

**Living Arrangements, Employment Status, and the Economic Well-Being of Mothers:  
Evidence from Brazil, Chile and the United States**

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**ABSTRACT:** Using survey data for mothers in Brazil, Chile, and the United States, we estimate country-specific models of household income that characterize sample members according to the interaction of their marital status, living arrangement, and employment status. Our goal is to assess the predicted economic well-being of each “type” of mother relative to a benchmark of married mothers in the same country, and at various points in the income distribution. We find dramatic cross-country differences in the distribution of mothers across categories, but few differences in the relative economic status of each “type.” In all three countries and at all points in the income distribution, mothers who are the only adults in their households have the lowest levels of predicted income, while married mothers—followed closely by cohabitators—have the highest levels.

The economic status of unmarried mothers and their children is a subject of longstanding concern in the U.S. and throughout the world. Numerous researchers have examined the extent to which women's financial well-being is tied to their marital status (Bumpass & McLanahan, 1989; Burkhauser, Duncan, Hauser, & Berntsen, 1991; Hauser & Fisher, 1990; Hoffman & Duncan, 1988), living arrangements (Folk, 1996; London, 2000; Manning & Lichter, 1996), and employment status (Abroms & Goldscheider, 2002; Hao & Brinton, 1997; Harris, 1993; Karoly & Burtless, 1995). An unmarried woman's financial support invariably comes from some combination of her own labor market earnings, government assistance (when available) and private assistance, often in the form of co-residence with family members. The proportion of income coming from each source depends on women's choices regarding marriage, fertility, labor force participation, living arrangements, and participation in public transfer programs. Most of the studies cited above—as well as numerous additional studies in the same vein—ask how various “types” of women compare financially, *conditional* on the choices they have made.

In the current study we provide additional evidence of this nature. Rather than examining the relationship between economic well-being and marital status *or* living arrangements *or* employment status, we classify women in all three dimensions and compare the predicted household income of mothers in each category to that of a benchmark sample of married mothers. In addition, we assess the relative well-being of each “type” of mother at various points in the conditional income distribution. Mothers who are unmarried, employed, and living alone (for example) might compare very differently to married women depending on whether we focus on the bottom of the income distribution, where public assistance might be an important component of household income, or the high end of the income distribution. Most existing studies assess the links between marital status, living arrangements, employment status, and income only at the overall sample mean.

Another distinguishing feature of our analysis is that we consider the economic well-being of mothers in three countries: Brazil, Chile, and the United States. Numerous researchers compare individual and family outcomes across North American and European countries (Burkhauser, Duncan, Hauser, & Berntsen, 1991; Casper, McLanahan, & Garfinkel, 1994; Hauser, 1987; Wong, Garfinkel, & McLanahan, 1992), but pan-American analyses are far less common.<sup>1</sup> Our description of the living arrangements, employment rates, and household income levels of Brazilian and Chilean mothers should

be of direct interest to Latin American scholars. Moreover, we exploit a key difference between Brazil and Chile, on the one hand, and the U.S. on the other: while low-income mothers in the U.S. can obtain public assistance, neither Brazil nor Chile offers cash assistance to low-income families. Because welfare benefits are lacking, unmarried mothers in Chile and Brazil are forced to rely on their own earnings and the income of other household members to support themselves and their children. After conducting a within-country analysis of the relative economic position of different “types” of mothers, we can determine whether unmarried, low-income mothers fare worse in Brazil and Chile—where one potential source of financial support is lacking—than in the U.S. A key reason for comparing the relative economic status of women in the U.S. and Europe is that many European countries have extremely generous social welfare programs that are likely to benefit women (e.g., Casper, McLanahan, & Garfinkel, 1994). Our strategy is to contrast American women to their counterparts in two countries where public assistance has historically been far *less* generous—a comparison that we believe is of current interest, given that the recent overhaul of the U.S. welfare system was explicitly designed to decrease unmarried mothers’ reliance on government support (Blank, 1997).

There are, of course, additional cultural and institutional factors that distinguish the U.S. from Brazil and Chile (as well as from most other countries, including those in Europe). For example, as we show in our empirical analysis, Brazilian and Chilean women are more likely than their U.S. counterparts to live with family members or to cohabit with male partners, presumably because these activities are more socially acceptable in South America than in the U.S. As with any cross-country comparison, we cannot control for the many factors that differentially affect outcomes across countries. However, we assess the status of each type of mother relative to married mothers *in her own country*, thus netting out many unobserved, country-specific factors; we then compare these relative, within-country rankings across the three countries. Moreover, we use Brazil and Chile for our comparison because they are among the most developed countries in South America.<sup>2</sup> In 1998, Chile and Brazil ranked 71<sup>st</sup> and 72<sup>nd</sup> in the world, respectively, in per capita gross national product, while the U.S. ranked tenth (World Bank, 1999). Chilean women lag only 2.1 years behind American women in average schooling levels, while female labor force participation rates in Brazil are only 10 percentage points behind those of American women.<sup>3</sup>

A limitation of our approach is that it does not account for the fact that each mother chooses her “type,” and that these choices are influenced by unobserved factors that also affect household income. As a result, we cannot use the observed income of never married, employed mothers who live independently (for example) to predict how an observationally equivalent *nonemployed* mother would fare if she were to begin working. What we can do is provide answers to the following questions. First, how do mothers in Brazil, Chile, and the U.S. differ with respect to their choices of marital status, living arrangements, and employment status? Do these choices appear to be consistent with the relative lack of public income assistance in Brazil and Chile? Second, conditional on their choices, which unmarried mothers fare the best relative to their married counterparts? At the low end of the income distribution—where the absence of a social safety net is most likely to be felt—do unmarried mothers in Latin America who hold jobs and/or co-reside with other adults succeed economically? Among relatively affluent mothers for whom the availability of welfare is unimportant, do we observe cross-country differences in the relative status of unmarried mothers?

### **Literature Review**

As noted in the preceding section, we do not explicitly model the process by which women determine their employment status, welfare participation, and household composition. We also take as given the marriage, divorce, and fertility decisions that lead to unmarried motherhood, but we note that in the U.S., increases in divorce rates and nonmarital childbearing during the last four decades led to a dramatic rise in the number of unmarried mothers (Bumpass, 1990; Wojtkiewicz, McLanahan, & Garfinkel, 1990). The growing numbers of unmarried mothers and their high poverty rates are motivating factors for research on their decisions with respect to employment, welfare participation, and living arrangements. In the remainder of this section, we briefly review the literature that examines these decisions.

Many analysts have examined the decision-making process by which unmarried mothers choose their living arrangements. The desire to maximize economic resources is generally viewed as a driving force behind these decisions. In most respects, unmarried women who choose to co-reside with other adults are expected to receive economic gains that are similar to those received by married women (Becker, 1981; Weiss, 1997)—that is, they are expected to increase their subfamilies’ consumption

levels by exploiting the scale economies, opportunities for specialization, and risk pooling available in multiple-adult households. The sociological literature stresses the value of emotional support and networking opportunities associated with co-residence (Hao & Brinton, 1997; Uehara, 1990). Co-residence can potentially decrease the well-being of a mother and her children if, for example, they reside with abusive individuals. However, the encouragement, social contacts, and childcare assistance provided by household members might make it easier for a single mother to locate and keep a job. Preferences for privacy and proximity to family are also likely to affect a woman's choice of living arrangements; the importance of these factors has been examined primarily in the context of older parents' living arrangements (Elman & Uhlenberg, 1995; Wolf & Soldo, 1988). In light of the tremendous variation in living arrangements seen across countries (Lloyd & Desai, 1992), it is important to recognize that cultural and social norms are likely to play important roles as well.

Within the extensive literature on women's living arrangements, particular attention has been paid to the joint nature of household formation and welfare-related decisions made by unmarried mothers in the U.S. One line of research focuses on a specific feature of the now-defunct AFDC program, whereby some states reduce benefits for recipients who live with other adults. Hutchens, Jakubson, and Schwartz (1989) find that women are more likely to head their own household the larger is this downward adjustment to benefits, although the effect is extremely small. More generally, analysts take the view that income provided by the government and by members of the woman's household (including in-kind assistance) are close substitutes, and ask whether one "crowds out" the other. Several studies (Folk, 1996; Hao, 1995; London, 2000; Rosenzweig & Wolpin, 1994) provide evidence that the availability of welfare benefits leads to a decrease in parental assistance.

