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Fragile Families in the American Welfare State

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Abstract

The proportion of children born out of wedlock is now over 40 percent. At birth, about half of these parents are co-habiting. This paper examines data from the Fragile Families and Child Wellbeing study ($N = 4,271$) to describe for the first time the role of welfare state benefits in the economic lives of married, cohabiting, and single parent families with young children. Surprisingly, total welfare state benefits received by the three family types are relatively similar. Nearly half of the full incomes of fragile families come from welfare state transfers. For single parent families the proportion is slightly more than two thirds. Though aggregate welfare state transfers are approximately equal across family type and thus change very little as marital status changes, these transfers and the taxes required to finance them cushion family status changes and substantially narrow the gap in full income between married and fragile families.

Keywords

Family structure; family economics; welfare; Fragile Families and Child Wellbeing

1. Introduction

In 1960, only five percent of all births were to unwed parents, whereas today, the proportion is over 40 percent (Child Trends, 2012). “Fragile families”, or unwed parents, are fragile both because the parents have low levels of human capital and because the bonds between the parents are weak (Mincy, 1994; Mincy & Pouncy, 1997). Fragile families are of increasing importance and policy interest because their prevalence has grown so dramatically. The Fragile Families and Child Well-being Study was funded to fill gaps in knowledge about: a) the capabilities and circumstances of unwed parents, especially fathers; b) the nature of parental relationships; c) the experiences and achievements of the children, and d) the role of welfare state benefits in the lives of fragile families. A large literature

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examines the first three aims and a few papers investigate the roles of particular welfare state programs, such as TANF, food stamps, and child care. This is the first paper to address the role of welfare state transfers taken as a whole in the economic lives of fragile families.

In all rich nations, including the United States, welfare state benefits—from free public education, child care, public housing and vouchers, tax subsidies for home ownership, publicly financed and publicly subsidized health insurance, survivors insurance, earned income tax credits, and public relief such as Temporary Assistance to Needy Families in the US—play an important role in the lives of all families with children, but an especially large and important role in those of the poorest quintile (Garfinkel, Rainwater, & Smeeding, 2010). We build on Garfinkel, Rainwater, and Smeeding (2006, 2010), which extends and amends the comparative welfare state literature by including education and other in-kind benefits, tax benefits and tax subsidized employer health insurance benefits, and all taxes required to finance the benefits. This paper extends their work by describing the role of welfare state benefits for different family structures. We use the Fragile Families and Child Well-Being Study, which is particularly well suited to identifying different family structures—married, cohabiting, and single parent families—and to tracing the effects of changes in family type over time. We answer for the first time, the following questions: How do welfare state transfers differ by family type? How big a role do welfare state transfers play in the economic lives of different types of families with children? How big is the gain in full income to marriage amongst fragile families as compared to the loss from divorce? Do welfare state transfers cushion the effects of changes in family structure on full income? To what extent do welfare state transfers and the taxes required to finance them reduce inequality among family types?

The next three sections, respectively, summarize previous literature; describe the data and methods; and present answers to these questions. The paper concludes with a brief summary, discussion of limitations, suggestions for future research, and implications for policy.

2. Background and literature review

Many welfare state scholars have used the concept of “income packaging” to describe how families combine government income transfers with market income (Rainwater & Smeeding, 1997; Rein & Heintz, 2001; Mavre, Wheland & Nolan, 2002). In all rich nations, social insurance retirement benefits play a major role in the total income package of the aged. While no single transfer plays so dominant a role in the income package of families with children, taken together, a diverse set of cash transfers, including unemployment insurance, paid parental leave, paid sick leave, child allowances, cash housing allowances, and public relief play a huge role in many rich nations in the income package of low income families with children. As compared to other rich nations, the U.S. has an unusually small cash benefit package. Unemployment insurance benefits cover only a small proportion of the unemployed, Temporary Assistance for Needy Families (TANF), and Aid to Families with Dependent Children (AFDC) before it, limit benefits to primarily single parent families, and benefit levels of both unemployment insurance and TANF and General Assistance, compared to average earnings, are lower than in other nations. The US has no paid family

leave, paid sick leave, child allowance, and or cash housing allowance program (Adema, 2012).

There is also an extensive literature on the effects of the AFDC program on family structure which finds modest negative effects (See Garfinkel & McLanahan, 1986; Moffitt, 1992,1996) and a more limited literature on the combined effects of all cash benefits and income taxes on differences in incomes when families marry, cohabit, or divorce (Thomas & Sawhill, 2005; Carasso & Steuerle, 2005). Thomas and Sawhill find substantial income gains from marriage, while Carasso and Steuerle find that pervasive income testing of benefits at the bottom of the income distribution substantially reduces gains from marriage.

The focus on cash transfers in the income packaging and family structure disincentive literatures is too narrow. The US, for example, provides Medicaid, food stamps, and public housing and housing vouchers. Indeed, expenditures on each of these in kind government benefits for the poor are all much larger than TANF expenditures (Census Bureau, 2012; Rice, 2010). The US federal income tax also has numerous tax credits, deductions, and exclusions that are economically equivalent to cash and in-kind transfers. These include the Earned Income Tax Credit (EITC), a partially refundable child tax credit which approximates a child allowance, a tax credit for child care expenditures, a homeowner deduction of mortgage interest and property taxes, and the exclusion of employer provided health insurance from the tax base. Howard (2007) and Hacker (2002) refer to these often overlooked benefits respectively as the “hidden” and “divided” American welfare state. Garfinkel, Rainwater and Smeeding (2010) provides evidence that ignoring in-kind benefits and tax benefits seriously mismeasures the economic wellbeing of different groups.

To incorporate in-kind benefits and the taxes required to finance welfare state benefits, Garfinkel, Rainwater, and Smeeding (2006, 2010) develop a new measure of family resources, which they call “full income.” Full income equals market income, plus cash and the value to recipients of in-kind and fringe benefits, minus the taxes required to pay for these benefits. Economists who study income distribution agree that as compared to disposable income, full income is a conceptually superior measure of a household's command over economic resources (Smeeding, 1982). Garfinkel, Rainwater, and Smeeding find that when in-kind and fringe benefits are valued at full government or market cost, differences in inequality at the bottom of the income distribution between the US and other rich nations shrink dramatically. They also show that the US results are quite sensitive to valuations of in kind benefits—in particular to the value of Medicaid to recipients.

The two most controversial elements of the Garfinkel, Rainwater, and Smeeding measure of welfare state transfers are the inclusion of public education and of employer provided benefits. We explain briefly the rationale for including each. Even though most quantitative cross-national comparative welfare state analyses omit education, the conceptual definitions of welfare states put forth by the leading scholars in the field include education. Within economics, the authoritative collection of classic readings on the welfare state designed for graduate students in economics, *Economic Theory and the Welfare State* (Barr, 1993), has a large section on education, consistent with its operational definition of the welfare state: “For the purposes of these volumes the term ‘welfare state’ is used for the state's activities in

three broad areas: income transfers, health and health care, and education.” In *Fighting poverty in the US and Europe: A World of Difference* (2004), Alberto Alesina and Edward Glaeser, two of the most influential welfare state scholars in economics, define welfare state programs as “the redistributive side of government policies” but include only cash transfers and health transfers in their analysis. Oddly—since most economists agree that elementary and secondary education are redistributive (Lindert, 2004) and some believe that even public financing of higher education is redistributive (Pechman, 1970)—they do not explicitly address the issue of whether public education is redistributive. In perhaps the most influential book on the welfare state in the sociology and political science literatures, *The Three Worlds of Welfare Capitalism* (1990), Gosta Esping-Anderson first defines the welfare state as: “... state responsibility for securing some basic modicum of welfare for its citizens.” He goes on to say, “What then constitutes salient dimensions of welfare state stratification? ... The education system is an obvious and much studied instance.... At this point, we confine our attention to the welfare state's traditional and still dominant activity, income maintenance.”

