Wives Who Outearn Their Husbands:
A Transitory or Persistent Phenomenon for Couples?

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This Draft: February 25, 2004

The authors are grateful for comments from Marianne Ferber, Robert Pollak, and seminar participants at the Washington University in St. Louis seminar series on Work, Family, and Public Policy. The authors acknowledge support from the University of Missouri Research Board for this project.

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Abstract

In nearly one-fourth of dual-earner couples, wives earn more than their husbands. What this point-in-time statistic does not tell us is how earnings and employment are distributed between spouses *dynamically over time*. Are the couples cited above persistently in this status, month after month, year after year, or is this a transitory phenomenon? This study is the first to examine the *persistence* of relative spousal patterns. Data are from the 2000 CPS and 1996-2000 SIPP. Among the findings, 22-30 percent of married couples are nontraditional at a point-in-time and 60 percent of such couples are *persistently nontraditional* over a three-year period.

I. Introduction

Media reports abound with flashy headlines such as “She Works; He Doesn’t,” "Women Bringing Home the Bacon," "Dads Who Rock the Cradle,” “Behind Every Successful Woman, There's a Man," and "Look Who's Barefoot in the Kitchen,” to name only a few.[1] For 2001, the Census Bureau reports that nearly one-fourth of dual-earner wives earned more than their husbands.[2] While provocative, this statistic, calculated at a specific point in time, provides no information about how earnings and employment are distributed between spouses living together *dynamically over time.* In other words, are the nearly one-fourth of couples cited above in this status, month after month, year after year, indicative of a persistent earnings pattern, or does this figure reflect a situation that many couples experience but for just a short period of time? This type of information is important because the (in)stability of earnings patterns may affect a range of outcomes, including marital stability and risk of domestic abuse (Blumberg and Coleman, 1989), as well as the allocation of housework. In addition, more needs to be learned about why wives outearn husbands. This may be for very different reasons including wives’ labor market success (Freeman, 2000), husbands’ labor market difficulties (Oppenheimer, 1997) or husbands’ health problems.

This is the first study to move beyond simple point-in-time estimates of nontraditional spousal earnings patterns and begin to gauge the *persistence* of these patterns. The persistence analysis is conducted using the 1996-2000 Survey of Income and Program Participation (SIPP). These data, which are collected monthly, allow us to analyze persistence in spouses’ relative earnings patterns, for up to three calendar years, based on monthly and annual earnings (and

[1] The sources are, respectively, *NEWSWEEK*, 5/4/03, MSNBC News, 8/3/01 and CBS News, 5/14/01 (same title); *Washington Post*, 3/16/99, *Dallas Morning News*, 12/12/2000, and *Business Week*, 9/17/01.

hourly wage patterns) comparisons. The results obtained indicate that 60 percent of couples identified as nontraditional, that is, where the wife outearns her husband, are persistently in that status over a three-year period. The findings also indicate a substantial amount of volatility in spouses' relative earnings from month to month and over the course of the three-year observation period that cannot be captured in annual point-in-time statistics. Taken together, these findings suggest that spouses' relative earnings patterns are far more varied and complex than has been previously discerned. In addition, the SIPP enables a more in-depth analysis of covariates with (non)traditional earnings status than past work based on the Current Population Survey (Raley et al., 2003), because it includes measures on health status. Of substantial policy importance, we find that in couples with less education, in particular, persistent non-traditional status is strongly related to husbands' fair/poor health status, suggesting that for such couples their nontraditional arrangement is likely to be involuntary. We also benchmark the SIPP findings with point-in-time estimates from the 2000 Current Population Survey (CPS) and earlier work by Raley et al. (2003) and review the range of relative spousal earnings measures that have appeared in the research literature.

II. Measures of Relative Spousal Earnings in the Literature

The existing literature on relative spousal earnings has had varied purposes. A few studies have been purely descriptive (Freeman, 2000; Winkler, 1998; Hayghe, 1993), while several more have sought to explain relative spousal earnings at a point-in-time using a set of covariates (Raley et al. 2003; Choi, 1999; Sorensen and McLanahan, 1987). A measure of relative spousal earnings has also served as a key explanatory variable in analyses of marital

[2]This figure is from "Historical Income Series," Table F-22, Census Bureau Web Site. For the U.S., see also Winkler (1998); Freeman (2000); for Canada, see Crompton and Geran (1995).

stability and/or quality (Brennan, Barnett, and Gareis, 2001; Nock, 2001; Sayer and Bianchi, 2000; Ono, 1998), housework (Brines, 1994) and domestic violence (Farmer and Tiefenthaler, 1997). Winkler and Rose (2000) looked at a spouses' relative "career" wages, as an indicator of primary/secondary earner status in the family, what they term "career hierarchy." What is most striking is that, to date, no study has investigated the persistence of spouses' relative earnings patterns. In addition, in most of these studies (Raley et al. 2003 is a recent exception), the sample frame has been limited to dual-earner couples. Analyses should not ignore couples in which the wife is the sole breadwinner, especially in light of evidence of rising male nonemployment, even during the booming mid to late 1990s (for evidence, see Juhn, Murphy, and Topel, 2002.)

Studies have used a variety of measures of relative spousal earnings. Table 1 provides an illustrative list. To simplify the following discussion, let wife's earnings = A and husband's earnings = B. Hourly wages, earnings, and income are not distinguished from one another here, but studies have used one or more of these measures. Empirical estimates have varied considerably, depending on how income is measured, as well as on whether the estimate is calculated for the set of dual-earners, all married couples, or all married couples in which the wife has earnings. The highest estimates reported in the literature are for those based on hourly earnings and/or use a narrower base than all married couples.

Two of the most common measures of relative spousal earnings are 1) the fraction of couples in which wives outearn husbands (A > B); and 2) wives' share of couples' earnings (A/(A+B)). A variant of the second measure is A/B. Measures 1) and 2) are obviously related: if A/(A+B) > .5 for a couple, then A > B. A drawback of the first measure is that it does not take into account the *extent* to which wives outearn their husbands. For instance, suppose 50 percent

of wives outearn their husbands, wives' average share of couple's earnings may range anywhere between 25 and 75 percent.[3] A weakness of the second measure is that it is a mean, and so imparts little information about the *distribution* of relative earnings among couples.

There have also been several more variants. Sorensen and McLanahan (1987) created a measure of wives' economic dependency on their husbands, where dependency is defined as (B-A)/(A+B). This measure indicates what fraction of her share—assumed to be 50 percent of combined earnings—he provides. The measures ranges between 1 (if a husband is fully dependent on his wife) and –1 (if a wife is fully dependent on her husband). If the measure is 0, this means that the wife earns precisely one-half of combined earnings and so she does not need to rely on her husband for financial assistance at all. One difficulty with this measure is the implicit assumption, which may not be true, that a wife shares 50 percent of earnings.

Nock (2001) constructs a somewhat different variant. He defines a couple as a MED (married economically dependent) if each spouses earns 40 to 59 percent of combined earnings (what he terms "parity"). All other couples are not MEDS. An important drawback of this measure is that it fails to distinguish two very different types of nonMEDS: traditional couples in which the husband has the majority (or all) of earnings and nontraditional couples in which the wife has the majority (or all) of earnings.[4] All of the other measures listed make this important distinction. Most recently, Raley et al. (2003) developed a superior version of Nock's measure that overcomes the limitation mentioned. They divide all married couples into five mutually

[3] The 25 percent figure is computed as (.5*.5) + (.5*.01); that is, 50 percent of couples have wives that just earn 50 percent of combined earnings, while the other 50 percent of couples have wives that have barely any earnings). The 75 percent figure is computed as (.5*.99)+(.5*.49); that is, 50 percent of couples have wives that earn 99 percent of combined earnings, while the other 50 percent of couples have wives that earn just under 50 percent of combined earnings.

[4] Waite and Nielsen (forthcoming) also looked at one-earner families and did not identify whether the wife or husband is the earner.

exclusive groups based on relative spousal income: wife has sole income; husband has sole income; and 3 dual-income groups. Dual-income couples are either classified as MEDS (Nock's definition), NEOS if wife earns less than 40 percent of total income, or STARS if wife earns 60 percent or more of total income. Raley et al's measure provides a compact description of the distribution of relative spousal earnings.

In the point-in-time analysis presented here, we estimate the number of non-traditional couples as the percent of couples where A>B, consistent with the Census Bureau estimates and those of Freeman (2000). In addition, we examine the *distribution* of relative spousal earnings and hourly wages among couples, which allows for a direct comparison with Raley et al. (2003). In the subsequent persistence analysis, we provide first-ever estimates of the extent to which nontraditional couple status observed at a point in time is transitory or more permanent. In the persistence analysis, we classify a couple as nontraditional if the wife outearns the husband, month after month or year after year (for up to a maximum of three calendar years). Delineating between persistent and transitory arrangements is likely important for a range of outcomes. For instance, Freeman (2000) failed to identify much evidence of a reallocation of housework toward husbands in nontraditional couples at a point-in-time, but this may be because such data pool couples who are temporarily in this arrangement with those for whom it is more permanent.[5] It would be especially informative if one were to find little to no reallocation of household tasks in persistently non-traditional households. Also, whether couples' relative earnings are stable or fluctuate over time may affect the degree of conflict in a marriage and marital stability

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[5] On the other hand, Brines (1994) has suggested that *not* doing too much housework may signal masculinity, regardless of the distribution of spousal employment (wages).

