Trends in the Economic Consequences of Marital and Cohabitation Dissolution

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Abstract

Mothers utilize a combination of employment, public transfers, and private safety nets to cushion the economic losses of romantic union dissolution, but changes in maternal labor force participation, government transfer programs, and private social networks may have altered the economic impact of union dissolution over time. Using nationally representative panels from the Survey of Income and Program Participation (SIPP) from 1984 to 2007, we show that the economic consequences of divorce have declined since the 1980s, due to the growth in married women's earnings and their receipt of child support and income from personal networks. In contrast, the economic consequences of cohabitation dissolution were modest in the 1980s but have worsened over time; cohabiting mothers' income losses associated with dissolution now closely resemble those of divorced mothers. These trends imply that changes in marital stability have not contributed to rising income instability among families with children, but trends in the extent and economic costs of cohabitation have likely contributed to rising income instability for less-advantaged children.

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The economic standing of women and their children declines sharply in the wake of divorce. Since the 1980s, a large body of literature has estimated declines in women's household incomes ranging from 23% to 40% one year after a divorce (Galarneau and Sturrock 1997; Weiss 1984; Weitzman 1985; Duncan and Hoffman 1985; Hoffman 1977; Mott and Moore 1978; Bianchi and McArthur 1991; Smock, Manning, and Gupta 1999; Holden and Smock 1991; Avellar and Smock 2003; but see McKeever and Wolfinger 2001). The economic losses associated with divorce have negative implications for adult and child wellbeing, including poorer psychological and physical health, lower academic achievement, and more behavioral problems (see Amato 2000; McLanahan, Tach, and Schneider 2013 for reviews). In the early 20th century, few marriages ended in divorce so these negative effects were confined to a small segment of the population, but by the close of the 20th century over 40% of children experienced parental divorce (Schoen and Canudas-Romo 2006). If we add children living with unmarried parents to these estimates, parental union dissolution is now a modal experience for American youth (Andersson 2002). Because nonmarital childbearing and divorce are more common among groups disadvantaged by virtue of their race and socioeconomic status, scholars have argued that union dissolution has contributed both to rising inequality and to the reproduction of inequality across generations (Bramlett and Mosher 2002; McLanahan 2004; McLanahan and Percheski 2008).

Since the mid-20th century, however, large-scale transformations within labor markets and public safety net programs may have altered the economic impact of union dissolution. Maternal labor force participation has grown markedly, increasing women's contributions to household income and, perhaps, their ability to alter their labor supply in response to a divorce.

Some government transfer programs, like cash welfare (AFDC/TANF), have become less effective safety nets while others, like food stamps (SNAP) and the Earned Income Tax Credit (EITC), have expanded. Child support enforcement regulations have strengthened, and private social networks remain an important source of financial and instrumental support.

Prior research has not examined whether the economic consequences of union dissolution have changed in response to these large-scale changes in employment-based, public, and private safety nets. Virtually all previous work has studied the economic effects of divorce for a single cohort of women or at a single point in time, and the vast majority of this work considers only marital dissolutions (see Avellar and Smock 2003 for an exception to the latter point). This paper addresses these gaps in the literature by using multiple panels of the Survey of Income and Program Participation (SIPP) to track changes in the economic consequences of dissolution from the 1980s through the 2000s, a period encompassing dramatic changes in labor markets and government transfer programs. We track changes in the short-term economic consequences of martial and cohabitation dissolution, and examine changes in how mothers use employment and public and private transfers to buffer the economic shock of a relationship dissolution.

BACKGROUND

Marital and nonmarital relationships in the United States are uniquely unstable relative to other industrialized nations. By age 15, 35% of children born to married parents and 78% of children born to unmarried cohabiting parents have witnessed their parents' unions dissolve (Andersson 2002). The stability of marriages and cohabitations declined during the 20th century, before leveling off in recent decades (Goldstein 1999; Raley and Bumpass 2003). The probability that a marriage would end in divorce increased steadily before reaching a plateau in 1990, when about 45% of marriages were predicted to end in divorce (Schoen and Canudas-

Romo 2006). Cohabitation has also become slightly less stable since the 1980s (Bumpass and Lu 2000), but this trend has stalled in recent decades for cohabiters with children (Kennedy and Bumpass 2011; Musick and Michelmore 2012).

The Economic Effects of Union Dissolution

Most prior research on the economic effects of union dissolution has examined changes in mothers' and fathers' household incomes after divorce within a single cohort. This work finds that mothers experience significant drops in household income following a divorce, and a substantial number fall in to poverty. Estimates of the decline in women's household income one year after divorce range from 23% to 40% (Galarneau and Sturrock 1997; Weiss 1984; Weitzman 1985; Duncan and Hoffman 1985; Hoffman 1977; Mott and Moore 1978; Bianchi and McArthur 1991; Smock, Manning, and Gupta 1999; Holden and Smock 1991; but see McKeever and Wolfinger 2001). Although initial incomes differ, income losses from divorce are similar in proportional terms for higher- and lower-income households and across racial-ethnic groups (Smock 1994; Bianchi, Subaiya, and Khan, 1999).

The economic effects of divorce are less severe for men, although researchers identify more heterogeneous effects for them than they do for women. Whereas some studies reported substantial gains for men after marital dissolution (Smock 1994), others reported small short-term gains (Galarneau and Sturrock 1997) and still others reported modest losses, particularly when the wife was the primary breadwinner (McManus and DiPrete 2001).

Couples who cohabit are significantly less likely to pool their incomes, have less-traditional gender role ideologies, and have lower levels of commitment than married couples do (Kenney 2004; Smock 2000). These differences, combined with the lower average socioeconomic standing of cohabiters relative to married couples, suggest that the economic costs of dissolution may be lower for cohabiting women than they are for married women. Most

studies have examined only marital unions or pooled marital and nonmarital unions together in the same analysis but, in a notable exception, Avellar and Smock (2003) examined the economic consequences of cohabitation and marital dissolution separately using data from the 1982 to 1994 waves of the National Longitudinal Survey of Youth-1979 Cohort (NLSY-79). They found that income losses associated with cohabitation dissolution were indeed smaller than losses following marital dissolution (33% versus 58%, respectively). Because married women had higher pre-dissolution incomes but lost more than cohabiting women, the levels of absolute income for married and cohabiting women were similar after the dissolution.

Two studies that draw conclusions about trends over time provide an important foundation for the current paper. First, Smock (1993) examined changes in the economic cost of divorce for an older cohort of women who divorced in the late-1960s to mid-1970s (from the NLSW 1968-1978) and a younger cohort of women who divorced in the 1980s (from the NLSY 1979-1988). Smock found that even though married women were working more in the younger cohort, the economic cost of divorce was large and changed little between the 1970s and the 1980s. Second, McKeever and Wolfinger (2001) analyzed the National Survey of Families and Households (NSFH), examining changes in income for married women in the first wave (1987-88) who divorced by the second wave (1992-94). They found a 14% drop in median per capita household income and, comparing their results to results from studies of older cohorts that used different datasets (which found income declines of around 40%), concluded that the economic costs of dissolution had declined between the 1960s and the 1980s. Other studies that have estimated the economic costs of dissolution in the 1980s using different data and measures have found substantially larger estimates of income loss after dissolution than McKeever and Wolfinger did (e.g., Avellar and Smock 2003; Smock et al. 1999), however, leaving long-term trends very much in question.

Safety Net Strategies

Men and women can take steps to mitigate the economic effects of union dissolution that come from losing a partner's income: they may alter their labor supply, obtain cash assistance from government programs, or draw on economic resources from their social networks. Large-scale changes in maternal labor force attachment and government cash transfer programs may have altered one's ability to use these sources to cushion the economic losses of union dissolution.

Labor Force Participation. Maternal labor force participation has more than tripled since the 1960s, when fewer than 20% of married women with children under age 6 were in the labor force; this fraction skyrocketed to over 70% by 2012 (Desai, Chase-Lansdale, and Michael 1989; Bureau of Labor Statistics 2013). Households with two working adults are now the modal family context, characterizing just over half of households with children in 2010 (Western et al. 2012). The gender pay gap for employed women relative to men has declined since the 1970s (despite a potential stall in recent years), and women and mothers are more likely to work full time and year round today than they were in the past (Blau and Kahn 2007; Cohen and Bianchi 1999).

If women's earnings became a larger share of pre-dissolution household income and a partner's income constituted a smaller share, dissolution might yield smaller declines over time in women's household incomes after dissolution, at least in proportional terms. In addition, stronger labor force attachment may make it easier for women to increase their labor supply in anticipation of, or response to, dissolution, although increasing labor supply post-dissolution raises household incomes only slightly (Moore 1979; Weiss 1984; Duncan & Hoffman 1985; Peterson 1989; Stirling 1989). This strategy is only available to women who are not working full-time, however, so it may be employed less frequently as women's pre-dissolution labor

supply increased. The disruption of a romantic union might also disrupt women's labor supply, however, by making child care unaffordable, for example, or prompting a residential move away from one's job, which would lead women to reduce rather than increase their labor supply in response to a dissolution.