There is a clear consensus in the literature that both the probability of employment and women's overall work effort decline as government income assistance increases. This relationship is predicted unambiguously by a standard, static model of labor supply and is supported by a substantial body of empirical research (see Danziger, Havemen, & Plotnick, 1981 and Moffitt, 1992 for overviews). The relationship between unmarried mothers' living arrangements and their employment decisions has received relatively little attention and is not clearly established theoretically or empirically. On one hand, household members might provide childcare that, in the context of a static labor supply model, creates a substitution effect toward increased work effort. On the other hand, increased income provided by

household members has the same income effect as government assistance, and therefore contributes to decreased work effort. Hao and Brinton (1997) provide evidence that unmarried mothers who reside with their parents are more likely than others to enter productive activities (defined as employment or schooling), although they are not necessarily more likely to sustain such activities (see also Kolodinsky & Shirey, 2000).

In short, there is ample theoretical and empirical support for the notion that unmarried mothers' decisions with respect to employment, welfare participation and living arrangements are dependent on each other. Moreover, each decision is clearly an important determinant of economic well-being. To our knowledge, no study has attempted to model all three dimensions of unmarried mothers' choice sets simultaneously, let alone estimate the decision-making structure jointly with income. That is beyond the scope of our paper. We adopt a very simple strategy of taking all choices as given and assessing their relationships to household income. Our approach is in the spirit of Casper, McLanahan, and Garfinkel (1994), Folk (1996), Hao (1996), and London (2000), all of whom use a measure of economic well-being as the outcome of interest, and assess its relationship to women's marital status, parental status and/or living arrangements.

## **Method**

### *Household Survey Data*

Our data come from three large-scale, household surveys. The data for Brazil are from the Pesquisa Nacional por Amostra de Domicílios (PNAD). For Chile we use the Encuesta de Caracterización Socioeconómica Nacional (CASEN), and for the U.S. we use the Current Population Survey (CPS). All three surveys use multistage stratified samples of housing units that are intended to be nationally representative, although in both the PNAD and CASEN the population living in remote, hard to reach areas is excluded from the primary sampling units.

The PNAD has been conducted annually since 1967. We use the September 1995 survey, which covers 85,270 households and 334,263 individuals. A substantial number of households in Brazil do not have a telephone, so all interviews are conducted in person; a single respondent provides information for all members of his or her household. Relative to other household surveys such as the CPS, the PNAD survey instrument is unusually long. In the 1995 PNAD, in addition to the usual

modules on identification and general characteristics of household members and their dwellings, there are modules on migration, education, child labor, extra schooling, labor and income, marital history, and fertility.

The CASEN has been conducted approximately every other year, beginning in 1985. We use data from the November 1996 survey, which is the sixth in the series. The 1996 CASEN covers 33,561 households and 134,262 individuals. Interviews are conducted in person, and the CASEN differs from the CPS and PNAD in that all household members present at the time of the interview are questioned; a “knowledgeable adult” responds for other household members only when those members are not present. Thus, information on such issues as schooling, earnings, and income is potentially more accurate in the CASEN than in other household surveys.

The CPS is a monthly survey that uses a 4-8-4 rotation scheme: households selected into the sample are interviewed for four months, rotated out of the sample for eight months, and interviewed for an additional four months before leaving the sample permanently. We use data from the March 1996 CPS, which covers 49,682 households and 130,476 individuals. Both personal and telephone interviews are used by the CPS, and computer assisted interviewing has been used exclusively since 1994. The March survey—also known as the Annual Demographic Supplement—collects data on individuals’ demographic characteristics, household composition, and employment and unemployment activities, and also collects the most detailed income information of any monthly component of the CPS.

### *Sample Selection*

We use the following selection criteria for all three data sets. First, we delete men from the samples. The literature on unmarried mothers’ economic well-being often focuses on the gender inequality in household income associated with divorce and nonmarital childbearing, so we could use men as a benchmark. However, because our outcome variable is defined at the household level, it is identical for married women and their husbands. Women in our age range often have older (and, therefore, out-of-sample) husbands, so we obtain a better measure of married women’s *and* men’s household income by basing it on a sample of women.

Second, we delete nonmothers from the samples. Women are classified as mothers if they have biological, adopted, and/or step-children under age 18 living in their household. Women who only have

older children living in their household or who have no children living in their household (except, perhaps, those belonging to others) are excluded from the sample.

Third, we confine the analysis to women ages 18 to 40. Women in this age range form a suitable group on which to focus, for they have high rates of cohabitation and divorce while continuing to have young children living at home. We choose 18 years of age as our lower cut-off to facilitate our cross-country comparison. Typical school-leaving ages and the age at which individuals can legally marry are lower in Brazil and Chile than in the U.S., so by including very young mothers we would introduce additional cross-country variation that is largely due to cultural and institutional differences between North and South America.

Our selection criteria yield a sample of 39,835 women for Brazil, 16,911 women for Chile, and 13,003 women for the U.S. Based on the 1995 PNAD, the total population of Brazil is estimated to be 152,374,608, with 28,153,892 women in the age range (18-40) of our sample members. The 1996 CASEN estimates the total population of Chile to be 14,232,244 and estimates the number of women ages 18-40 to be 2,741,179. Estimates based on the 1996 March CPS put the total U.S. population at 263,510,368 and the number of women age 18-40 at 46,550,715. Based on these estimated populations of age-eligible women, our samples contain 0.14% of the population for Brazil, 0.62% for Chile, and 0.03% for the U.S.

### *Variables*

The measure of economic well-being used throughout our analysis is total household income per adult equivalent, defined as

$$INCAE = \frac{TOTINC}{(A + 0.75K)^{0.75}} . \quad (1)$$

The numerator in (1) is income from earnings and all other sources summed over all individuals in the sample members' households except live-in domestic help. The PNAD and the CASEN provide all components of income for the month preceding the interview date, so our income measure refers to August 1995 for PNAD and October 1996 for CASEN; both measures are net of income taxes. Our measure of total household income based on the CPS refers to annual income for calendar year 1995; this measure includes subsidies provided through the Earned Income Tax Credit. *TOTINC* is measured in hundreds of reals for Brazil, thousands of pesos for Chile, and thousands of dollars for the U.S.

Because scale economies and age-specific needs affect the amount of income allocated to each household member, we convert our measure of total household income into adult equivalent units. A standard way to define adult equivalents is  $(A+\alpha K)^\beta$ , where  $A$  is the number of adults in the household,  $K$  is the number of children, and  $\alpha$  and  $\beta$  are the weights placed on children's consumption (relative to adults') and total household size, respectively. We define adults as individuals age 18 and over and, following evidence reported in Citro and Michael (1995) and Deaton and Paxson (1998), use  $\alpha=\beta=0.75$  as our weights.

Variables such as (1) are the most commonly used outcomes in studies that assess the economic well-being of individual household members (Easterlin, Macdonald, & Macunovich, 1990; Fuchs, 1986; Sabelhaus & Manchester, 1995). Despite their popularity, they have a number of limitations. First, self-reported income measures are likely to be error-ridden. Second, because household income often fluctuates from one period to the next, the level reported at a given point in time does not necessarily provide an accurate measure of a household's "permanent" resources. Third, income measures abstract from the household's assets and debts and, again, can potentially provide an incomplete picture of the resources available for household consumption. Fourth, adult equivalent income measures such as (1) implicitly assume that household resources are divided equitably among household members. Research summarized in Lloyd and Desai (1992) suggests that throughout the developing world, the share of household resources allocated to a mother-child subfamily may depend on such factors as the mother's relationship to the household head and the head's gender. Data on household wealth and consumption would enhance our analysis, but the PNAD, CASEN, and CPS do not collect the detailed information we would require.

We use four marital status categories to classify women: married, cohabiting, never married, and a composite category that includes separated, divorced, and widowed (hereafter referred to as divorced). We combine divorced and separated into a single category because they cannot be distinguished in the PNAD, but also because they are generally viewed as conceptually indistinct states. We include widows in this group because there are not enough (fewer than 1.5% of each sample) to warrant a separate category. In the PNAD and the CASEN, we define each woman's marital status directly from questions on household members' current marital status—in these surveys, cohabiting is among the valid responses to these questions. In the CPS, cohabiting is not a valid response to the marital status

questions, so we infer this status from the household roster. The variable describing each household member's relationship to the head of household includes the category "unmarried partner of head of household." As a result, if a woman who is not the household head cohabitates with a man who is not the household head, we can potentially classify her as never married or divorced.<sup>4</sup>

We further characterize our sample members according to their living arrangements. Following a number of recent studies (Folk, 1996; London, 1998 & 2000) we use categories based on each woman's household composition, rather than on designations of household or subfamily heads. Among women who are neither married nor cohabiting, we distinguish between those who are the only adult in the household, those living with their parent(s) and possibly other adults, and those living with other adults but not their parents. We also make these distinctions for married and cohabiting women, but for most of our analysis we form two groups consisting of all married women and all cohabiting women, regardless of their living arrangements.