Most studies of welfare state benefits also ignore employer provided health insurance. Some economists count the tax subsidy that comes from excluding employer provided health insurance from the federal income tax base. Building on the work of Lampman (1978) and Hacker (2004), Garfinkel, Rainwater, and Smeeding (2006, 2010) count the full value of employer provided health insurance as a welfare state transfer. Though employer provided health insurance, unlike tax financed health insurance, fails to redistribute on the financing side, it does involve socialization of the risk of ill health and redistribution from the healthy to the sick, at the firm rather than the national level. Failing to count the full value of employer provided health insurance understates both the aggregate benefits and costs and the distribution of both benefits and costs of the US model of providing health insurance. Most important, in the context of this paper where we are interested in how transfers and full incomes change as family status changes, just as in-kind government benefits must be counted as part of a family's full income so too must the full value of health insurance be counted. A mother who divorces and loses private health insurance, but gains Medicaid loses the full value of private health insurance, not just the tax-subsidized portion.

While there is much that we have learned from Garfinkel, Rainwater, and Smeeding, they do not examine differences in welfare state transfers or full incomes between different types of families with children, or the effects of changes in family structure on transfers and full income, or the effect of welfare state transfers and taxes on inequality among family types. Nor, do they illustrate so clearly why the full value of employer benefits needs to be included in welfare state analyses. The few papers to date that have used the Fragile Families data to analyze income transfer programs have focused on TANF and some in-kind transfer programs (e.g. WIC, Medicaid, and housing subsidies) (Chatterji & Brooks-Gunn, 2004; Reichman, Teitler, & Curtis, 2005; Teitler, Reichman, Nepomnyaschy, & Garfinkel, 2009) and examined the determinants or consequences of transfer receipt, but did not make any attempt to add the values of different benefits together to examine the role of income transfers as a whole. This paper contributes new knowledge by utilizing the same methodology as Garfinkel, Rainwater, and Smeeding with data from the Fragile Families and Child Well-being Study to construct estimates of welfare state transfers and full income

for different types of families with children in order to address these questions and to strengthen the case for including the full value of employer provided benefits.

3. Method

3.1 Data

The Fragile Families and Child Wellbeing Study (FFS) follows a cohort of parents and their newborn children in 20 large U.S. cities (in 15 states). It is representative of births in each of the cities and of births in US cities with populations of at least 200,000. The study randomly sampled births in 75 hospitals in the 20 cities between 1998 and 2000. Unmarried parents were over-sampled: Approximately three-quarters of the interviewed mothers were unmarried. Face-to-face interviews were conducted with 4,898 mothers while they were still in the hospital after giving birth. The infants' fathers were also interviewed shortly thereafter in the hospital or at another location (see Reichman et al., 2001 for more detailed information about the FFS design). Eighty-nine percent of the mothers who completed baseline interviews were re-interviewed when their child was about one year old (between 12 and 18 months old). Eighty-six percent of mothers who completed baseline interviews were re-interviewed when their child was approximately three years old, and eighty-five percent were interviewed when their child was about five years old.

We use data from the mother's report from the one, three, and five-year surveys, yielding an analytic sample size of 4,297, 4,119, and 3,995 families, respectively. The income variables—market income and cash and in-kind transfers—are measured at each survey wave. Mother's relationship status, living arrangements, and household composition are also measured at each wave, allowing for estimates of changes in income packages over time. We included marital and non-marital births at baseline and used city sampling weights to adjust for the over-sampling of non-marital births. City weights allow our estimates to be representative of births in the 20 sampling cities.

The household's income package or full income consists of income from the market, plus welfare state cash and in-kind transfers and tax credits, minus the taxes required to finance the transfers. The bulk of this section describes methods for measuring market income, welfare state transfers, and taxes. At the end, we briefly discuss missing data, multiple imputation and fixed effects estimation of the effects of changing family status on both welfare state transfers and full income.

We distinguish between four sources of market incomes: mother's earnings, mother's partner's earnings, if cohabiting or married, all other household cash market income and employer provided health insurance. Cash transfers include TANF, SSI, and other cash assistance; in-kind transfers include Food Stamps, early childhood education and care, Medicaid, WIC, and employer provided health insurance; while tax credits include EITC, child care tax credit, child tax allowance, and home ownership tax subsidy. How each component is reported in the data and/or estimated is discussed below. All components of the income package are computed on an annual basis. All dollar values were standardized to 2005 dollars. Annual benefit values were top coded to avoid extreme values.

3.2 Market Income

3.2.1 Mother's earnings—Mother's earnings are estimated using responses on her employment status during the last 12 months, wage rate, and number of weeks worked during the previous 12 months. Employed mothers are asked to report earnings from their primary job. There is variation in the period over which wage is reported: mothers report earnings per day, week, two weeks, three weeks, a month or per year. Earnings are measured by multiplying the reported wage rate per respective time period by number of such periods per year. For example, reported monthly earnings are multiplied by 12 to yield annual earnings. It is assumed there are 4.35 weeks per month. Mothers who report working at more than one regular job during the past 12 months are asked about the exact amount earned from all regular jobs last year. When exact amounts are unavailable, respondents are asked to report earnings as range intervals. Interval medians are imputed and used for earnings calculation. For mothers who report earnings from a primary job as well as earnings from multiple jobs, the bigger of the two values is used.

Mother's earnings from involvement in underground market activities are calculated based on answers to the following four questions: During the last 12 months, did you (a) work off the books or under the table; (b) work in your own business under the table; (c) sell or deliver drugs, engage in prostitution, or do other kinds of hustles; (d) or do anything else underground to earn money? Respondents who report employment in the underground market are asked to report the amount earned from each source as a range interval. Interval medians are imputed and used to calculate earnings from underground activity. Mother's earnings are top-coded to \$200,000.

3.2.2 Married or cohabiting father's earnings—It is assumed that mothers who are married or cohabiting with the focal child's father share household income and expenditures with their partner. Therefore, the full household income for these mothers includes, in addition to their own earnings, the partner's earnings. Fathers' annual earnings are calculated using the same methodology described for mothers. Multiple imputation is used to predict the earnings of fathers who have missing information on earnings. Fathers' earnings from involvement in underground market activities are calculated using the same methodology described above for mothers.