(Blumberg and Coleman, 1989). What is clearly needed is a measure that delineates between transitory and more permanent arrangements.

III. Data

The data used in the analysis are from the March 2000 CPS and 1996-2000 SIPP. The CPS is a large, nationally-representative survey undertaken by the U.S. Census Bureau. This sample provides a point-in-time benchmark. The demographic data are as of March 2000 and the employment and earnings information are as of the prior calendar year, 1999. The 1996-2000 SIPP is a nationally representative, multi-panel longitudinal survey, also undertaken by the U.S. Census Bureau. Respondents in this SIPP panel were grouped into four rotation groups (See Appendix Figure 1). The data span the period December 1995 (obtained from an April 1996 interview of the first rotation group) through February 2000. The SIPP panel provides three complete years of annual data: 1997, 1998, and 1999.[6] Many variables such as earnings and employment are provided monthly. In the analysis, we make direct use of these monthly measures and also sum them up to produce annual (calendar year) earnings estimates.

SIPP has several advantages over the CPS, in addition to being longitudinal. In several respects, though not all, it is also superior to well-known longitudinal data sets such as the National Longitudinal Survey of Youth (NLSY) and Panel Survey of Income Dynamics (PSID). First, and most importantly, the SIPP permits the detailed study of the intra-year volatility in spouses' relative earnings that cannot be identified in annual data and allows for a direct comparison of persistence measures based on annual and monthly comparisons of spouses' earnings. Second, the SIPP allows for the calculation of a more precise measure of an

individual's average hourly wage over the course of the year than other data sets because it is possible to match up monthly earnings with monthly work information in constructing this measure. Third, the SIPP provides a much richer source of data on health status (which is an important correlate of earnings), particularly compared to the CPS. Despite these advantages, the SIPP panel is shorter than the NSLY and PSID and so for this reason we use the term persistence rather than permanence in describing longer-standing patterns. Hence in this paper, we cannot investigate changes in couple's relative earnings patterns over the lifecycle, though we can look at differences in persistence in (non)traditional couple status by age cohort.

Throughout the empirical work, the unit of analysis is matched husbands and wives (those who live together) who are both prime age, that is, both spouses are ages 25-54. The restriction on spouses' ages is imposed to largely eliminate couples that have not yet finished their schooling or, at the other end of the age spectrum, those who have entered permanent retirement. Limiting the sample to prime age men is also informative because they have been expected to hold the "provider" role in our society, that is, they have been regarded as the partner who bears ultimate financial responsibility for family and does not have option to exit the labor force (see Hood, 1996). Families that deviate from this pattern are arguably "nontraditional." In addition, we restrict the analysis to married couples who are household heads. In using the SIPP, we make two further refinements. First, we restrict the sample to continuously married couples over the sample-- married as of the date the panel began -- to focus on joint work experience and earnings patterns and how they change over the three calendar years. Also, in the longitudinal analysis, we include all couples in which the spouses are 25-54 at some point during the 3-year

[6] In the case of calendar year 1999, there is data for only three out of four rotation groups. See Appendix Figure 1. Calendar year 1996 is not analyzed because annual data is missing for two out of the four rotation groups.

sample. Further details on the construction of the sample and effect of sample restrictions are provided in the Data Appendix and in Appendix Tables 1 and 2.

Measures of Relative Spousal Earnings Constructed

As noted earlier, relative spousal earnings estimates have been typically estimated using data on the average annual hourly wage or annual earnings (Winkler, 1998; Winkler and Rose, 2000; Freeman, 2000).[7] Hourly earnings differ between women and men due to differences in human capital and due to gender discrimination. Annual earnings differ between women and men for these reasons and also due to differences in women's and men's work hours.[8] Since, wives, on average, are employed for fewer hours than husbands, this measure produces a smaller estimate of the percentage of wives who outearn their husbands. Hourly wages are arguably a better measure of "potential" labor market return and hence bargaining power in the family than annual earnings because the latter are more subject to transitory shocks in employment. Nonetheless, while hours worked is a "choice" variable, earnings confer useful information about each spouses' total earned contribution to the household. In looking at the merits of alternative earnings measures, it is worth noting that even actual hourly earnings may be an imperfect proxy of potential labor market return. For instance, spouses' hourly wages may simply reflect the fact that they are at different stages of their careers in the current period (for instance, one partner may be a low-paid surgical intern on the path to being a highly-paid surgeon).[9] In the analysis

[7] The Census Bureau provides estimates exclusively using annual earnings. See www.census.gov. As noted earlier, Raley et al. (2003) use personal income, which is more problematic in making meaningful earnings comparisons because some sources of unearned income such as dividends and interest are couple-based.

[8] In fact, the hourly wage may be affected by labor supply as well. For instance, part-time workers earn less than full-time workers, all else equal.

[9] Winkler and Rose (2000) tried to get around this concern by examining sex-specific median wages associated with given occupations, rather than using observed wages, per se.

presented here, we provide results using both annual earnings and hourly wages, for comparison purposes.

The CPS provides data for 1999 on total annual earnings and wage and salary earnings (the latter excludes self-employment income). The analysis focuses on total annual earnings and an average hourly wage measure constructed using wage and salary information.[10] We construct an average annual hourly wage measure as follows: hourly wage = [annual wage and salary earnings/(weeks worked per year*usual hours per week)].

As noted, the SIPP provides data on total earnings and wage and salary earnings on a *monthly* basis. For comparison with the CPS and prior work, we construct annual earnings measures by summing up these monthly earnings data for each of calendar years 1997, 1998, and 1999 (the 1999 SIPP data directly matches the CPS data). We also construct an average monthly hourly wage and an average annual hourly wage measure by matching *monthly* earnings with *monthly* employment information. This approach arguably provides a more precise estimate of an individual's average annual hourly wage as compared with a measure that matches total annual earnings and total annual hours (see Lerman, 1997). Specifically, SIPP average annual hourly wage = average of [monthly wage and salary earnings/(weeks worked in the month * usual hours in month)] for each month in which wage and salary earnings are reported. In our calculation, we take account of earnings on up to two jobs.

In the point-in-time analysis using the SIPP and CPS, we divide couples into three groups: traditional (those in which the husband is sole earner plus dual-earner couples in which husband has equal or dominant earnings; percent where $A \leq B$); nontraditional (those in which

[10] The approach taken here is fairly similar to that taken by other researchers. For instance, Juhn, Murphy, and Pierce (1993) excluded self-employment in the calculation of hourly earnings

the female is the only earner plus dual-earner couples in which the wife outearns the husband; percent where A>B); and "other" (cases in which neither partner has earnings). In the dynamic analysis, we divide couples into the following three groups: those that are persistently traditional (traditional all three years); those that are persistently nontraditional (nontraditional all three years); and other, where other is a "catchall" category that includes couples who change status over the period examined as well as those couples where both spouses have zero earnings in one or more periods.[11] All reported results are weighted, except where otherwise noted.

IV. Empirical Analysis

Point-in-Time Estimates: Replications and Extensions

Figure 1 indicates the trend in nontraditional dual-earner couples (that is, percent of such couples where wife outearns husband) for selected years from 1970 to 2001. The estimates, computed from CPS data, are from the Census Bureau web site and from Freeman (2000), with an update for the Freeman series for 1999 based on the CPS data analyzed here. There are slight differences in the sample definitions of the two reported series,[12] but nonetheless the series track fairly closely and show a steady increase over each decade. As Figure 1 shows, nearly one-fourth of dual-earner couples were non-traditional in 2001 (as reported in the introduction), as compared with only one-tenth in 1970.

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if self-employment was negative or > $100 (in $1982). Freeman (2000) excluded individuals from his sample if they had self-employment or farm income only.

[11] In the monthly analysis, in the small number of cases in which both spouses have zero earnings for every month, they are included in the persistently traditional group.

[12] The Census Bureau defines dual-earners as spouses who both have nonzero earnings. Freeman (2001) further excludes individuals with self-employment or farm income only and also excludes those individuals with wages less than $2 or greater than $200 (1996 dollars).

Table 2 provides detailed point-in-time earnings comparisons for SIPP and CPS for 1999, using alternative earnings/wage measures and alternative definitions of married couples. The basic pattern and level of results are very similar across the two data sets, though in all cases the SIPP estimates are somewhat higher.[13] Table 2 shows, among other things, the dramatic variation in estimates of "nontraditional" couples depending on the earnings measure used, as well the married couple group examined. Estimates of nontraditional couples range from as low as 19-21 percent (sample is all married couples; comparison based on total annual earnings) to as high as 36-40 percent (sample is couples, where wife has earnings; comparison based on hourly wages).[14] The reason why estimates are lower when annual wages are used is because some of the couples in which the wife has a higher hourly wage nonetheless have a more traditional ("gendered") pattern of work hours.

Table 3 further provides an indication of the *extent* to which wives' outearn husbands. These data suggest that in most couples in which the wife earns more, it is only a small amount more, consistent with Raley et al. (2003). They find that 7 percent of dual-income couples were STARS (wife outearned husband by 60 percent or more), while the comparable figure in Table 3 is nearly 9 percent.[15] Also, as shown in column 1 of Table 3, in nearly 3 percent of all married-couple families wives provided sole annual earnings.[16] This aggregate figure masks a large

[13] Estimates in the SIPP are higher because the SIPP (as compared to the CPS) appears to understate husbands' earnings more than wives' earnings. This issue is discussed in further detail in the Data Appendix.