To identify living arrangements, we rely on each survey's household roster and variables that describe the relationship of each household member to the household head. In the PNAD, this information is somewhat limited. In describing each household member's relationship to the head, the designations used are spouse/partner, child, other relative, non-relative, boarder, maid, and relative of maid. In order to establish whether a woman is living with her parents when neither the woman nor the parent is the head of the household, we use a separate variable that identifies each household member's mother if she lives in the household. Thus, if a woman lives with her father but not her mother and neither the woman nor her father are the household head, we classify her as "living with other adults." In the CASEN and CPS the variable describing the relationship of each household member to the head of household is coded in detail, so we are confident that we correctly classify each woman's living arrangement. In the CPS, when neither the woman nor one of her parents is the household head, we turn to a variable that identifies each household member's parent when the parent lives in the same household. Unlike the variable in the PNAD that only identifies mothers, the CPS variable identifies fathers as well.

We create a number of additional covariates for inclusion in our income models. In order to examine the interaction between marital status, living arrangement, and employment status, we define a dummy variable (*EMP*) indicating whether each woman is employed. For women in Brazil and Chile we

also identify years of job tenure, but this information is unavailable in the March CPS. Tenure reports are missing for a small number of cases in the CASEN, so for that sample we add a dummy variable to identify missing data; the tenure variable is set to zero for nonreported cases. Because women's employment opportunities might be influenced by their geographic locations, we include a dummy variable indicating whether each woman lives in an urban area or, in the U.S., a metropolitan statistical area. For women in Brazil and the U.S., we create dummy variables to indicate race; CASEN does not identify race because the Chilean population is extremely racially homogeneous. We also control for each woman's age, schooling level and, for Brazil and Chile only, whether she is literate. In addition, we control for the number of children in various age categories in each woman's household. In contrast to our total household income variable (*TOTINC*), which measures income over the last calendar year or over the month preceding the interview month, the values of all other variables are measured at approximately the time of the interview.

### *Modeling Household Income*

To assess the relationships between young mothers' household income and their employment status, marital status, and living arrangements, we estimate the following model:

$$\ln(INCAE)_i = \mathbf{a} + \mathbf{b} EMP_i + \sum_{j=1}^7 \mathbf{g}_j C_{ji} + \sum_{j=1}^7 \mathbf{d}_j C_{ji} EMP_i + \mathbf{y}' Z_i + \mathbf{e}_i. \quad (2)$$

The dependent variable in our model,  $\ln(INCAE)$ , is the natural logarithm of household income per adult equivalent for woman  $i$ . The covariates include a dummy variable ( $EMP$ ) that equals one if the woman is employed and zero otherwise, and seven dummy variables ( $C$ ) that characterize each woman according to her marital status and living arrangement. We use the same 8-way classification scheme described above; all married women are the omitted group. We also control for several additional covariates ( $Z$ ) that are related to household income, including the woman's age and schooling level, and the number of children of different ages living in the household. Unobserved factors that influence the dependent variable are described by the error term  $\mathbf{e}$ . We estimate (2) separately for each country-specific sample of mothers.

Our model specification characterizes each mother according to the interaction of her marital status, living arrangement, and employment status. As a result, equation (2) identifies the differences in predicted, log household income between mothers whose levels of  $Z$  are identical, but who differ in

these other dimensions. In particular, the estimates of  $\mathbf{g}$  are interpreted as the gaps in predicted, log household income between nonemployed mothers in each of the seven unmarried categories and their nonemployed, married counterparts. The estimates of  $\mathbf{d}$  identify the amount by which these unmarried-married gaps change among employed women.

We estimate equation (2) for each country using both ordinary least squares (OLS) and the quantile regression technique of Koenker and Bassett (1978). Whereas OLS identifies the relationship between each explanatory variable and the conditional mean of log household income, quantile regression identifies these relationships at points of our choosing in the conditional distribution of the dependent variable.<sup>5</sup> Given the low-income status of many unmarried mothers in the U.S. and elsewhere, we choose to estimate these relationships for quantile 0.1 in the conditional distribution of log household income. For comparison, we also obtain estimates at the upper tail of the distribution (quantile 0.9) and at the median.

We do not argue that  $EMP$  and  $C$  are exogenous determinants of the dependent variable in equation (2). A complex decision-making process leads each woman to choose her employment status, marital status, and household composition; in all likelihood, these choices depend not only on her age, number of children, and other observed factors, but also on unobserved factors ( $\epsilon$ ) that influence household income. Thus, we do not interpret our estimates of  $\mathbf{g}$  and  $\mathbf{d}$  as *causal* effects of employment and marital status–living arrangement categories on log household income. We simply ask how our measure of economic well-being differs across mothers, conditional on the choices they have made.

## Results

### *Descriptive Analysis*

In this section, we ask how the mothers in these three countries differ with respect to their marital status and living arrangements, and how the various “types” of mothers differ in terms of such characteristics as employment status, schooling, and household income. This description of the data is informative in its own right, and also motivates our specification of household income models.

Table 1 classifies the women in our samples according to their marital status and living arrangements. Focusing first on the marital status categories we find, unsurprisingly, that the majority of mothers in each country are married: in our samples, the marriage rates are 58.5% in Brazil, 65.4% in

Chile, and 71.5% in the U.S. The relatively low marriage rates in Brazil and Chile are more than offset by high rates of cohabitation. Our data reveal that 25% of Brazilian mothers and 15% of Chilean mothers cohabit, while in the U.S. only 4.4% of mothers fall into this category. Among subsamples of unmarried mothers, cohabitation is the most common marital status in Brazil and Chile (accounting for 60.4% and 43.3% of unmarried mothers, respectively) and the least common in the U.S. When we combine mothers who cohabit or are married, the three countries look quite similar with 76-84% of all mothers having a husband or partner. “Never married” is a relatively uncommon status in Brazil, where it accounts for only 4.4% of all mothers and 10.5% of unmarried mothers. In contrast, close to 40% of unmarried mothers in Chile and the U.S. are never married. When it comes to women who are divorced, Chile is the outlier: only 6% of all mothers in Chile are divorced, compared to 12-13% in Brazil and the U.S. In the U.S., divorce accounts for the largest portion (45.5%) of unmarried mothers. The patterns seen in table 1 are consistent with two well-established empirical regularities (Bumpass, 1990; Goldman & Pebley, 1981): Latin American mothers substitute cohabitation for other marital states to a greater extent than their U.S. counterparts, while divorce is a prominent cause of unmarried motherhood in the U.S.

Turning to women’s living arrangements, it is apparent from table 1 that most never married mothers in Brazil and Chile live with other adults—especially their parents—whereas in the U.S. the majority live independently with their children. In Brazil, 3.1% of all mothers are never married and living with their parents (and possibly other adults), while 0.7% are never married and living with other adults (but not their parents). All told, 86% (3.8/4.4) of Brazilian mothers in the never married category share their household with related or unrelated adults. In Chile, 89% of never married mothers reside with parents or other adults, while in the U.S. only 46% do so. A similar pattern is seen among divorced women, although in all three countries divorced mothers are more likely than never married mothers to live independently. Even among married and cohabiting mothers, it is fairly common for Brazilians and Chileans to share their households with additional adults. In summary, table 1 reveals that mothers in Brazil and Chile are slightly more likely than those in the U.S. to live with a husband or partner, and *significantly* more likely to live with parents and/or other adults: among unmarried mothers, only 14.1% of Brazilians and 10.2% of Chileans live alone with their children, compared to 52.3% of Americans.

For the remainder of the analysis we categorize women according to both their marital status and living arrangements, using an eight-way taxonomy. We subset never married and divorced women into the three living arrangement categories shown in table 1. The remaining two groups consist of all cohabiting women and all married women, regardless of their living arrangements. In tables 2-4 we present summary statistics computed within each category for each of the three countries.

