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## 520

#### **SOEPpapers**

on Multidisciplinary Panel Data Research

SOEP - The German Socio-Economic Panel Study at DIW Berlin

520-2012

# The Impact of the German Child Benefit on Child Well-Being

Christian Raschke



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at DIW Berlin

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### The Impact of the German Child Benefit on Child Well-Being

Christian Raschke\*

October 2012

#### Abstract

The German Child Benefit ("Kindergeld") is paid to legal guardians of children as a cash benefit. The benefit does not depend on household income or other household characteristics. This study employs exogenous variations in the amount of child benefit received by households to investigate the extent to which these various changes have translated into an improvement in the circumstances of children related to their well-being. I use the German Socio-Economic Panel to estimate the impact of a given change in the child benefit on food expenditures of households, the probability of owning a home, the size of the home, as well as the probability of parents' smoking, alcohol consumption, and parents' social activities such as traveling, visiting movie theaters, going to pop concerts, attending classical music concerts or other cultural events. Households primarily increase per capita food expenditures in response to increases in child benefit, and they also improve housing conditions. I do not find a significant effect of child benefit on parents' smoking or drinking, but parents of older children use the child benefit to pay for their social and personal entertainment activities.

JEL Codes: 138, D12, H31.

Keywords: Child Benefit, Fungibility of Income, Child Well-Being.

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#### 1 Introduction

The parents of children in Germany receive a monthly child benefit ("Kindergeld") for every child. This benefit is not means-tested and all German and EU citizens living in Germany qualify for it.<sup>1</sup> The Child Benefit is at the core of all family support policies in Germany and the Federal Constitutional Court has confirmed that it is intended to ensure that children's needs are met in terms of nutrition, housing, clothing, personal hygiene, and heating (Bundesverfassungsgericht, 1998). Since the benefit is not provided in-kind but rather as a cash transfer to the parents, how much of the additional income is actually used to improve the well-being of children remains an open empirical question.

While there exists some literature investigating the impact of child benefit systems in different European countries and Canada, this study is the first to investigate the impact of child benefit income on various dimensions of household expenditures and parental behavior in Germany. More importantly, this paper contributes to the literature by cleanly identifying the effect of the child benefit. I use a panel data set of households and exploit exogenous intra-household variation in the amount of the benefit to isolate its effect on the outcomes of interest. Using within-household variation of child benefit income in a panel of households and controlling for various time-varying household characteristics overcomes the identification problem of separating the effect of a child benefit from the effects of differences in the number of children, ages of children, and other confounding factors noted in the previous literature (Edmonds, 2002).

Standard economic theory of consumer choice predicts that the source of any additional household income is irrelevant in determining how that additional income is spent. If families maximize a joint utility function, then a cash transfer shifts out the family budget constraint and the change in expenditures resulting from the shift in the budget constraint does not

<sup>&</sup>lt;sup>1</sup>Parents who are German citizens but live abroad may be eligible if they earn income that is fully taxable in Germany. Non-EU citizens may be eligible for child benefit depending on their immigration status. The details of the eligibility rules can be found in §62 Einkommensteuergesetz (EStG) and §1 Bundeskindergeldgesetz (BKGG).

depend on the source of the additional income. An increase in child benefit will result in the same Engel curves as would an increase in other types of household income.<sup>2</sup> However, Thaler (1990) provides evidence suggesting that individuals do not treat cash income from different sources as perfectly substitutable (also see Thaler, 1999). He argues that "mental accounts" attach labels to income from different sources and that the marginal propensity to consume may be different for each of the income sources.

The labeling effect described by Thaler (1990) has been studied empirically in the context of child benefit. Kooreman (2000) used repeated cross sections of Dutch consumer expenditure surveys to investigate the effect of the Dutch child benefit system on parents' spending behavior. He found that the effect of an increase in child benefit income on child clothing expenditures is larger than the effect of an increase in income from other sources on child clothing expenditures for households with only one child. Kooreman suggested that this may be caused by a labeling effect, where parents keep "mental accounts" as proposed in Thaler (1990). However, in Kooreman's study this labeling effect vanished in households with more than one child: larger Dutch families did not distinguish between child benefit income and income from other sources. In a related study, Edmonds (2002) used cross-sectional household data of the Slovenian child benefit program from 1993 to investigate the impact of the child benefit on household expenditures for food, tobacco, alcohol, and clothing. He found no significant effect of child benefit income for any of the above expenditures and concluded that there was no labeling effect.