The Public Safety Net. Given the correlation between family structure and poverty, single mothers are the disproportionate beneficiaries of means-tested government cash transfer programs in the United States (Dye 2004); these programs constitute a public safety net that mothers may draw upon to buffer the economic losses of union dissolution. Cash transfer programs – such as cash welfare (AFDC/TANF), the Earned Income Tax Credit (EITC), and Supplemental Security Income (SSI) – have undergone dramatic contractions and expansions since the 1980s. Cash welfare benefits—first through AFDC and later through TANF—became considerably less generous (Moffitt et al. 1998), and the introduction of the block grant system replete with diversions, sanctions, and time limits under the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996 reduced TANF caseloads and enrollment rates substantially (Parrott and Sherman 2006). Difficulties enrolling and maintaining eligibility have made TANF an even weaker safety net program than it was in the past, as evidenced most recently by the fact that caseloads barely rose during the recession (Pavetti et al. 2013).

The declining generosity of AFDC/TANF has been offset, at least in part, by the expanding eligibility and generosity of other cash transfer programs. The EITC, for low-to-moderate income workers, infuses a large cash transfer through the tax code that benefits primarily custodial parents; this refundable federal tax credit could be as large as $5,372 for a family with two children in 2013. Following expansions in the 1980s and 1990s, the EITC is now the largest anti-poverty program in the nation: it lifted almost 9.5 million adults and 5 million children out of poverty in 2011 (Marr et al. 2013). The EITC is not the only cash

transfer to expand in recent decades. The SSI rolls –means-tested cash assistance for disabled children and adults—have also expanded dramatically since the 1970s (Daly and Burkhauser 2003), driven by expanded disability definitions and state actions to transfer eligible recipients from TANF to the SSI caseloads (Wamhoff and Weisman 2006); near-cash, in-kind transfers like food stamps, housing subsidies, and subsidized medical insurance may also have helped to offset the declining generosity of TANF.

The cash transfer programs described here are potential resources that custodial parents—particularly low-income ones—can draw upon to cushion some of the income loss associated with union dissolution (Teachman and Paasch 1991). The declining generosity of TANF benefits has been at least partly (and, perhaps, fully) offset by other cash and in-kind transfer programs that boost the incomes of single parents. Because of these potentially offsetting trends, it is unclear whether the public safety net has become a more or less effective cushion in the wake of union dissolution than it was in the past.

In addition to government transfer programs, the government enforcement of child support laws—which regulate cash transfers from non-custodial to custodial parents—were strengthened in the wake of the 1984 Child Support Amendments, the 1988 Family Support Act, and the 1996 PRWORA. This legislation required states to withhold child support obligations from fathers' paychecks (first for fathers delinquent on payments and later for all fathers), strengthen paternity establishment requirements, and standardize support order formulas (Garfinkel et al. 2003; Cancian and Meyer 1996). As a result, instances of paternity establishment, child support awards to unmarried mothers, and total child support transfers to mothers have increased (Freeman and Waldfogel 2001). Because of this, we expect that mothers' receipt of child support in the wake of a union dissolution has increased over time.

The Private Safety Net. Single parents also rely on social networks—relatives, friends, and romantic partners—as informal sources of cash and in-kind assistance in times of need (Stack 1974; Edin and Lein 1997; Harknett 2006; Henley et al. 2005), including after a union dissolution. Even though cash and in-kind resources from networks play an important role in making ends meet (Edin and Lein 1997), researchers have found that financial transfers are scarcer across the social networks of low-income households and the amounts—both relative and absolute—tend to be small (Jayakody 1998; Roschelle 1997; Harknett 2006). Lower-income families are, however, more likely to reside in extended family households—with parents, boyfriends, or other relatives—than more advantaged families (Beck and Beck 1989; Henly 2002; Stack 1974), and this coresidence is an important economic coping mechanism. Indeed, moving in with a new romantic partner (through marriage or cohabitation) can return women's incomes to close to pre-dissolution levels (Holden and Smock 1991; Duncan and Hoffman 1985; Nestel et al. 1983; Peterson 1989; Stirling 1989; Morrison and Ritualto 2000; Smock et al. 1999). 'Doubling up' has become more common in recent decades (Mykyta and McCartney 2011), but no study has examined whether cash transfers from the private safety net have become more or less important financial resources over time, so it is unclear whether the private safety net has become a more or less important economic cushion following a union dissolution.

The Present Study

Given large-scale changes in the labor market and government transfer programs, the present study asks how the economic costs of union dissolution have changed over time. We contribute to existing research in several ways. First, we track changes in the economic cost of dissolution across a longer period of time than any prior study, from the 1980s through the 2000s, a period of dramatic change in labor markets and government transfer programs. Second, we track these changes for both marital and cohabitation dissolutions, contributing the first study

of the changing economic costs of cohabitation and allowing us to assess the changing relative economic costs of ending marriages and cohabitations. Third, we examine changes in the use of employment, government transfer programs, and private safety nets following dissolution, and compare whether married and cohabiting parents differ in the employment, public, and private safety net strategies they use to mitigate those costs. To the extent that the use of these safety net strategies varies by socioeconomic status, we also examine trends separately for more- and less-educated mothers. Finally, we use monthly income data to shed light on the short-run temporal dynamics of income change to examine how household income changes in anticipation of, and in response to, a union dissolution.

DATA AND METHOD

Data and Sample

We use data from multiple panels of the Survey of Income and Program Participation (SIPP), starting with the 1984 panel and ending with the 2004 panel (which concludes in 2007).[1] The SIPP is a nationally representative survey designed to provide comprehensive information about the sources of income and government program participation of individuals and households in the United States on a sub-annual basis. The survey is designed as a series of national panels, each lasting three to four years. Together, the panels provide almost-continuous coverage of the US household population since 1984, and, unlike other longitudinal surveys, each panel draws a new nationally-representative sample, which allows us to model change in

[1] We exclude the 2008 panel of the SIPP because it covers the recession; an analysis of how the costs of union dissolution changed during the recession is important but beyond the scope of the current paper, which focuses on long-term trends.

nationally representative dissolution cohorts over time, rather than focusing on a single cohort (for which age and period effects are confounded).[2]

In each SIPP panel, every member of the household age 15 or older was interviewed every four months and asked about their sources of income for each of the previous four months. This provides detailed information on types and changes in monthly income for each person in the household. All household members age 15 and older were interviewed directly if possible or by proxy response from another household member otherwise. The SIPP imputes item- and person- nonresponse in all waves.[3] A household roster indicates the relationship of each household member to the household head and monthly changes in the household roster are assessed at each survey. The SIPP follows all original sample members (who are present at the first survey wave) regardless of where they move in subsequent survey waves (unless they are institutionalized, in army barracks, or abroad), and they follow all children (under age 15) of these original sample members if they continue to live with an original sample member. The SIPP also surveys new individuals who live in households with original sample members over the course of the panel; these new individuals are not followed after they stop living with an original sample member.

In this paper, we focus on union dissolutions among households with children and our analyses provide estimates of the economic consequences of dissolution for households with children over time. We therefore use children as the unit of analysis and construct an analytic subsample of SIPP respondents in each panel who are the children of original sample members who are designated the household reference person or the spouse of a household reference person

[2] The tradeoff is that each panel of the SIPP is relatively short and we observe households for only several years, so we can only assess short-term economic consequences of union dissolution, not long-term consequences that might unfold years after dissolution.

[3] See Chapter 4 of the SIPP Users Guide for more information on imputation methods: http://www.census.gov/sipp/usrguide/sipp2001.pdf

in at least one survey wave of the panel.[4] We follow this subset of children from the survey wave they enter the sample until a) they turn 18 or b) they stop living with an original sample member. Because most children live with their mothers following a union dissolution and because of the different labor market prospects of men and women, we further restrict the sample to children who remain living with the female householder/spouse after dissolution; this excludes children who live with their fathers after dissolution as well as children who move out of the household and live with neither parent.[5]

Measures

Family Structure & Dissolution. In each month of the SIPP, we identify the adults living in the same household as the child and classify them as a) parent/household head, b) spouse of the household head, or c) unmarried partner of the household head. We use this information to construct a measure of family structure at each wave. Households are coded as *married* if a spouse of the household head is listed on the household roster. *Cohabiting* households are identified in two ways. In the 1996 and later panels, the SIPP asks directly about the presence of an unmarried partner of the household head. In the pre-1996 panels, their presence is inferred using the POSSLQ criteria established by the U.S. Census, which identifies adult "persons of opposite sex sharing living quarters" (Casper and Cohen 2001).[6] Finally, households are coded as *single parent* if there is no spouse, unmarried partner, or POSSLQ opposite sex adult living with the household head.

[4] We do this because the SIPP provides information on how each person in the household is related to the household reference person, but not how the other household members are related to one another. This means that our sample does not include children in SIPP households who are not the children of the household reference person or his/her spouse, such as children of other adult relatives in the household.

[5] A growing number of children live in father-only families or in shared-custody arrangements and it would be interesting to examine the economic consequences of dissolution for them as well; unfortunately, their numbers in the SIPP are too small to provide reliable estimates of trends over time, so we exclude them from the analysis.