Tables 2-4 show that employment rates vary systematically across marital status/living arrangement categories, but with a number of striking differences between the three countries. In Brazil, mothers who are most likely to be employed are those living alone (regardless of marital status) and divorced women living with other adults; 74-79% of women in these categories are employed. At the opposite extreme are cohabiting and married mothers, whose employment rates are 46% and 54%, respectively. Chile is similar to Brazil in that never married women living alone are the most likely to work and cohabiting and married women are the least likely to work. The employment rate among both cohabiting and married mothers in Chile is only about 28%, which is significantly lower than the rate seen for any other group.<sup>6</sup> A different pattern is seen among mothers in the U.S.: divorced mothers who live alone or with adults other than parents have the highest employment rates (70-73%) while never married women, regardless of their living arrangements, have the lowest rates (49-52%).

Employment status is likely to be tied to schooling attainment and urban status (an indicator of job availability), so we assess the group-specific means of these variables as well. Cohabiting women in Brazil and Chile not only have the lowest employment rates of any group, but they also have the lowest mean levels of schooling and relatively low rates of urbanization. In the U.S., never married mothers have relatively low mean schooling levels to match their very low employment rates, but they are highly concentrated in urban areas. With the exception of these “low employment” groups, however, the patterns in employment, urbanization and schooling do not closely track each other.

Tables 2-4 also reveal that in all three countries, married mothers are older than cohabitators, on average, and within each living arrangement category the average age of divorced mothers exceeds the average age of their never married counterparts. Moreover, among never married and divorced mothers, those who live with their parents have the lowest average age of any living arrangement category. In short, the mean ages shown in tables 2-4 are consistent with life-cycle behavior: as they age, mothers tend to transit from cohabitation to marriage and from parental households to alternative

living arrangements. Turning to household size, we find that the average number of children in the household is *not* strictly related to the mothers' average ages. The average cohabiting woman in Brazil and Chile has at least as many children in her household as her married counterpart, despite being younger. In the U.S., never married women tend to be younger than their divorced counterparts, yet they typically have more children living in their households.

In the bottom portion of tables 2-4, we summarize our household income variables. Whether we use total household income (*TOTINC*) or the natural logarithm of household income expressed in adult equivalents (*INCAE*), the group-specific means are substantially lower for mothers who live alone than for other groups. This pattern holds for all three countries. In both Brazil and the U.S., married mothers have the highest mean income levels of any group. In Chile, the mean incomes among divorced mothers living with their parents and married mothers are roughly equivalent, and both are considerably higher than the means for any other group.

In addition to presenting the mean levels of  $\ln(INCAE)$  in tables 2-4, we also show the levels corresponding to quantiles 0.10, 0.50 and 0.90. By comparing these points in the unconditional income distributions for each subsample of unmarried mothers to the benchmark sample of married mothers, we detect a number of interesting patterns. First, the largest gaps are generally found at quantile 0.90 for Brazil and Chile, and at quantile 0.10 for the U.S. For example, in the U.S. the gap in  $\ln(INCAE)$  between married mothers and divorced mothers living with their parents is 0.56 (8.83-8.27) at quantile 0.10, but less than 0.30 at the other two quantiles we examine. In Brazil and Chile, this same gap is close to zero at quantile 0.10, but rises to 0.52 for Brazil and 0.22 for Chile at quantile 0.90.<sup>7</sup> Second, as the preceding example illustrates, unmarried mothers in Brazil and Chile occasionally achieve parity with married mothers. Third, at each point in the distribution and for each country, the largest gaps in log household income (relative to married women) almost always belongs to mothers living independently with their children.

In the bottom rows of tables 2-4, we compute the mean fractions of total household income (*TOTINC*) coming from alternative sources. Not surprisingly, in each country the mean fraction due to the mothers' own earnings is considerably higher among women who live alone than among any other group—by definition, these mothers forego the potential income contributions of other adult household

members. The average fraction of *TOTINC* coming from own earnings ranges from 0.43 to 0.62 among mothers living alone in the three countries.

In addition to examining own earnings as a source of household income, we also consider public and private transfer income. The “all transfers” category for Brazil refers to income from alimony and child support, public and private “pensions” (including government assistance programs) that are unrelated to retirement, and donations from individuals outside the household. The “government subsidies” and “welfare” categories for Chile and the U.S. refer to income from government-provided cash assistance programs. In the U.S., we are also able to consider child support as a separate category.<sup>8</sup> The data summarized in tables 2-4 confirm our earlier claims about the institutional differences between these three countries. Chilean women receive very little income via government support, and the amount received (4-7% of total income, on average) appears to be largely independent of marital status and living arrangement. Among Brazilian mothers living alone, the average woman receives 22-29% of her income from a combination of government and private (non-household) sources; in general, divorced women receive slightly more support than do never married women. Welfare is a more prominent source of income in the U.S. than in either Brazil or Chile, but is largely confined to women who live independently—especially never married mothers who, on average, receive 35% of their household income from welfare.

In summary, the statistics in tables 2-4 reveal a striking contrast between mothers in the U.S. and those in Brazil and Chile. In the U.S., never married mothers (regardless of their living arrangement) are characterized by low employment rates and low levels of schooling. They are concentrated in urban areas, are disproportionately black, and appear to bear children at earlier ages, on average, than women who marry or cohabit. These women—especially the ones living independently with their children—tend to rely more heavily on welfare as a source of income than do other mothers. In short, these are the low-skill, low-earnings mothers who are the focus of much concern in the U.S. public policy arena. In Brazil and Chile, fewer than 14% of never married mothers live alone (versus 55% in the U.S.) and these women look very different than their U.S. counterparts. Along with many of the divorced mothers in all three countries, they tend to have high employment rates and high schooling levels. With little access to welfare, it stands to reason that never married mothers in Brazil and Chile choose to live alone—and thereby forego the financial assistance of other household members—only

when they can rely on their own earnings. When we compare household income for each unmarried group to the income of their married counterparts, however, mothers who live alone consistently fare the worst in all three countries. These mothers combine both ends of the spectrum in terms of their apparent skill levels and labor market orientation, but more often than not their levels of household income lag far behind those of women who share their households with other adults. We pursue these findings further in the rest of the paper.

### *Multivariate Analysis*

Table 5 contains estimates of  $\gamma$ , the vector of coefficients associated with each marital status-living arrangement variable in equation (2). These estimates identify the predicted differences in log household income between mothers in each unmarried group and the omitted group of married mothers, conditional on each woman being nonemployed and having identical levels of all other observed characteristics. Table 6 presents estimates of  $\delta$ , the coefficients for the interactions between each marital status-living arrangement indicator and the employment status variable. They indicate the amount by which each predicted gap in log income shown in table 5 changes for a subsample of employed women. Estimates for the remaining coefficients in equation (2) ( $\mathbf{a}$ ,  $\mathbf{b}$  and  $\mathbf{y}$ ) are in table A-1. Although each table includes OLS estimates, we do not discuss them because they are very similar to the median estimates.

Table 5 reveals that nonemployed mothers who live independently with their children lag far behind observationally equivalent married mothers in predicted household income. Regardless of which country and which point in the conditional income distribution we consider, the gaps for women who live alone—whether never married or divorced—are much larger than the predicted gaps for any other group. In the Brazilian data, for example, the estimated coefficient at quantile 0.10 for never married, “only adult” mothers is -4.231. At this point in the conditional income distribution, this group’s predicted household income is 99% ( $\exp(-4.231)-1$ ) less than the predicted income for their married counterparts. This particular income differential is the largest one seen in our data, but the pattern is clear: for each country and for each point in the distribution, conditional household income is lower for mothers who live alone than for any other group.

Table 6 indicates that in most cases, the incremental effect of employment is substantially *larger* for mothers living alone than for any other group—yet mothers who live alone continue to fare the worst relative to observationally equivalent married mothers even when we focus on employed women. Again using the quantile 0.10 estimates for Brazil as an illustration, we see that employment is associated with a 3.751 increase in the log income of never married mothers who live alone *relative* to married mothers. Nonetheless, the estimated difference in log income between never married, employed mothers who live alone and their married counterparts remains negative and large in absolute value; this gap is  $-0.480$  ( $-4.231+3.751$ ), and the corresponding gap for divorced mothers living alone is also  $-0.480$  ( $-3.851+3.371$ ). For the other groups of unmarried mothers (focusing on the same country and quantile), the estimated income differences range from  $-0.040$  for cohabitators to  $-0.218$  for divorced mothers living with other adults. With one exception, this pattern holds for each country and each quantile: among employed mothers, those who live alone have the lowest predicted levels of income. (The one exception is seen in the quantile 0.90 estimates for Chile, where divorced mothers living with others and never married mothers living with their parents do worse than divorced mothers living alone.)

