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## Wives' Work and Family Income Mobility

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### **Abstract:**

Married women in the United States are increasingly integral to their families' economic wellbeing. With two-earner families becoming the norm, little research investigates the role of wives in family income mobility. How much does a wife's labor market activity matter in her family's ability to gain or hold its place in the income distribution of all families? Are women's contributions to mobility weaker when children are present? Do more-educated wives make bigger contributions than wives with less education?

Using the Panel Study of Income Dynamics to observe families at the beginning and end of three 10-year periods spanning the 1970s, 1980s, and 1990s, we find that married-couple families moving up the income distribution saw larger increases in wives' employment, annual work hours, and earnings than downwardly mobile married couples.

These data confirm the popular perception that families needed to work more hours to move ahead or hold their own in the income distribution. In upwardly mobile families, wives' work hours increased substantially, while husbands' hours increased only modestly. Wives with children living at home were less likely to work and averaged fewer work hours; however, wives in upwardly mobile families with children increased their work hours more than those in upwardly mobile families without children.

Less-educated wives' earnings gains were critically important to their families' advancement. More-educated wives also helped their families move up, but their contributions were surpassed by the earnings gains of their husbands.

**Keywords:** family income, income mobility, income inequality, PSID, working wives, women's earnings, hours of work

**JEL Classification:** J24, J22, J31, D31, J31, J16, D13

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Over the past 30 years, married women in the United States have significantly increased their participation in the paid labor market, their annual work hours, and their cumulative lifetime labor market experience, while moving into higher-wage occupations. Labor market involvement of wives has increased both for women married to highly educated, highly paid husbands and for those married to men with less education and lower pay.

The extent of this transformation of historical patterns and traditional roles suggests that women are not simply filling in when their husbands' earnings fall short, but have become an increasingly integral factor in their families' ongoing economic wellbeing.¹ The transformation also raises questions about the economic impact of two-earner families becoming the norm. Do American families now need two earners—a working husband *and* a working wife—to have any hope of getting ahead or to keep from falling behind? How much does a wife's labor market activity (participation, hours, and earnings) matter in her family's ability to make income gains or to hold its place relative to other families? And to what extent does greater involvement of wives help families avoid losing ground? Overall, have increases in wives' market work allowed families to move up relative to other families or, at least, to avoid falling behind their peers—that is, to improve or maintain their position, whether they are rich, middle class, or poor?

These are questions about family income mobility—year-to-year shifts in position along the scale of family incomes—that can be answered only by observing individual families' changes in income and family composition over time relative to other families'

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<sup>&</sup>lt;sup>1</sup> Some analysts suggest that increasing inequality and the need to keep up might be the motivation for women's increased labor market activity. However, most research finds that women's increased work activity has been largely driven by their own increased labor market opportunities, including higher wages and the increasing number of occupations open to them. See, for example, Juhn and Murphy (1997); Blau (1998); Olivetti (2001); Jones, Manuelli, and McGrattan (2003); and Blau and Kahn (2005).

changes.<sup>2</sup> This paper uses data that observe families at the beginning and the end of a 10-year period, recording family income and the employment, hours of work, and labor earnings of the family heads to quantify labor market involvement and family income changes.

Fully answering such questions about family income mobility for married-couple families would involve modeling the dynamic and interrelated labor supply and household production of two married adults, including the choices they make about their respective investments in formal education and the number and timing of children. Such decisions depend on each individual's preferences for market work, home production, and leisure, his or her own market opportunities and wages, as well as other sources of income, including nonlabor income and the potential income of the spouse and other family members.

Moreover, while earnings, individual and family incomes, and even one family's income relative to the incomes of other families can be observed and measured, wellbeing or utility cannot. Thus, even if women's (or men's) labor market activity is associated with greater family income or upward economic mobility, one has to be careful about assuming this means improved wellbeing for any person in the family, or for the family as a whole. This ambiguity exists partly because measures of market income do not take into account the extent to which choices about work or home production reflect differences in individual preferences and partly because the tradeoffs people make do not always occur along the dimension of monetary income. In some instances, increased labor market activity and earnings may be unambiguously welfare-

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<sup>&</sup>lt;sup>2</sup> Other researchers have investigated the role of women's earnings in family income inequality—the spread of family incomes at a point in time (for example, see Cancian, Danziger, and Gottschalk (1993a, 1993b). Although inequality and mobility are related, they are different concepts along several important dimensions. Examining inequality involves measuring the shape of the family income distribution using a representative sample of families at a point in time. And comparing inequality at two points in time compares only the overall shape of the distribution based on two separate samples of families; inequality data do not track individual families across time (as mobility data do), so there is no way of knowing whether a family at the bottom (or any specific position) at one point in time has moved to a different place in the income distribution at a later point.

enhancing. A married woman with no children living at home who enters the labor force in response to increased opportunities is presumably better off for having done so; nonetheless, one cannot assume she is better off than an otherwise-similar wife who chooses not to join the workforce under the same circumstances. In other instances, such as when a spouse increases his or her work hours (and family income), but also pays for child care and other household help, it is difficult to determine how individual or family wellbeing has changed.

These caveats notwithstanding, money income is a useful indicator of a family's ability to purchase and consume market goods and services. And while it is difficult to separate the distinct contribution of women, one can look at income mobility patterns of married-couple families and see how they are associated with wives' labor market activity levels or changes, as measured by participation, hours, and earnings. Are better family mobility outcomes associated with higher levels or greater increases in wives' work activity? Are women's contributions to family income mobility weaker when children are present in the family? And are the contributions of more-educated wives to their families' mobility more important than those of wives with less education?

Investigating these questions over three periods spanning the 1970s, 1980s, and 1990s, we describe wives' labor market involvement and family income mobility in married couple families. We find that family advancement in the income distribution during all three periods was associated with differential gains in wives' labor market involvement. Families that moved up generally saw considerably larger average increases in wives' employment, annual work hours, and earnings than downwardly mobile families. The above-average increases in these wives' contributions were driven by three factors: increases in the share of families with working wives (particularly in the 1970s), increases in hours worked per working wife (especially during the 1970s and 1980s), and increases in wives' average hourly pay (most important in the 1990s).

Total family hours of work rose markedly during all three decades, with much of the increase in work hours in families that moved up or maintained their position coming from the wife. In families that moved up, wives' annual hours increased by 400 to 600

hours (about 10 hours per week on average), while husbands' hours increased only very modestly. Although children living at home reduced the levels of wives' employment and hours, the association between family mobility and wives' work increases was similar for families with and without children. In fact, during each decade, wives in upwardly mobile families with children increased their work hours *more* than those in upwardly mobile families without children.

Finally, both more-educated and less-educated wives expanded their earnings and contributed to their families' upward mobility. However, less-educated wives were more important in the upward mobility of their families, while more-educated wives' earnings gains were surpassed by their husbands'.

### I. Data and Methods

Following an earlier paper, this paper examines family mobility outcomes—tracking families as they moved up and down the income distribution during three 10-year periods (Bradbury and Katz 2002). The paper compares working-age, married-couple families that moved up the income distribution (or stayed at the top) with those that moved down the income distribution (or stayed at the bottom) to see whether and to what extent wives' labor market activity, as measured by employment, hours, and hourly pay (Section II), or wives' and husbands' educational attainment and labor market activity (Section III) differed for families with different mobility outcomes.

### Data and sample

The data come from the Panel Study of Income Dynamics (PSID), which has followed 5,000 American families, including their offspring families, since 1968. The PSID interviews specific individuals in these families each year and collects data on them and their families.<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> See PSID (web site included in bibliography). From 1969 to 1997, the PSID collected information every year; starting in 1999, it began to survey families every other year.