Some of the mothers in the FFS have re-partnered since the birth of the focal child and are married or cohabiting with the new partner. Mothers are not asked to report the new partner's earnings. New partner earnings are predicted from the relationship between biological fathers' earnings and their demographic characteristics and incarceration history in combination with new partner's demographic characteristics and incarceration history. Both father's and cohabiting partner's earnings are top-coded to \$200,000.

3.2.3 Other household cash income—In addition to questions about particular sources of income, mothers were asked to report the total household cash income from all sources in exact amount. Other household cash income is calculated by subtracting mothers' and fathers' earnings as well as all reported government cash transfers described below from the total household income. The difference, if positive, is the estimate of other household

income. A negative difference indicates that the reported total household income is lower than its components (i.e., mothers' and fathers' earnings and government cash transfers). This could occur if mothers excluded some of the components when reporting the total, due to measurement error (e.g., reports in range) or, for some other reason. For cases in which the difference between total household income and the reported components has a negative value, other income is set to zero.

3.3. Welfare State Transfers

Welfare state transfers can be categorized as cash transfers, in-kind transfers and tax subsidies. What follows is a discussion of the methods used to calculate each.

3.3.1 Cash transfers—Receipt of TANF/Welfare, SSI, and other cash assistance is directly reported by the respondents. Mothers report the number of months of benefit receipt and the dollar amount received per month. Annual benefit values are calculated as the product of the two and are top-coded to the respondent's state-year maximum benefits to avoid extreme values.

3.3.2 In-kind transfers—In-kind benefits measured in these analyses are: Food Stamps, early childhood education and care, Medicaid, WIC, and employer provided health insurance. Estimating the value of in-kind transfers involves measuring the extent to which families receive the benefits and then placing a value on those benefits. Receipt of in-kind benefits was reported by mothers, but the reports vary by benefits. We utilize the same method for valuing all in-kind benefits. Thus we begin the discussion with the valuation question.

Valuing in-kind transfers is problematic because they may be worth less to beneficiaries than their costs to taxpayers (Smeeding, 1982). But, in-kind transfers are worth much greater than nothing to beneficiaries, which is the implicit value they are assigned when in-kind transfers are ignored. We follow Garfinkel, Rainwater, and Smeeding (2010) and value in kind benefits at government cost. In the concluding section, we return to this issue.

3.3.2.1 Food stamps: Similar to cash transfers, the benefit value of Food Stamps received is calculated as the product of the reported number of months of food stamp receipt and the dollar amount received per month. The monthly amount was top coded at the maximum federal allotment according to household size.

3.3.2.2 Early childhood education and care (ECEC): Early childhood education benefits consist of Head Start, child care, pre-kindergarten and kindergarten benefits. State average annual Head Start allocations per person (Head Start Bureau, 2006) are assigned to those who report the focal child's participation in Head Start programs.

In the one and three year surveys, mothers are asked about the amount of child care assistance they received from a government agency, employer, or child care center. These values are used to construct annual child care subsidy benefits. In the five-year survey, self-reported values are not asked. For families with a child in center-based-care and who indicate subsidy receipt, annual subsidy values are constructed using state average annual

cost of child care (NACCRRRA, 2008) minus annual out of pocket expenses. For families with a child in nonparental child care arrangements and who also indicate subsidy receipt, annual subsidy values are estimated from subsidy values from the three year survey (according to the type of nonparental arrangement) minus any out of pocket expenses. In the five year survey, there are additional questions regarding kindergarten and pre-kindergarten attendance. Each family who has a focal child who attends kindergarten is assigned an initial subsidy value of \$8500, which is the national average annual expenditure a school commits for a child in kindergarten. This subsidy value is weighted for each mother by her state/national per pupil expenditure ratio on K-12 services. Lastly, state average annual spending per child in pre-kindergarten is assigned to all families with enrolled children (National Institute for Early Education Research).

3.3.2.3 Medicaid: State mean annual Medicaid outlays for eligible children and adults are assigned according to mothers' report of Medicaid receipt (mom only, child only, or both). Mothers are assigned a zero value if they indicate a lack of health insurance.

3.3.3.4 WIC: State average monthly WIC benefit per person (United States Department of Agriculture) is assigned to those who report WIC receipt. Benefits are calculated for the respondent and focal child. Respondents of the FFS are not asked to report the number of months of WIC receipt during the last 12 months. However, according to the National WIC Association, mothers and their children up to age five are very likely to be WIC recipients conditional on income and nutrition risk tests. Therefore, if mothers reported WIC receipt, we assume they met eligibility requirements and received WIC during the past 12 months.

3.3.3.5 Employer-provided health insurance: Counting the value of employer provided health insurance as a welfare state benefit entails several steps. First, the value of employer benefits is added to market income (cash earnings) to reflect that the benefit is part of market earnings and is paid for by workers in the form of lower cash earnings. Second, the value is subtracted from market earnings and added back as a welfare state benefit to reflect that the risk of being ill has been socialized at the firm level.

In all three waves of data, respondents self-report private health insurance receipt for themselves and their children. This report is used to calculate a total value of employer provided health insurance and the tax subsidy for recipients. First national averages of the per capita value of employer provided health insurance are used (\$6,410 in 2005 dollars) (Employee Benefit Research Institute, 2004). These figures are assigned to 19 to 34 year olds, and then age-adjusted by a multiplier. The multipliers, taken from Freund and Smeeding (2010), are .75 for persons under 18, 1.0 for 19 to 34, 1.25 for 35 to 54, and 1.75 for 55 to 64.

3.3.4 Tax credit and tax subsidy transfers

3.3.4.1 Earned income tax credit (EITC): These benefits were imputed by applying both federal and state EITC rules according to the earnings of the respondent and married partner. Respondents were assigned EITC benefits conditional on their income and if they had qualifying children (biological, step, or adopted). Benefit values were calculated as a

function of interview year, and then converted to 2005 dollars. Beginning in 2003, phase out ranges increased for married respondents by \$1000. The federal EITC schedules are calculated based on Adjusted Gross Income, however, the FFS asks only about earned income. For this analysis it is assumed that they are identical. Credit amount is calculated using the EITC schedule and the phase-in rate, the maximum subsidy, or the phase-out rate is applied to total earnings. Additionally, it is assumed that married mothers file taxes jointly with their married partner. All those who are income ineligible are constrained to zero subsidy values.

3.3.4.2 Child care tax credit: A maximum of \$3000 of total out of pocket expenses are subject to a nonrefundable tax credit (Internal Revenue Service). Respondents are asked about their child care expenses when the focal child is one, three, and five years of age. In year five, additional information on non-parental child care is included in the calculation of the child care tax credit. First, annual child care expenses are calculated based on mothers' self-reports. Tax liability of each respondent is calculated based on the mother's self-reported earnings plus her married partner's earnings, if any. Standard deductions are subtracted from the calculated earnings according to the mother's marital status (\$5000 for single, \$10,000 otherwise) (Tax Policy Center). The resulting figure is the taxable income. If this figure falls below \$90,000, it is subject to a 15 percent tax bracket; otherwise a 25 percent tax bracket is applied. Finally if the respondent receives EITC, this tax credit is subtracted from a respondent's tax liability to yield a net figure of tax liability.