Aside from being strikingly large, the log-income gaps between mothers who live alone and married mothers exhibit a number of interesting characteristics. At quantile 0.10, these estimated gaps among nonemployed women are much larger in Brazil and Chile than in the U.S. Whereas the predicted household income of Brazilian and Chilean mothers who live alone is 94-99% less than that of married mothers, the corresponding gap is “only” 75-80% in the U.S. Mothers who are unmarried, living alone, and nonemployed typically have no other sources of income besides welfare, and the relatively favorable status of mothers in the U.S. may reflect the higher levels of government support available to them. At the same time, it is worth recalling that there are far more U.S. mothers in this category than there are Brazilians or Chileans. Turning to employed women, the ranking just discussed is reversed: at quantile 0.10, the estimated log-income gaps are largest in the U.S. and smallest in Brazil. This reversal arises because the estimated marginal effects of employment are extremely large for Brazil and Chile, but much smaller for the U.S. Among never married mothers living alone, these marginal effects (shown in table 6) are 3.751 for Brazil and 2.340 for Chile, but only 0.373 for the U.S. With the exception of never married women in the U.S., mothers who choose to live alone have substantially higher household income (relative to married mothers) when they are employed. As suggested by the evidence in tables

2-4, their earnings ability is presumably what makes them willing to forego the income assistance of other household members.

While mothers living alone consistently compare the least favorably to married mothers, cohabitators tend to compare the best. Focusing first on nonemployed mothers, table 5 shows that the difference in predicted log income between cohabitators in Brazil and their married counterparts ranges from -0.086 at the lowest quantile to -0.060 at the highest. Among Chilean women, these income gaps range from -0.121 to zero. In the U.S., the gap is as large as -0.253 at the lowest quantile, but only -0.079 (and statistically indistinguishable from zero) at quantile 0.90. Turning to table 6, we find that the estimated marginal effects of employment are quite small in absolute value, and statistically insignificant (using conventional significance levels) in most cases. In short, whether we consider employed or nonemployed women, cohabiting and married mothers are revealed to have virtually identical levels of predicted household income once other factors are held constant; the largest gaps, seen among women in the U.S., are in the range of 20%. Our earlier summary of the data showed marked differences between the observed characteristics of these two groups: cohabiting mothers are younger than married mothers, on average, and in Brazil and Chile cohabitators tend to have low schooling and employment levels. Once these factors are held constant, however, the income differences between the two groups disappear.

Among the two categories of unmarried mothers that we have yet to discuss, those who live with their parents typically have higher predicted income levels than those who live with “other” adults. This is *always* true for divorced women. For each country, each quantile, and each employment status, we predict that a divorced mother living with her parents has more household income per adult equivalent than any other divorced mother. Of course, her predicted income still lags behind that of a comparable married mother in most cases. For the U.S. we also predict that among never married mothers, those who live with their parents have higher levels of household income than do the other two “types.” For Brazil and Chile, this ranking holds only at quantiles 0.10 and 0.50; at the upper quantiles, never married mothers who live with other adults fare better than those living with their parents.

In focusing on mothers who live with their parents, we find three additional, noteworthy patterns. First, in the U.S., the gap in predicted household income between mothers who live with their parents and married mothers decreases sharply as the quantile increases. In fact, regardless of marital status

(never married or divorced) and employment status, the estimated income gap vanishes at quantile 0.90—the predicted income levels of married mothers, cohabiting mothers, and mothers who live with their parents are indistinguishable at this point in the conditional distribution. This pattern is likely to reflect the bimodal nature of this particular group of unmarried mothers: at the top of the income distribution are those who reside with two, often affluent, parents and at the bottom of the distribution are unmarried mothers living with their own (predominantly black, low-income) unmarried mothers.<sup>9</sup>

Second, in light of the pattern just described, we find that the predicted income gap between mothers who live with their parents and married mothers is slightly larger in the U.S. than in Brazil or Chile at quantiles 0.10 and 0.50, but smaller in the U.S. at quantile 0.90. We expect low-income Brazilian and Chilean mothers to rely on their parents for financial support to a greater extent than their American counterparts for whom welfare is also a viable alternative. Our findings indicate that, indeed, living with parents is associated with slightly higher income levels (relative to married mothers) in Brazil and Chile than in the U.S. at quantile 0.10. Third, we find that the estimated effects of employment shown in table 6 are generally small (or zero), and occasionally negative among mothers who live with their parents—that is, mothers who live with their parents do not gain relative to married mothers by being employed. Together, these findings suggest that unmarried mothers typically choose to live with their parents because their parents can provide ample income. Mothers who live with their parents generally fail to gain household income relative to married mothers by being employed, so it does not appear that this living arrangement facilitates increased labor market effort.

The predicted log income of mothers who live with “other” adults generally falls between the predicted levels of those living alone and those living with parents. Among the nonemployed, the predicted gaps between women in this category and their married counterparts are larger in the U.S. than in Brazil and Chile. In a sense, nonemployed mothers who live with others look more like mothers living alone in the U.S., and more like mothers living with their parents in Brazil and Chile. This is not true among employed mothers, for the incremental effect of employment is generally larger for women in the U.S. than for their Latin American counterparts.

## Conclusions

The mothers in our country-specific samples make dramatically different choices with respect to employment, marital status and living arrangements. For the most part, the cross-country differences that we observe are consistent with the fact that unmarried mothers in the U.S. have a viable source of income (welfare transfers) that mothers in Brazil and Chile lack. For example, unmarried mothers in the U.S. are far more likely to live independently with their children than are mothers in Brazil and Chile, where living with parents, male partners, and/or other adults is the norm. When unmarried mothers *do* live alone in Brazil and Chile, they typically have high employment rates and high levels of schooling—clearly, this is a select group of women who are oriented toward labor market activity. In the U.S., never married mothers are characterized by low employment levels and low schooling attainment, and those living alone receive more than a third of their total household income from welfare, on average.

Despite cross-country differences in the probability that a mother is a certain “type,” the relationship between “type” and household income is remarkably stable across countries. In all three countries, mothers who live alone (whether never married or divorced) have the lowest levels of predicted log income and married mothers have the highest. The predicted log income of cohabiting mothers never lags far behind that of married mothers, and is generally indistinguishable from that of married mothers at the high end of the income distribution. These patterns hold for both employed and nonemployed mothers. Moreover, our quantile regression estimates reveal that these patterns exist at various points in the household income distribution.

The patterns shown by our quantile regression estimates do not always prevail across the entire income distribution. A notable exception is seen among mothers who live with their parents. In the U.S., the gap in predicted household income between mothers who live with their parents and married mothers declines as one moves from the left tail to the right tail of the income distribution, and disappears entirely at quantile 0.90. The same gaps for Brazil and Chile follow a distinct U-shaped pattern as the quantile increases.

To offer a “bottom line” on the status of low-income, unmarried mothers, we summarize the findings from our quantile regression estimates for the 10<sup>th</sup> percentile in the conditional income distribution. Among unmarried, nonemployed mothers who live alone, predicted household income in Brazil and Chile is about 95% less than that of observationally equivalent married mothers; in the U.S.,

the corresponding gap is around 75%. The proportion of mothers falling into this category is far greater in the U.S. than in Brazil and Chile, but it appears that the availability of government assistance in the U.S. has some role in improving these women's relative financial status. Among unmarried, *employed* mothers who live alone, the predicted unmarried-married income gap is 38% in Brazil, 47% in Chile, and 50-60% in the U.S. The incremental effect of employment is much greater in Brazil and Chile than in the U.S., presumably because Latin American mothers with weak job skills do not choose to live alone. Most of them choose to live with family: we find that, among nonemployed mothers who live with their parents, the unmarried-married gap in predicted household income is around 25% in Brazil, 30% in Chile, and 50% in the U.S.