Because our questions center on labor market activity of two-earner couples, we restrict the sample for this paper to families that are headed by a "married" couple at both the beginning and the end of each period and in which both the wife and the husband are under 55 years of age at the end of the period.<sup>4</sup> We extract information at the start (1969, 1979, and 1988) of each of three periods and 10 years later, on such family characteristics as total family income and its components, family size, ages of husband and wife, age and presence of children, and the PSID measure of needs, as well as husbands' and wives' labor market data, including work hours, labor earnings, and educational attainment.<sup>5</sup>

### Measuring income and mobility

Family income is computed using the PSID's measure of total family money income (including property income, transfers, and gifts, as well as earnings). The PSID also calculates a "needs" measure that varies with family size and age of family members and is intended to reflect economies of scale for people living together. The choice and use of a needs measure (or equivalence scale) is a matter of some controversy; nevertheless, following others, this analysis adjusts family income using the PSID measure of needs.<sup>6</sup>

<sup>&</sup>lt;sup>4</sup> The PSID definition of married couples includes both those who are legally married and those who have cohabited for at least a year. In addition, the selection criterion for this paper's sample is that the tracked individual is married at both the beginning and the end of the 10-year period. Because death or divorce and remarriage can occur during the period, the spouse of the tracked individual at the end of the 10 years may be a different person than at the beginning.
<sup>5</sup> We follow some families through all three periods, but most families are observed for only one

or two periods. A couple joins the sample for the 1990s period, for example, if its spouses were not heading their own households before 1979 and they married some time between 1979 and 1988. In any case, we do not keep track of whether families are included in multiple periods. <sup>6</sup> For example, Gottschalk and Danziger (1998) used the PSID measure of needs and examined mobility among quintiles defined on the basis of family income relative to needs. Citro et al. (1995) discuss equivalence scales.

As the first step in computing mobility, all working-age families in the PSID sample at both the beginning and the end of a period are ranked according to the ratio of their total family income to the PSID measure of needs. Quintile cutoffs are defined so that one-fifth of working-age families fall into each quintile of the family income-to-needs distribution at both the beginning and the end of the period. Family income mobility is defined as movement from one quintile to another during a 10-year period and can be quantified in a five-by-five mobility matrix, which reports the percentage of families in each beginning-of-period quintile who end in each end-of-period quintile. Movement from quintile to quintile provides an inherently *relative* measure of mobility—any upward or downward movements of an individual family or a subset of families are assessed relative to other families, not in comparison with some absolute income or income-to-needs standard. Because this paper singles out under-55, married-couple families, the mobility matrices (for the three periods, 1969 to 1979, 1979 to 1989, and 1988 to 1998, reported in Appendix Table A-1) measure how under-55, married-couple families moved in the income-to-needs distribution of all working-age families.

We combine information in the 25 cells of the mobility matrix into a summary measure with fewer categories, which takes into account not only the direction of movement (moved up, stayed, moved down), but also the ending position in the income-to-needs distribution (see Box 1). We term the first three categories (stayed in the richest quintile, moved up to quintiles four and five, or up to quintiles two and

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<sup>&</sup>lt;sup>7</sup> Working-age families are defined as those in which the head or spouse is 65 or younger at the end of the 10-year period and hence 55 or younger at the beginning of the period.

<sup>&</sup>lt;sup>8</sup> The income-to-needs quintile cutoffs for each decade are reported in Table 1 of Bradbury and Katz (2002).

<sup>&</sup>lt;sup>9</sup> The other family types encompassed in all working-age families include: (1) families that began a period as married couples and ended without a spouse because of death or divorce; (2) families with a single head at both the beginning and the end of the period (a single individual living alone is considered a family, as is a household headed by an individual that contains other members); (3) families that had a single head at the beginning of the period and were headed by a couple at the end; (4) families of any composition in which the head or spouse of the head was over age 55 but less than age 65 at the end of the period.

three) favorable mobility outcomes and the last three (stayed in the poorest quintile or moved down at least one quintile) unfavorable mobility outcomes.<sup>10</sup>

Figure 1 displays these summary measures for under-55, married-couple families (who account for 40 to 50 percent of all working-age families—those with the head or spouse under age 65 at the end of the period). Under-55, married-couple families began each decade relatively well off, with above-average real dollar incomes compared with all working-age families.<sup>11</sup> More of these families were upwardly mobile than were downwardly mobile in all three decades, and a higher share stayed in the richest quintile than stayed in the poorest. Thus, on average, they made gains during each decade relative to the average working-age family.<sup>12</sup>

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<sup>&</sup>lt;sup>10</sup> The seventh category – families in the middle three quintiles that end the period in the same quintile in which they began – is neither favorable nor unfavorable *a priori*.

<sup>&</sup>lt;sup>11</sup> Under-55, couple families had incomes above the average for all working-age families at the beginning of the decade because they were better off than non-couple family types, but not because they were better off than older families: Among working-age families, those with one or both heads between 55 and 65 years old started each 10-year period richer, on average, than families with head(s) under age 55. But among under-55 families, couple families were generally more concentrated in the upper quintiles at the beginning of each period than were families not headed by a couple. Note that all families used in defining the quintiles and in the overall mobility matrix are aging during each period.

<sup>&</sup>lt;sup>12</sup> Under-55, couple families made gains relative to the average working-age family because they had generally better mobility outcomes than older families and than some, but not all, noncouple under-55 family types: Families with head or spouse between 55 and 65 at the end of the decade were more downwardly mobile and less upwardly mobile than families headed by individuals or couples under the age of 55, although a higher fraction of older families started and ended in the richest quintile. (Note that all families used in defining the quintiles and in the overall mobility matrix are aging during each period, not just the under-55 couple families on which this paper focuses.) Under-55, couple families had much more favorable mobility outcomes than families headed by a couple at the beginning of the decade and a single woman at the end of the decade. (For analysis of the generally downward mobility of such families, see Bradbury and Katz 2002.) By contrast, under-55, couple families had less favorable mobility outcomes than families that began the decade headed by an unmarried person and ended the decade headed by a couple, or families headed by a single man at both the beginning and the end of the decade. (Comparisons are less clear-cut with families headed by a couple at the beginning of the decade and by a man with no partner at the end, and families that were headed by a female with no partner at both the beginning and the end of the decade.)

### Interpreting wives' contributions

The *level* of wives' labor market involvement increased markedly over the three-decade span of our study; however, we do not focus on the evolution over time of the association between family mobility and wives' work activity. We avoid these comparisons partly because they might be confused with other changes, such as the moving demographic bulge of the aging baby boom and shrinking share of married-couples among all families, which occurred during this time span. Instead, because the relationships are fairly stable over time, we use the three periods as repeated cross-sections (of decade changes) that add depth to our comparisons of various subgroups of under-55, married-couple families. In particular, we compare the mobility patterns of under-55, married-couple families with and without a working wife, with and without children and a working wife, and with various levels of educational attainment on the part of the wife. We also compare the average work hours and earnings of husbands and wives in upwardly mobile (under-55, married-couple) families with those in downwardly mobile families. These comparisons are aimed at highlighting the degree to which favorable mobility outcomes are associated with greater labor market activity.

In interpreting the findings, however, note that association is not causality. Even if wives' labor market activity is higher for upwardly mobile families, on average, one cannot say that wives' increased labor market activity is the *cause* of the upward mobility, simply that they are linked.

At the same time, the relationships are not tautological; it is not simply by definition that a family moving up would be more likely to have a wife who started working, for example, than a family that stayed in place or lost ground. And even families with working wives at both the beginning and end of the decade might move up the income distribution relative to families where the wife did not work at either point. One reason is that changes in wives' labor market behavior over the decade may be a response to changes in other sources of family income (such as husband's earnings or nonlabor income) or to changes in needs as children are born or leave home. Another reason is that the mobility measures are relative. An increase in a wife's labor market activity,

other things equal, would certainly raise her family's income; however, it would not necessarily move the family up if other families had similar increases.

### II. Economic Mobility and Work Patterns

Many researchers have documented the increasing prevalence over the past several decades of two-earner couples and married women's rising labor force participation, hours of work, and earnings (see Blau 1998, Bowler 1999, Cohen and Bianchi 1999, and Winkler 1998). This part of the paper begins investigating the relationship between mobility outcomes and wives' labor market effort, measured as wives' employment, hours, and earnings.

### Employment rates of wives and husbands

Married women's increased entry into the paid workforce has raised questions about whether upward mobility now requires two earners in a family. Table 1 reports employment rates (percent working) of wives and husbands in under-55, married-couple families, where "working" is defined as earning more than \$1 of labor income in a year. The share of families with working wives rose from 54 percent in 1969 to 82 percent in 1998. Almost 100 percent of husbands were working at the beginning of each decade, and this fraction declined slightly during each decade (and particularly in the 1990s) as they aged.