The tax credit is a percentage of the amount of work-related child care expenses paid to a child care provider, conditional on adjusted gross income (which we assume as self-reported earnings). We combine the respondent's earnings plus her married partner's earnings, if any, to determine their tax credit rate. This rate is applied to the household annual child care expenses to determine the credit amount. However, since the child care tax credit is nonrefundable, the credit is capped according to the net tax liability, as described above.

3.3.4.3 Child tax credit: The federal income tax contains a partially refundable tax credit for each child in the family. A family receives this credit conditional on a child qualifying as a dependent in the household. A qualifying child meets the requirements if he/she is a biological, adopted, step, foster, or other dependent child under the age of 17. The credit is equal to \$500 per child in 1999 and 2000, \$600 from 2001 to 2002, and \$1000 starting in 2003. For 1999-2000, the credit was only available for families with at least three dependents (Steuerle, 2004). The credit equaled the difference between FICA tax responsibilities and EITC, up to the maximum credit. Starting in 2001, the credit was made refundable equal to 10 percent of earnings in excess of \$10,000, up to the maximum credit per child, with the potential refund percentage rising to 15 percent in 2005. Married families with income between \$16,000 and \$110,000 and single parents with income between \$16,000 and \$75,000 receive the full tax credit. Families with income in excess of the maximum income receive no credit. A child tax credit is applied to respondents for all three survey years.

3.3.4.4 Home ownership tax subsidy: Mothers who own a home or live in a home owned by other family members are asked the dollar amount of their monthly mortgage payments.

The monthly values are converted to annual figures. In years three and five, respondents who do not move since the last survey are not asked again about mortgage payments; therefore, the reported values from the previous survey waves are used.

Dietz (2009) calculates average homeowner tax savings for various income classes and mortgage amounts by using Internal Revenue Service Statistics of Income data. These average tax savings for income classes and mortgage amounts are assigned to respondents in the FFS. Tax benefit levels are based on reported earnings of the mother and her married partner, if any, and the annual mortgage payment. Total earnings are capped at \$200,000 and annual mortgage payments are capped at \$300,000.

3.3.5 Taxes—Taxes are imputed on an aggregate basis using estimates derived from Garfinkel, Rainwater, and Smeeding (2010) and the mean incomes of married and fragile families. Garfinkel, Rainwater, and Smeeding found that average tax rates required to fund welfare state benefits are slightly regressive, ranging from 31 percent of cash income in the poorest quintile to 26 percent in the highest quintile. The mean cash incomes for the poorest and next poorest quintiles are \$24,600 and \$42,600, as compared to \$29,300 for fragile families in the FFS data. Interpolation yields a tax rate of 30 percent. Similarly, the mean cash income of families in the fourth quintile, which faces an average tax rate of 27 percent to finance welfare state benefits, is \$86,000 as compared to a mean income for married families of \$83,000. Thus our estimates of taxes for married families assume they pay 27 percent of cash income. While the estimates are crude, the fact that average tax rate is so close to proportional across the entire income distribution means that any errors will be slight.

3.4 Missing Data and Multiple Imputation

Income components are missing for some of the observations in the dataset. Missing values on cash and in-kind benefits and tax credits within the analytic sample were less than 15 percent. Mother's earnings from year one and father's earnings at all waves had nearly a third missing values.

To address potential bias due to missing data, multiple imputation (Rubin, 1976) was employed. This technique allows missing factors to vary among different types of people. Multiple imputation (MI) replaces missing values with predictions based on other information observed in the survey. This creates a “completed” dataset with the original data augmented by imputed data. In contrast to single imputation techniques, MI techniques properly accounts for the uncertainty about missing values (leading to appropriate standard errors) by imputing several values for each missing observation (with variability due to both sampling error and model uncertainty) (Allison, 2002). The imputation models use auxiliary variables which are: mother's age, race/ethnicity, education, number of kids, immigrant status, marital status, city of residence, total self-reported household cash income, mother's employment status, poverty status, cognitive test score, depression, whether the father was interviewed at each wave, and his incarceration status at year 1. Five datasets are imputed. Analyses are conducted in each dataset and the estimates are averaged to reflect the uncertainty in the missing values and appropriate standard errors. Estimates from the

imputed datasets were comparable and did not substantively differ from that of complete case analyses. We present results from the imputed analyses.

3.5 Measuring the Effects of Changes in Family Status on Welfare State Transfers and Full Income

To measure the effects of changes in residential and marital status on welfare state transfers and full incomes, we pool the data across waves and estimate fixed effects models. Despite the rich data on mother's attributes available in the Fragile Families data, it is still possible that there are unobserved differences between those who do and those do not experience family structure transitions. Unobserved differences that do not change over time can be controlled for using a fixed effects model. In the absence of fixed effects the estimated effect of divorce (marriage) on both market and full income depends on both the difference between those who stay (get) married and those who divorce (remain unmarried) and the difference in incomes amongst those who divorce (or marry) before and after the divorce (marriage). In a fixed effects model the estimated effect of divorce or marriage depends only on the before-after difference in incomes amongst those who divorce or marry. The fixed effect models are only generalizable to those families experiencing a change in marital status. But, this seems appropriate for the question at hand. Indeed, in preliminary results not reported, we estimated OLS regressions with a rich set of controls. These models produced estimates of the cost of divorce and gains from marriage that were nearly twice as large as the estimates from the fixed effects models that we report in Table 3 below.

4. Results

This section begins by documenting the vulnerability and fragility of fragile families. The next subsection describes receipt and dollar values of welfare state transfers for fragile families with children as compared to married families with children. Then we describe the role of welfare state transfers in the economic lives of both family types. Finally we present estimates of the extent to which welfare state transfers and the taxes required to finance them narrow the gap between these family types, of the gains to unwed mothers from marriage and losses for married mothers who divorce, and of the extent to which changes in welfare state transfers and taxes cushion changes in family status.

4.1 Vulnerability and Fragility of Fragile Families

Table 1 presents data on the human capital and full incomes of the mother and her family by mother's relationship status with the father at birth. We also distinguish between unwed mothers who are living with the father of the focal child (cohabiting) and those who are living apart from the father (single). (In the table, single mothers who are living with other relatives or non-relatives (usually with their mothers) are grouped together with single mothers who live alone.) Mothers in fragile families as compared to married mothers have much lower human capital and full incomes. Forty percent of mothers in fragile families are high school drop-outs, another 40 percent have no more than a high school education and only one percent have a college degree. Among married mothers, only 19 percent have less than a high school education and over a third have a college education. Mothers in fragile families are also less healthy and younger than the mothers in married families. Mothers

from fragile families are also disproportionately from racial/ethnic minority groups. About half of the mothers in fragile families are black, more than 30 percent are Hispanic and only about 12 percent are white. In stark contrast, nearly half of married mothers are white, 17 percent are black and just under 30 percent are Hispanic. Though not presented, fathers in fragile families as compared to married fathers also have much lower human capital and full incomes. Further, as depicted in the table, while seven percent of fathers in married families have been incarcerated, forty two percent of the fathers in fragile families have a history of incarceration.