Most recently, Blow et al. (2012) examined the United Kingdom's Child Benefit program. They studied the time period of 1980-2000 and relied on variation in the real child benefit due to the fact that the government imperfectly accounted for inflation when adjusting

<sup>&</sup>lt;sup>2</sup>Households do no necessarily have to make decisions as a unit for this result to hold: Becker (1981) describes a model in which one person in the household controls all household resources, but is altruistic toward other members of the family. In this case a different intra-household distribution of income does also not result in different consumption patterns for the household. On the other hand, the model developed by Lundberg and Pollack (1993) predicts that cash transfer payments to the mother and payments to the father can imply different consumption patterns for the household (also see Browning et al., 1994). Lundberg et al. (1997) and Schady and Rosero (2008) provide empirical support for the theoretical results of Lundberg and Pollack (1993).

the nominal child benefit, and that the amount of child benefit received for the first child increased considerably on two occasions due to a policy change. They found that up to half of a marginal dollar of an increase in the UK child benefit is spent on alcohol. Changes in the UK's Child Benefit policies have also been used by Lundberg et al. (1997) to show that expenditure patterns are different when the child benefit is paid to the mother, compared to when it is paid to the father. They show that expenditures on women's and child clothing increased when a reform of the UK's system transferred the payout of the benefit from the head of household to the mother.

Given these sharply different results, this paper adds to the evidence on the effects of child benefit income. Data limitations prevent me from analyzing the impact of child benefit on expenditures for child-specific goods, such as toys or child clothing. Instead, I estimate a number of household-level equations explaining households' choices regarding food expenditures and housing. I also investigate individual-level equations to see how parents' consumption patterns change in response to changes in child benefit. In particular, I investigate whether variations in child benefit impact parents' consumption of cigarettes and alcohol, parents' personal entertainment activities, participation in cultural events, as well as vacation travel. Some of these commodities are clearly unrelated to child well-being; others could be related, as I explain later in this section. The results provide insights into whether the child benefit is spent according to the intention of the policy maker.

There is a strong relationship between food expenditures and child well-being, as well as between the housing arrangement of families and child well-being. Food expenditures are directly related to food security (Nord et al., 2010).<sup>3</sup> Furthermore, previous work has shown that food expenditures are highly correlated with dietary quality. For example, Mabli et al. (2010) found that food expenditures of low income households are positively related to the proportion of fruit and vegetables in the households' diet, nutrient density, and expenditure shares of foods recommended for frequent consumption. The authors also found that energy

<sup>&</sup>lt;sup>3</sup>This relationship can be considered mechanical: Food security arises due to a lack of resources (and specifically due to a lack of money) to purchase food.

density and expenditure shares on foods that are not recommended for frequent consumption decrease in food expenditures. Since the well-being of children improves when they are eating a healthier diet at home, it is important to investigate how child benefit income affects per person food expenditures in the household.

Regarding housing outcomes, Green and White (1997) found substantial effects of home ownership on child outcomes. In particular, they found that residential stability associated with home ownership is correlated with higher school attainment of children, keeping family income constant. Aaronson (2000) confirms this finding after accounting for more detailed observable family characteristics and attempting to control for endogeneity of homeownership. In addition to ownership, the size of the home also plays a role in child well-being. Crowding occurs when the physical size of the home is too small for the number of family members, and Goux and Maurin (2005) find a negative causal effect of overcrowded housing conditions on academic performance of children. I estimate the impact of child benefit on the probability of home ownership, as well as the size and number of rooms in a home.