[6] In a tiny fraction of cases (< 2%), there was more than one household member who met the POSSLQ criteria. In these cases, we selected the POSSLQ person who was closest in age to the household reference person. In supplemental analyses, we created a POSSLQ measure for the post-1996 panels as well; the results we present below are robust to either the POSSLQ or the unmarried partner definition of cohabitation.

We identify a *martial dissolution* as occurring in the month in which a household's family structure changes from married to any other household type and who report that either a separation or a legal divorce occurred. We identify *cohabitation dissolution* as occurring in the month in which one of the cohabiting partners no longer lives in the household with the child.[7] After we identify the month in which a cohabiting or marital dissolution occurred, we create a measure of time for each monthly observation that identifies the number of months before and after the dissolution.[8]

Household Income & Income Components. *Total monthly household income* is measured in each month by calculating the sum of the SIPP-generated total person income measures for each adult member of the household. To this, we add two important transfers that are not captured by the SIPP – the value of the Earned Income Tax Credit (EITC) and the cash value of housing subsidies (we describe these in more detail below). We adjust for household size and economies of scale by dividing total household income by the square root of household size (which approximates the EU-SILC, Luxembourg Income Study (LIS), and Canberra definitions employed by most rich nations (Kenworthy and Smeeding 2013)). As a result, our measure of the economic consequences of divorce adjusts for changes in household size and economies of scale. We adjust all income measures for inflation monthly to 2012 dollars using the Personal Consumption Expenditures Price Index (PCEPI).

We also disaggregate total household income into several components to determine how earnings, government transfers, and private transfers change before and after a union dissolution.

[7] Because there is no direct question about whether a cohabiting romantic relationship ended, cohabitation dissolution is inferred based on whether the person still lives in the household (not on the romantic status of the relationship).

[8] For a small sample of cases, we observe multiple marriages or cohabitations during a SIPP panel; for these cases, we include only the first observed marriage or cohabitation in our sample. We capture information about subsequent relationships and partners in our measures of economic recovery post-dissolution.

Appendix A provides a complete list of income sources included in each of these measures.[9] First, we created monthly measures of *male householder/partner earned income* and *female householder/partner earned income* from wages, salaries, or self-employment. Second, we created a measure of monthly *government cash transfers* that pools together government cash transfers received by all household members. The SIPP does not collect information on the amount of money received from the EITC, one of the largest government cash transfers, so we use data from the SIPP to calculate annual earned income, tax filing status, and qualifying children then, with the NBER TAXSIM program, use that information to estimate the amount of the EITC (Feenberg and Coutts 1993; Hotz and Scholz 2003). Over half of EITC claimants receive their refund in February (LaLumia 2013), thus we apply the EITC refund amounts to household incomes in the February following each tax year.[10]

To this measure of government cash transfers, we add measures of near-cash, in-kind transfers from food stamps and housing subsidies because these two programs reach large segments of the population and have large effects on material well-being.[11] The value of food stamps was ascertained directly in the SIPP, but the cash value of housing assistance was not and for this we follow conventions used in the construction of the Supplemental Poverty Measure (SPM) to estimate the cash value of housing subsidies (Johnson et al. 2010). For respondents who reported that they lived in a public housing project or that they paid lower rent because the federal, state, or local government paid part of the cost, we estimate the cash value of the housing subsidy in the months they received it by taking the difference between the average monthly Fair

[9] The SIPP topcodes each income measure to preserve confidentiality; see Appendix B of the SIPP Users Guide for more information on specific topcode values for each measure: http://www.census.gov/sipp/usrguide/sipp2001.pdf

[10] If we do not observe a household for a full tax year prior to the first observation of a February, we estimate annual income based on the average monthly earned income during the portion of the year that we do observe them. Our approach assumes a 100% take up rate of the EITC, which overstates actual receipt, but take up rates of the EITC are quite high – over 80% -- relative to other transfer programs (Berube 2005).

[11] Ideally, we would have liked to include the cash value of subsidized medical assistance from Medicaid and other sources, but the appropriate way to assign a cash value to medical benefits is hotly debated and there is no agreed-upon convention (see, for example, Wolfe 1998).

Market Rent (FMR) in a respondent's state of residence that year (FMR is typically 40% of the average rent), and 30% of the monthly household income (the rent payment required by most housing assistance programs).[12] This estimate represents the cash value of the housing subsidy, or the amount of additional rent the respondent would have to pay to rent their housing unit in the absence of the subsidy. Thus, our measure of government cash transfers includes all government sources of income reported in the SIPP plus the estimated value of the EITC and housing assistance. In addition, we created a measure of the amount of *child support and/or alimony* received each month. This includes reports of formal and informal cash support payments from non-custodial parents, but it does not include the cash value of in-kind support.

Third, we created several measures of income from private safety net sources. We created a measure of *private cash transfers* that pools together any income that a household member reported receiving from friends or relatives in that month. We also created a measure of *new partner income* for partners who enter the household following a union dissolution.[13] We identify the presence of a new partner either when a person identified as a spouse of the householder enters the household or when a person identified as an unmarried partner (post-1996) or as a POSSLQ (pre-1996) entered the household after the dissolution of the focal (i.e. first) union. Finally, we created a measure of *other adult income* for adults in the household other than the householder and the spouse/partner; this included primarily other relatives, such as siblings and parents of the householder, but also a small number of non-relatives. A non-zero

[12] FMR rates are published by HUD every calendar year and vary based on the number of bedrooms. We estimate the number of bedrooms for which a family is eligible using HUD guidelines for eligibility that are based on the number and sex of adult and child family members. FMR values are released for each metropolitan area, but the metropolitan locations of households are not publically available in the SIPP. The SIPP does report the state of residence, however, so we estimate a state-level FMR by calculating a population-weighted average FMR based on the FMRs and population sizes of all metropolitan areas in the state. In a small number of cases, the SIPP does not release the exact state of residence but groups several states into clusters for confidentiality purposes. In these cases, we construct an FMR for the state-cluster rather than for an individual state. If the implicit cash value of the subsidy is negative (which occurs if 30% of the household's income is greater than the FMR), we assign the cash value of the subsidy to be zero.

[13] This measure also includes income from former spouses/partners if the couple separates and later reunites. This occurred in only a small number of cases and was not sufficiently large to analyze as a separate category.

value on this measure indicates "doubling up," or sharing a household, with another income-earning adult who is not a romantic partner.[14]

Finally, we include a residual category for any *other income* that is not captured by one of the above income categories. This is constructed by subtracting each of the above income components from the measure of total household income; virtually all income in this category is income generated from assets, such as interest or dividends.

Method

The SIPP has the advantage of collecting monthly income data, but the disadvantage of having panels lasting only several years, so we track changes in household income during the 12 months prior to a union dissolution and the 12 months following the dissolution.[15] This allows us to observe fluctuations in income that occur in the year prior to and the year after the dissolution, adjusting for changes in the size of the household. In order to assess how union dissolution is related to changes in the monthly financial well-being of mothers and their children, we estimate the median percentage change in size-adjusted monthly household income relative to monthly income one year (i.e. 12 months) prior to the dissolution:

$$p_{it} = (y_{it}-y_{i-12})/abs(y_{i-12}) \quad (1)$$

where p_{it} is the proportional difference between size-adjusted monthly household income for household *i* in month *t* and size-adjusted monthly household income for household *i* at *t* = -12, or 12 months prior to the dissolution; *t* ranges from -12 (months before the dissolution) to 12 (months after the dissolution). These raw differences are translated into a proportional change in income by dividing them by the absolute value of monthly household income at *t* = -12, or 12

[14] We do not know how resources are pooled among the adults who share a household, so we cannot determine exactly how the other adults pool their income with the householder and her children.

[15] The decision to use a 12-month window before and after the dissolution is the result of a tradeoff – the longer we require this window to be, the more cases we exclude because we observe the dissolution too soon or too late in the panel to observe 12 months on either side of it. If we require a shorter window, we can include more cases that meet the criteria but we do not get as clear a sense of the time trend. Our sample sizes and the precision of our estimates change if we use a longer or shorter time window, but the substantive results are not sensitive to the decision to use a 12 month time frame.

months prior to dissolution, our base month, to calculate a proportional change. Thus, our results refer to the change in monthly household income that has occurred since one year prior to the dissolution, with positive values indicating growth in household income and negative values indicating declines in household income (adjusting for changes in household size).

We then estimate changes in this proportional household income measure as a function of time – tracking time as the number of months before and after the union dissolution. Because this proportional change measure is sensitive to extreme positive outliers—going from a low income in one month to a higher income in the next can result in very large proportional changes in income—we estimate the *median* percentage change in household income rather than the mean (Smock 1993). We do by estimating the quantile regression:

$$Q_{(\tau)it} = \alpha + \mathbf{B}_{i}(-11 \ldots -1) + L_{i}(0) + \mathbf{A}_{t}(1 \ldots 12) \qquad (2)$$

where τ equals .50 (the median) for household *i* in month *t*, α is the intercept (month 12 prior to dissolution), **B** is a vector of month dummies 11 months to 1 month prior to dissolution, *D* is a dummy variable indicating the month of dissolution, and **A** is a vector of month dummies 1 to 12 months after dissolution. We include month dummies to allow for a flexible functional form rather than imposing one on the data. Quantile regression is similar to OLS regression, except that it minimizes the sum of the absolute residuals instead of the sum of squared residuals and it estimates conditional medians instead of conditional means (Koenker 2005). Thus, this equation estimates the median change in household income in each month for one year before and one year after a dissolution, relative to month 12 (one year) prior to dissolution. To assess whether the economic consequences of union dissolution differ for married and cohabiting mothers, we estimate separate models for marital and cohabitation dissolution.