Mothers in cohabiting relationships tend to be somewhat more advantaged than those who live apart. Yet, the characteristics of mothers in the cohabiting group are more similar to those in the single group than to those in the married group. All of these differences are reflected in full incomes. The full income of married mothers is nearly \$80,000, or double the income of single mothers. Full income of unwed, but cohabiting mothers, is in between, but much closer to income of single than to that of married mothers. Similarly, though not shown, single mothers who live with others (i.e. relatives and non-relatives) most closely resemble single mothers who live alone, in terms of human capital. In terms of the families' full income, however, single mothers who live with others more closely resemble cohabiting mothers. In short, fragile families differ from married families not just because they are unmarried. They are also considerably more disadvantaged.

The bonds between unwed mothers and fathers at birth are actually stronger than many presumed. Half of the parents were cohabiting, another 30 percent were still involved romantically, and another 10 percent were still friends. Although the children in fragile families are not the products of casual relationships, the romantic bonds between parents weaken rather quickly. By the time the children are five years old, 40 percent of the cohabiting parents and 70 percent of the romantically involved non cohabiting parents have broken up as compared to 20 percent of the married parents (Carlson, McLanahan, & England, 2004). While 26 percent of the couples in fragile families married at some point in the five years after the birth, by the time the children were five years old, only 16 percent remained married.

4.2 Welfare State Transfers by Family Type

Table 2 presents public benefit receipt during the focal child's first year of life by mother's marital and residential status at the time of the child's birth. (Table A.1 reports benefit receipt for years three and five.) Benefits are grouped by cash and in-kind. The most common cash benefits are the two tax credits—child tax credit and EITC. The child tax allowance is received by nearly half of unmarried families and about 70 percent of married families. More than forty percent of fragile families also receive the EITC. The rate for married families is only 20 percent. A large minority of fragile families—over 30 percent—receive TANF and a small but non-trivial minority—seven percent—receive SSI. Receipt rates of TANF and SSI for married families are trivial.

Receipt of in-kind benefits is widespread. Nearly 50 percent of fragile families receive food stamps, more than 80 percent receive WIC, about three quarters receive Medicaid, and 30 percent receive housing subsidies. Married families also have high rates of benefit receipt,

but their benefits come from employer provided and tax benefits. Indeed, a striking feature of Table 2 is the bi-furcated nature of benefit receipt for medical care and housing: fragile families are more likely to receive income-tested benefits while married families are more likely to receive benefits through the tax system. These results reflect what Hacker refers to as the “divided welfare state”. In health care benefits, roughly three quarters of fragile families receive Medicaid, while nearly two-thirds of married families receive employer provided health insurance. Only a quarter of fragile families receive the federal income tax subsidy for owner occupied housing as compared to nearly half of married families. The relatively high proportion of fragile families—25 percent—who receive home ownership tax deduction is due to a large group of fragile families living in their parent's owner-occupied house. Of the fragile families living in an owned home, two-thirds are in a home owned by someone else. Appendix Table 1 indicates the proportion receiving the homeowner subsidy drops closer to 10 percent in years three and five. Amongst fragile families, more than one in four received public housing or housing vouchers, while amongst married families the proportion was five percent.

Amongst fragile families, those who live alone have higher rates of benefit receipt than those in the cohabiting group, but the differences are small. The biggest differences are for TANF receipt and employer provided health insurance: Mothers who live alone are more likely to have TANF and less likely to have employer provided health insurance as compared to those who are cohabiting. Most important, benefit receipt differences, just like human capital differences, between the two kinds of fragile families are quite small compared to the differences between each of them and married families. For this reason, Figure 1 focuses on the comparison of fragile families and married families.

Figure 1 contains pie charts for fragile families and for married families at birth when the focal child is aged one, three, and five years. The size of the pies reflects the total dollar value of welfare state transfers. The sizes of the slices indicate the proportion of benefits that are from: a) the child tax credit; b) the earned income tax credit; c) other cash transfers; d) Food Stamps and WIC; e) health insurance, including Medicaid, SCHIP, and employer provided health insurance; f) housing subsidies, including public housing and vouchers and the homeowner tax deduction; and g) early childhood education, including Head Start, Child care subsidies, child care tax credit, and kindergarten.

Perhaps the most surprising result in the figure is the similarity in the size of welfare state benefits between fragile and married families. This result is driven primarily by the inclusion of employer provided health insurance and income tax subsidies for home ownership. If neither is included, fragile families receive about \$8000 more than married families. In other words, the standard practice of excluding these benefits suggests misleadingly that the American welfare state provides much higher benefits to fragile than married families.

Welfare state benefits are lowest during the first year of life—\$15,936 and \$15,205, respectively, for fragile and married families. In view of recent scientific evidence of the importance of the first few years of life to healthy child development and the fact that economic needs are greatest in the first year of life--both because caretaking needs are greatest and because parents' earnings usually increase with age—this perverse feature of the

American welfare state is worth noting. Benefits increase somewhat between age one and three—by a mere \$428 for fragile families and by \$2700 for married families—and then leap another \$5000 at age five. The big increase is due to the fact that kindergarten begins in many areas at age five.

A striking aspect of Figure 1 is the tiny role of cash benefits. Cash benefits—including the child tax credit, the earned income tax credit, TANF, SSI, UI, and all other cash benefits—at ages one, three, and five account for only one-fifth to one-tenth of the total transfers to fragile families and to married families, respectively. Thus ignoring in-kind benefits for families with young children is to ignore nearly the entirety of the American welfare state. It is also worth noting, though this is not shown in Figure 1, that 80 percent of the total value of cash benefits comes from the two tax credits. These tax credits are also ignored in much of the welfare state literature.

Health insurance is the single largest element of the benefit package for both fragile families and for married families amounting to at least two-fifths of total benefits. In year five, ECEC becomes the second largest element of the benefit package for both kinds of families, amounting respectively to nearly a quarter of total benefits. Housing benefits also represent a significant percentage of the benefit package of fragile and married families.

4.3 Welfare state transfers in the economic lives of fragile families and their redistributive effects

Figure 2 compares the market incomes and full incomes of fragile families to the incomes of married families and displays the role of welfare state transfers in the income packages or full incomes of both types of families. The full value of employer provided benefits is included in both market and full income.

The first set of bars indicates that fragile families earn only a bit more than a third as much market income as their married counterparts: \$34,000 compared to \$93,000. This vast difference is attributable to the equally vast differences between the two groups in human capital and opportunities. The second set of bars present estimates of post-transfer post-tax income, or full income, for the two family groups and for an important subset of fragile families, single mothers. Comparing the first and second set of bars indicates that welfare state transfers and the taxes required to finance them narrow the gap in full incomes between married and fragile families. For fragile families, welfare state transfers exceed taxes by \$11,000, increasing their incomes from \$34,000 to \$45,000. Because the taxes required to finance welfare state benefits other than employer provided health insurance are roughly proportional and the market incomes of married families are much larger than the market incomes of fragile families, married families pay \$8,000 more in taxes to finance welfare state transfers than the transfers they receive from the welfare state, decreasing their incomes from \$93,000 to \$85,000. As a consequence of welfare state transfers and the taxes required to finance them, the ratio of married family to fragile family income shrinks from slightly less than three to one for market income to slightly less than two to one for full income. This estimate implicitly assumes that the transfers and taxes have no behavioral effects, which is not the case, but is a useful first approximation. The difference is only a first approximation because it reflects changes in work, earnings, savings, marriage, and private transfers that

are induced by welfare state transfers and taxes. (For a more detailed discussion see Garfinkel, Rainwater, and Smeeding, p. 63 and footnote 2, 2010.)