[14] The CPS estimate for nontraditional dual-earners for 1999 differs slightly from Table 1 because here the sample is restricted to ages 25-54 and in Table 1 there is no age restriction.

[15] This is calculated by summing up the figures where wife's share is 60% to "just under 100%" in Column 1 of Table 3. These figures are of the same magnitude but Raley et al.'s figure is a bit lower because their comparisons are based on spousal income, and wives tend to have less unearned income than husbands, while our figures are based on earnings comparisons.

[16] A comparable figure (3 percent) was obtained using the CPS. If wage and salary earnings (only) are considered, estimates are quite a bit higher. A many as 12 percent of wives have sole earnings (SIPP, column 3, Table 3); in the CPS (not reported here), the figure is 8 percent.

difference by race (not shown in Table 3); in 7 percent of African-American couples, wives have sole earnings as compared to wives in just 2.4 percent of white couples. An obvious next question is why are these men nonemployed? Such information may also provide an important clue as to why we observe a sizeable fraction of dual-earner couples with husbands with relatively low earnings. Table 4 provides information as to the main reason for male nonemployment based on the CPS and SIPP samples. The CPS provides information for those individuals who did not have a job all of *last year* (calendar year 1999) and the SIPP provides information for those individuals who did not have a job *last month* (February 1999). While these measures differ in terms of length of reference time period, they both point to poor health or disability, regardless of marital status, as the main self-reported for nonemployment (for related work, see Weismantle, 2001).[17] Given this finding, we investigate the role of fair/poor health status as a correlate with (non)traditional status more extensively a bit later.

Dynamic Estimates: Measures of Persistence

Figure 2 provides a comparison of point-in-time measures of relative earnings status and several measures of persistence using *annual* earnings data from the SIPP. The top row replicates the point-in-time estimate of nontraditional couples (using annual earnings) from Table 2; the figure is 21.5 percent.[18] Again, the key point is that this figure provides no information as to whether this status is transitory or more permanent. Rows 2 and 3 of Figure 2 directly address this question by providing information on persistence (or lack thereof) in earnings status based on a comparison of annual (calendar year) earnings. For instance, a couple is defined as being

[17] Perhaps not surprisingly, the fraction of men reporting difficulty finding work as the main reason for nonemployment does differ considerably depending on whether the time frame refers to last month in the SIPP (20 percent or more) or last year in the CPS (5-8 percent).

persistently non-traditional using a three-year annual measure if we observe that the wife has greater annual earnings than her husband for all of the three years in our three-year sample. We find that 13 percent of all couples (60 percent of nontraditional couples) were "persistently non-traditional" using this three-year annual earnings measure (Row 3, Figure 2). This figure also shows that 67.8 percent of couples were persistently traditional and in 19.2 percent of couples, their status fluctuated over the three-year observation period. Figure 3 provides identical information to Figure 2, but uses an hourly wage measure. The point-in-time estimate of nontraditional couples based on this measure is higher, 29.7 versus 21.5 percent, and the estimate of persistent non-traditional couples is higher as well, 19 versus 13 percent.

As previously discussed, an important advantage of the SIPP data is that they permit an analysis of *intra-year* volatility in relative earnings over the three-year period. Specifically, Figure 4 provides information on persistent (non) traditional status based on a comparison of husbands' and wives' *monthly* earnings. A couple, for instance, is defined as persistently non-traditional using a 36 month measure if we observe that the wife has greater *monthly* earnings (or hourly wage) than her husband for every month in the three-year period. Figure 4 indicates that just 3.7 percent were persistently nontraditional (and 44.1 percent were persistently traditional). Put differently, *in over 50 percent of couples*, the spouses' relative earnings position varied for at least one month over the 36-month period. This estimate, however, is based on very strict definitions of persistent traditional and nontraditional status since couples drop out of either persistent status if their relative earnings pattern deviates for just one month. Figure 4, for instance, also shows that 6.6 percent of couples experienced nontraditional status for just one month (otherwise they were always traditional) over the three-year period and so one might

[18] The comparable figure in Table 2 is 21.2. The slight difference arises because the sample restrictions differ slightly (see Appendix Table 1).

include these couples among the "persistently traditional." Similarly, one might alternatively classify all those who were nontraditional every single month for over two years as "persistently nontraditional." These specific adjustments, for instance, would reduce the 50 percent figure just cited to 35 percent, which still reflects a considerable amount of volatility in spouses' relative monthly earnings (see last row of Figure 2) over a three-year period.

Turning again to Figure 4, the estimate of the number of persistently nontraditional couples over a three-year period using monthly earnings is quite low (3.7 percent, as noted) as compared to an annual-based measure (13 percent, Figure 2) because a monthly measure is far more restrictive. For instance, consider the case of a wife-teacher who earns more than her employed husband on a calendar-year basis. She will, not however, outearn her husband for all 12 months based on a monthly persistence measure because teaching (assuming no other supplementary summer employment) is part-year. If, instead, as above, we classify all couples who were nontraditional every month for greater than two years (25-36 months total) over the three-year period as persistently nontraditional, the figure rises to 14.3 percent (see Figures 2 and 4).

Figure 5 provides comparable monthly persistence figures based on the hourly wage measure. These estimates of persistence are quite a bit higher (for reasons noted earlier): 7.2 percent of wives have a higher *hourly wage* than their husband for all 36 months and 20.2 percent of wives have a higher *hourly wage* than their husband for 25-36 months (see also, Figure 4). The bottom line on persistence in nontraditional status is that, using a three-year definition of persistence based on annual earnings comparisons or a "close-to" three year definition based on monthly earnings comparisons, approximately 60 percent of nontraditional couples observed at a point in time are persistently in this status.

In Table 5 we examine factors that are likely to be associated with couples who are persistently traditional, persistently nontraditional, and neither over the three-year observation period. The correlates are measured as of 1999, unless otherwise noted. A number of expected patterns emerge, consistent with Raley et al. (2003):[19] in persistently nontraditional couples (as compared with traditional couples), a much larger percentage of wives have higher levels of educational attainment than their husbands (49.4 vs. 26.9 percent), more couples are African-American (13.2 versus 4.4 percent), and they are less likely to have children under age 18 (60.2 vs. 71.3 percent) or children under age 5 (22.9 vs. 32.5 percent) in their home. Contrary to what one might expect and again consistent with the findings of Raley et al. (2003), younger cohorts are no more likely to be nontraditional than older cohorts.

Table 5 also provides figures on health status in 1999 and a measure of "persistent" health status, which reflects what happened to health status from 1997 to 1999. Of particular note, in persistently nontraditional couples (as compared with persistently traditional couples), it is more common for the husband to have fair/poor health status as of 1999 (12.5 vs. 3.7 percent) or persistent poor/fair health (9.6 vs. 1.5 percent) over the period of observation. These findings suggest that not only is poor health a factor in explaining nonemployment, but it is similarly associated with husband's relative low-earner status in the family.

Table 5 further reports result stratified by spouses' joint level of educational attainment to look at the role of health more closely. These figures indicate that in 24.7 percent of persistently nontraditional low-education couples, the husband has fair/poor health (alone or jointly with his wife), as compared with only 5.4 percent of persistently traditional low-education couples and only 1.3 percent of persistently nontraditional high-education couples. Hence, for less-educated

[19] The figures reported are based on a measure of persistence calculated over three years using annual earnings. The same pattern is found, though figures differ slightly, for the measure

couples, especially, husband's fair/poor health and persistent non-traditional status appear to be strongly associated with one another.

Comparison of Predicted and Observed Earnings Patterns

In this section, we explore the extent to which relative spousal earnings patterns observed at a point in time (1999) would be "predicted" based on husbands' and wives' human capital and potential labor market experience. Specifically, we estimate a log wage equation for husbands and wives (separately), calculate the couple's "predicted" relative earnings status (traditional or nontraditional), and then compare this with their observed status. Using the notation introduced earlier, we denote actual wife's and husband's earnings as A and B, respectively. Predicted wife's and husband's earnings are denoted as A' and B', respectively. If A' > B', then predicted to be nontraditional; traditional otherwise.

In undertaking this analysis, we make several simplifying assumptions. First, we assume that spouses completed their educational attainment prior to marriage (or the decision to marry this specific spouse). Second, we limit the analysis to *dual-earner couples*, thereby sidestepping the issue of imputing wages for nonworkers. As is standard in the labor economics literature, the dependent variable in each gender-specific wage regression is the natural log of the wage. It is regressed as a function of own educational dummies (less than high school, some college, four years of college, more than four years of college, with high school only omitted), age and age squared, race (black, Asian, American Indian, with white omitted), Hispanic ethnicity dummy, and region (east, midwest, south, with west omitted). Actual labor market experience is not included (nor is presence of children) because these variables are endogeneous with labor supply (see T.P. Schultz, 1997).

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calculated using the average monthly hourly wage (see Table 5 also).

Table 6 reports the cross-tabulation of couples' actual relative earnings status and predicted relative earnings status. In 71.4 percent of cases (sum of diagonals), these figures match, while in the remaining 28.6 percent (sum of off-diagonals), they diverge. Interestingly, note that for the vast majority of nontraditional couples (24.4/29.1 percent), this joint outcome was *not* predicted based on the spouses' individual predicted wages.[20] Table 7, which compares husbands' and wives' mean actual and predicted wages, provides further insight. Specifically, column 1 provides descriptive statistics for the full samples used to estimate the male and female wage regressions and then, in the remainder of the table, these results are stratified by traditional and nontraditional couple status. As column 2, Table 7 shows, nontraditional couple status is clearly a result of wives' much better than predicted labor market success and husbands' far worse than predicted outcomes: 79.3 percent of wives in such couples have actual wages that exceed their predicted wage (on average, 34.7 percent higher) while 72.7 percent of husbands in such couples have actual wages that fall short of their predicted wage (on average, 29.5 percent lower). The pattern is reversed for traditional couples, though not nearly as pronounced. For instance, wives in traditional couples have actual wages that are, on average, only 14.2 percent lower than their predicted value and husbands' actual wages are only 12 percent higher than what would be predicted.