At the beginning of a decade, families with a working wife generally had higher incomes relative to needs—they were more concentrated in higher quintiles and less concentrated in lower quintiles—than families without a working wife. Nonetheless, having a working wife did not guarantee that a family was doing well; 10 to 20 percent of families with a working wife began in the poorest quintile. And some families did

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<sup>&</sup>lt;sup>13</sup> Henceforth, the terms "working" and "employed" refer to a person engaged in paid market work who earned at least \$1 during the year.

<sup>&</sup>lt;sup>14</sup> The within-period increases in employment tailed off in successive periods—during the 1990s, the percent of families with a working wife rose by 2.5 percentage points, compared with 15 and 9 percentage points, respectively, during the previous two periods.

quite well without a working wife; 10 to 30 percent of families without a working wife were in the top quintile.

Even having started the period better off, families in which the wife was working were more likely to experience favorable mobility outcomes than families in which the wife was not working (Figure 2).<sup>15</sup> Specifically, two-thirds of families in which the wife worked at both the beginning and the end of a decade stayed at the top, moved up a quintile or more, or remained in the middle. Families without a working wife were much more likely to move down or stay in the poorest quintile.

Notwithstanding the generally positive outcomes for families with a working wife, almost one-fifth of these families were stuck at the bottom or moved down into the poorest or second-poorest quintile; and one-sixth to one-third of those without a working wife stayed in the richest quintile or moved up to the richest or next-to-richest quintile. One can conclude that while having a working wife was neither necessary nor sufficient for a family to experience upward mobility, it increased the odds markedly.

Upward mobility was associated not only with higher wives' employment rates but also with larger increases in these rates (upper panel of Figure 3). In general, families with the most favorable mobility outcomes showed large increases in wives' employment rates; families that experienced downward mobility showed smaller increases or even decreases. The main exception was families that stayed in the poorest quintile; despite substantial increases in wives' employment rates, these families did not succeed in moving up.

The association of more-favorable mobility outcomes with larger net increases in wives' employment rates generally reflects both a higher incidence of wives' starting to work and a lower incidence of wives' stopping working in the more-favorable mobility categories than in the less-favorable categories (lower panel). For example, among

worked (did not work at either the beginning or the end of the period).

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<sup>&</sup>lt;sup>15</sup> In this figure and our discussion of it (this paragraph and the next), "working wife" includes only families in which the wife was working at *both* the beginning and the end of the period. "Nonworking wife" includes families in which the wife began working during the period (not working at the beginning and working at the end), ceased working during the period, and never

families that moved up to quintiles two and three in the 1980s, 70 percent had a working wife in 1979 and 86 percent had a working wife in 1989. This increase reflects the net effect of 24 percent of families having wives who began market work (were not working in 1979 and were working in 1989) and 8 percent of families having wives who ceased work (were working in 1979 and were not working in 1989). By contrast, among families that moved down to quintiles three and four during the 1980s, there was little change in the employment rate of wives: The percentage with a working wife declined slightly, from 78 ½ percent in 1979 to 78 percent in 1989; 13 percent of wives in these families began working during the decade and 13 ½ percent ceased working.

#### Annual work hours

A popular perception is that many families manage to hold their own or move up in the income distribution only by adding more work hours—husbands' or wives' or both. Is there evidence of an association between better mobility outcomes and more family work hours—in particular, more wives' work hours? Did families who lost ground fail to add work hours?

Table 2 reports the average annual work hours of wives and husbands. Wives increased their annual work hours during each decade and from one decade to the next. At the beginning of the 1970s, wives in these under-55, married-couple families worked fewer than 600 hours a year, on average, while at the end of the 1990s they averaged nearly 1,400 annual work hours. Husbands' average hours, at around 2,300, were fairly consistent over the entire period; thus, the rise in average family work hours (wives' hours plus husbands' hours) largely reflects the increase in wives' hours, so wives' share of family work hours rose as well. These data on average annual work hours per family reflect both a larger average share of wives' working and rising hours for those wives who were employed (lower panel).

These hours increases play out differentially by mobility outcome (Figure 4). In families that moved up, wives' annual hours increased by 400 to 600 hours (about 10

hours per week on average), while husbands' hours increased only very modestly. <sup>16</sup> In families that moved down, by contrast, wives' hours changed little—they added or cut back an average of 100 or fewer hours—while husbands' hours declined modestly. Families that remained in one of the three middle quintiles or in the poorest quintile also added substantial wives' work hours, while husbands' hours either decreased or increased only marginally. <sup>17</sup> Thus, the popular perception—that families needed to work ever more hours even to tread water—is confirmed. And the greatest part of this increase in hours came from wives.

### Presence of children and work involvement

Historically, mothers spent more time than fathers caring for their children, even in two-parent families. Thus, wives' work hours are more affected by presence of children than husbands' are, and one might expect mothers to play a weaker role in family income mobility as members of the paid workforce.

Over three-quarters of under-55, married-couple families had children under age 18 living at home at the beginning of all three decades (Table 3); in a sizable share of these families, the youngest child was under age five. The presence of children declined during each decade (as couples aged) and from one decade to the next.<sup>18</sup>

As expected, at the beginning of each decade, wives with children worked fewer hours than wives without children, on average (upper panel). This difference was larger in the 1970s (when they worked less than half as many hours) than in the 1990s (when

<sup>&</sup>lt;sup>16</sup> Note that differences in average hours between the beginning and the end of any period reflect the combined effects of: (1) differences in hours between the wives who joined the paid workforce and wives who ceased working during the period and (2) changes in hours of wives who were employed at both the beginning and end of the period.

<sup>&</sup>lt;sup>17</sup> For both the upwardly mobile and those trapped in the poorest quintile, substantial increases in hours *per working wife* were more important contributors to the increase in wives' annual work hours per family in all three periods than were increases in the share of wives working.

<sup>&</sup>lt;sup>18</sup> Most couple families included children at some (observed beginning- or end-of-period) point—only 4 percent (1970s) to 10 percent (1990s) of couples had no children in both the beginning year and the end year of the period. About two-thirds (1970s) to one-half (1990s) of couple families included children at the beginning of the period and still had children under age 18 in the household at the end of the period.

they worked about two-thirds of the hours). Roughly half the difference is attributable to the higher share of mothers who did not work at all in the earlier periods. But even among wives who earned some labor income, those with children logged 20 to 25 percent fewer work hours, on average, than those without children. By contrast, husbands with children tended to work somewhat longer hours per year, although the differences were small, and average husband-plus-wife work hours were lower for families with children.

By the end of each decade, the differences in work hours between wives in families with and without children had shrunk appreciably (lower panel). Since wives' end-of-decade employment rates varied hardly at all by presence of children, the small difference in annual work hours reflects the difference in work hours among those who were working. Hours presumably converged at least in part because mothers tended to increase their hours of paid work as their children grew older, and markedly fewer of these families had pre-school-age children at the end of the decade.

For the most part, wives' and husbands' work hours by mobility group were similar for families with and without children (Figure 5).<sup>19</sup> In families that moved up, wives both with and without children increased their work hours during the decade. These increases were especially large for wives *with* children (that is, they were larger than the increases for wives without children). In families that moved down, wives with and

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<sup>&</sup>lt;sup>19</sup> In order for the beginning- and end-of-period hours in each panel to refer to a consistent set of families, this figure classifies families on the basis of whether or not they had children *at the end of the period* and then reports work hours for each type of family at the beginning and end of the period. The beginning-of-period data are not comparable to those shown in the upper panel of Table 3, which reports work behavior at the beginning of the period for families with and without children at the beginning of the period.

without children decreased their work hours, on average.<sup>20</sup> However, unlike the overall hours pattern, wives *without* children in families that stayed in the middle three or bottom quintiles for the most part either changed their hours very little or reduced their work hours. By contrast, in families *with* children that stayed in the middle three or bottom quintiles, wives increased their hours substantially (for families stuck in the bottom quintile, wives' increases in hours greatly exceeded their husbands' increases)— and still these families were not able to move up.