There are differences between Brazil, Chile, and the U.S. that we have not taken into account. Nonetheless, our results appear to be consistent with predictions that were often heard during recent debates over welfare reform in the U.S. Low-income, unmarried mothers who succeed in substituting employment or family support for welfare may do relatively well under the new regime, while those who cannot make the substitution are likely to sink further into poverty. Given our data constraints, we are unable to assess the speed and degree to which needy mothers substitute employment or family assistance for public support. We are also unable to determine whether income generated by alternative sources (maternal employment, welfare, family assistance, *etc.*) has identical effects on maternal well-being and various child outcomes. Because knowledge of both issues can directly inform U.S. welfare policy, we believe they are worthy of additional research.

## Notes

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1. Korzeniewicz (2000), Psacharopoulos & Tzannatos (1992) and Richter (1988) are examples of studies that compare Latin American countries, but none includes North American countries in their comparison.
2. Argentina and Uruguay have higher per capita income than Brazil and Chile (World Bank, 1999), but we choose to focus on Brazil and Chile because their data are of higher quality than what is available for any other Latin American country. For example, the household surveys conducted in Argentina and Uruguay sample urban areas only, and no country other than Brazil, Chile, and Venezuela has data that directly identifies subfamilies within households.
3. We compute these statistics for samples of women age 18-40 in each country. Mean schooling levels are 6.8 in Brazil, 10.9 in Chile, and 13.0 in the U.S, while the labor force participation rates are 62.6, 44.7 and 73.1, respectively; sampling weights are used for these calculations. We discuss the data in detail in the methods section.
4. We examined the data in detail to gauge the extent of the potential undercount of women who are cohabiting. In our sample, approximately 50 unmarried women are not household heads, are ages 18-40, and live with their children in households with at least one man who is not the household head, is not married, is not the unmarried partner of the household head, and is not a relative of the woman in question. Judging by the ages of these men, it appears that only a handful of these women are likely to be cohabiting.
5. OLS finds the coefficient estimates that minimize the sum of squared residuals, while quantile regression is a generalization of median regression, which uses the minimized sum of absolute residuals as the objective function. As such, quantile regression belongs to the class of estimation methods known as least absolute deviation. To account for potential heteroskedasticity in the residuals, we compute standard errors using bootstrap resampling, as described in Gould (1992). See Koenker and Bassett (1978) and Buchinsky (1994, 1998a, 1998b) for additional details on the estimation method.
6. For each cross-category difference in means that we highlight in reference to tables 2-4, we reject the null hypothesis that the difference in means is zero using a 10% significance level.

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7. There is far more income inequality in Brazil than in either Chile or the U.S. Moreover, wealthy households are more likely to be in the “married mother” subsample than in any other subsample. As a result, it is not surprising that in Brazil the 90th percentile in the “married mother” income distribution greatly exceeds the 90th percentiles in the other income distributions.

8. Each survey’s method for releasing income data dictates which components of total income we are able to consider. In the Brazilian data, income from alimony, child support, and public and private (nonretirement) pensions is combined into a single variable, and donations from persons outside the household form a separate variable. The Chilean data do not include a variable that identifies income from child support and alimony.

9. Using 1986 CPS data, Winkler (1993) finds that 35% of unmarried mothers living in multi-family households live with a related single female (typically their mothers), while 28% live with a related married couple (typically their parents).

**TABLE 1**  
**Percent of Mothers in Each Marital Status - Living Arrangement Category, by Country**

	Brazil		Chile		U.S.	
	Full sample	Unmarried sample	Full sample	Unmarried sample	Full sample	Unmarried sample
<b>Never married</b>						
Only adult in household	0.6	1.4	1.6	4.5	6.0	20.9
Live with parents <sup>a</sup>	3.1	7.6	10.2	29.3	3.4	11.8
Live with other adults <sup>b</sup>	0.7	1.6	1.9	5.6	1.8	6.4
All never married	4.4	10.5	13.6	39.3	11.2	39.1
<b>Divorced</b>						
Only adult in household	5.3	12.7	2.0	5.7	9.0	31.4
Live with parents <sup>a</sup>	4.2	10.2	2.8	8.0	1.6	5.7
Live with other adults <sup>b</sup>	2.6	6.2	1.2	3.6	2.4	8.4
All divorced, separated/widowed	12.1	29.1	6.0	17.3	13.0	45.5
<b>Cohabiting</b>						
Live with partner only <sup>c</sup>	20.0	48.2	10.1	29.3	4.0	14.1
Live with partner, other adults <sup>d</sup>	5.0	12.2	4.9	14.1	0.4	1.4
All cohabiting	25.0	60.4	15.0	43.3	4.4	15.5
<b>Married</b>						
Live with spouse only <sup>c</sup>	48.3	—	46.0	—	62.6	—
Live with spouse, other adults <sup>d</sup>	10.3	—	19.3	—	8.9	—
All married	58.5	—	65.4	—	71.5	—
Sample size	39,835	16,516	16,911	5,860	13,003	3,712

*Note.* Samples consist of women ages 18-40 with own children under age 18 living in the household.

<sup>a</sup> No spouse or partner is present. Respondent lives with parents, and possibly with other adults.

<sup>b</sup> No spouse, partner, or parent is present. Respondent lives with other related or unrelated adults.

<sup>c</sup> Spouse or partner is only other adult living in household. U.S. married sample includes 58 women whose spouse is absent from the household.

<sup>d</sup> Respondent lives with spouse or partner, plus other related or unrelated adults. The sample of U.S. married women includes 71 women whose spouse is absent from the household.

**TABLE 2**  
**Characteristics of Mothers in Brazil, by Marital Status - Living Arrangement Category**  
**(Sample means and standard deviations are shown, unless noted otherwise)**

	Never married			Divorced			Cohab- iting	Married
	Only adult	Parents	Other adults	Only adult	Parents	Other adults		
1 if employed	.76	.58	.66	.79	.63	.74	.46	.54
Job tenure in years	3.82 (5.37)	1.93 (3.37)	2.65 (4.96)	3.66 (4.94)	2.19 (3.91)	3.67 (5.22)	1.93 (3.87)	3.12 (5.10)
1 if live in urban area	.87	.88	.91	.91	.88	.92	.84	.80
Schooling level in years	6.59 (4.34)	6.36 (3.64)	6.07 (3.59)	6.18 (4.19)	6.27 (3.80)	5.48 (3.94)	5.04 (3.58)	6.57 (4.10)
1 if white	.45	.43	.39	.48	.43	.43	.42	.59
1 if brown	.46	.50	.52	.45	.51	.50	.52	.38
1 if nonwhite, nonbrown	.09	.07	.09	.07	.06	.07	.06	.03
Age in years	30.91 (5.86)	25.16 (5.67)	27.44 (6.42)	32.55 (5.10)	27.66 (5.96)	33.70 (5.62)	28.77 (6.01)	31.39 (5.57)
Household size:								
Children (age<18)	1.67 (1.05)	2.94 (1.94)	2.72 (1.65)	2.29 (1.24)	3.10 (1.99)	2.69 (1.61)	2.39 (1.43)	2.34 (1.30)
Adults (age≥18)	1.00 (.00)	4.24 (1.48)	3.29 (1.42)	1.00 (.00)	4.01 (1.50)	2.61 (.99)	2.37 (.93)	2.28 (.75)
Household income (TOTINC) <sup>a</sup>	409.12 (918.13)	757.39 (1174.91)	656.20 (684.71)	394.04 (643.51)	783.89 (852.21)	585.09 (604.29)	568.17 (935.56)	824.34 (1200.3)
Ln(INCAE) <sup>b</sup>	4.82 (1.07)	4.88 (.86)	4.92 (.87)	4.77 (1.03)	4.94 (.87)	4.92 (.85)	4.84 (.94)	5.17 (1.05)
.10 quantile	3.67	3.87	3.85	3.57	3.87	3.85	3.70	3.86
.50 quantile	4.61	4.87	4.85	4.64	4.89	4.92	4.79	5.13
.90 quantile	6.25	5.90	6.05	6.17	6.04	6.05	6.00	6.56
Fraction of TOTINC due to:								
Own earnings	.59 (.45)	.14 (.19)	.19 (.24)	.49 (.44)	.16 (.21)	.26 (.30)	.11 (.21)	.10 (.20)
All transfers	.22 (.376)	.08 (.18)	.07 (.19)	.29 (.38)	.11 (.20)	.16 (.26)	.02 (.11)	.01 (.06)
Sample size	224	1,250	265	2,098	1,687	1,020	9,971	23,320

*Note.* Samples consist of women age 18-40 with own children under age 18 living in the household.