Columns 4-7 of Table 7 further stratify results for traditional and nontraditional couples by couples' joint educational attainment (high-education and low-education couples only; "other" is not separately reported) and show the same patterns, but with an interesting twist. On average, nontraditional status for less-educated couples is more a result of husbands' lackluster labor market outcomes (relative to what would have been predicted) while nontraditional status

[20] Tables 6 and 7 were also estimated using a dual-earner sample from the CPS; results were remarkably similar.

for well-educated couples is more a result of wives' being high achievers (relative to what would have been predicted). Specifically, in more highly-educated nontraditional couples, wives' average wage is 39.3 percent higher than predicted and husbands' average wage is 24 percent lower than predicted, while in less educated nontraditional couples, these figures are 32.7 percent and 35.3 percent respectively. The descriptive results from Table 5, in addition to an analysis of the residuals from the male wage equation (not shown here), indicate that for less-educated couples, husband's fair/poor health status is an important correlate of nontraditional status.

V. Conclusion

This study provides a comprehensive look at relative spousal earnings patterns, including the first-ever study of the *persistence* of these patterns. First, we explain the source of the wide variation in estimates cited in the popular media and existing literature. We find that the percentage of wives who outearned their husbands at a point-in-time range from 19 to 40 percent for 1999, depending on whether the focus is all married couples or couples with an employed wife; and whether the comparison is based on annual earnings or the hourly wage. Estimates of nontraditional status are higher when hourly wages are compared because there is an element of choice in the number of hours worked and, despite wives' higher hourly wages, there are still some forces pushing them towards more traditional family roles.

Interestingly, we find that in the majority of nontraditional couples, this joint outcome would not have been predicted based on the spouses' individual human capital. We also find that husbands in less-educated nontraditional couples have substantially lower wages, on average, than would have been predicted. From the analysis on correlates with persistence, there is evidence that husbands in these couples are quite likely to be experiencing health or disability

problems. In such cases, the nontraditional arrangement is not likely voluntary, and moreover, these couples are likely to be economically vulnerable. This group in particular, is a potentially important concern for policy makers and analysts. In contrast, wives in highly-educated nontraditional couples have substantially higher wages than would have been predicted.

We also provide first-ever estimates of the degree to which couples' relative earnings patterns are transitory or more permanent. The analysis indicates that 13 percent of couples are "persistently nontraditional" based on a comparison of annual earnings over a three-year period. When the same analysis is undertaken based on a comparison of the average annual hourly wage, this figure is as high as 19 percent. In the analysis, we also looked at a measure of persistence based on comparisons of spouses' monthly earnings over a three-year period. We find that 14.3 percent of wives had higher monthly earnings than their husbands every single month for 25 or more months out of the 36-month period. Taken together, the results indicate that for 60 percent of nontraditional couples observed at a point in time, their nontraditional status appears to be a more permanent arrangement. If so, this may have significant implications for a range of outcomes including the allocation of housework and women's power to limit domestic abuse. The findings also indicate that a considerable fraction of couples' experience fluctuations in their relative earnings over a three-year period: the figure is 19.2 percent based on annual earnings comparisons and 35 percent (a conservative estimate) based on monthly earnings comparisons. For those couples that move back and forth between nontraditional and traditional status, it is possible that this creates a good deal of family disruption that may also have important ramifications for family outcomes.

This paper, which has focused on persistence in relative spousal earnings patterns (or lack thereof), has provided a much more comprehensive analysis of what might be termed "the

economic balance of power" than is available in current research. Nonetheless, it offers only the start of a fruitful course of research on the dynamics of relative earnings patterns. An obvious next step is to look at the degree to which the allocation of housework, domestic conflict, and marital stability, among other outcomes, vary with persistence in spouses' relative earnings patterns. Another direction is to use panel data set such as the Panel Study of Income Dynamics or National Longitudinal Survey of Youth to explore persistence and reversals in spouses' relative annual earnings patterns over the lifecycle and factors associated with these patterns.

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Table 1
Measures of Relative Spousal Earnings*

Description of Measure	Formula (A=wife's earnings; B=husband's earnings)	Representative Study
Wife's Earnings as Share of Couple's Earnings	A/(A + B)	Choi (1999); Hayghe (1993); Sayer and Bianchi (2000)
Wife's Earnings/Husband's Earnings	A/B	Spitze and South (1985)
Within-Couple (Absolute) Gap	A - B	Brennan, Barnett and Gareis (2001)
Wife Outearns Husband**	if A > B	Hayghe (1993); Winkler (1998); Winkler and Rose (2000); Freeman (2000); and Census Bureau (various years)
Wife's Economic Dependency on Husband	(B - A)/(A + B)	Sorensen and McLanahan (1987); Brines (1994)
Marriage of Equally Dependent Spouses (MEDS)	if (40 < (A/(A+B)) < 59) then couple is MED	Nock (2000)
NEOS, MEDS, STARS	MEDS -- same as above NEOS -- (0 < (A/A+B) < 40) STARS -- (60 < (A/A+B) < 100)	Raley et al. (2003)

Notes:
*For a review of other studies that used the first two measures cited, see Sayer and Bianchi (2000) and Ono (1998).
**Winkler (1998) also computed % of cases where wife outearns husband by 25, 50, or 100% more.

Table 2

Estimates of Traditional and Nontraditional Married-Couples Families, CPS and SIPP, 1999

	All Couples			Dual-Earner Couples		Couples where Wife has Earnings	
	Traditional (%)	Nontraditional (%)	Neither w/ Earnings (%)	Traditional (%)	Nontraditional (%)	Traditional (%)	Nontraditional (%)
CPS							
Total Annual Earnings	79.4	19.1	1.5	79.0	21.0	75.5	24.5
Annual Wage and Salary Earnings	74.6	21.2	4.2	79.0	21.0	71.2	71.2
Hourly Wage (avg. annual)	69.3	26.1	4.6	71.4	28.6	64.1	35.9
SIPP							
Total Annual Earnings	77.7	21.2	1.2	75.9	24.1	72.7	27.3
Annual Wage and Salary Earnings	68.2	26.0	5.8	76.3	23.7	64.7	35.3
Hourly Wage (avg. annual)	64.6	29.5	5.9	70.6	29.4	59.9	40.1

Notes:
SIPP average annual hourly wage reported here was calculated using monthly wage and employment information for up to two jobs. For further discussion on how each measure is calculated, see text/Appendix.

Traditional refers to husband has same or more earnings than wife; Nontraditional refers to wife has higher earnings than husband; Neither refers to neither spouse has earnings.

Sample sizes are reported in Appendix Table 1. Means of earnings variables are reported in Appendix Table 2.

Table 3
Wife's Earnings as a Share of Couple's Earnings,
Total Annual Earnings 1999 and Hourly Wage 1999 (SIPP data)

	Total Annual Earnings		Hourly Wage	
	All*	Dual-Earners	All*	Dual-Earners
	(%)	(%)	(%)	(%)
Mean of wife's share	31.6	37.3	40.0	42.3
Distribution of wife's share:				
0% exactly	19.8	NA	21.7	NA
just above 0% - just under 25%	21.5	27.7	7.8	11.7
25% - just under 50%	36.6	47.2	38.7	58.4
exactly 50%	0.7	1.0	0.4	0.5
just above 50% - just under 55%	5.4	7.0	8.1	12.2
55% - just under 60%	4.6	5.9	4.5	6.7
60% - just under 65%	2.8	3.7	3.0	4.5
65% - just under 70%	1.7	2.2	1.8	2.7
70% - just under 75%	1.3	1.7	1.0	1.5
75% - just under 80%	1.0	1.3	0.7	1.1
80% - just under 85%	0.7	0.8	0.2	0.4
85% - just under 90%	0.6	0.8	0.1	0.1
90% - just under 95%	0.3	0.3	0.1	0.1
95% - just under 100%	0.4	0.5	NA	NA
100% exactly	2.7	NA	11.9	NA
% where wife outearns husband	21.4	24.1	31.4	29.4

Notes:
*Combined couple earnings must exceed zero.
Totals may not sum to 100 percent due to rounding.

Table 4
Main Reason for Male Nonemployment^a
(CPS, Annual 1999; SIPP, March 1999)

	Unmarried Men, Age 25-54		Married Men, Couples with Both Spouses Age 25-54^b	
	CPS	SIPP	CPS	SIPP
Why Nonparticipation all of last year(CPS)/last month (SIPP)				
Taking Care of Home or Family	6.8%	2.4%	11.0%	8.2%
Ill or Disabled	60.7%	57.6%	61.4%	48.1%
Retired	5.1%	2.3%	8.1%	9.3%
Going to School	10.5%	8.0%	9.1%	9.7%
Could Not Find Work	7.8%	24.3%	5.2%	20.9%
Other	9.2%	5.4%	5.3%	3.8%
sample size	1,164	750	527	210

^a For CPS, the sample refers to men with no hours worked last year (1999). For SIPP, the sample is based on those with no job or business during month prior to March 1999.
^b Married couple sample has age restriction only; it does not have other restrictions listed in Appendix Table 1. because sample size is so small and because some of the restrictions are not meaningful (e.g. restriction on wage).