Thus, families with more favorable mobility outcomes—whether they included children or not—saw bigger increases in wives' work hours than did families losing ground during the decade—but the differential was greater for families with children than for those without them. Increases in hours were observed even for those who simply maintained their place in the family income-to-needs distribution. Indeed, many families with children lost ground despite added work hours.<sup>21</sup>

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<sup>&</sup>lt;sup>20</sup> Note that presence or absence of children living at home is associated with wife's age to some extent, and also associated with wife's labor force participation. That is, married couples without children are likely to be older (or, to a lesser degree, younger) than those with children, on average, although children are present across a wide range of parental ages. If no mothers of preschool and school-age children participated in the labor force and all non-mothers did, the differences this study examines between families with wives in and out of the labor force might actually reflect life cycle considerations, not labor force participation per se. However, as Table 3 indicates, the labor force participation rates of mothers rose during each of the three periods under study and rose from each period to the next, reducing the (cross-section) association between presence of children, participation, and wife's age. Moreover, the steep portion of the ageearnings profile typically occurs in the early years of a person's work-life, so a married-couple family's upward mobility based on the husband's individual earnings would usually be greater at young ages (when the life-cycle argument says the wife is out of the labor market), while our data show greater upward mobility for families with wives in the labor market. Thus, it does not seem likely that life-cycle factors are masquerading as wife's labor market involvement in the mobility patterns we observe. Furthermore, the data in Figure 5 indicate that when presence of children is explicitly controlled for, the work-hour patterns by mobility group are fairly similar for families with and without children.

<sup>&</sup>lt;sup>21</sup> This is not consistently evident in Figure 5, as it is masked to some extent by the group averages.

### Hourly pay

Just as women's labor force participation and hours of work have increased in recent decades—closing a good deal of the gap with men—so have their pay levels (see Blau and Kahn 2000). Women have obtained more education, chosen more competitive college majors, logged more work experience, and moved into higher paying occupations over the last 30 years—all of which have helped to raise their pay (see, for example, Goldin 2004 and Jacobsen 2005). Have increases in wives' hourly pay also been associated with upward mobility for their families?

The secular convergence in pay levels for men and women in PSID couples can be seen in the beginning-of-decade data in the upper panel of Table 4. Wives averaged 55 percent of the hourly pay of husbands in 1969 and 65 percent in 1988.<sup>22</sup> Hourly pay is calculated as annual labor income divided by annual hours of work.

As with wives' employment rates and work hours, wives' hourly pay climbed substantially in upwardly mobile families during each decade, and at rates that exceeded wives' pay increases in any other mobility group and equaled or exceeded the increases for husbands in upwardly mobile families (Figure 6). The rise was especially steep in the 1990s, when wives' hourly pay in upwardly mobile families rose more than 50 percent. Families that stayed in the top quintile, however, benefited more from increases in husbands' pay. While wives' hourly pay increases in this group were sizable, the increases were smaller than their husbands', whose hourly pay increases exceeded 60 percent in both the 1980s and 1990s. In families that moved down the

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<sup>&</sup>lt;sup>22</sup> Wives also gained on husbands according to the end-of-period figures, although less strongly. Wives' average hourly pay rose from 53 percent of husbands' in 1979 to 59 percent in 1998. While husbands' and wives' hourly pay converged from one decade to the next, husbands' average pay rose faster during each period than did wives' hourly pay. For example, between 1979 and 1989, wives' hourly pay rose 10 percent and husbands' increased 17 percent. Hourly pay changes for wives (or for husbands) between the beginning and end of any period reflect the combined effects of (1) pay differences between wives (husbands) who joined the work force or added work hours and those who dropped out or cut work hours during the period and (2) pay changes over the period for wives (husbands) who were working at both the beginning and the end of the period. The first item—compositional shifts—is more of a factor for wives than for husbands, whose participation and hours changed very little during each period.

income scale, wives' average hourly pay fell in all three decades, as did that of their husbands.<sup>23</sup>

### Annual earnings

Since wives' average annual earnings per family is the product of the share of wives working for pay, hours per working wife, and wives' hourly pay, and since each of these factors rose over the period, it is not surprising that wives' total labor market earnings increased steeply, as reported in the lower panel of Table 4. Husbands' annual earnings rose in real terms, too, both during each decade and from one decade to the next. Wives' annual earnings rose faster, however, and therefore accounted for an increasing fraction of husbands' plus wives' earnings.

Wives' annual labor income rose in families with all mobility outcomes except the downwardly mobile (upper panel of Figure 7).<sup>24</sup> Furthermore, families that moved up the income-to-needs distribution showed the largest increases. Indeed, for upwardly mobile families, wives' annual earnings more than doubled in all three decades, with the change in wives' earnings representing an 18 percent average increase in family income in the 1970s and a 22 percent increase in the 1980s and 1990s.

For families stuck in the poorest quintile, wives' earnings also rose (as did other income), but the increases were partially offset by decreases in husbands' earnings. It was only in the richest quintile that wives consistently (in the 1980s and 1990s) lost share—their earnings rose, but by less, on average, than did their husbands'.

The increases in wives' annual earnings for the upwardly mobile resulted from substantial increases in employment rates, hours per worker, and hourly pay in all three

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<sup>&</sup>lt;sup>23</sup> As with employment and work hours, the hourly pay patterns for mobility groups were generally similar in families with and without children. However, among the upwardly mobile, wives *with* children showed larger increases in hourly pay (and annual earnings) than those without children. Wives with children were younger, on average, than wives without children and may have been more likely to experience the steep portion of the age-earnings profile during the period, contributing to their greater percentage increases in pay.

<sup>&</sup>lt;sup>24</sup> The figure displays husbands' and wives' labor income and "other" family income, where other income includes the labor income of other family members as well as family income from property (dividends, interest) and transfers.

decades, and hourly pay was most important in the 1990s (lower panel of Figure 7). Husbands' earnings also increased substantially for families that moved up; their dollar earnings gains were larger than wives' for families that moved up to the richest two quintiles, and about equal to wives' for families that moved up to the second or middle quintile. But in all three decades, the annual earnings of wives in upwardly mobile families increased relative to those of their husbands. Wives' share of husbands' plus wives' earnings reached 30 percent for the upwardly mobile at the end of the 1990s, with the increase in this share steeper for those climbing into quintiles two and three than for those rising into the richest two quintiles.

### III. Wives' and Husbands' Education and Mobility

The connection between educational attainment and an individual's place in the earnings distribution has been well documented (the classic work on this topic is Mincer 1974). So has the rising wage premium for attending and graduating from college, which has contributed to growing inequality in individual incomes over the last three decades (Levy and Murnane 1992). The tendency of individuals to marry partners with similar educational attainment combined with wives' increased labor market involvement implies that the rising educational premium may have contributed to increases in family income for highly educated, dual-earner families relative to other families.<sup>25</sup>

In the context of mobility, these trends raise (at least) two questions: Were families in which the wife and husband had greater educational attainment more likely to move up the income-to-needs distribution during each period than families in which wives and husbands were less educated? And how did the contributions of more-educated wives to their families' mobility compare with those of wives with less education?

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<sup>&</sup>lt;sup>25</sup> Increasing earnings of highly educated husbands combined with the increasing earnings of their highly educated wives would result in income gains for these married-couple families relative to other families.

### Educational attainment of wives and husbands

The educational attainment of PSID couples, like that of the population as a whole, rose over the three decades, as shown in Table 5. The share of families in which the wife lacked a high school degree dropped from 25 percent in 1969 to 5 percent in 1988. At the same time, the share in which the wife had a college degree or more rose from 10 percent in 1969 to 29 percent in 1988.

Although wives were less likely to be at the extremes of the education distribution than were husbands—fewer wives were high school dropouts *and* fewer were college graduates in all three decades—the educational distribution of all wives became more like that of all husbands over the three decades. That is, the share with at least a college degree rose more for wives, while the share lacking a high school diploma declined more for husbands.

To look at mobility by educational attainment, we classify married-couple families into two groups—more and less educated—defined on the basis of the wife's education.<sup>26</sup> Families are called "more-educated" if the wife has some college or more, and "less-educated" if the wife has a high school diploma or less. Because husbands and wives tend to have the same educational attainment, three-quarters of these married-couple families would be classified in the same group, regardless of which partner's educational attainment is used.<sup>27</sup> This way of categorizing families assigns 22 percent of families to the more-educated category in the 1970s, 36 percent in the 1980s, and 55 percent in the 1990s.

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<sup>&</sup>lt;sup>26</sup> The PSID does not collect education data every year, so we use the latest observation as of the beginning of each decade, which can be up to five years out of date. When the wife's beginning-of-decade educational attainment is missing, her end-of-decade status is used to classify the family (about 2 percent of families); when her status is missing at both the beginning and the end of the decade, the family is classified on the basis of the husband's educational attainment (about 0.2 percent of families).