<sup>a</sup> Income of all household members except live-in domestic help, plus 1, in 100s of reais.

<sup>b</sup> INCAE is TOTINC divided by  $(A+.75K)^{.75}$ , where A is the number of adults and K is the number of children living in the household.

**TABLE 3**  
**Characteristics of Mothers in Chile, by Marital Status - Living Arrangement Category**  
**(Sample means and standard deviations are shown, unless noted otherwise)**

	Never married			Divorced			Cohab-	Married
	Only adult	Parents	Other adults	Only adult	Parents	Other adults	iting	
1 if employed	.74	.51	.54	.65	.65	.64	.27	.28
Job tenure in years	2.28 (3.82)	1.02 (2.74)	1.23 (3.27)	1.97 (3.94)	1.47 (3.42)	1.55 (3.21)	.65 (2.40)	.88 (2.83)
1 if live in urban area	.86	.68	.74	.86	.85	.88	.71	.76
Schooling level in years	9.52 (3.03)	9.92 (3.22)	9.21 (3.16)	10.46 (3.40)	10.79 (3.23)	9.28 (3.39)	8.65 (3.09)	9.88 (3.39)
Age in years	31.92 (5.28)	26.92 (6.03)	29.26 (6.49)	33.53 (4.41)	30.35 (5.74)	35.15 (4.93)	29.47 (6.31)	31.46 (5.58)
Household members:								
Children (age<18)	1.84 (1.02)	2.40 (1.48)	2.43 (1.43)	2.22 (1.09)	2.32 (1.29)	2.55 (1.47)	2.25 (1.26)	2.24 (1.10)
Adults (age≥18)	1.00 (.06)	4.06 (1.51)	3.30 (1.28)	1.00 (.05)	3.72 (1.25)	2.76 (1.00)	2.70 (1.30)	2.56 (1.08)
Total household income (TOTINC) <sup>a</sup>	102.50 (102.27)	305.01 (490.02)	259.90 (294.51)	185.77 (375.29)	361.39 (455.04)	248.74 (356.31)	245.55 (367.25)	324.69 (465.80)
Ln(INCAE) <sup>b</sup>	3.67 (.97)	4.10 (.75)	4.02 (.80)	3.88 (1.18)	4.30 (.84)	3.97 (.96)	4.03 (.85)	4.27 (.92)
.10 quantile	2.65	3.26	3.14	2.71	3.32	3.11	3.13	3.27
.50 quantile	3.72	4.09	4.06	3.85	4.28	4.00	4.01	4.21
.90 quantile	4.79	4.99	5.00	5.35	5.20	4.99	5.08	5.42
Fraction of TOTINC due to:								
Own earnings	.62 (.40)	.16 (.21)	.21 (.28)	.49 (.40)	.21 (.23)	.30 (.31)	.09 (.17)	.09 (.18)
Government subsidies	.07 (.15)	.05 (.10)	.05 (.10)	.05 (.14)	.04 (.11)	.05 (.15)	.04 (.09)	.04 (.09)
Sample size	262	1,716	327	335	471	209	2,539	11,052

*Note.* Samples consist of women age 18-40 with own children under age 18 living in the household.

<sup>a</sup> Income of all household members except live-in domestic help, plus 1, in 1000s of pesos.

<sup>b</sup> INCAE is TOTINC divided by  $(A+.75K)^{.75}$ , where A is the number of adults and K is the number of children living in the household.

**TABLE 4**  
**Characteristics of Mothers in the U.S., by Marital Status - Living Arrangement Category**  
**(Sample means and standard deviations are shown, unless noted otherwise)**

	Never married			Divorced			Cohab- iting	Married
	Only adult	Parents	Other adults	Only adult	Parents	Other adults		
1 if employed	.50	.49	.52	.70	.61	.73	.63	.65
1 if live in MSA	.70	.70	.74	.61	.63	.63	.55	.61
Schooling level in years	11.84 (1.87)	11.88 (1.53)	11.10 (2.47)	12.49 (2.14)	12.11 (1.93)	12.02 (2.33)	11.87 (2.16)	12.82 (2.56)
1 if white	.48	.52	.57	.78	.76	.78	.83	.89
1 if black	.49	.43	.38	.19	.19	.18	.12	.06
1 if nonwhite, nonblack	.03	.05	.05	.03	.05	.04	.05	.05
Age in years	28.63 (5.58)	24.73 (5.58)	28.60 (6.29)	33.33 (4.88)	30.40 (5.86)	34.29 (5.18)	29.06 (6.05)	32.64 (5.17)
Household members:								
Children (age<18)	1.98 (1.16)	2.26 (1.51)	2.28 (1.41)	2.05 (1.05)	2.00 (1.06)	2.21 (1.32)	1.87 (1.11)	2.10 (1.03)
Adults (age≥18)	1.00 (.00)	3.22 (1.17)	2.39 (.73)	1.00 (.00)	2.95 (.89)	2.28 (.66)	2.12 (.42)	2.17 (.59)
Total household income (TOTINC) <sup>a</sup>	13.83 (21.02)	38.10 (27.96)	30.49 (33.88)	20.42 (18.83)	44.18 (32.25)	35.27 (31.36)	38.72 (31.18)	53.43 (46.39)
Ln(INCAE) <sup>b</sup>	8.53 (.93)	9.14 (.76)	8.94 (.95)	8.93 (1.00)	9.33 (.79)	9.22 (.76)	9.40 (.75)	9.67 (.79)
.10 quantile	7.41	8.17	7.81	7.80	8.27	8.24	8.41	8.83
.50 quantile	8.48	9.25	9.04	9.07	9.46	9.22	9.48	9.73
.90 quantile	9.63	10.01	10.05	9.98	10.21	10.05	10.23	10.49
Fraction of TOTINC due to:								
Own earnings	.43 (.39)	.14 (.20)	.23 (.26)	.56 (.36)	.23 (.24)	.34 (.28)	.26 (.23)	.23 (.22)
All sources of welfare	.35 (.41)	.08 (.18)	.18 (.30)	.15 (.31)	.05 (.13)	.08 (.21)	.06 (.16)	.01 (.09)
Child support	.03 (.10)	.01 (.04)	.02 (.07)	.08 (.16)	.03 (.07)	.04 (.08)	.02 (.05)	.00 (.03)
Sample size	775	438	237	1,166	212	311	573	9,291

*Note.* Samples consist of women age 18-40 with own children under age 18 living in the household.

<sup>a</sup> Income of all household members except live-in domestic help, plus 1, in 1000s of dollars.

<sup>b</sup> INCAE is TOTINC divided by  $(A+.75K)^{.75}$ , where A is the number of adults and K is the number of children living in the household.

**TABLE 5**  
**Estimated Coefficients for Marital Status - Living Arrangement Categories,**  
**from OLS and Quantile Regressions of Log Household Income**

Marital Status–Living Arrangement Category <sup>a</sup>	OLS		.10 quantile		.50 quantile		.90 quantile	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Never married	Brazil							
Only adult in household	-1.676***	.127	-4.231***	.172	-.989***	.116	-.285	.163
Live with parents	-.142***	.042	-.264***	.058	-.164***	.039	-.273***	.055
Live with other adults	-.311***	.098	-.426***	.135	-.310***	.089	-.054	.128
Divorced								
Only adult in household	-1.206***	.045	-3.851***	.062	-.698***	.041	-.568***	.058
Live with parents	-.139***	.038	-.264***	.053	-.165***	.035	-.205***	.050
Live with other adults	-.394***	.058	-.479***	.080	-.316***	.053	-.300***	.076
Cohabiting	-.071***	.016	-.086***	.022	-.068***	.015	-.060***	.021
Never married	Chile							
Only adult in household	-1.297***	.095	-2.971***	.124	-.971***	.093	-.757***	.141
Live with parents	-.171***	.029	-.263***	.041	-.113***	.030	-.219***	.046
Live with other adults	-.233***	.065	-.345***	.088	-.235***	.066	-.196*	.100
Divorced								
Only adult in household	-1.180***	.073	-2.890***	.099	-.758***	.074	-.745***	.113
Live with parents	-.268***	.061	-.395***	.084	-.181***	.062	-.292***	.095
Live with other adults	-.629***	.090	-.828***	.121	-.440***	.091	-.516***	.138
Cohabiting	-.058***	.020	-.121***	.028	-.057**	.021	.002	.032
Never married	U.S.							
Only adult in household	-1.293***	.048	-1.405***	.074	-1.105***	.035	-.914***	.055
Live with parents	-.322***	.062	-.516***	.096	-.223***	.045	-.011	.071
Live with other adults	-.645***	.083	-.986***	.125	-.561***	.060	-.533***	.095
Divorced/separated/widowed								
Only adult in household	-1.229***	.049	-1.622***	.075	-1.048***	.036	-.832***	.056
Live with parents	-.272***	.096	-.489***	.146	-.317***	.069	-.106	.110
Live with other adults	-.570***	.095	-.942***	.142	-.638***	.068	-.505***	.108
Cohabiting	-.197***	.061	-.253**	.093	-.218***	.045	-.079	.070

*Note.* Coefficients correspond to  $\beta$  in equation (2). See tables 6 and A1 for additional estimates.