Table 5
Correlates with Persistently (Non)Traditional Status, for Full Sample, and by Educational Attainment^a

	Total Annual Earnings			Hourly Wage		
	Persistently traditional	Persistently nontraditional	Other^b	Persistently traditional	Persistently nontraditional	Other^b
Full Sample	*Percent of persons*			*Percent of persons*		
Race of couple						
both white	89.9	79.1	80.8	89.5	82.7	84.3
both black	4.4	13.2	11.8	4.7	10.0	9.2
other	5.7	7.7	7.4	5.9	7.3	6.5
Age of couple						
both age 25-34	13.3	8.6	8.7	13.6	9.3	10.2
both age 35-44	30.9	25.7	28.5	30.2	28.9	29.5
both age 45-54	24.4	27.4	28.3	25.3	26.5	25.4
other	31.4	38.3	34.5	30.9	35.4	35.0
Absolute Educational Attainment						
Both spouses have 4 yrs.coll. or more ("high-ed")	18.1	18.2	17.3	16.2	21.8	18.5
Both spouses have HS or less ("low-ed")	27.3	21.9	30.9	29.3	19.7	28.6
Other	54.6	59.9	51.8	54.4	58.5	52.9
Relative Educational Attainment						
Wife has more educ. than husband	26.9	49.4	37.1	25.7	44.8	34.6
Husband has more educ. than wife	36.7	20.4	27.5	37.2	23.7	30.6
Both have same level of educ.	36.4	30.2	35.5	37.2	31.5	34.8
Earnings of couple, by percentile						
1-20	16.7	19.6	29.6	15.4	15.6	30.3
21-40	21.0	21.5	16.2	21.7	18.8	18.0
41-60	22.1	16.6	16.1	22.7	18.0	17.2
61-80	19.9	22.6	19.2	20.7	24.3	16.2
81-100	20.3	19.7	19.0	19.6	23.3	18.4
Individual Health Status						
Husband						
Excellent or Very Good	74.6	61.6	63.1	72.7	68.1	68.6
Good	21.7	26.0	24.4	22.8	23.0	22.7
Fair or poor	3.7	12.5	12.5	4.6	8.8	8.8
Wife						
Excellent or Very Good	70.9	71.6	65.3	69.0	72.3	70.0
Good	22.7	22.2	25.0	24.1	21.8	22.0
Fair or poor	6.4	6.2	9.7	6.9	5.9	8.0
Joint Health Status						
Husband has fair/poor health only	2.6	9.5	7.1	3.3	6.1	5.2
Wife has fair/poor health only	5.3	3.3	4.2	5.6	3.1	4.5
Both have fair/poor health	1.1	2.9	5.4	1.3	2.8	3.6
Neither in fair/poor health	91.0	84.3	83.4	89.8	88.1	86.8
Persistant Health Status						
Husband						
Excellent	64.0	52.0	51.2	62.2	59.4	56.1
Good	9.3	8.4	11.4	10.0	7.8	10.1
Fair or Poor	1.5	9.6	7.8	2.0	6.2	5.5
Health Improves	12.0	13.5	14.1	11.8	12.0	14.4

Health Declines	13.3	16.4	15.4	14.1	14.5	13.9
Wife						
Excellent	60.3	60.2	53.4	58.4	63.0	57.5
Good	10.1	6.9	9.7	10.7	6.9	9.4
Fair or Poor	2.6	1.1	5.1	3.0	1.4	3.7
Health Improves	12.4	13.5	14.7	13.0	11.0	14.5
Health Declines	14.6	18.3	17.0	15.0	17.8	15.0
Home responsibilities						
Presence of child < 18	71.3	60.2	61.9	70.1	65.1	66.1
No children under 18	28.7	39.8	38.1	29.9	34.9	33.9
Presence of child < 5	32.5	22.9	21.5	31.6	25.3	27.1
No children under 5	67.5	77.1	78.5	68.4	74.7	72.9
Low-Education Sample (both have HS or less)						
Joint Health Status						
Husband has fair/poor health only	3.1	15.5	10.9	3.7	11.9	7.9
Wife has fair/poor health only	8.5	2.8	5.6	8.7	1.9	7.0
Both have fair/poor health	2.3	9.2	10.1	2.2	6.0	9.1
Neither in fair/poor health	86.2	72.5	73.5	85.5	80.1	76.0
High-Education Sample (both have 4 years college or more)						
Joint Health Status						
Husband has poor health	1.9	1.3	3.7	2.0	1.5	2.8
Wife has poor health	2.4	3.0	2.0	2.9	2.8	1.3
Both have poor health	0.2	0.0	2.6	0.3	0.9	1.0
Neither in poor health	95.6	95.6	91.7	94.8	94.9	94.9

^a Persistence measure is based on annual earnings comparison over three-year period. All correlates are as of 1999, except for persistence health measures which capture health status in 1997 and 1999.
^b Other includes couples that changed relative earnings status over the period plus those few in which neither spouse had earnings in one or more years.

Sample size for Full Sample is 3,962 as reported in Appendix Table 1. Sample size for High-education group is 726 and for Low-education group is 1,086.

Table 6: Comparison of (Actual) Relative Earnings Status and Predicted Relative Earnings Status

(1999 SIPP Hourly Wage, Dual-Earner Sample)

		Actual Status (based on comparison of spouses' actual wages)		
Predicted Status (based on comparison of spouses' predicted wages)		Traditional Couple (A ≤ B)	Nontraditional Couple (A > B)	Row Total
Traditional Couple	(A'≤ B')	66.6%	24.4%	91.0%
Nontraditional Couple	(A > B)	4.3%	4.8%	9.0%
Column Total		70.9%	29.1%	100.0%

Notes:
Sample size is 2,418, same as Column (1) of Table 7. See also, Appendix Table 1.

Wife's (husband's) predicted log wage is obtained by estimating ln hourly wage as a function of age, age squared, dummies for educational attainment race/ethnicity dummies, and region.
A and B refer to actual log wife's wage and log husband's wage, respectively. A' and B' are the the predicted values, respectively.

Table 7: Comparison of Actual and Predicted Wages from ln Hourly Wage Equations for Husbands and Wives*
(1999 SIPP data, Dual-Earner Sample)

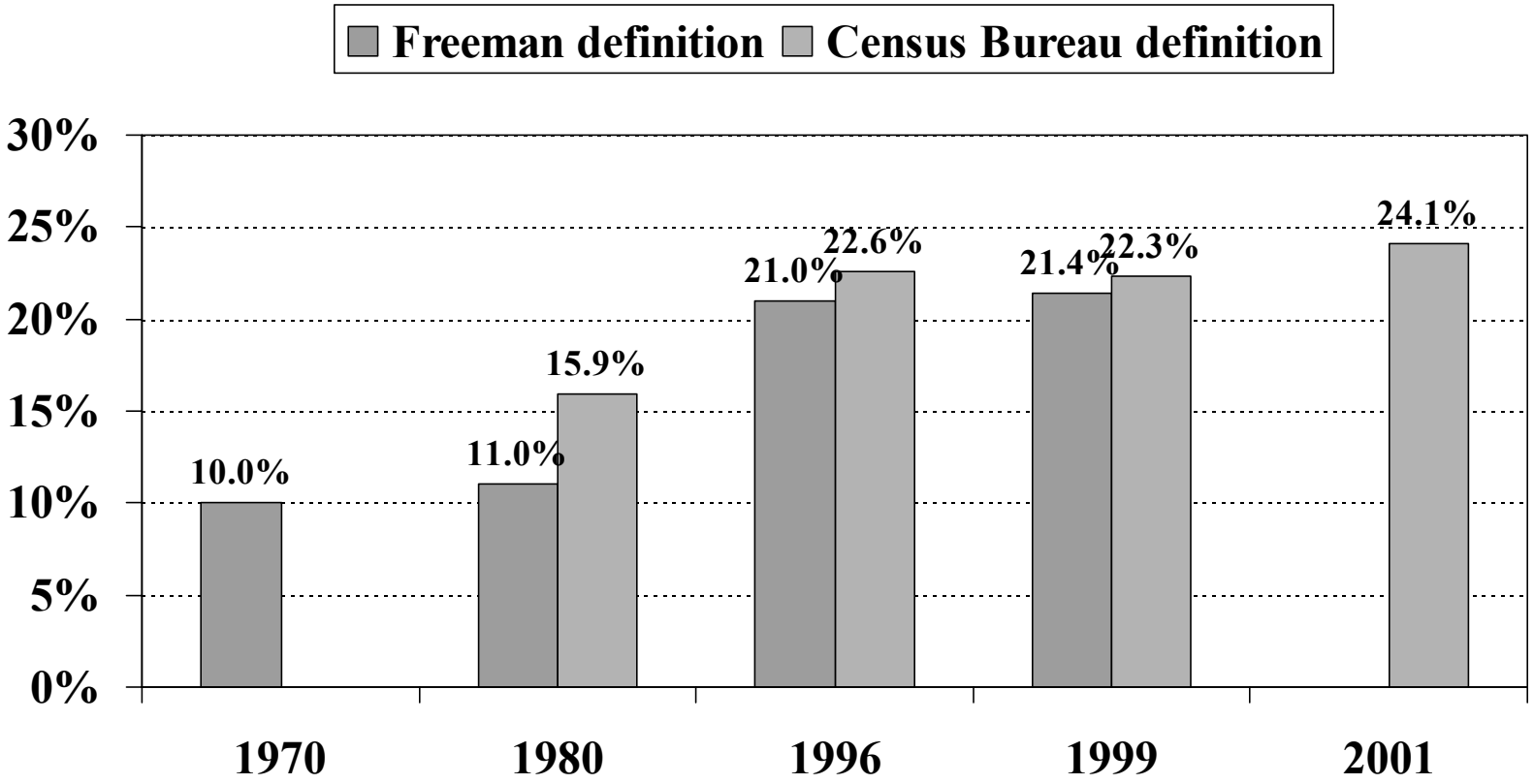
	All Couples	Nontrad. (A > B)	Traditional (A ≤ B)	Nontraditional Couples (A>B)		Traditional Couples (A ≤ B)	
				High-Ed	Low-Ed	High-Ed	Low-Ed
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
ln female wage equation results:							
mean ln actual hourly wage ($)	2.46	2.87	2.29	3.23	2.53	2.64	2.07
mean ln predicted hourly wage ($)	2.46	2.52	2.43	2.83	2.21	2.82	2.18
mean residual**	0.000	0.347	-0.142	0.393	0.327	-0.180	-0.116
% cases where residual > 0 (A > A')	51.1	79.3	39.6	81.5	79.3	42.5	40.4
% cases, wife's studentized residual > 1.96	2.44	7.24	0.47	1.85	0.99	0.18	0.12
% cases, wife's studentized residual < -1.96	3.02	0.14	4.20	0.14	0.00	1.58	0.47
ln male hourly wage equation results:*							
mean ln actual hourly wage ($)	2.80	2.49	2.93	2.90	2.19	3.34	2.65
mean ln predicted hourly wage ($)	2.80	2.79	2.81	3.14	2.55	3.15	2.56
mean residual**	0.000	-0.295	0.121	-0.240	-0.353	0.189	0.094
% cases where residual < 0 (B < B')	47.4	72.7	36.9	72.0	80.7	31.7	37.2
% cases, husband's studentized residual > 1.96	1.86	0.43	2.45	0.14	0.00	1.05	0.29
% cases, huband's studentized residual < -1.96	2.98	8.81	0.58	1.14	1.70	0.18	0.18
sample size	2,418	704	1,714	157	135	315	460