Though welfare state transfers are of similar size for different family types, because market incomes are so much larger for married than fragile families, they constitute a much bigger fraction—fully one half, on average, of the full income of fragile families as compared to only about one quarter for married families. For mothers who live alone, welfare state transfers constitute about two-thirds of full income. In short, welfare state transfers loom large in the economic lives of fragile families and play a critical role in the economic lives of single mother families.

4.4 Gains to marriage, losses from divorce, and cushioning of welfare state transfers

Table 3 presents fixed effect estimates of the changes in marital status on welfare state transfers, market incomes, and full incomes. We estimate separate models for families that are married and unmarried at birth. Only mothers married at birth who divorce are included in the first sample. A few of them remarry in which case they are coded as married for that year. Only single mothers, at birth, who marry subsequently, are included in the second sample.

We begin with the estimates for welfare state transfers. As already seen in Figure 1, the differences in welfare state transfers by family type are relatively small. Thus, it is not surprising that transitions have small effects. All are below \$1200 and none of the coefficients are statistically significant. These results suggest that welfare state transfers as a whole do little to nothing to either cushion the loss in income that accompanies divorce or separation or to reduce the gains from marriage. This is surprising, puzzling, and misleading.

That American welfare state transfers, taken as a whole do not cushion losses from divorce and separation or reduce gains from marriage is surprising because most analyses of welfare state effects are limited to one or two parts of the three part American welfare state. Safety nets (programs for the poor) and floors (non-income tested, universal programs) are normally included, but what Garfinkel, Rainwater, and Smeeding (2010) refer to as “platforms” (employer provided benefits and tax benefits) are virtually always ignored. A mother in a fragile family who gets married may lose TANF, and/or Medicaid, and/or public housing, but may gain the child tax and child care tax credits, employer provided health insurance, or the home-owner tax subsidy. Mothers who actually experience the transitions, on average, gain as much as they lose. Note that it is critical to count the full value of employer provided benefits in the comparisons because if only part or none of the value is counted, we will underestimate the full income of those with employer provided benefits. In this context, whether you label part or all of the full value of employer provided benefits as a welfare state benefit is a semantic quibble. The critical point is that the full value must be counted to appropriately calculate gains and losses from marriage.

This is not to say that particular components of the welfare state are ineffective in cushioning income losses. If there were no TANF, or no EITC, or no Medicaid, fragile families would be much worse off. Though beyond the scope of this paper, the correct way to estimate the cushioning effects of particular welfare state programs or sets of programs is

to simulate full incomes with and without the particular programs of interest such as TANF, EITC, and Medicaid and with and without the taxes required to finance these programs. Another interesting question not addressed by our analysis is the extent to which changes in marital status result in families falling through the cracks between American platforms and safety nets—especially between Medicaid and employer provided health insurance. What our results show is that when benefits from the hidden or divided welfare state are appropriately valued, the overall benefits from the welfare state do not change significantly with changes in marital status.

Still, that welfare state transfers do so little to reduce disparities by marital status is puzzling because as reported in the previous section, we find that the American welfare state reduces the income disparity between married and fragile families from three to one to two to one. Focusing on transfers alone is misleading. A full accounting of the effects of welfare states on income differences must take account not only of all transfers, but also all the taxes required to finance the transfers.

The extent to which the American welfare state cushions losses from divorce and reduces gains to marriage may be measured by the difference in the effects of marital status changes on market incomes and full incomes. (As discussed above, the difference between market and full income is a useful first approximation of the redistributive effects of welfare state transfers and taxes.) Columns 2 and 3, in Table 3, present fixed effects estimates of changes in marital and residential status on, respectively, market and full incomes.

Mothers who were married and got divorced, while married have a mean market income of \$80,000 (authors' calculations), lose \$31,221 in market income, but only \$22,859 in full income from divorce. This amounts, respectively, to losses of 39 percent and 29 percent. Mothers who were single at baseline and transitioned to marriage, had a mean income of \$28,000 while single (authors' calculations), gain \$8818 in market income, or 31 percent, but only \$5391, or 19 percent in full income. From these numbers it appears that the losses from divorce to those initially married are higher in percentage terms than the gains from marriage to those who are initially unmarried.

Both the dollar gains and losses are overstatements of increases and decreases in well-being, because they take no account of the increase or decrease in family size and economies of scale that accompany marriage or divorce. To take account of changes in family size and economies of scale, we constructed equivalized measures of market and full income (Betson, 2007; see Table A.2). The results were much the same. The costs of divorce for initially married mothers were losses of equivalized market and full incomes, respectively, of 39 percent and 26 percent. The gains from marriage to singles in market and full incomes were, respectively, 24 percent and 14 percent. We estimated fixed effect changes in these measures of equivalized market and full incomes (analyses available upon request). Our results are consistent with both Thomas and Sawhill (2005) and Carasso and Steuerle (2005) in that we find welfare state transfers and taxes do not eliminate economic gains from marriage, but they do substantially reduce these gains at the bottom of the income distribution.

4.5 A sensitivity analysis

The value of in-kind benefits, as suggested above, may be less than the government cost. As such, in supplementary analyses not shown, we discounted food stamps and WIC at 20% each, Medicaid and employer provided health insurance at 50% each, and housing and ECEC at 50% each. Not surprisingly, doing so reduced the mean welfare state benefits at age 5 substantially—to \$13,500 and \$12,900 for fragile and married families, respectively—but did not overturn the result of nearly equal benefits for the two family types. We also investigated the change of marital status on such discounted benefits (Table A.3). The results were very much the same: the percentage loss in income from divorce was greater than the percentage gains in income from marriage.

5. Discussion

This study contributes to the literatures on income packaging, marriage penalties, inequality, and welfare states by including the value of in kind transfers and taxes in the full income package and by estimating the full incomes for different family types. Most welfare state transfers to families with children are paid in kind or are services rather than cash transfers. Though in kind transfers and services may be worth less (or more) than their government cost to recipients, they are worth more than nothing. Valuation at government cost allows us to add different transfers together, which together provide an overall picture of the benefit side of the American welfare state. Disproportionate expenditures for health insurance, for example, stand out. Similarly, the bifurcated nature of welfare state transfers in health insurance and housing by income class, and thereby, by family type, becomes apparent. The poor and most fragile families receive income tested health insurance and housing benefits, while the middle and upper income, mostly married groups, receive more generous employer provided health insurance and tax subsidized home ownership benefits. Perhaps the most surprising finding is that the total benefits received by different types of families with children are so similar. Consequently, welfare state benefits change very little when marital status changes.