<sup>a</sup>All married mothers form the omitted group.

\*p=.05; \*\*p=.01; \*\*\*p=.005

**TABLE 6**  
**Estimated Coefficients for Marital Status - Living Arrangement Categories Interacted with**  
**Employment Status, from OLS and Quantile Regressions of Log Household Income**

Marital Status–Living Arrangement Category <sup>a</sup>	OLS		.10 quantile		.50 quantile		.90 quantile	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Never married			Brazil					
Only adult in household	1.177***	.146	3.751***	.198	.415***	.133	-.270	.188
Live with parents	-.095	.055	.084	.075	-.057	.050	-.065	.071
Live with other adults	.064	.120	.246	.166	.038	.110	-.200	.157
Divorced								
Only adult in household	.751***	.051	3.371***	.070	.236***	.047	.105	.067
Live with parents	-.025	.048	.190***	.067	.005	.044	-.044	.063
Live with other adults	.132*	.067	.261***	.093	.020	.062	.028	.088
Cohabiting	.027	.022	.046	.031	.008	.021	.030	.029
Never married			Chile					
Only adult in household	.586***	.111	2.340***	.147	.263*	.112	.023	.169
Live with parents	-.201***	.041	-.047	.058	-.249***	.042	-.227***	.066
Live with other adults	-.153	.089	-.080	.120	-.158	.090	-.040	.137
Divorced								
Only adult in household	.655***	.091	2.238***	.124	.146	.092	.352*	.142
Live with parents	-.023	.077	.159	.106	-.147	.078	.004	.121
Live with other adults	.184	.114	.312*	.154	.027	.115	.045	.176
Cohabiting	-.044	.039	.054	.053	-.040	.039	-.098	.062
Never married			U.S.					
Only adult in household	.662***	.065	.373***	.098	.601***	.047	.445***	.074
Live with parents	.109	.084	.185	.128	.007	.061	-.009	.097
Live with other adults	.366***	.113	.462**	.171	.305***	.082	.541***	.130
Divorced								
Only adult in household	.635***	.058	.903***	.089	.549***	.042	.390***	.067
Live with parents	.112	.123	.030	.187	.153	.089	.123	.141
Live with other adults	.199	.111	.472***	.167	.260***	.080	.249*	.127
Cohabiting	.185*	.077	.174	.116	.182***	.056	.110	.088

*Note.* Coefficients correspond to  $d$  in equation (2). See tables 5 and A1 for additional estimates.

<sup>a</sup> All married mothers form the omitted group.

\*p=.05; \*\*p=.01; \*\*\*p=.005

**TABLE A1**

**Additional Estimates from OLS and Quantile Regressions of Log Household Income**

Covariate	OLS		.10 quantile		.50 quantile		.90 quantile	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Brazil								
Constant	4.047***	.064	3.335***	.064	4.127***	.042	4.888***	.062
1 if employed	.270***	.014	.303***	.019	.188***	.013	.097***	.018
Job tenure	-.001	.001	-.005**	.002	.000	.001	.003*	.002
1 if live in urban area	.499***	.013	.603***	.018	.526***	.012	.442***	.018
1 if schooling level is 0	-.194***	.030	-.229***	.042	-.173***	.028	-.106**	.043
1-3	-.194***	.016	-.204***	.023	-.168***	.015	-.172***	.021
5-7	.143***	.015	.140***	.021	.135***	.014	.184***	.020
8-10	.416***	.017	.341***	.023	.379***	.015	.497***	.022
11 or more	1.007***	.016	.746***	.022	.972***	.015	1.280***	.021
1 if literate	.176***	.028	.127***	.039	.176***	.026	.304***	.040
1 if brown	-.324***	.010	-.303***	.014	-.311***	.009	-.311***	.013
1 if nonwhite, nonbrown	-.323***	.022	-.282***	.031	-.299***	.020	-.263***	.029
Age	.017***	.001	.012***	.001	.016***	.001	.018***	.001
Number of children age 0-5	-.217***	.006	-.228***	.009	-.202***	.006	-.201***	.008
age 6-9	-.163***	.007	-.171***	.009	-.164***	.006	-.149***	.009
age 10-17	-.095***	.006	-.097***	.008	-.092***	.005	-.093***	.008
Pseudo R <sup>2</sup> (adjusted R <sup>2</sup> for OLS)	.386		.204		.262		.302	
Sample size	39,835		39,835		39,835		39,835	
Chile								
Constant	3.650***	.061	2.828***	.086	3.753***	.061	4.425***	.096
1 if employed	.399***	.020	.420***	.029	.401***	.020	.256***	.031
Job tenure	.016***	.003	.015***	.004	.016***	.003	.026***	.004
1 if job tenure unknown	.207***	.028	.174***	.039	.189***	.028	.264***	.043
1 if live in urban area	.132***	.015	.167***	.021	.157***	.015	.137***	.023
1 if schooling level is 0-8	-.550***	.019	-.498***	.026	-.485***	.019	-.629***	.029
8	-.413***	.021	-.313***	.029	-.394***	.021	-.499***	.033
9-11	-.222***	.018	-.182***	.024	-.199***	.018	-.284***	.028

Note. Continued on next page.

**Table A1 Continued**

Covariate	OLS		.10 quantile		.50 quantile		.90 quantile	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
1 if schooling level is 13 or more	.494***	.021	.309***	.029	.465***	.021	.694***	.033
1 if literate	.320***	.040	.408***	.055	.259***	.040	.390***	.061
Age	.014***	.001	.012***	.002	.011***	.001	.015***	.002
Number of children age 0-5	-.111***	.010	-.133***	.013	-.126***	.010	-.086***	.015
age 6-9	-.112***	.010	-.125***	.014	-.120***	.010	-.112***	.016
age 10-17	-.086***	.009	-.119***	.012	-.097***	.009	-.044***	.014
Pseudo R <sup>2</sup> (adjusted R <sup>2</sup> for OLS)	.309		.153		.185		.216	
Sample size	16,911		16,911		16,911		16,911	
<b>U.S.</b>								
Constant	8.801***	.061	8.218***	.097	8.846***	.044	9.359***	.067
1 if employed	.288***	.019	.415***	.030	.250***	.014	.094***	.023
1 if live in MSA	.129***	.016	.146***	.024	.141***	.012	.154***	.018
1 if schooling level is 0-8	-.488***	.034	-.544***	.052	-.474***	.025	-.445***	.040
9-11	-.269***	.027	-.317***	.042	-.259***	.020	-.201***	.032
13-15	.207***	.019	.198***	.029	.172***	.014	.173***	.022
16	.485***	.025	.462***	.038	.429***	.018	.515***	.028
17 or more	.669***	.043	.670***	.065	.600***	.032	.708***	.050
1 if black	-.216***	.025	-.248***	.038	-.183***	.018	-.163***	.029
1 if Hispanic	-.114***	.036	-.197***	.054	-.125***	.026	.031	.041
Age	.026***	.002	.021***	.003	.026***	.001	.031***	.002
Number of children age 0-5	-.172***	.011	-.154***	.018	-.156***	.008	-.162***	.013
age 6-9	-.179***	.012	-.156***	.018	-.158***	.008	-.160***	.014
age 10-17	-.170***	.011	-.150***	.016	-.165***	.008	-.196***	.013
Pseudo R <sup>2</sup> (adjusted R <sup>2</sup> for OLS)	.345		.272		.281		.231	
Sample size	13,003		13,003		13,003		13,003	

\*p=.05; \*\*p=.01; \*\*\*p=.005

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