*In wage models reported in Column (1) estimated as a function of age, age squared, race/ethnicity dummies, educational attainment dummies, region. Estimated models were not weighted. Figures in Columns (2) - (7) were calculated by stratifying (predicted and actual) results for full sample.

**If multiplied by 100, this provides an approximation of the average % difference between individual's actual and predicted wage.

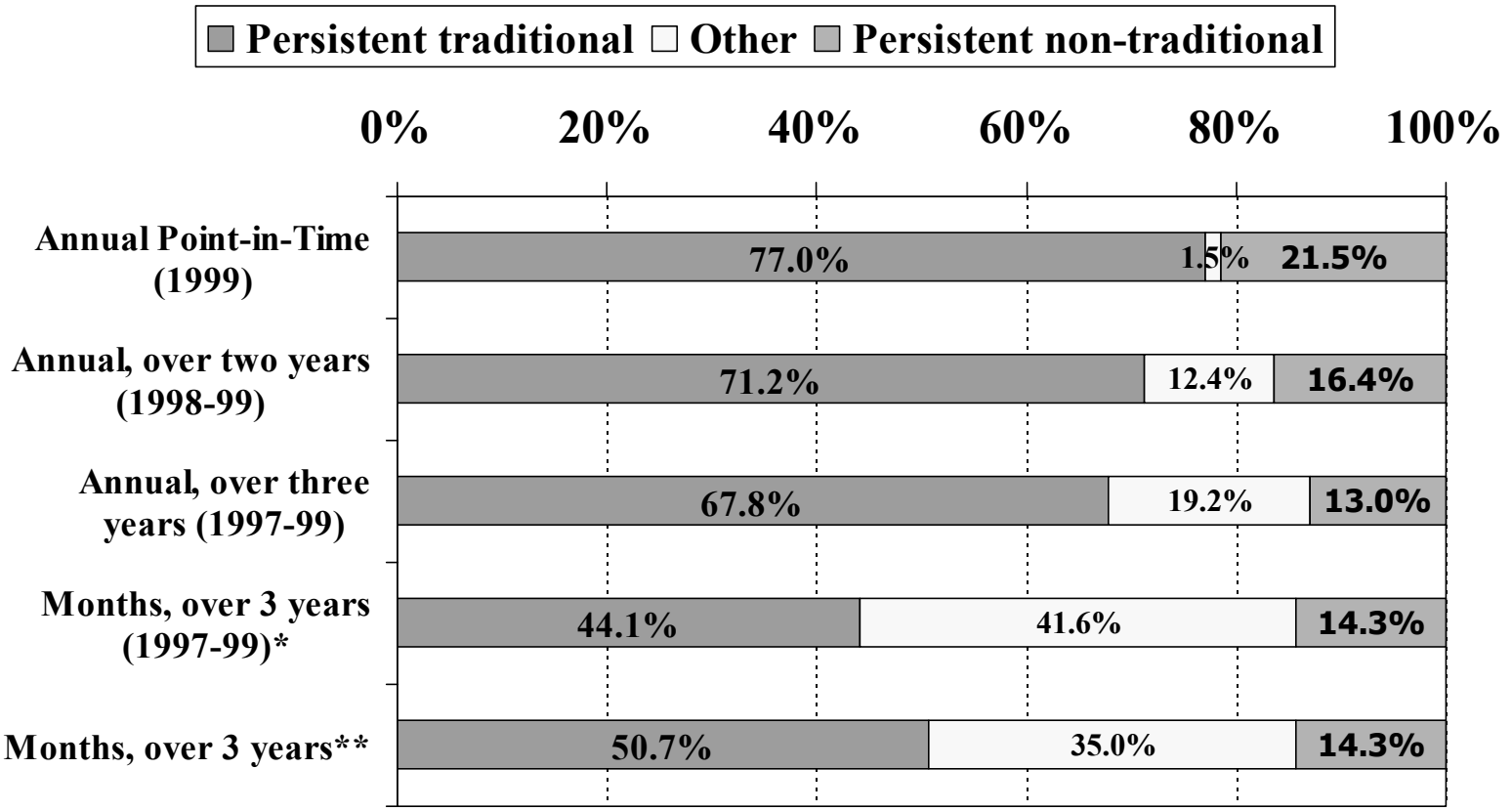
Wife's actual log hourly wage is A and husband's hourly wage is B. Predicted measures are A' and B', respectively.
High-Ed is sample limited to couples in which both spouses have completed four years of college or more; Low-Ed sample is limited to couples in which both have completed HS or less. The "other" education group is not reported here.

Figure 1.
Percent of Wives in Dual-Earner Couples who Outearn their Husbands, Selected Years



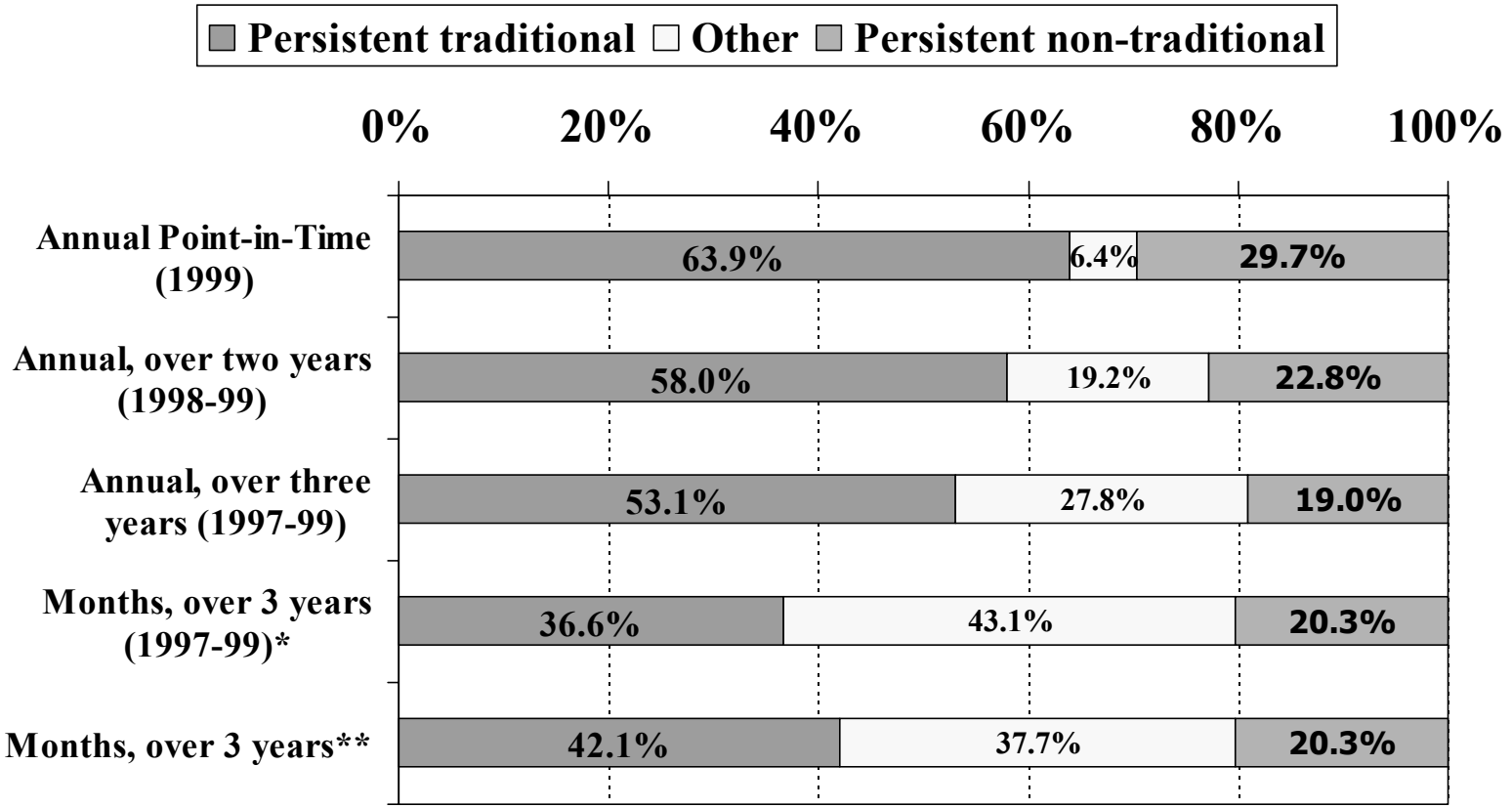
SOURCE: Figures using "Freeman definition" are from Freeman (2000). His definition excludes individuals with self-employment or farm income only; also excludes those with wages <$2 or >$200 (in 1996 dollars). Freeman provides figures for 1970, 1980, 1996 and this study updates his series for 1999. Figures using "Census Bureau definition" are from Historical Income Tables, Table F-22, www.census.gov. These figures are computed for all primary married-couple families, in which the husband and wife both have nonzero earnings.