Since the child benefit is fungible, parents may use child benefit to support their consumption of cigarettes and alcohol, or other commodities that are unrelated to the well-being of children. It is not the intention of the policy maker to encourage parents to smoke or drink alcohol, and therefore I also estimate a number of individual-level equations explaining parents' smoking and drinking behavior. The literature on the economics of smoking finds the income elasticity of smoking cigarettes varies systematically over time and across countries (Cheng and Kenkel, 2010; Wilkins et al., 2001). There is a strong income gradient in cross sections indicating that lower income individuals are more likely to smoke in the United States, as well as in Germany (Chaloupka and Warner, 2000; Nocon et al., 2007). At the same time, recessions (i.e. time periods when average incomes are low) are associated with improvements in health behaviors such as smoking and drinking (Ruhm, 2000, 2005), Chaloupka and Grossman (1997) showed that income is positively associated with smoking for youths, and Kenkel et al. (2011) found that smoking is a normal good for low

income households with children. In order to test whether child benefit contributes to parents smoking or drinking, I estimate the impact of child benefit on smoking participation, the number of cigarettes smoked (conditional on smoking), as well as the probability of regularly consuming alcohol.

In addition to the health behaviors related to smoking and drinking, I test whether parents use the benefit to pay for their social activities and personal entertainment activities. These activities include visits to the movie theater or pop music concerts, attending the opera, public lectures, or participating in other cultural events, as well as making excursions or taking short vacation trips. The personal entertainment activities of the parents, such as going to the movies or pop music concerts are unrelated to child well-being. On the other hand, making excursions or going on day trips may include trips to the zoo or amusement parks. Therefore, this activity may be positively related to the well-being of children.

Using data from the German Socio-Economic Panel from 1998 to 2009, I find that house-holds largely use the child benefit as intended by the policy maker. Households respond to increases in child benefit income by increasing per capita food expenditures. Specifically, households spend between 49 and 74 cents out of each additional Euro of child benefit on food. Outcomes related to housing also improve, especially for parents with younger children. Additional child benefit income is associated with a marginally larger home, and an increased likelihood to own a home instead of renting. I do not find any evidence that parents increase smoking or drinking alcohol in response to increases in child benefit. However, parents of older children (at least 18 years old) who still receive child benefit are more likely to use child benefit for their own social activities and are more likely to attend pop concerts, go to the movies, or go to the opera/theater at least once a month.

I also find evidence for a significant labeling effect. Households spend more of every marginal Euro of child benefit on improving nutritional quality and on improving housing conditions, in comparison to an additional Euro from other sources of income.

#### 2 Background of the Child Benefit in Germany

The basic idea of the child benefit in Germany is as follows:<sup>4</sup> The living wage of an individual or couple is not subject to income tax and only income that exceeds the level of living wage ("Grundfreibetrag") is taxable.<sup>5</sup> Households with children are eligible for an additional tax deduction for each child ("Kinderfreibetrag"), but this additional deduction is not considered when calculating tax withholdings. Instead, families with children receive a monthly child benefit in cash. The cash benefit is strictly a function of the number of children; that is, household income or other considerations are irrelevant. All children are generally eligible until they turn 18 years old. Thereafter, the parents may still receive child benefit for the child until the child turns 25 if certain conditions regarding employment status and earnings of the child are met. For instance, a family may continue to receive child benefit for a child older than 18 years if the child still attends school or university. <sup>6</sup> Conditional on the number of children, the child benefit amount is exogenous and does not depend on any other family characteristics. This means that a household with two children pays the same amount of income tax as a childless but otherwise identical household with identical income; yet, the household with children receives the cash child benefit while the childless household does not.

At the end of the year, the Tax Office calculates the total yearly amount of cash child benefit received by the household, and it also calculates the potential tax savings if the child deduction would have been taken instead. For most households the total yearly cash child benefit they received throughout the year exceeds the tax savings that would have resulted from claiming the child deduction. In this case the household keeps the excess amount as a transfer payment ("Förderanteil"). For households with very high income, the tax savings

<sup>&</sup>lt;sup>4</sup>In this section I describe the child benefit system in place during 1996–2011. See Ruhl (1994) for an interesting historical perspective on different approaches to family policy in Germany starting with the early 1900s.

<sup>&</sup>lt;sup>5</sup>This is equivalent to a "personal exemption" in the U.S. income tax system.