To assess whether the economic consequences of dissolution have changed over time, we pool across SIPP panels for each decade. The 1980s includes the 1984, 1985, 1986, 1987, and

1988 panels; the 1990s includes the 1990, 1991, 1992, 1993, and 1996 panels; and the 2000s includes the 2001 and 2004 panels. We pool across decades rather than estimate a separate equation for each SIPP panel for parsimony and because it yields sample sizes of cohabiters large enough for reliable and precise estimates, particularly in the early panels of the SIPP when the survey samples were smaller and cohabitation was less common.[16] We first estimate separate regressions for the 1980s, 1990s, and 2000s, and we then estimate a pooled equation that combines all decades and includes interactions between the monthly dummy variables and decade dummy variables (1990s and 2000s relative to 1980s) to test whether the monthly coefficients change significantly across decades. Positive signs on the coefficients of the interaction terms indicate that the economic cost of dissolution has declined over time, while negative signs on the coefficients indicate that the economic cost of dissolution has grown. We cluster our standard errors to account for the fact that we have repeated observations over time for the same child and, in some cases, for the fact that there are multiple children per household.

RESULTS

Table 1 reports the descriptive statistics for family structure and household income separately for married and cohabiting households in each decade. 79% of children in the SIPP lived in a married-parent family during the course of a calendar year in the 1980s, while only 73% did during the 2000s. In contrast, children's exposure to cohabitation increased, with just 3 % living in a cohabiting household during the course of a year in the 1980s and 5.5% doing so by the 2000s. Children living in married families were significantly less likely to experience a parental dissolution than children living in cohabiting households, with just 3% experiencing marital dissolution compared to 12% experiencing cohabitation dissolution in the 2000s. Consistent with

[16] In supplemental analyses we have estimated separate equations for each SIPP panel and found that our conclusions about trends over time were not driven by any single panel.

national trends, the stability of marriages changed little over this time period and cohabitations involving children became more stable.

[TABLE 1 ABOUT HERE]

Table 1 also reports monthly household income and income components 12 months prior to the dissolution. Children living in married families had higher mean monthly household incomes than children living in cohabiting families, although household incomes grew over time for both groups and the differences between them were smaller after adjusting for household size. Fathers' earned income was the largest component of total household income for both groups, followed by mothers' earned income, and both grew on average over time. In contrast, average monthly government transfer income was larger for cohabiting households than for married households, reflecting greater disadvantage among cohabiters. Child support/alimony income one year prior to dissolution was also larger for cohabiting households than for married households, as cohabiters were more likely to have children for whom they received child support (either from ex-partners or current partners). Private transfer income, other adult income, and other income were uncommon income sources and the amounts received were modest for both married and cohabiting households.

Household Income Dynamics When Unions Dissolve

Table 2 shows the results of quantile regressions of the median percentage change in monthly size-adjusted household income before and after a union dissolution, relative to monthly income 12 months prior to the dissolution. The first three models show results for divorces that occurred in the 1980s, 1990s, and 2000s, respectively, and are summarized graphically in Figure 1. In the 1980s, the household incomes of married households with children grew by about 14% in the 12 months leading up to a divorce. In the month of the divorce, however, the median child

saw his or her household income drop by about 33% and experienced very little recovery of that income in the year following the divorce.

[TABLE 2 ABOUT HERE]

[FIGURE 1 ABOUT HERE]

Pre-divorce incomes evolved in a similar way during the 1990s, growing by about 14% prior to the divorce, but the median post-divorce income declined significantly less than it did in the 1980s, dropping by about 29% in the month of the dissolution. The median household income also recovered slightly in the year following the divorce, with one-year post-divorce monthly incomes about 22% lower than they were before the divorce. This pattern continues in the 2000s, when monthly incomes grew slightly during the year prior to the divorce, post-divorce incomes declined by less than they did in the 1980s, and recovered in the year following the divorce, ending about 20% lower than they were before the divorce. Taken together, these results suggest that the economic consequences of divorce for children, while still substantial, declined between the 1980s and the 2000s.

The second part of Table 2, and Figure 2, show results for the children of cohabiting parents. In the 1980s, cohabiting household incomes grew considerably—by over 25% -- in the four months prior to dissolution. This growth was less extensive in subsequent decades, at 17% in the 1990s and just 5% by the 2000s. Income losses during the month of dissolution were large, however, and have grown over time. In the 1980s, children in cohabiting households saw their household incomes decline about 20% in the month of dissolution, and recover to just an 11% loss one year after the dissolution. The economic losses following cohabitation dissolution grew in the following two decades and, by the 2000s, household incomes declined by about 35% in the month of the cohabitation dissolution and recovered to about a 24% loss one year after the dissolution.

[FIGURE 2 ABOUT HERE]

In sum, the short-run economic consequences of divorce for children have declined, with monthly household incomes 34% lower one year after divorce in the 1980s and just 20% lower by the 2000s. In contrast, the economic consequences of cohabitation dissolution worsened over time. In the 1980s, household incomes were about 11% lower one year after the dissolution, but by the 2000s they were 25% lower. As a result, the economic consequences of cohabitation dissolution and divorce have converged over time and were remarkably similar in the 2000s.

Educational Differences in the Consequences of Dissolution

Because socioeconomic differences between married and cohabiting parents are large (Smock 2000), we next examined whether the diverging trends we identified for married and cohabiting parents were due to socioeconomic differences between the two groups. Table 3 presents quantile regressions separately for more- and less- educated married mothers; more-educated mothers have at least a 4-year college degree at the time of the dissolution, and less-educated mothers have no more than a high school degree. Although college-educated mothers start out with considerably higher pre-dissolution incomes than less-educated mothers, the economic consequences of dissolution are large for both groups – household incomes decline by over 30% – and the trend of reduced economic costs of divorce is concentrated among less-educated mothers. Thus, the economic consequences of divorce were large for both more- and less-educated mothers, and improved the most since the 1980s for less-educated married mothers.

[TABLE 3 ABOUT HERE]

There were not enough college-educated cohabiting mothers in the SIPP to conduct a comparable sub-group analysis for cohabiters, but when we restricted the cohabiting sample to less-educated cohabiting mothers only, the quantile regression results were substantively and

statistically similar to the results for the full sample. Thus, the diverging trends for married and cohabiting mothers – declining consequences of divorce for married mothers but worsening consequences for cohabiting mothers – cannot be attributed solely to socioeconomic differences between the two groups because the consequences of divorce for the least-educated married women have improved, while the opposite it true for the least-educated cohabiting women.

Income Sources

What accounts for the declining economic consequences of divorce and the growing economic consequences of cohabitation dissolution? We next examined the changing components of monthly household income when unions dissolve. Figure 3 shows the monthly average amount for each income source for married households before and after divorce in the 1980s and in the 2000s. In the 1980s, mothers increased their earned income in the months leading up to a divorce from about $1,000 to $1,200 on average, but then declined to about $900 the month after the divorce. This suggests that some mothers increased their labor supply in anticipation of the divorce, but also that divorce disrupted labor supply for some. By the 2000s, more mothers were already in the labor force prior to divorce and earnings were higher, both in absolute terms and relative to father's earnings. As a result, women's earnings grew less in anticipation of divorce in the 2000s than they did in the 1980s, but monthly earnings still dropped around the time of the divorce, from about $1,600 to about $1,300, and then gradually rose again during the following year. Between the 1980s and the 2000s, then, mothers' growing labor force attachment meant that labor supply increased less in anticipation of a divorce, but women's wages constituted a greater share of pre-divorce household income, which lessened the proportional loss of a husband's income after divorce. In addition, divorce resulted in a modest short-term decline in women's earnings in both the 1980s and 2000s, which women started to regain in the following year.

[FIGURE 3 ABOUT HERE]

A second notable trend in Figure 3 is the growing receipt of government transfers following divorce. In the 1980s, married mothers received about $400 in government transfers prior to divorce and this changed little after divorce. By 2000, however, mothers received $600 in transfer income, on average, following a divorce. The receipt of child support and alimony payments in the wake of a divorce also grew over time. Receipt of income from private safety net sources – new residential romantic partners, other co-residential adults, and private cash transfers from friends and family – after a divorce also grew substantially, from about $400 per month following a divorce in the 1980s to about $600 per month after a divorce in the 2000s.

Like married mothers, cohabiting mothers increased their labor supply in the months leading up to cohabitation dissolution during the 1980s, with average earnings growing from $800 to just under $1,200. And, like married mothers, cohabiting mothers' labor supply declined right after the dissolution (though, in the 2000s, earnings fully recovered within one year). Unlike married mothers, however, average earnings for cohabiting mothers did not grow much and did not reduce the gap with male partners' earnings over time. In the 2000s, cohabiting mothers still earned about $1,200 prior to dissolution but did not increase their labor supply in anticipation of an impending dissolution.