Figure 2.
Findings Using Alternative Definitions of Persistence
(Based on Total Earnings Comparison)



Note: *Includes 25-36 months of non-traditional status in persistent non-traditional group; **Same as prior note and includes 1-month of traditional status in persistent traditional group. For more detail, see Figure 4.
Source: 1996-2000 Survey of Income and Program Participation.

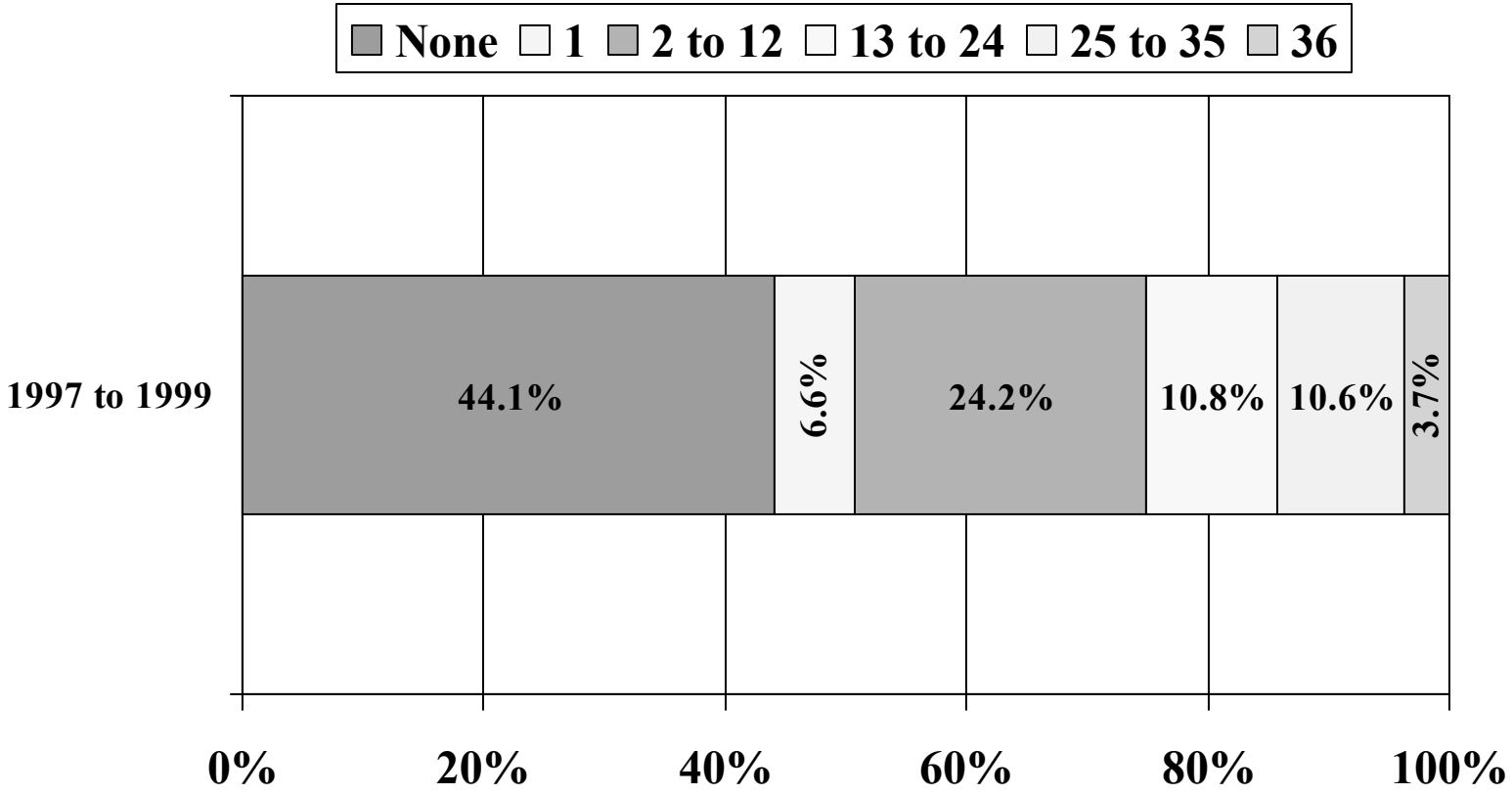
Figure 3.
Findings Using Alternative Definitions of Persistence
(Based on Hourly Wage Comparison)



Note: *Includes 25-36 months of non-traditional status in persistent non-traditional group; **Includes 1-month of traditional status in persistent traditional group. For more detail, see Figure 5.

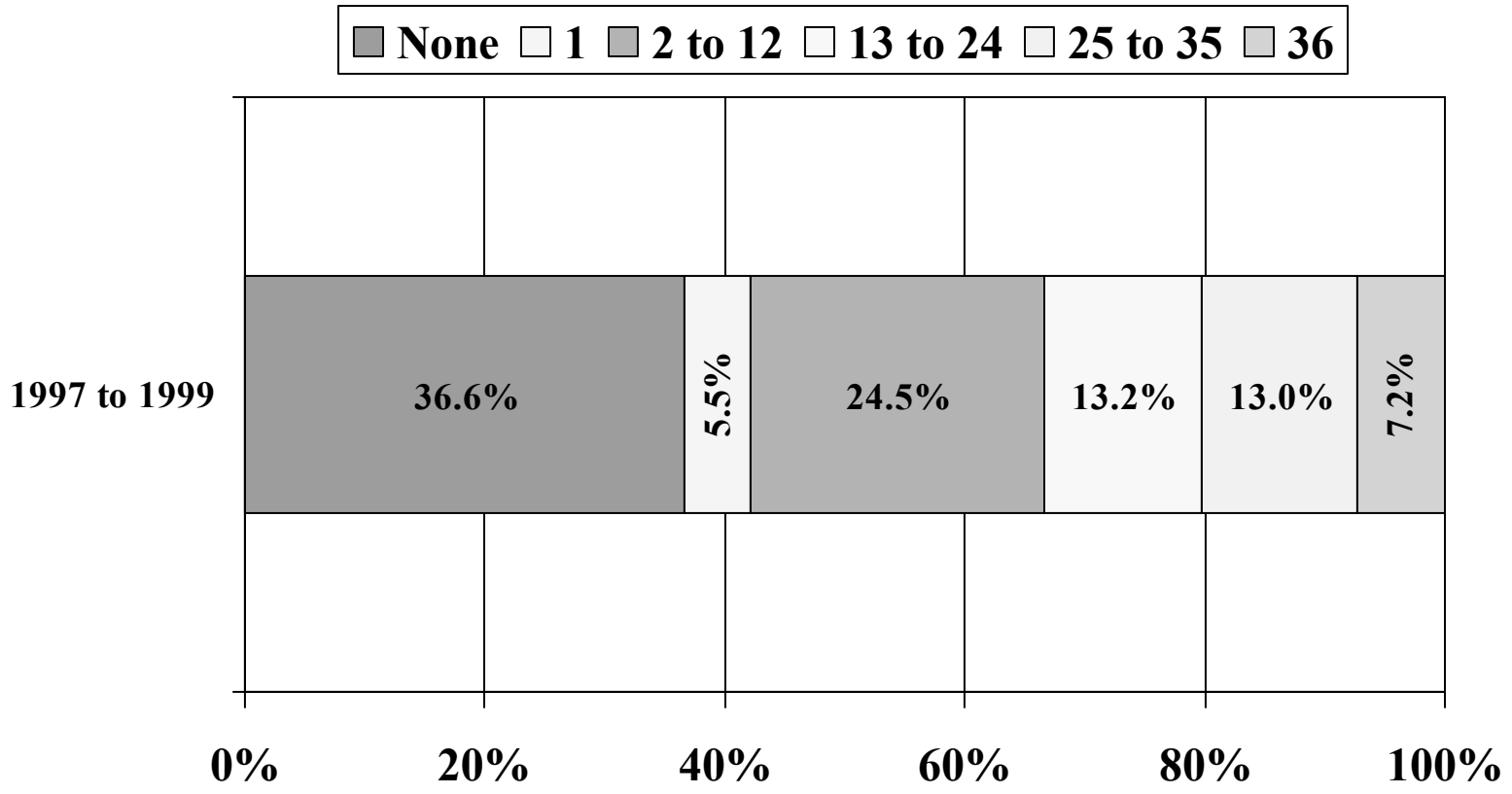
Source: 1996-2000 Survey of Income and Program Participation.