<sup>&</sup>lt;sup>27</sup> That is, three-quarters of these families had a wife with a high school education or less *and* a husband with a high school education or less or had a wife with some college education or more *and* a husband with some college education or more.

### Education and family income mobility

Educational attainment was strongly associated with a family's relative position in the income-to-needs distribution at the start of each period. More-educated families were more prevalent in the higher quintiles than in the lower quintiles in each decade, even as their overall presence increased from decade to decade. For example, in 1969, when more-educated families represented fewer than one-quarter of all under-55, married-couple families, they accounted for only 5 percent of families in the bottom quintile and almost half of those in the top. In 1988, when more-educated families had risen to over half of all families, they made up less than one-third of the poorest quintile and 80 percent of the richest.

More-educated families not only began each period better off, on average, but they were also more likely to move up or hold their position in the income-to-needs distribution during the period than less-educated families (Figure 8). The share of families that stayed in the top quintile was higher for more-educated families in each period, partly because an above-average share of more-educated families started in the richest quintile and partly because a higher share starting there managed to stay, as compared with less-educated families. Similarly, the share of families that stayed in the poorest quintile was higher for less-educated families than for more-educated families; in this case, it was partly because an above-average share of less-educated families started out in the poorest quintile and partly because a smaller share of less-educated families that started there managed to move up.

#### Earnings of husbands and wives, education, and mobility

The patterns reported in the previous section are consistent with a rising educational wage premium: More-educated families moved up relative to less-educated families in all three decades. However, this finding does not indicate whether or not these mobility outcomes were the consequence of wives' labor market activity. Alternatively, the better outcomes could be the result of increased earnings of their husbands or greater increases in other income. This section considers the extent to which more-educated wives' labor

market contributions differed from those of less-educated wives (and from those of husbands) by mobility outcome.

Because the education patterns in the 1980s and 1990s are similar to each other and differ in some cases from the pattern of the 1970s, the discussion that follows focuses primarily on 1979-89 and 1988-98. Husbands in more-educated families saw very large earnings gains in the 1980s and 1990s (Figure 9). These gains were largely the result of sharp increases in hourly pay, which rose more than one-third over each of those two periods, rather than increases in annual hours, since these husbands typically started each period working full time.<sup>28</sup> For more-educated wives, earnings gains were sizable, and roughly equal to those of less-educated wives, but smaller than the earnings gains of their husbands.<sup>29</sup> For both more- and less-educated wives, earnings gains reflected modest increases in hourly pay over the decades (10 to 15 percent in the 1980s and 1990s) combined with significant increases in annual hours of work (which reflect both increases in shares of wives working and increases in hours per working wife). Husbands of less-educated wives experienced earnings declines in the 1980s and small increases (smaller than their wives') in the 1990s; their hourly pay rose more slowly than that of their wives—less than 10 percent during both decades.

Thus, the relative sizes of wives' and husbands' earnings contributions to family income gains differed for more- and less-educated families. In less-educated families, increases in family income during the 1980s and 1990s were largely attributable to increases in wives' earnings (and to other income); and wives accounted for an increasing fraction of these families' earnings and income. Especially notable is a 45 percent increase in less-educated wives' annual hours during the 1980s, when husbands' hours and earnings declined about 2 percent in real terms. In more-educated families,

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<sup>&</sup>lt;sup>28</sup> More-educated husbands also raised their work hours modestly during each period; less-educated husbands saw annual work hours decline.

<sup>&</sup>lt;sup>29</sup> Note that the figure expresses income component changes as a percentage of beginning-of-period family income. Since wives earned a smaller share of family income than did husbands, on average, their percentage increases compare more favorably with their husbands' than the data in the figure indicate.

increases in family income were partly attributable to wives' increases in annual hours and average hourly pay. But the income growth of these families was also driven by increases in other income and by sharp increases in husbands' hourly pay and annual earnings, with husbands accounting for a growing share of family earnings, on average.

Sorting by mobility outcome, however, as shown in Figure 10, reveals some variation in wives' relative contribution by education. In particular, although husbands' earnings gains were very large in more-educated families, among upwardly mobile families, more-educated wives' earnings gains made a bigger contribution to family income than less-educated wives' earnings gains.

Furthermore, the earnings of upwardly mobile, more-educated wives rose faster than those of their husbands and faster than in downwardly mobile or stayed-in-quintile families, regardless of educational attainment. (These comparisons are not visible in the figure because they refer to percentage increases in earnings while the figure plots percentage increases in family income attributable to earnings and other income.) As a result, in upwardly mobile families regardless of education, wives' share of husbands' plus wives' earnings rose, and their labor market activity played an important role in their families' upward mobility. Wives were crucial in the upward mobility of lesseducated families, and important, but not the fundamental source of strong growth, in the upward mobility of more-educated families.

Wives' earnings were also important for less-educated families that started and ended in the top quintile; these families saw small gains or losses in husbands' earnings, on average, while wives' earnings rose; thus, wives' share of family income increased over the period. Wives' contributions were smaller for more-educated families that stayed at the top; wives in these families saw modest earnings growth and a decline in their share of family earnings as their husbands' earnings increased sharply.

By contrast, in downwardly mobile families, husbands' earnings losses were the dominant factor for both educational groups. In these families (and in families that started and ended in the poorest quintile), less-educated wives' share of family earnings generally rose during each decade. Because less-educated wives whose families were

stuck in the poorest quintile raised their hours markedly, they were able to cushion their husbands' earnings losses to some degree.

### V. Conclusion

Married couples accounted for over half of all U.S. households in 2000, and the ability of wives to engage in the paid labor force, increase their work hours when they so choose, and earn reasonable pay is integral to their families' economic prospects. The substantial increases in wives' labor market activity that have occurred over the last three decades in the United States have had a measurable impact on family mobility outcomes.

In all three decades, greater labor market activity by wives was associated with more favorable family income mobility outcomes. Wives in families that moved ahead or maintained their position in the income-to-needs distribution had high and rising employment rates, work hours, and pay. The above-average increases in these wives' contributions were driven by three factors: increases in the share of families with working wives (particularly in the 1970s), increases in hours worked per working wife (especially during the 1970s and 1980s), and increases in wives' average hourly pay (most important in the 1990s). In addition, the annual earnings of wives in upwardly mobile families increased relative to those of their husbands in all three decades; as a result, wives' share of husbands' plus wives' earnings reached 30 percent for the upwardly mobile at the end of the 1990s. By contrast, downwardly mobile families saw decreases in wives' labor earnings as wives' employment rates and hours of work rose by only small amounts (or fell), and hourly pay dropped.

These findings shed light on the questions raised in the introduction. For example, did families increasingly need two earners to move ahead or to keep their place among their peers? We find that families in which the wife worked at both the beginning and the end of a decade were much more likely to move up or stay in the top quintile than families in which the wife was not working. Families without a working wife were much more likely to move down or stay in the poorest quintile. Nevertheless, having a

working wife did not insure that a family at the bottom of the income distribution could move up. Almost one-fifth of families with a working wife remained stuck in the poorest quintile or moved down into the poorest or second-poorest quintile.

Furthermore, families that stayed in the poorest quintile did not succeed in moving up despite substantial increases in wives' employment rates. Thus, while this evidence does not indicate that a working wife was either necessary or sufficient for a family to move ahead, having one definitely helped.

Moreover, the popular perception that, in general, families needed to work ever more hours even to hold their own relative to other families is confirmed, and during the periods studied the greatest part of this increase in hours came from wives. Furthermore, such increases in wives' work hours were especially pronounced for families with children. Yet, as in the case of wives' working or not, the hours increases were no guarantee of upward mobility. Families with children that stayed in the quintile in which they began increased their hours substantially, and many families with children that lost ground did so despite added work hours.

Wives' labor market contribution to family income mobility was most visible in less-educated families; however, upwardly mobile families with more-educated wives also saw sizable increases in wives' earnings. In particular, increases in wives' labor market activity accounted for a substantial share of the family income gains for less-educated families that succeeded in moving up. In families with higher educational attainment (which were concentrated higher in the family income-to-needs distribution), substantial increases in husbands' earnings augmented the smaller but significant increases in their wives' earnings.