[FIGURE 4 ABOUT HERE]

Cohabiting mothers received larger average government cash transfers than married mothers – about $700 – and this changed little after dissolution and changed little between the 1980s and 2000s. Because they are more economically disadvantaged than their married counterparts, and because the eligibility rules for some transfer programs exclude cohabiting partners' incomes, over half of cohabiting mothers received cash transfers while in their cohabiting unions and there was little change in the fraction who received government transfers

after dissolution. Child support receipt among cohabiting mothers was lower than it was for married mothers and also changed little after the dissolution, perhaps because some mothers already received child support payments from their children's fathers prior to the dissolution or because child support is not court-adjudicated at the time of a cohabitation dissolution like it is at the time of a divorce.

Finally, receipt of income from private safety net sources after dissolution was more common for cohabiting mothers than it was for married mothers, and it become an even more important economic coping strategy for cohabiting mothers over time. Cohabiting mothers' network incomes were about $400 on average in the year after dissolution in the 1980s but, by 2000, this had grown to almost $800. In supplemental analyses, we observed that most of this growth was due to the increased likelihood that cohabiting mothers lived with another (non-romantic) adult. This suggests that cohabiting mothers were increasingly likely to 'double up' in response to a cohabitation dissolution. The fraction of mothers with new partner income also increased steadily in the months following the cohabitation dissolution, but this changed little over time. Private cash transfers from friends and family were quite uncommon.

Taken together, these findings suggest that the declining economic consequences of divorce for mothers and their children were due primarily to rising maternal earnings, the declining share of household income from husbands' earnings, and the increased likelihood of receiving child support and private cash transfers after divorce. In contrast, the growing short-run economic losses from cohabitation dissolution were due primarily to the fact that cohabiting mothers' earnings did not grow and they did not receive more government transfers or child support in the wake of dissolution as married mothers did, in part because many already received benefits prior to dissolution. Cohabiting women became more likely to 'double up' with

romantic partners or other adults after dissolution, but this strategy has not offset the fact that their earnings declined relative to married mothers'.

DISCUSSION

In this paper, we examined trends over time in the short-run economic consequences of marital and cohabitation dissolution among households with children. We found that the short-run economic consequences of divorce have declined, with household incomes 34% lower one year after divorce in the 1980s and just 20% lower by the 2000s. In contrast, the economic consequences of cohabitation dissolution worsened over time. In the 1980s, household incomes were about 11% lower one year after dissolution, but by the 2000s they were 25% lower. As a result, the economic consequences of cohabitation dissolution became more similar to the economic consequences of divorce over time, and by the 2000s the economic consequences of marital and cohabitation dissolution were quite similar. These trends were not driven solely by socioeconomic differences between married and cohabiting mothers—we observed declining economic consequences for less-educated married mothers but growing economic consequences for less-educated cohabiting mothers.

What explains these trends? Earnings for married mothers grew relative to husbands' earnings over time, reducing the proportional loss in household income associated with his departure. For cohabiting mothers, relative earnings did not rise. Married mothers became more likely to receive child support and private cash transfers in the wake of a divorce, which also helped to offset some of the loss of their husbands' earnings. Many cohabiting mothers, in contrast, already received government transfers prior to dissolution so these programs offered little extra cushion in the wake of a dissolution. The use of private safety net strategies was consequential for both married and cohabiting mothers; cohabiting mothers were more likely to

'double up' with romantic partners or other adults over time, but this did not offset the fact that their earnings declined relative to married mothers.

While the economic consequences of cohabitation dissolution look more like those of marital dissolution over time, our examination of income sources reveals important differences between married and cohabiting parents. In particular, the safety net operates differently for cohabiting and married mothers in the wake of a union dissolution. Many government transfer programs do not count cohabiting partners' incomes (or they are not reported even if they should be), so many cohabiting mothers receive cash or in-kind assistance—in the form of the EITC, food stamps, and housing assistance, for example—while they are cohabiting. In contrast, married mothers are less likely to qualify for such programs because husbands' incomes are counted in benefit eligibility and are more likely to be reported; as a result, married women become eligible for cash transfer programs upon divorcing and the expansion of government cash transfer programs, like the EITC, has made this more likely over time. Future research should consider in more detail the specific government transfer programs married women draw upon in the wake of a divorce and how expansions and contractions of these programs have affected post-divorce material well-being.

In the 1980s, when maternal labor force participation was lower, we found that both married and cohabiting mothers increased their labor supply prior to dissolution, perhaps in anticipation of it. As more mothers entered (and stayed) in the workforce during the 1990s and 2000s, they were less likely to increase their labor supply prior to dissolution as more of them were already working. The dissolution itself disrupted labor supply temporarily for some mothers, however, and this changed little over time. Such disruptions may occur if mothers can no longer afford childcare or if they had to move after dissolution; such hypotheses are ripe areas for future research. We also note that we only examined mothers' labor supply indirectly

through their earnings, and a fuller examination of labor supply on the extensive and intensive margins should also be considered in future research. Although married and cohabiting mothers' labor force participation did not differ markedly, their average earnings did, and the contribution of earnings to household income grew more for married mothers than it did for cohabiting mothers.

For both groups, we examined *relative* changes in household incomes before and after a dissolution; even if the relative decline in household income grew for cohabiting mothers and their children, their absolute standards of living–measured by the level of their income rather than the change in their income—were higher in the 2000s than they were in the 1980s. We examined trends for married and cohabiting households with children, and these trends may not be the same for households without children. In addition, we have provided a descriptive portrait of trends over time in the economic losses associated with marital and cohabitation dissolution, but these are not *causal* effects of dissolution; our results describe population-level experiences, and are likely due in part to differential selection into marriage or cohabitation over time as well as selection on who dissolves unions. Finally, our results described *average* changes (measured by medians and means) – future research might explore in more detail the heterogeneous consequences of union dissolution that occur at different points in the distribution of household income or for different types of households.

The results of this study have implications for research on trends in income instability. First, we find little evidence that trends in the incidence or economic consequences of divorce have contributed to rising income instability. Marriages became slightly more stable over time, and the economic consequences of divorce, while large, have declined since the 1980s. Second, however, we find that more children live in cohabiting households, which are less stable than married households, and the economic losses associated with cohabitation dissolution have

increased over time. As a result, trends in the extent of cohabitation and the economic costs of cohabitation dissolution may have contributed to rising income instability for children in this subset of the population. Because cohabiting households with children tend to be more disadvantaged socioeconomically than married households, the trends described here would play a larger role in explaining income volatility at the lower end of the income distribution.

These findings also have implications for family theories of the meaning of cohabitation. In part, our research supports prior work showing that cohabiting couples have lower levels of commitment and are less certain about the future of their unions. We find little association between cohabiting women's labor supply and government transfers before and after a union dissolution, which suggests that cohabiting mothers are not specializing in domestic labor as married women might; their lack of response to dissolution suggests that perhaps they were more prepared for such an event. We did find, however, that the economic consequences of cohabitation dissolution have grown for children and that patterns of behavior for cohabiting parents have broadly become more similar to those for married parents. Taken together, these findings suggest that cohabitation may increasingly play an economic function more similar to marriage, at least among cohabitations that involve children.

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Table 1. Descriptive Statistics for Children's Households by Family Type, 1980s-2000s

	1980s	1990s	2000s
% Ever Married in a Year	79.1	75.7	73.1
% Divorced (If Ever Married)	3.7	3.2	3.1
Monthly Household Income 12 Months Before Divorce ($)			
Total Household Income	4,037	4,344	6,444
Size-Adjusted Household Income	1,921	2,103	3,093
Husband Earned Income	2,487	2,545	3,032
Wife Earned Income	984	1,248	1,537
Gov't Transfers	375	396	418
Child Support/Alimony	47	38	68
Private Transfers	4	4	2
Other Adult Income	103	96	214
Other Income	166	139	143
% Ever Cohabited in a Year	3.3	4.3	5.5
% Dissolution (If Ever Cohabited)	19.6	13.7	11.6
Monthly Household Income 12 Months Before Dissolution ($)			
Total Household Income	2,716	3,392	4,936
Size-Adjusted Household Income	1,356	1,684	2,412
Male Partner Earned Income	1,051	1,313	1,857
Female Partner Earned Income	790	996	1,339
Gov't Transfers	676	657	602
Child Support/Alimony	87	124	150
Private Transfers	10	8	4
Other Adult Income	88	165	207
Other Income	85	105	67
N	38,552	119,602	88,974

Notes: Descriptive statistics are unweighted. Sample is children of household reference person or spouse who live with their mothers in each panel of the SIPP. Income is inflation-adjusted to 2011 dollars. Monthly household incomes reported for the subsample of children who experience a union dissolution. Size-adjusted household income is household income divided by the square root of household size. See Appendix A for list of income sources included in each income category.