A complete picture of the American welfare state includes taxes and other methods of financing welfare state transfers as well as the transfers. Taken together, American welfare state transfers and the taxes to pay for them reduce inequality. Nearly proportional taxes combined with nearly equal benefits reduce inequality in market incomes, because the absolute amount of the tax increases nearly in proportion to income. Thus, despite the fact that welfare state transfers hardly change at all as marital status changes, the transfers in conjunction with the taxes required to finance them, narrow the differences in income between fragile families and married families from approximately three to one to two to one.

Though welfare state benefits are similar for different family types, welfare state transfers play a much larger role in the economic well-being of fragile families as compared to married families because the market incomes of fragile families is so much lower than that of married families. Half of the full incomes of fragile families come from welfare state transfers. For single mothers living alone, the figure is closer to two-thirds.

Our study is not without limitations. First, though under-reporting of income tested transfer benefits has been increasing and is estimated to be 33% for Food Stamps and 28% for the EITC (Wheaton, 2007; Meyer, Mok, & Sullivan, 2009), we do not attempt to correct for under-reporting of transfer benefits. Second, we assume homogenous quality of in-kind benefits across family structure. Third, fixed effects do not control for unmeasured changing circumstances—such as new fertility, job loss, or other shocks—that may affect both incomes and family structure transitions. If these shocks affected market and full incomes differently other than through welfare state transfers and taxes (though it is not clear to us why they would) our estimates could be biased.

Future research could examine the extent to which our conclusions are robust to corrections for under-reporting, data on within program treatment by marital status, and different assumptions about behavioral changes in response to transfers and taxes. That on average benefits do not change very much for families upon marriage or divorce does not mean that no families experience big gains or losses. Future research could also examine the extent to which some families fall between the cracks in the American welfare state as a result of changes in family status. Finally, future research could examine the cushioning effects of particular components of the American welfare state.

In short, this study suggests that future research on family benefit packaging, marriage disincentives, poverty and inequality should take into consideration in-kind benefits and tax benefits in order to avoid potentially misleading conclusions.

6. Policy Implications

The policy implications of this diverse set of findings are not obvious. As Garfinkel and McLanahan argue in *Single Mothers and Their Children* (1986), social policies for single mothers are confronted by a dilemma of whether to give greater priority to reducing economic insecurity and the poverty of mother only families or to reducing the number of such families and their dependence on government. Thus policy implications are rarely obvious and depend on both values and scientific facts. If we add one fact and a related value judgment not discussed above, the seemingly diverse findings above, point to a pretty consistent set of policy implications. The fact is that poverty and, more generally, economic insecurity are harmful to children (Garfinkel, 1992). Though there is plenty of evidence for this proposition within human populations, the single best piece of evidence comes from a random assignment experiment with monkeys. Interestingly, the study found insecurity to be even more harmful than poverty. (Rosenbloom et al as cited in Garfinkel, 1992.) The related value judgment is that we should give priority to reducing economic insecurity over reducing the number of such families and their dependence on government.

Given that poverty and economic insecurity are damaging to children, that benefits for married and unmarried mothers are so bifurcated is worrisome. Universal floors in health care, housing, and cash assistance would be superior in terms of reducing the economic insecurity of American children and reducing dependence on government safety nets to our current mix of safety net benefits for the poor and near poor and employer provided platform benefits for the middle and upper classes. Universal benefits also have the virtue of reducing

inequality. (Garfinkel, Rainwater, and Smeeding, 2010). There is also no question that some families fall between the cracks. That is why more research on how many and what types of families fall between the cracks in our health care, housing, and cash assistance programs is a high priority for future research. The Affordable Health Care Act, better known as ObamaCare has done a remarkably good job of filling in notable cracks. (So research in this area must be based on very recent data.) Still, it is hard to believe that a universal, single payer federal health insurance system would not be superior to the current system in terms of promoting economic security and healthy development of all American children and restraining the growth of health care costs (Garfinkel, Rainwater, and Smeeding, 2010).

That benefits for single mother and married families are nearly equal is also disquieting because single mother families have greater needs and economic insecurities. Healthy marriages also reduce poverty and promote economic security. That economic incentives for marriage are reduced by the welfare state is of concern, but we should be reassured by the facts that incentives for marriage are not eliminated and that as women's independence has increased over time, marriages have become more healthy and nourishing. These facts reinforce the value judgment to give precedence to reducing economic insecurity.

Enactment of a federal child support assurance system would substantially reduce poverty and dramatically increase the economic security of children in single parent families at little cost to the federal treasury (Garfinkel, 1992; Garfinkel and Nepomnyaschy, 2010). Nonresident parents would be required to pay a portion of their income in child support. The payments would be deducted from earnings just like payroll taxes. And, resident parents with a legal entitlement to child support would receive either the amount paid by the non-resident parent or a guaranteed minimum child support payment. The United States child support system has taken giant strides towards child support assurance on the collection side, but has made no progress on an assured child support benefit. Sweden has an assured child support benefit called advanced maintenance. Several other rich nations have imitated the Swedes (Garfinkel and Nepomnyaschy, 2010). So should we.

A child support assurance system that aimed to increase the economic security of children would not treat fathers who cannot afford to pay child support as criminals (Garfinkel, McLanahan, Meyer and Seltzer, 1998). If child support obligations are expressed as a percent of income, an unemployed father would owe nothing so long as he was unemployed. Neither the unemployed father nor the father in jail would build up arrearages that will never be paid but will serve as an excuse to keep them under the thumb of the law. A greater emphasis on promoting economic security of children will hasten the replacement of law enforcement that has undergirded our federal child support enforcement system with a social service system that seeks to maximize healthy co-parenting of children.

The policy implication of the finding that the welfare state plays such a dominant role in providing economic resources to single mothers and their families—even after “welfare reform”—is that the nation needs to take care that the assistance we provide enhances rather than creates economic security. Unfortunately, we have of late, abandoned an emphasis on enhancing economic security for an emphasis on deterring dependence. Nowhere is this more obvious than in the legislation of a life- time term limit and the implementation of

work requirements in TANF. A policy emphasis on economic security would eliminate the life-time term limit because it symbolically undermines security and would use work/social productivity requirements to encourage independence and uncover a need for services, especially mental health services, rather than a deterrent to application and an excuse for cutting caseloads. It would incorporate the latest scientific evidence on the prevalence of depression and anxiety amongst mothers in the population. In any year about one in five mothers in Fragile Families and Child Well being study suffered from depression: During the first nine years of the child's life, nearly 40% suffer depression (Turney, 2012). Social workers can help educate our legislators, social policy administrators, and the general citizenry about these facts.

Finally, that welfare state benefits for families with pre-school age children in the US are smallest during the first year of life when children are most sensitive and economic need is greatest is perverse. Amongst rich nations, the US stands out by the absence of paid parental leave. Enacting paid parental leave would eliminate this perversity and increase the economic security of American children during their first critical months of their life.