### References

- Blau, Francine and Lawrence Kahn. 2000. "Gender Differences in Pay." *Journal of Economic Perspectives* 14 (4) Fall: 75-99.
- Blau, Francine and Lawrence Kahn. 2005. "Changes in the Labor Supply Behavior of Married Women: 1980-2000." NBER Working Paper No. w11230. March.
- Blau, Francine. 1998. "Trends in the Well-Being of American Women, 1970-1995." *Journal of Economic Literature* 36 (1). March: 112-165.
- Bowler, Mary. 1999. "Women's Earnings: An Overview." *Monthly Labor Review* 122 (12) December: 13-21.
- Bradbury, Katharine and Jane Katz. 2002. "Women's Labor Market Involvement and Family Income Mobility When Marriages End." Federal Reserve Bank of Boston *New England Economic Review* Q4: 41-74.
- Cancian, Maria, Sheldon Danziger, and Peter Gottschalk. 1993a. "The Changing Contributions of Men and Women to the Level and Distribution of Family Income, 1968-88." In *Poverty and Prosperity in the USA in the Late Twentieth Century*, edited by Dimitri B. Papadimitriou and Edward N. Wolff. New York: St. Martin's Press. 317-353.
- Cancian, Maria, Sheldon Danziger, and Peter Gottschalk. 1993b. "Working Wives and Family Income Inequality Among Married Couples." In *Uneven Tides: Rising Inequality in America*, edited by Sheldon Danziger and Peter Gottschalk. New York: Russell Sage Foundation. 195-221.
- Citro, Constance F. and Robert T. Michael, editors. 1995. *Measuring Poverty: A New Approach*. Washington, D.C.: National Academy Press.
- Cohen, Philip N. and Suzanne M. Bianchi. 1999. "Marriage, Children, and Women's Employment: What Do We Know?" *Monthly Labor Review* 122 (12) December: 22-31.
- Goldin, Claudia. 2004. "From the Valley to the Summit: The Quiet Revolution That Transformed Women's Work." NBER Working Paper No. w10335. March.
- Gottschalk, Peter and Sheldon Danziger. 1998. "Family Income Mobility—How Much Is There, and Has It Changed?" In *The Inequality Paradox: Growth of Income Disparity*, edited by James A. Auerbach and Richard S. Belous. Washington, DC: National Policy Association. 92-111.
- Jacobsen, Joyce. 2005. "Choices and Changes." *Reaching the Top: Challenges and Opportunities for Women Leaders*. Special issue of *Regional Review* 14 (3) Q1: 16-21.

- Jones, Larry E., Rodolfo E. Manuelli, and Ellen R. McGrattan. 2003. "Why Are Married Women Working So Much?" Federal Reserve Bank of Minneapolis. Staff Report 317. June.
- Juhn, Chinhui and Kevin Murphy. 1997. "Wage Inequality and Family Labor Supply." *Journal of Labor Economics* 15 (1:1) January: 72-97.
- Levy, Frank and Richard J. Murnane. 1992. "U.S. Earnings Levels and Earnings Inequality: A Review of Recent Trends and Proposed Explanations." *Journal of Economic Literature* 30 (3) September: 1333-1381.
- Mincer, Jacob. 1974. Schooling, Experience and Earnings. New York: Columbia University Press.
- Olivetti, Claudia. 2001. "Changes in Women's Hours of Market Work: The Effect of Changing Returns to Experience." University of Pennsylvania. Unpublished paper. December.
- PSID, Survey Research Center, Institute for Social Research, University of Michigan. *Panel Study of Income Dynamics (PSID)*. Machine-readable data files < http://psidonline.isr.umich.edu/ >.
- Winkler, Anne E. 1998. "Earnings of Husbands and Wives in Dual-Earner Families." *Monthly Labor Review* 121 (4) April: 42-48.

Table 1
Employment Rates in Under-55, Married-Couple Families
(percent)

	1969-79	1979-89	1988-98
Beginning of decade			
Wife working	54.2	71.3	79.8
Husband working	99.6	98.0	98.6
Both working	54.0	70.1	78.9
End of decade			
Wife working	69.1	80.5	82.2
Husband working	96.8	96.5	90.4
Both working	66.6	77.8	74.5

Source: Authors' calculations based on Panel Study of Income Dynamics data on families headed by a married couple at both beginning and end of period, with both partners age 55 or younger at end of period.

Table 2
Average Annual Work Hours of Wives and Husbands

(under-55, married-couple families)

	1969-79	1979-89	1988-98
Annual hours per family			_
Beginning of decade			
Wives' hours	598	929	1,248
Husbands' hours	2,361	2,252	2,313
Sum (h+w) hours	2,958	3,182	3,561
Wives' share (%)	20.2	29.2	35.0
End of decade			
Wives' hours	951	1,253	1,397
Husbands' hours	2,243	2,236	2,302
Sum (h+w) hours	3,195	3,489	3,698
Wives' share (%)	29.8	35.9	37.8
Annual hours per worker			
Beginning of decade			
Working wife	1,103	1,304	1,564
Working husband	2,370	2,298	2,346
End of decade			
Working wife	1,378	1,557	1,699
Working husband	2,318	2,317	2,547

Table 3 Family Work Characteristics by Presence of Children (under-55, married-couple families)

	1969-79	1979-89	1988-98
Beginning of decade:			
Percent with children:			
Under age 18	87.5	80.3	77.1
Under age 5	54.3	45.9	40.9
Annual work hours with children			
Wives' hours	520	811	1,115
Husbands' hours	2,383	2,270	2,339
Wives' share (% of h+w)	17.9	26.3	32.3
Annual work hours with no children			
Wives' hours	1,140	1,412	1,696
Husbands' hours	2,206	2,181	2,225
Wives' share (% of h+w)	34.1	39.3	43.2
Percent with wife working			
With children	50.2	67.0	75.9
With no children	82.2	88.9	92.6
Annual hours per worker:			
Working wife with children	1,037	1,211	1,468
Working wife with no children	1,387	1,589	1,831
End of decade:			
Percent with children:			
Under age 18	75.8	69.6	61.9
Under age 5	14.3	18.5	13.8
Annual work hours with children			
Wives' hours	938	1,209	1,326
Husbands' hours	2,270	2,265	2,325
Wives' share (% of h+w)	29.2	34.8	36.3
Annual work hours with no children			
Wives' hours	993	1,355	1,512
Husbands' hours	2,159	2,169	2,263
Wives' share (% of h+w)	31.5	38.4	40.0
Percent with wife working			
With children	69.0	79.9	82.3
With no children	69.3	81.6	82.1
Annual hours per worker:			
Working wife with children	1,360	1,512	1,612
Working wife with no children	1,433	1,660	1,841

Table 4
Earnings of Husbands and Wives in Under-55, Married-Couple Families
(in dollars, except as noted)

	1969-79	1979-89	1988-98
Hourly pay (labor income per work hour):			
Beginning of decade			
Working wives	10.53	12.65	13.83
Working husbands	19.17	20.34	21.15
End of decade			
Working wives	12.20	13.94	15.72
Working husbands	23.04	23.72	26.50
Average annual income (per family):			
Beginning of decade			
Wives' earnings	6,294	11,762	17,253
Husbands' earnings	45,244	45,819	48,929
Total family income (including other income)	56,397	64,819	74,400
Wives' share of (h+w) earnings (%)	12.2	20.4	26.1
End of decade			
Wives' earnings	11,609	17,465	21,953
Husbands' earnings	51,690	53,048	60,997
Total family income (including other income)	79,315	85,804	102,982
Wives' share of (h+w) earnings (%)	18.3	24.8	26.5

Incomes are expressed in 2000 dollars. Other income includes labor income (earnings) of other family members and family's non-labor income including income from property, transfers, and gifts.

