenerational transmission of genes favoring academic ability. That the effects of fathers' and mothers' education have always been similar, contrary to common hypotheses about the traditional socializing role of mothers, may point to a genetic effect rather than a socialization effect (Leibowitz 1974). One solution is to augment sibling studies with measures of maternal status characteristics, a design that would permit separating the two parent-specific effects from a common family effect. Another solution is to return our focus to "intervening variables" (Duncan, Featherman, and Duncan 1972) by examining specifically what mothers contribute to the process. Although the psychological study of child development has examined in great detail the influence of mother-child interaction on school-related outcomes during the first years of a person's life, much less is known about the effects of such interactions in later stages of the life cycle, stages when people are making the increasingly important decisions about higher education.

While my findings generally underscore the positive effect of maternal employment on children's educational outcomes, at least when mothers hold high-status jobs, there are also potential adverse unintended consequences for the stratification system as a whole. Traditionally, it was assumed that because of high degrees of assortative mating on education and socioeconomic status, the influence of mothers would be redundant, and the combined parental effect would not be cumulative. The present analysis shows that, despite high correlations between characteristics of fathers and mothers,

effects of the father's occupational status are only modestly affected when maternal occupational characteristics are added. Hence, the effects of mothers lead to an accumulation of advantages and disadvantages in the next generation that is higher than what would be obtained had mother's net influence been absent. Whether such an accumulation of advantages and disadvantages reduces the intergenerational mobility of families is an important question for future empirical research.

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