<sup>&</sup>lt;sup>6</sup>The precise conditions to be able to receive the benefit beyond the 18th birthday of the child changed over time and are not considered in this paper.

from taking the child deduction exceeds the total yearly child benefit. In this case, the household claims the deduction and pays back any child benefit received.<sup>7</sup> The Tax Office determines ex officio whether the child benefit or the child deduction results in larger savings for the household and therefore this choice is not subject to household decision or to errors by the filing household. In monetary terms, direct government expenditures due to the child benefit and the child deduction were  $\in$ 38.5 billion in 2009 (about 1.6% of GNI),  $\in$ 36.9 billion of which were for the cash benefit and the remaining 1.7 billion for the tax deduction (Bundesministerium der Finanzen, 2010).

Taxable income is not directly observed in the data and is difficult to accurately impute. Moreover, due to changes in the tax schedule and changes in the amount of the allowed deduction, the taxable household income threshold, beyond which taking the tax deduction provides a larger benefit in comparison to taking the cash payment, varies slightly over time. Therefore, in this paper I use only the cash amount of child benefit that is paid out to everyone throughout the year. Ignoring the possibility that households with high income may have received an additional benefit when filing their tax return means that the amount of cash child benefit paid throughout the year can be considered a lower bound. In 2009, there were 17.7 million children eligible for child benefit in Germany and only 11.8% of those children lived in households with sufficiently high household income to be considered for the tax deduction instead of the cash benefit (Bundesministerium der Finanzen, 2010). Since the majority of households receive the cash benefit, I do not expect that using the lower bound of benefit received will have an impact on the results presented below.

<sup>&</sup>lt;sup>7</sup>The current system of receiving a large cash benefit, or a tax deduction has been in place since 1996. Prior to 1996, households received both a tax credit and a (much smaller) cash benefit payment. Previous studies have used changes in the child benefit law as an exogenous source of income variation. For example, Tamm (2008) used the 1996 change in the law as a "natural experiment" that increased income for households with children. He used this natural experiment to determine that income is not causally related to school choice in Germany.

#### 3 Empirical Strategy and Data

I estimate household-level specifications as well as individual-level specifications. The outcomes of interest used in this paper that are observed at the household level are real per capita monthly food expenditures of the household, the probability that the household rents their home, the size of the home measured in square meters, the number of rooms in the home, and the amount of rent paid per month for renters. Smoking and drinking relates to the behavior of individual persons and therefore the unit of observation is the individual parent. I estimate equations describing the probability that a parent smokes, the daily number of cigarettes that a parent consumes conditional on smoking, as well as the probability that a parent regularly consumes alcohol. I also estimate at the individual level the probability that parents attend pop concerts or go to the movies at least once a month, the probability that parents go to classical concerts or attend other cultural events at least once a month, and the probability that parents go on excursions or short vacation trips at least once a month.

Let the outcome of interest k of household j during time t be described by the equation

$$Outcome_{itk} = f_k\left(Y_{it}; \mathbf{Z}_{it}\right),\tag{1}$$

where  $Y_{jt}$  is the real net monthly household income of household j during year t and  $\mathbf{Z}_{jt}$  contains other exogenous time-varying characteristics of the household. If real monthly net household income consists of the child benefit,  $y_{jt}$ , and income from other sources,  $m_{jt}$ , then

$$Outcome_{itk} = f_k(y_{it}, m_{it}; \mathbf{Z}_{it}). \tag{2}$$

Kooreman (2000), Edmonds (2002), and Blow et al. (2012) assume that  $f_k(\cdot)$  is linear, and that y and m are additively separable. This means that these papers test for a labeling effect of child benefit by comparing the coefficients of y and m in a linear regression of expenditures on y, m, and control variables.

Using a comparison of the coefficients of y and m from a linear regression to identify a labeling effect relies on the assumption that child benefit income and income from other sources are additively separable. This is a strong assumption that deserves careful attention. Child benefit income increases households' unearned income and therefore may have an impact on labor supply decisions. Theoretically, increases in unearned income result in a decrease in labor supply and there have been several studies that lend empirical support to this theoretical prediction specifically in the context of child benefit. For example, Tamm (2009) provided evidence to suggest that the reform of the German child benefit system resulting in a substantial increase of child benefit payments from 1995 to 1996 reduced the labor supply of single mothers and mothers with a working spouse. Analyzing the data from the Canadian child benefit for 1947-1999, McNown and Ridao-Cano (2004) found that increases in child benefit reduced female labor supply in Canada.