Table 5

Distribution of Families by Education of Wife and Husband (percent of all under-55, married-couple families at beginning of decade)

	Husband's education				
	Less than	High		College	
	high	school	Some	grad or	
Wife's education:	school	diploma	college	more	All
1969-79					
Less than high school	14.3	8.2	1.7	0.7	24.9
High school diploma	12.4	23.1	9.0	8.5	52.9
Some college	1.2	2.7	4.2	4.4	12.5
College grad or more	0.2	0.6	0.9	7.9	9.7
All	28.1	34.6	15.7	21.6	100.0
1979-89					
Less than high school	7.5	6.3	0.5	0.3	14.5
High school diploma	7.7	24.6	10.8	6.5	49.7
Some college	0.3	4.4	6.4	6.4	17.6
College grad or more	0.1	1.9	2.7	13.6	18.2
All	15.6	37.2	20.4	26.8	100.0
1988-98					
Less than high school	1.9	2.6	0.4	0.3	5.2
High school diploma	4.4	20.6	9.8	5.2	40.0
Some college	0.7	7.5	8.1	9.7	26.1
College grad or more	0.1	2.4	4.9	21.3	28.7
All	7.1	33.2	23.2	36.6	100.0

Figure 1

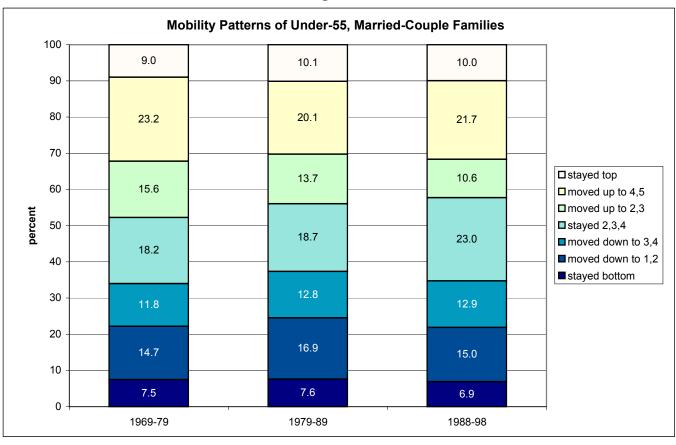
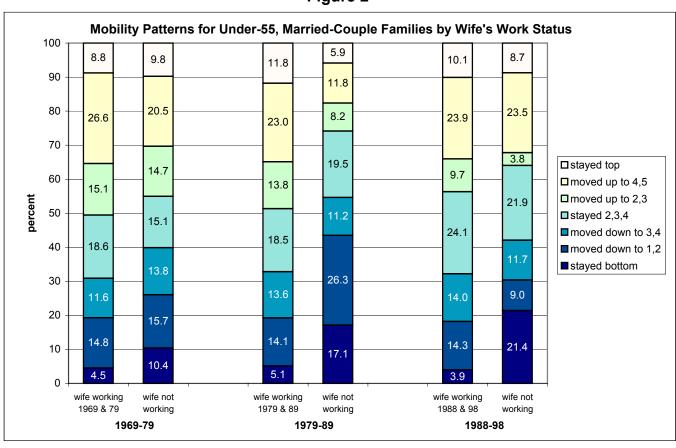


Figure 2

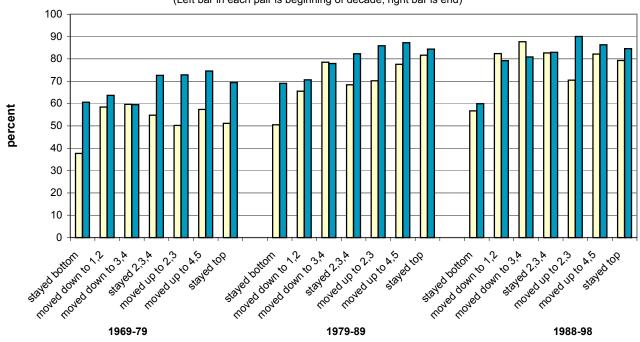


Source: Authors' calculations based on Panel Study of Income Dynamics (PSID) data.

Figure 3



(Left bar in each pair is beginning of decade, right bar is end)





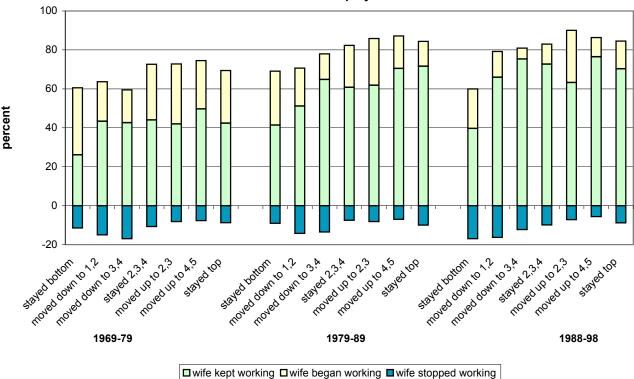


Figure 4

### **Work Hours of Wives and Husbands**

(Left bar in each pair is beginning of decade, right bar is end)

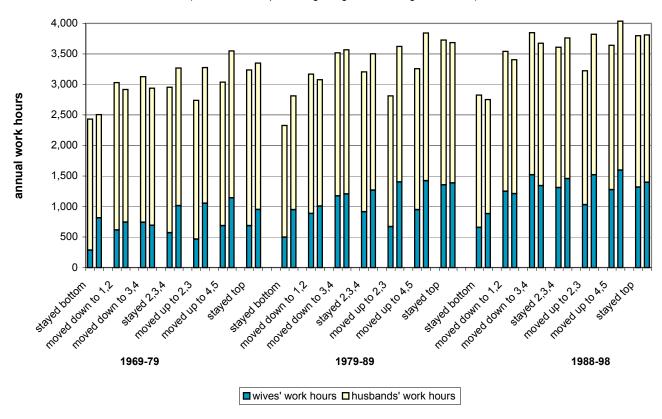
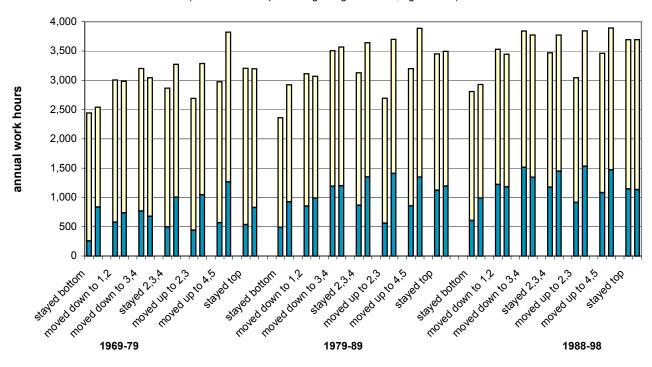


Figure 5

### Annual Work Hours of Families With Children at End of Decade

(Left bar in each pair is beginning of decade, right is end)



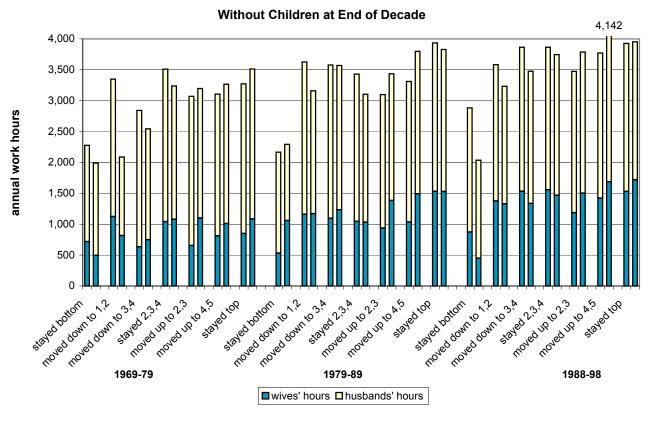


Figure 6

### Decade Changes in Hourly Pay

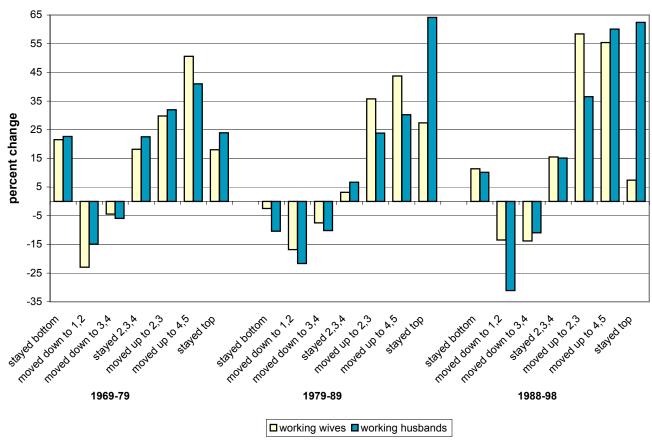
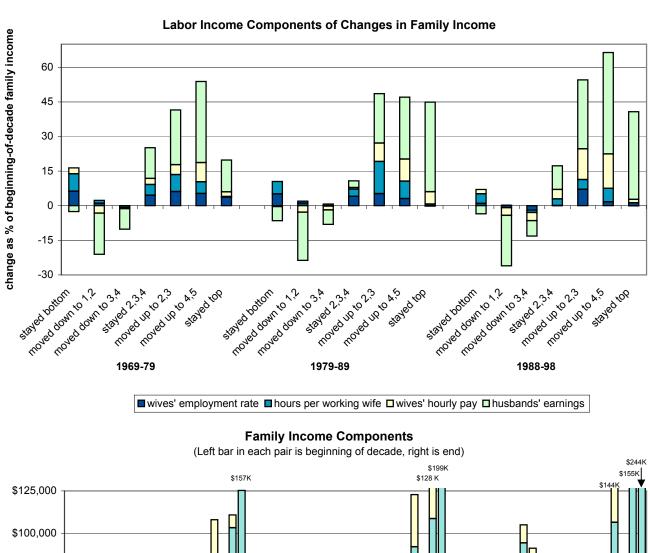