Figure 4.
Months in non-traditional status over a three-year period, 1997-1999
(Based on Total Monthly Earnings Comparison)



Source: 1996-2000 Survey of Income and Program Participation.

Figure 5.
Months in non-traditional status over a three-year period, 1997-1999
(Based on Average Hourly Wage Comparison)



Source: 1996-2000 Survey of Income and Program Participation.

Data Appendix

Description of CPS

The Current Population Survey (CPS) is a nationally representative cross-section survey conducted by the U.S. Census Bureau. The March 2000 survey provides detailed economic and demographic information at the household, family, and individual level. Earnings data are for annual 1999. In this study we matched the records of husbands and wives to create a single couple record. The survey provides figures for total annual earnings (which includes self-employment, measured as net profit) and annual wage and salary earnings. We construct an annual average hourly wage measure as follows: hourly wage = [annual wage and salary earnings/(weeks worked per year*usual hours per week)]. If hourly wages are calculated to be less than $2, we recode them as zero. Several sample restrictions are made: 1) both the wife and husband must be between 25 and 54 years of age (prime age); 2) the couple must be the primary family; and 3) we delete observations in which the wife or husband has a calculated hourly wage in excess of $200. The effect of the cumulative sample restrictions are shown in Appendix Table 1 and sample means (and medians) are shown in Appendix Table 2. Weights are used in all CPS analyses.

Description of SIPP

The 1996-2000 Survey of Income and Program Participation (SIPP) is a nationally-representative longitudinal survey conducted by the U.S. Census Bureau. This data set provides information on total earnings and wage and salary earnings on a *monthly* basis. Data were collected for the period December 1995 (interview date of April 1996) through February 2000. Sample respondents were divided into rotation groups (see Figure 1 Appendix). There are nearly 3 full calendar years of data (1997-1999). For calendar year 1999, we exclude rotation

group 1 since they do not have complete information for that year. The initial sample created is individuals between the ages of 21 and 58 in March 1997 who were married during the March month in 1997, 1998 and 1999. Further, the spouses had to be married to each other over the entire three-year period, and they had to be interviewed all months during the period of study. In the point-in-time analysis, the sample is restricted to spouses between the ages of 25-54 during the specific year, while in the persistence analysis the output is restricted to spouses between the ages of 25-54 at any point during the three years. In addition, only primary families were included. The cumulative effect of these sample selections is indicated in Appendix Table 1.

For comparison with the CPS and prior work, we construct annual earnings measures by summing up these monthly earnings data for each of calendar years 1997, 1998, and 1999 (see Appendix Figure 1). There is an important difference, however, in the definition of self-employment (one of the components of annual earnings) that cannot be reconciled across the two data sets (Roemer, 2000). In the CPS, self-employment earnings are measured as net profit, while in the SIPP, they are measured as the amount of the "draw" (the amount that the individual or family takes from the business). We also construct an average hourly wage measure for each calendar year by matching *monthly* earnings with *monthly* employment information. Specifically, SIPP average annual hourly wage = average [monthly wage and salary earnings/(weeks worked in the month * usual hours in month)], for those months for which wage and earnings are reported. In our calculation, we take account of earnings on up to two jobs. As in the case of the CPS, if hourly wages are calculated to be less than $2, we recode them as zero. We delete all observations in which the wife or husband has a calculated hourly wage in excess of $200. These measures are used to calculate nontraditional couple status and persistent nontraditional couple status (both defined in the text). In the point-in-time analysis we use a

weight to make the results reflect the national population (family reference person weight). In the persistence analysis, we use a panel weight. The regression results reported in Tables 6 and 7 are unweighted.

In Panel A, Appendix Table 1, the shaded samples are those used in Tables 2, 6 and 7 (and Table 3, with the further restriction that combined spousal earnings are positive). In Panel B, the shaded sample size is used in the persistence analysis reported in Figures 2-5. In Table 4, only the sample restriction on age is imposed because many of the wage/employment restrictions are not relevant and because the initial sample size of nonemployed married men is so small.

Comparison of CPS and SIPP Data

Appendix Table 2 provides means and medians for the underlying earnings and wage measures for wives and husbands used in the construction of the (non)traditional status variables (as reported in Table 2). Roemer (2000, 2002) previously compared SIPP and CPS estimates of wage and salary earnings and found that, in aggregate (across marital status and gender), the CPS figures are 10 percent higher. Appendix Table 2 indicates that mean wage and salary earnings for wives (used to compute the hourly wage) are 5 percent higher in the CPS and this same figure for husbands' wage and salary earnings are 22 percent. There is no prior evidence on differences in wages and salary earnings by gender and marital status, with which to compare these findings, though the average of these figures (5 and 22 percent) is of the same magnitude as Roemer's finding. Among the explanations offered by Roemer, the annual design of the March CPS likely misses workers with low-wages who work part-year, while the SIPP may fail to include some high-wage workers. Also, as a result of the monthly design of the SIPP, SIPP respondents may be more apt to report only monthly take-home pay and may be less likely to report nonrecurring pay such as bonuses. For completeness, we also compared the "raw" average SIPP monthly

wage and salary amounts reported in the SIPP (multiplied by 12) for married men ages 21-58 and found very similar magnitudes to those reported in Appendix Table 2. As shown in Table 2, where CPS and SIPP figures are explicitly compared, the estimates of nontraditional status follow precisely the same patterns, but the SIPP figures are higher. Tables 6 and 7 were also re-estimated using the CPS (results not presented here) and, notably, the results were virtually the same as those obtained using the SIPP.

Appendix Table 1: Sample Sizes in SIPP and CPS

PANEL A: Point-in-time Analysis	**SIPP**			**CPS**
Cumulative Effect of Sample Selections	**1997**	**1998**	**1999^a**	**1999**
All MC, both spouses ages 21-58	11,126	8,755	5,736	20,186
married code not missing	10,902	8,600	5,641	NA
married to same spouses all 3 years	6,988	6,989	5,255	NA
interviewed all 12 months of year	6,760	6,700	4,688	NA
both spouses 25-54 in specified year	6,062	5,836	3,936	17,164
Primary MC	5,995	5,771	3,891	16,802
hourly wage for either spouse cannot exceed $200	5,985	5,758	3,880	16,781
dual-earner couple, annual earnings	4,593	4,405	2,968	12,505
dual-earner couple, wage and salary earnings	3,724	3,611	2,419	11,133
dual-earner couple, hourly wage	3,678	3,573	2,418	10,925

Notes for Panel A:
Shaded samples were used in Tables 2-5 and Appendix Table 2.
^ a Sample size for 1999 is slightly smaller because Rotation Group 1 was excluded. See Data Apper and Appendix Figure 1.

PANEL B: Persistence Analysis	**SIPP 1997-1999**
Cumulative Effect of Sample Selections:	
All married couples, both spouses ages 21-58 during three year period	5,956
married codes not missing in any of 3 years	5,360
married to same spouses all 3 years	5,247
interviewed all 12 months of all 3 years	4,452
both spouses 25-54 sometime during 3-year period	4,033
Primary MC	3,985
hourly wage for either spouse cannot exceed $200 during 3-year period	3,962

Notes:
Shaded sample was used in Figures 2-5.

Appendix Table 2:
Sample Means for All Primary Married Couples, Ages 25-54^a

	SIPP 1997	SIPP 1998	SIPP 1999	CPS 1999
MEAN INFORMATION				
Wife Information				
Total Earnings	18,020	19,150	19,920	20,362
Total Wage & Salary Earnings	16,684	17,586	18,561	19,462
Hourly Wage	9.38	9.86	10.40	11.13
Age	39.38	39.80	40.40	39.00
MEDIAN INFORMATION				
Wife Information				
Total Earnings	14,355	15,401	16,100	15,680
Total Wage & Salary Earnings	12,780	14,106	14,580	15,000
Hourly Wage	8.05	8.54	8.89	9.23
MEAN INFORMATION				
Husband Information				
Total Earnings	41,691	42,810	44,003	47,812
Total Wage & Salary Earnings	33,705	34,810	35,934	44,072
Hourly Wage	14.84	15.70	16.26	19.22
Age	41.42	41.80	42.40	41.00
MEDIAN INFORMATION				
Husband Information				
Total Earnings	33,925	34,860	35,900	39,200
Total Wage & Salary Earnings	29,927	30,613	32,048	36,066
Hourly Wage	13.31	14.11	14.58	16.34
Sample size	5,985	5,758	3,880	16,781

This is the "all couple" sample from Table 2. The specific sample selections are indicated in Appendix Table 1.

Appendix Figure 1.
SIPP 1996-2000 Panel:
Reference Months and Rotation Groups