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Appendix

Table A.1
Public Benefit Receipt at One-year, Three-year, and
Five-year Surveys by Mother's Relationship Status at
Birth

	Year 1		Year 3		Year 5	
	Fragile Families	Married	Fragile Families	Married	Fragile Families	Married
Cash Benefits						
Child Tax Credit	45%	71%	41%	71%	46%	67%
ETC	44%	20%	43%	15%	45%	20%
TANF	31%	3%	29%	2%	27%	4%
SSI	7%	1%	7%	1%	9%	1%
Other	3%	4%	6%	6%	4%	4%
In-Kind Benefits						
Food Stamps	43%	8%	47%	6%	53%	13%
WIC	81%	42%	63%	34%	38%	21%
Medicaid	74%	28%	73%	33%	69%	35%
Employer Provided Health Insurance	20%	67%	22%	67%	27%	64%

	Year 1		Year 3		Year 5	
	Fragile Families	Married	Fragile Families	Married	Fragile Families	Married
Public Housing & Vouchers	30%	5%	31%	12%	35%	12%
Home Ownership Tax Deduction	25%	48%	7%	47%	10%	48%
ECEC						
Head Start	5%	1%	10%	8%	25%	11%
Child Care Subsidy	4%	1%	6%	2%	37%	30%
Child Care Tax Credit	14%	21%	16%	44%	28%	75%
Kindergarten	---	---	---	---	26%	29%

Notes: Fragile families refer to non-marital births. All rates are weighted with city weights.

Table A.2
Fixed Effects Regressions Predicting Equivalized
Market and Full Income by Baseline Relationship
Status and Transition

	Equivalized Market Income ^{c, d}	Equivalized Full Income ^d
Married at Baseline		
Divorce ^a	-11891 *** (1624)	-7799 *** (1200)
N	4535	4535
Single at Baseline		
Marriage ^b	3646 *** (768)	1957 ** (591)
N	17315	17315

Note. Standard errors in parentheses.

All models control for number of dependent children in the household and child's age.

^a Mothers who are divorced are either cohabiting or single. Mothers while married or re-married comprise the reference group.

^b Mothers while cohabiting or single comprise the reference group.

^c Market income includes mother's earnings, partner's earnings, if any, other household cash income, and employer provided health insurance.

^d Market and Full income is adjusted by the Betson equivalence scale in order to consider economies of scale.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table A.3
Fixed Effects Regressions Predicting Social Welfare
Transfers, Market Income, and Full Income by Baseline
Relationship Status and Transition

	Using Discounted In-Kind Benefits		
	Total Social Welfare Transfers	Market Income ^c	Full Income
Married at Baseline			
Divorce ^a	-677 (477)	-30463 *** (3996)	-22361 *** (2905)
<i>N</i>	4545	4545	4545
Single at Baseline			
Marriage ^b	-191 (358)	8385 *** (1677)	5614 *** (1228)
<i>N</i>	17460	17460	17460

Note. Standard errors in parentheses.

All models control for number of dependent children in the household and child's age.

^a Mothers who are divorced are either cohabiting or single. Mothers while married or re-married comprise the reference group.

^b Mothers while cohabiting or single comprise the reference group.

^c Market Income includes mother's earnings, partner's earnings, if any, other household cash income, and employer provided health insurance.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

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Highlights

- Total welfare state benefits received by fragile and married families are similar.
- Majority of welfare state transfers are in-kind benefits
- Health insurance, ECEC, and housing are the largest elements of the benefit package
- Changes in marital status have little effect on changes in welfare transfers
- Welfare state transfers and taxes narrow gaps in full incomes between families

Year 1

Year 3

Year 5

Figure 1. Total Public Benefits for Fragile Families and Married Families at One-year, Three-year, and Five-year Surveys (2005 dollars)

Notes: Fragile families include mothers with cohabiting partners, unpartnered mothers living with other adults, and unpartnered mothers living alone. All fragile families experience nonmarital births. Married families are mothers who experienced a marital birth. Other Cash includes TANF, SSI, and Other cash assistance. Health Insurance includes employer provided health insurance and Medicaid. Housing includes public housing and vouchers and homeowner tax deductions. ECEC includes Head Start, child care subsidies, child care tax credit, and kindergarten (only at year 5).

Figure 2. Market and Full Incomes of Married and Fragile Families (Year 5)

Table 1
Human Capital and Full Incomes of Mothers by Relationship Status at Birth

	<u>Fragile Families</u>	<u>Married</u>	<u>Fragile Families</u>	
			<u>Cohabiting</u>	<u>Single</u>
	(n = 3,289)	(n = 1,033)	(n = 1,576)	(n = 1,713)
Mother's education				
Less than high school	40	19	39	41
High school degree	41	24	40	41
More than high school, less than college degree	18	21	20	16
Bachelor's degree or higher	1	36	1	1
Mother has depression ¹ *	13	8	14	11
Mother's health is excellent, very good, or good	89	96	90	89
Mother's age at baby's birth (in years)	24	30	25	23
Mothers' race/ethnicity				
White non-Hispanic	12	45	14	10
Black non-Hispanic	54	17	44	64
Hispanic	31	28	39	24
Other non-Hispanic	2	10	3	2
Father is ever incarcerated ² *	42	7	37	48
Full Income*	40,299	83,310	45,352	35,637

Note: Variables are from the baseline (just after the baby's birth) unless noted with a (*) indicating measures that were assessed at the 1-year survey. All rates are weighted with city weights from the 1-year follow-up.

¹From the Composite International Diagnostic Interview-Short Form. Indicates whether respondent meets the conservative criteria for depressive symptoms.

²(Geller, Garfinkel, Cooper, & Mincy, 2009)

Table 2
Public Benefit Receipt at One-year Survey by Mother's Relationship Status at Birth

	Fragile Families	Married	Fragile Families	
			Cohabiting	Single
Cash Benefits				
Child Tax Credit	45%	71%	49%	42%
EITC	44%	20%	42%	45%
TANF	31%	3%	24%	37%
SSI	7%	1%	6%	8%
Other	3%	4%	3%	2%
In-Kind Benefits				
Food Stamps	43%	8%	39%	48%
WIC	81%	42%	80%	83%
Medicaid	74%	28%	68%	79%
Employer Provided Health Insurance	20%	67%	27%	14%
Public Housing & Vouchers	30%	5%	27%	32%
Home Ownership Tax Deduction	25%	48%	24%	27%
ECEC				
Head Start	5%	1%	4%	6%
Child Care Subsidy	4%	1%	4%	5%
Child Care Tax Credit	14%	21%	14%	10%

Notes: Fragile families refer to non-marital births. All rates are weighted with city weights.

Table 3
Fixed Effects Regressions Predicting Social Welfare Transfers, Market Income, and Full Income by Baseline Relationship Status and Transition

	Total Social Welfare Transfers	Market Income^c	Full Income
Married at Baseline			
Divorce ^a	-1174 (783)	-31221 *** (4032)	-22859 *** (2975)
<i>Person-years</i>	4530	4530	4530
Single at Baseline			
Marriage ^b	-413 (586)	8818 *** (1737)	5391 *** (1325)
<i>Person-years</i>	17430	17430	17430

Note. Standard errors in parentheses.

All models control for number of dependent children in the household and child's age.

^a Mothers who are divorced are either cohabiting or single. Mothers while married or re-married comprise the reference group.

^b Mothers while cohabiting or single comprise the reference group.

^c Market income includes mother's earnings, partner's earnings, if any, other household cash income, and employer provided health insurance.

*
 $p < .05$.

**
 $p < .01$.

 $p < .001$.