Table 2. Quantile Regressions of Median % Change in Monthly Household Size-Adjusted Income Before and After Union Dissolution, 1980s-2000s

Months Before/	Marital Dissolution			Cohabitation Dissolution		
After Dissolution	1980s	1990s	2000s	1980s	1990s	2000s
-12	0.00	0.00	0.00	0.00	0.00	0.00
	(0.17)	(0.11)	(0.19)	(0.85)	(0.40)	(0.58)
-11	-0.22	-0.15	-0.28	-0.26	-0.20	-0.35
	(0.39)	(0.26)	(0.39)	(1.49)	(0.87)	(1.15)
-10	-0.43	-0.27	-0.54	-0.53	-0.34	-0.89
	(0.48)	(0.30)	(0.43)	(1.74)	(1.02)	(1.30)
-9	-0.14	1.29***	-0.45	-1.00	-0.45	-1.64
	(0.54)	(0.35)	(0.52)	(1.92)	(1.06)	(1.51)
-8	2.21**	2.78***	2.15**	-0.82	1.64	-1.97
	(0.73)	(0.53)	(0.72)	(2.18)	(1.36)	(2.03)
-7	2.23**	3.48***	0.64	0.07	0.67	-2.21
	(0.73)	(0.56)	(0.70)	(2.49)	(1.43)	(2.32)
-6	4.09***	4.76***	1.08 [a]	1.83	2.39	-2.22
	(0.90)	(0.59)	(0.75)	(2.47)	(1.70)	(2.65)
-5	5.08***	4.66***	2.43**	0.48	4.57**	-2.87
	(0.94)	(0.66)	(0.82)	(2.78)	(1.71)	(2.80)
-4	5.16***	4.61***	1.66 [a]	10.54***	6.63***	-3.39 [a]
	(0.93)	(0.69)	(0.93)	(3.20)	(1.94)	(2.30)
-3	6.09***	7.74***	4.41***	14.71***	14.36***	4.79 [a]
	(1.01)	(0.82)	(1.09)	(3.72)	(2.47)	(2.72)
-2	7.78***	9.96***	5.23***	10.88**	16.88***	3.44 [a]
	(1.13)	(0.90)	(1.10)	(3.86)	(2.51)	(2.96)
-1	13.81***	13.57***	8.40*** [a]	28.10***	13.94***	5.20* [a]
	(1.22)	(1.01)	(1.23)	(5.60)	(2.46)	(2.46)
0	-33.28***	-28.90*** [a]	-35.80***	-20.39***	-21.07***	-35.01*** [a]
	(1.27)	(1.02)	(1.28)	(4.34)	(2.44)	(2.41)
1	-31.13***	-28.79*** [a]	-31.36***	-14.57***	-21.57***	-36.15*** [a]
	(1.29)	(0.99)	(1.39)	(4.17)	(2.39)	(2.61)
2	-27.64***	-25.50***	-28.82***	-13.19***	-18.61***	-34.88*** [a]
	(1.38)	(1.13)	(1.71)	(3.97)	(2.38)	(2.31)
3	-28.05***	-25.89***	-28.41***	-12.31**	-17.97***	-33.26*** [a]
	(1.36)	(1.21)	(1.76)	(4.15)	(2.25)	(3.00)
4	-31.08***	-24.54*** [a]	-26.75***	-16.87***	-19.51***	-34.30*** [a]
	(1.39)	(1.05)	(1.79)	(4.22)	(2.43)	(2.67)
5	-30.55***	-24.79*** [a]	-25.27***	-14.38**	-15.79***	-33.05*** [a]
	(1.66)	(1.09)	(2.05)	(4.66)	(2.44)	(2.92)
6	-30.51***	-23.04*** [a]	-27.66***	-18.81***	-19.02***	-28.34*** [a]
	(1.63)	(1.18)	(1.75)	(4.25)	(2.24)	(3.28)
7	-32.27***	-20.31*** [a]	-21.89*** [a]	-16.48**	-17.72***	-28.90*** [a]
	(1.86)	(1.27)	(2.27)	(5.57)	(2.39)	(2.88)
8	-31.81***	-20.27*** [a]	-26.53***	-14.07***	-17.62***	-30.83*** [a]
	(1.86)	(1.22)	(1.96)	(6.32)	(2.41)	(2.77)
9	-31.31***	-20.61*** [a]	-25.13*** [a]	-12.75***	-18.48***	-25.28*** [a]
	(1.64)	(1.29)	(1.85)	(6.13)	(2.76)	(3.41)
10	-33.10***	-19.48*** [a]	-22.79*** [a]	-7.63	-17.82***	-27.04*** [a]
	(1.72)	(1.46)	(1.95)	(5.82)	(2.86)	(3.73)
11	-33.93***	-19.23*** [a]	-20.63*** [a]	-11.06	-21.92***	-25.60*** [a]
	(2.18)	(1.88)	(2.32)	(6.99)	(2.96)	(4.32)
12	-34.05***	-22.43*** [a]	-20.43*** [a]	-11.27	-22.04***	-24.46*** [a]
	(2.62)	(1.68)	(2.72)	(7.69)	(3.22)	(4.47)
N Observations	42,910	88,584	40,396	8,918	21,661	10,723

* p<0.05; ** p<0.01; *** p<0.001

[a] Sig. different from 1980s at p < .05 level

Table 3. Quantile Regressions of Median % Change in Monthly Household Size-Adjusted Income Before and After Divorce by Mother's Education, 1980s-2000s

Months Before/	High School Degree or Less			4-Year College Degree or More		
After Dissolution	1980s	1990s	2000s	1980s	1990s	2000s
-12	0	0	0	0	-0	-0
	(0)	(1)	(0)	(1)	(1)	(1)
-11	-0	-0	-0	-0	-0	-0
	(1)	(0)	(1)	(2)	(1)	(2)
-10	-0	-0	-1	-0	-0	-0
	(1)	(1)	(1)	(2)	(1)	(2)
-9	-0	2*	-0	-1	-1	2
	(1)	(1)	(1)	(2)	(1)	(2)
-8	2	4***	3	1	-1	1
	(1)	(1)	(2)	(3)	(2)	(2)
-7	1	2**	1	0	-0	1
	(1)	(1)	(2)	(3)	(2)	(2)
-6	2	5***	1	1	-0	-1
	(1)	(1)	(2)	(3)	(2)	(2)
-5	3*	5***	2	1	0	1
	(1)	(1)	(2)	(3)	(2)	(2)
-4	6***	7***	2	2	2	-1
	(1)	(1)	(2)	(3)	(3)	(2)
-3	7***	9***	9***	4	5*	-2
	(1)	(1)	(2)	(4)	(3)	(2)
-2	8***	11***	7**	9*	7*	2
	(2)	(1)	(2)	(4)	(3)	(3)
-1	13***	14***	16***	9*	7**	1
	(2)	(1)	(3)	(4)	(3)	(3)
0	-43***	-36*** [a]	-39***	-44***	-44***	-46***
	(2)	(1)	(2)	(4)	(3)	(3)
1	-38***	-32*** [a]	-38***	-41***	-42***	-46***
	(2)	(1)	(2)	(4)	(3)	(3)
2	-35***	-31*** [a]	-36***	-30***	-39***	-43*** [a]
	(2)	(1)	(3)	(4)	(3)	(4)
3	-36***	-29*** [a]	-34***	-31***	-33***	-36***
	(2)	(2)	(3)	(4)	(3)	(4)
4	-38***	-27*** [a]	-33***	-35***	-34***	-35***
	(2)	(1)	(3)	(4)	(3)	(5)
5	-35***	-25*** [a]	-30***	-31***	-34***	-34***
	(2)	(2)	(3)	(5)	(3)	(5)
6	-37***	-26*** [a]	-31***	-27***	-35***	-42*** [a]
	(2)	(2)	(3)	(6)	(3)	(4)
7	-35***	-23*** [a]	-33***	-30***	-33***	-30***
	(2)	(2)	(3)	(8)	(3)	(5)
8	-35***	-23*** [a]	-36***	-30***	-28***	-29***
	(2)	(2)	(3)	(7)	(4)	(5)
9	-35***	-22*** [a]	-31***	-26***	-29***	-35***
	(2)	(2)	(3)	(7)	(4)	(5)
10	-35***	-22*** [a]	-33***	-31***	-30***	-34***
	(3)	(2)	(4)	(7)	(4)	(4)
11	-35***	-20*** [a]	-25*** [a]	-39***	-30***	-37***
	(3)	(3)	(5)	(8)	(4)	(4)
12	-39***	-22*** [a]	-23*** [a]	-39***	-33***	-34***
	(3)	(3)	(5)	(8)	(4)	(4)
N Observations	23,560	43,447	15,659	4,855	9,906	12,660

* p<0.05; ** p<0.01; *** p<0.001

[a] Sig. different from 1980s at p < .05 level

Table 4. Quantile Regressions of Median % Change in Monthly Household Size-Adjusted Income Before and After Cohabitation Dissolution for Mothers with High School Degree or Less, 1980s-2000s