Figure 7



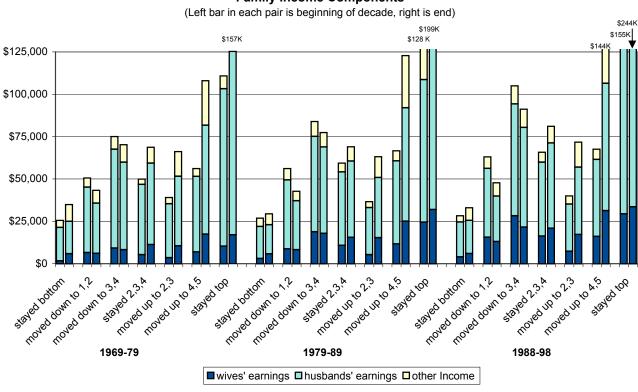


Figure 8

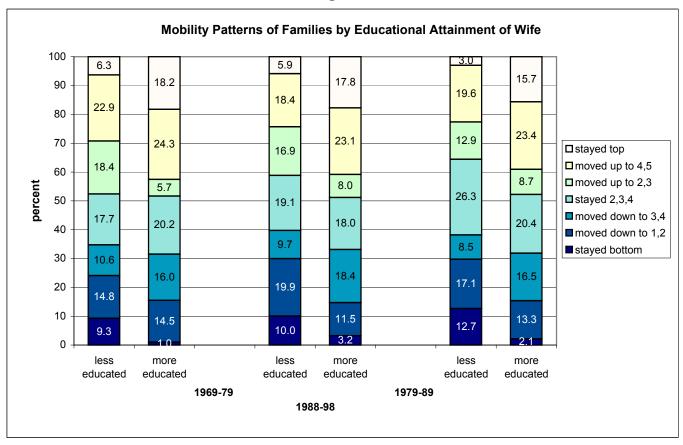


Figure 9

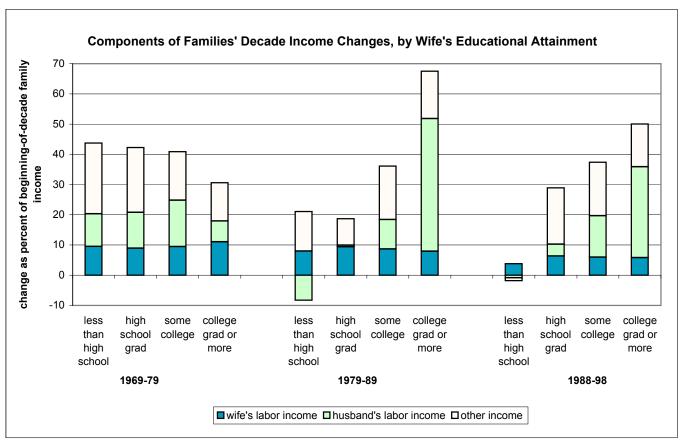
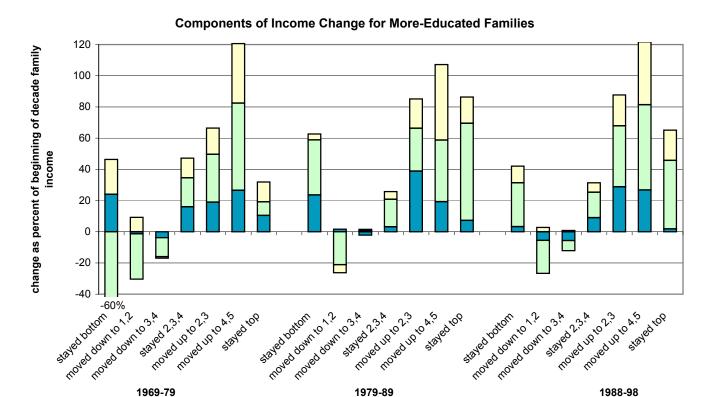
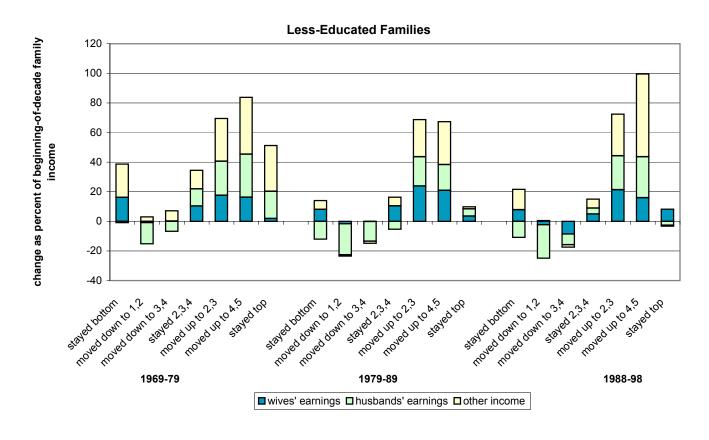


Figure 10





# Appendix Table A-1 Mobility Patterns for Under-55, Married-Couple Families

(quintile percentages sum to 100 across each row)

1969-79						
Quintile	Quintile in 1979					Mix in
in 1969	Poorest	Second	Third	Fourth	Richest	1969
Poorest	40.2	30.2	17.4	8.7	3.5	18.5
Second	14.9	27.8	30.1	19.8	7.3	22.4
Third	5.5	24.4	26.3	22.1	21.7	23.7
Fourth	5.3	11.0	31.2	29.6	22.9	19.5
Richest	3.1	4.1	12.1	24.1	56.6	15.8
Mix in 1979	13.6	20.4	24.2	20.9	20.9	100.0
1979-89						
Quintile	Quintile in 1989					Mix in
in 1979	Poorest	Second	Third	Fourth	Richest	1979
Poorest	45.9	29.7	17.7	5.4	1.4	16.6
Second	18.6	34.3	26.6	16.5	4.0	22.0
Third	8.3	27.8	22.2	29.6	12.1	21.2
Fourth	5.6	13.3	26.6	29.2	25.3	22.1
Richest	2.1	3.4	10.4	28.0	56.1	18.1
Mix in 1989	15.1	21.9	21.3	22.3	19.4	100.0
1988-98						
Quintile	Quintile in 1998				Mix in	
in 1988	Poorest	Second	Third	Fourth	Richest	1988
Poorest	47.6	24.0	15.1	7.6	5.7	14.5
Second	18.8	38.7	24.2	13.0	5.3	20.3
Third	8.1	19.4	30.9	29.1	12.5	24.5
Fourth	2.9	13.5	23.4	33.9	26.3	22.4
Richest	1.5	2.7	13.2	28.3	54.3	18.3
Mix in 1998	13.6	19.6	22.3	23.7	20.8	100.0

Note: Cells with shading indicate percentage of families remaining in the quintile in which they began. For example, the upper left entry indicates that 40.2 percent of families in the poorest quintile in 1969 were still there in 1979. The entry above and to the left of the lower right (100 percent) cell reports that 54.3 percent of families that were in the richest quintile in 1988 were still in the richest quintile in 1998.

Source: Authors' calculations based on data from PSID.