Months Before/	High School Degree or Less		
After Dissolution	1980s	1990s	2000s
-12	0	0	0
	(1)	(1)	(1)
-11	-0	-0	-0
	(2)	(1)	(2)
-10	-1	-0	-1
	(2)	(2)	(2)
-9	-1	0	-1
	(3)	(2)	(3)
-8	-1	1	-2
	(3)	(2)	(3)
-7	-0	-1	-1
	(4)	(2)	(4)
-6	1	-1	-2
	(3)	(2)	(5)
-5	-0	4	-1
	(4)	(2)	(5)
-4	5	5	-2
	(4)	(3)	(3)
-3	10*	8**	5
	(5)	(3)	(4)
-2	8	13***	1
	(5)	(3)	(4)
-1	27***	12***	5 [a]
	(7)	(3)	(4)
0	-27***	-33***	-36***
	(5)	(3)	(4)
1	-16**	-24***	-43*** [a]
	(5)	(3)	(4)
2	-19***	-19***	-43*** [a]
	(5)	(3)	(3)
3	-19***	-18***	-44*** [a]
	(5)	(4)	(4)
4	-20***	-14***	-42*** [a]
	(5)	(4)	(4)
5	-16**	-16***	-46*** [a]
	(6)	(4)	(4)
6	-20***	-20***	-35*** [a]
	(5)	(4)	(5)
7	-14*	-19***	-31*** [a]
	(7)	(4)	(4)
8	-24**	-24***	-32***
	(8)	(4)	(4)
9	-24**	-24***	-27***
	(8)	(4)	(5)
10	-5	-22*** [a]	-32*** [a]
	(8)	(5)	(5)
11	-18	-26***	-21***
	(9)	(4)	(6)
12	-8	-30*** [a]	-29*** [a]
	(13)	(5)	(6)
N Observations	6,141	11,734	5,197

* p<0.05; ** p<0.01; *** p<0.001

[a] Sig. different from 1980s at p <.05 level

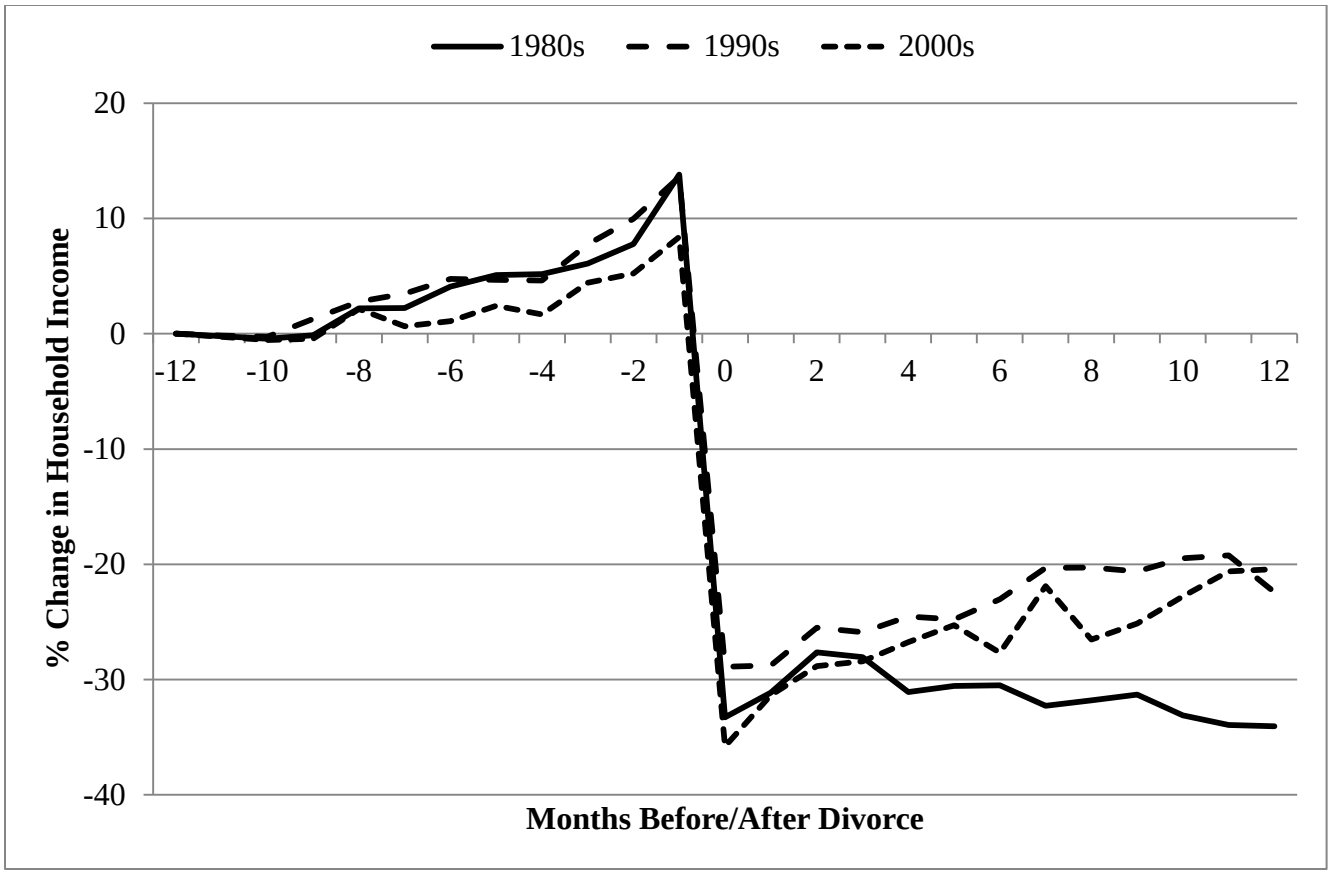

Figure 1. Results of Quantile Regression of Median Percentage Change in Monthly Size-Adjusted Household Income for Children of Married Parents, 1980s-2000s

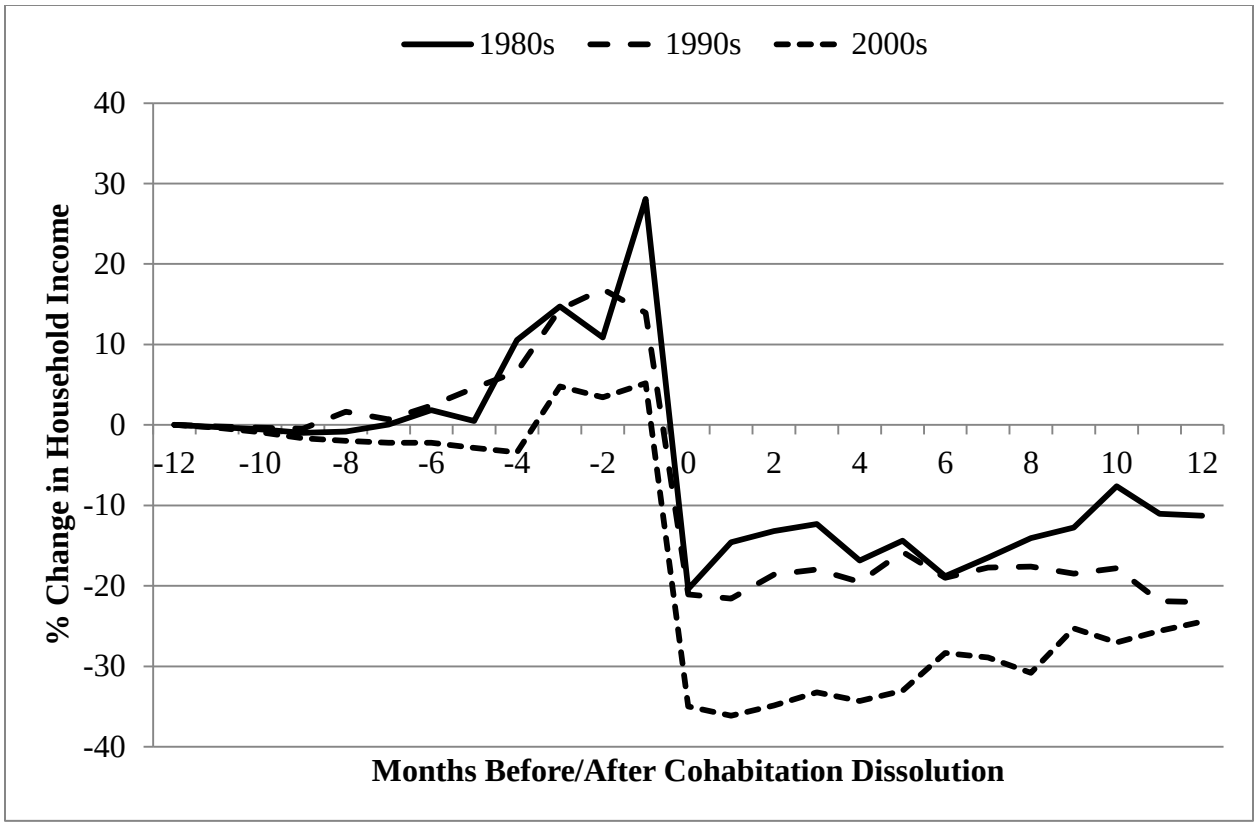

Figure 2. Results of Quantile Regression of Median Percentage Change in Monthly Size-Adjusted Household Income for Children of Cohabiting Parents, 1980s-2000s

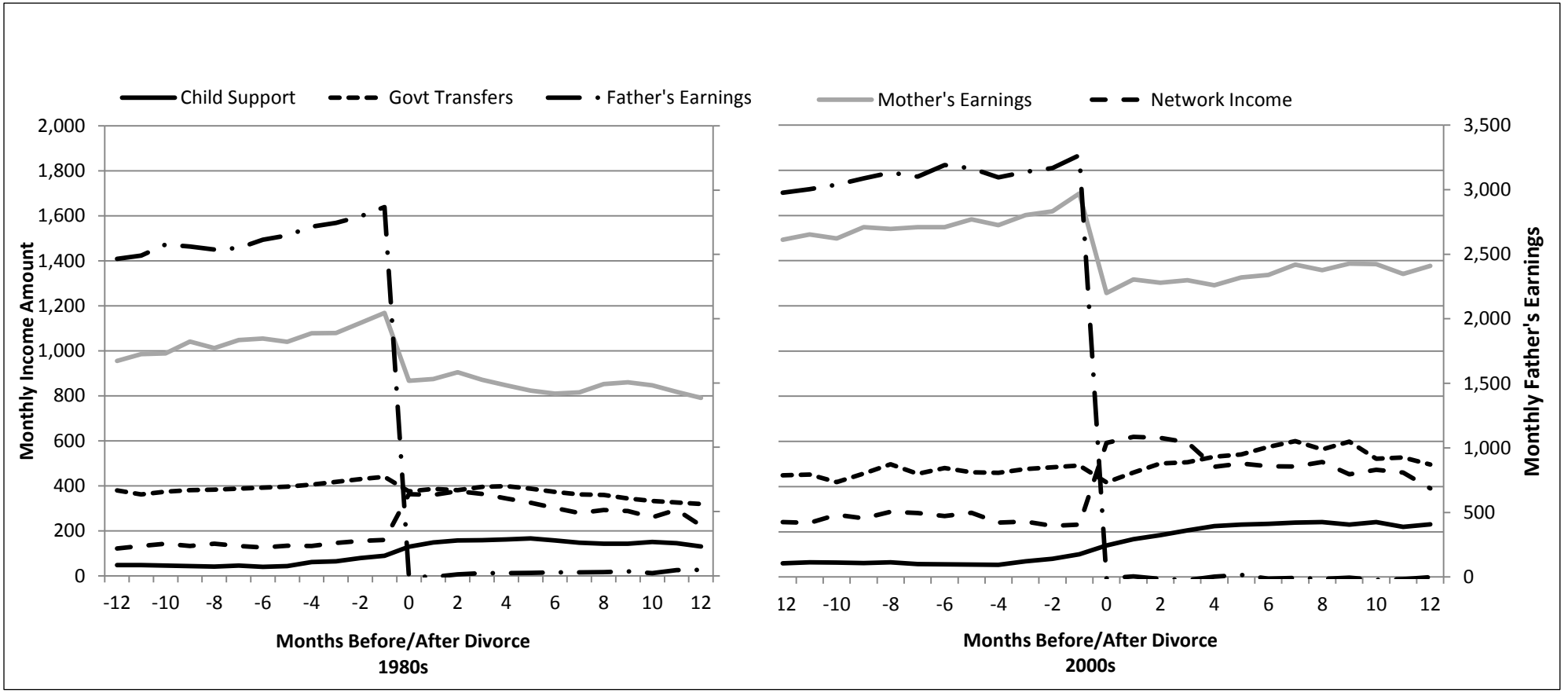

Figure 3. Average Monthly Income by Source for Married Households Before and After Divorce, 1980 and 2000

Notes: All income sources plotted on the left axis except for father's earnings, which is plotted on the right.

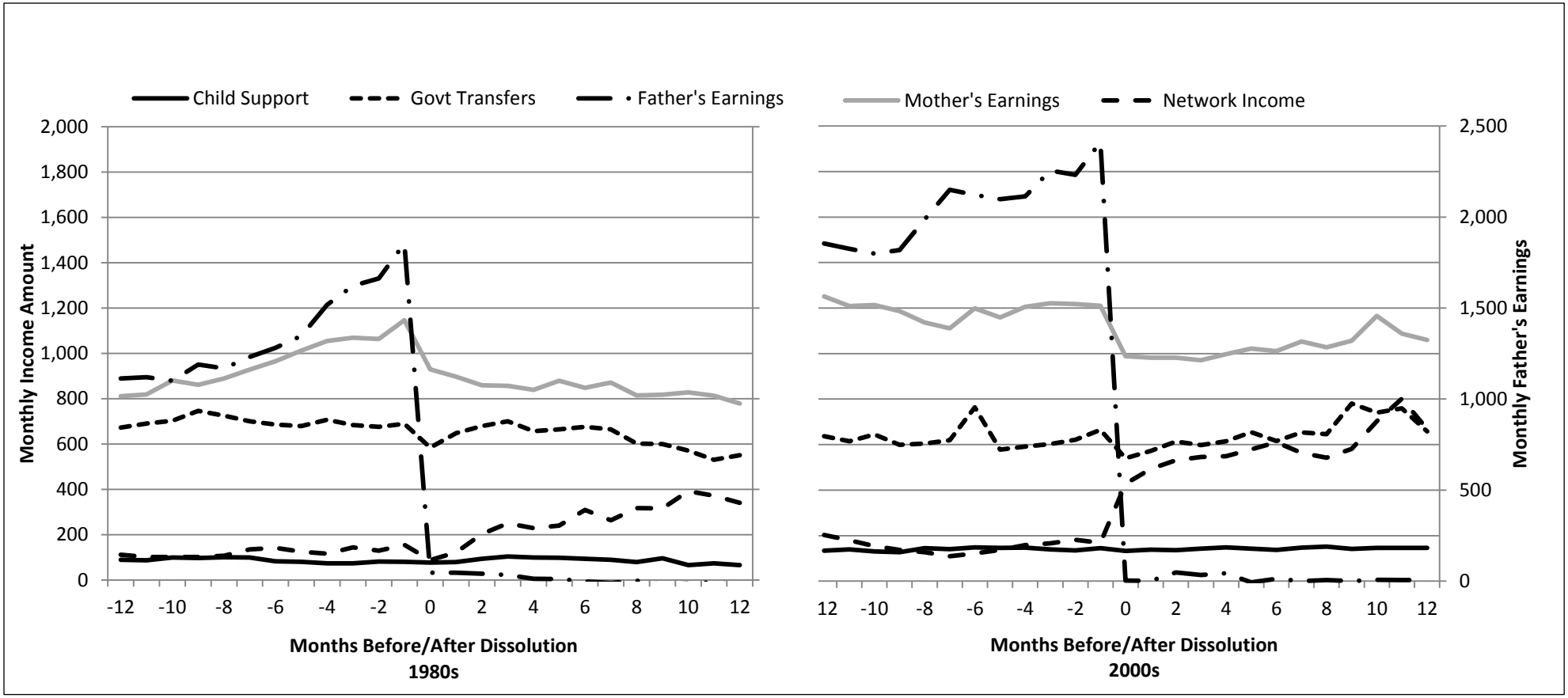

Figure 4. Average Monthly Income by Source for Cohabiting Households Before and After Cohabitation Dissolution, 1980 and 2000

Notes: All income sources plotted on the left axis except father's earnings, which is plotted on the right.

Appendix A. Household Income Sources

Earned Income
- Earnings from Wages & Salaries
- Farm and Non-Farm Self-Employment Income

Government Transfers
- Food Stamps
- WIC
- Transportation Assistance
- Other Food Assistance
- Clothing Assistance
- Social Security (Adult/Child)
- US Gov't Railroad Retirement Pay
- Federal and State SSI (Adult/Child)
- State Unemployment
- Other Unemployment
- Veteran's Compensation or Pensions
- Black Lung Payments
- Worker's Compensation
- State Temporary Sickness/Disability
- AFDC/ADC/TANF
- General Assistance
- Indian, Cuban, Refugee Assistance
- GI Bill/VEAP Education Benefits
- Short-Term Cash Assistance
- Other Welfare
- Other Government Income
- Refundable Earned Income Tax Credit*
- Cash Value of Housing Assistance*

Child Support/Alimony
- Child Support
- Alimony
- Pass-through Child Support Payments

Private Transfers
- Income from Family and/or Friends
- Income Assistance from Charitable Group

Other Income
- Income from Property and/or Assets
- Employer or Union Sickness Policy
- Sickness, Accident or Disability Insurance
- Employer Disability Payments
- Foster Child Care Payments
- Pension from Company or Union
- Federal Civil Service/Civilian Pension
- US Military Retirement Pay
- National Guard or Reserves Retirement
- State or Local Government Pensions
- Income from Life Insurance or Annuities
- Estates and Trusts
- Other Retirement, Disability, Survivor Payments
- Pension/Retirement Lump Sum Payments
- Withdraws from IRA/KEOUGH/401k or Thrift
- Income from Roomers or Boarders
- National Guard or Reserve Pay
- Incidental or Casual Earnings
- Other Cash Income Not Included Elsewhere

*Estimated by the researchers