Out of the previous literature on the impact of child benefit discussed above, only Kooreman (2000) explicitly discusses labor supply concerns. Motivated by the work of Browning and Meghir (1991) who investigated the separability of commodity demands from labor supply, Kooreman (2000) checked the robustness of his results by estimating expenditure equations that include as an explanatory variable a dummy for mothers' labor market participation, instrumented by mothers' education level<sup>9</sup>. However, the choice of the instrument is crucial in order to identify the correct mechanism through which household income may change (Moffitt, 2005). The concern is that child benefit acts as a budget shifter: keeping constant wage, it can affect labor supply due to a shift in unearned income. Under this

<sup>&</sup>lt;sup>8</sup>Researchers who are not specifically concerned with analyzing the effects of child benefit have also recognized that the labor supply effect of child benefit is important. For example, Blundell and Hoynes (2004) investigated whether a shift of the United Kingdom's welfare policy toward in-work benefits between 1980 and 2000 had a positive effect on labor markets. The authors recognized that an increase in the universal child benefit over the same time period may have offset some of the positive impact of the shift toward in-work benefits on labor supply.

<sup>&</sup>lt;sup>9</sup>Edmonds (2002) also instrumented other income, although his primary concern was measurement error in household income. He used as instruments an indicator for whether or not the household is active in the informal sector, regular employment, entrepreneurial activities, receiving fixed incomes, and number of persons eligible for the child benefit. While Blow et al. (2012) wrote about comparing the marginal propensities to spend out of child benefit and other income, they actually used total expenditure less child benefit rather than income in their estimations.

scenario, an increase in child benefit can decrease labor supply, which in turn can lower household income. Since child benefit is determined strictly by the number of children in the household, it is orthogonal to any other household characteristics, including mothers' education level. Even if education is a valid instrument for household income, instrumenting household income with mothers' education does not address the fact household income may change due to a decrease in labor supply in response to an increase in child benefit.

Due to the fact that child benefit is exogenous to everything except for the number of children in the household, finding a good instrument is challenging. In order to nonetheless address any concerns regarding the potential labor supply effects of the variations in child benefit, the main results presented in this paper are based on regressions that use the lagged value of household income as the measure of household income. Child benefit can only affect labor supply contemporaneously and in the future, and current year child benefit does not influence labor supply decisions in the previous year. At the same time, household income is expected to be highly correlated across years within the same household. Variations of this specification are explored in the robustness checks section.

I estimate the following empirical counterpart of Equation (2)

$$Outcome_{jtk} = \alpha_k y_{jt} + \beta_k m_{j(t-1)} + \mathbf{Z}_{jt} \delta_k + \mu_{jk} + \nu_{sk} + \tau_{stk} + \varepsilon_{jtk}, \tag{3}$$

where  $\mathbf{Z}_{jt}$  contains time varying observable characteristics of household j as well as controls for local macroeconomic conditions captured by state level unemployment rates and an indicator for whether Germany was in a recession during the time of the interview.  $\mu_j$  is a vector of household fixed effects so that the effect of child benefit can be identified from variation in the child benefit within the households over time.  $\nu_s$  is a set of indicators for the state of residence of the household to account for systematic differences in behavior across regional areas, and  $\tau_{st}$  represents the set of region specific time trends to capture systematic variation over time in each region.  $\varepsilon_{jtk}$  is an idiosyncratic error term.

When the outcome of interest is observed at the individual level instead of the household level (e.g. for equations describing smoking participation, number of cigarettes smoked, and the probability of regularly consuming alcohol) then Equation (3) becomes

$$Outcome_{itk} = \alpha_k y_{jt} + \beta_k m_{j(t-1)} + \mathbf{Z}_{ijt} \delta_k + \mu_{ik} + \nu_{sk} + \tau_{stk} + \varepsilon_{itk}, \tag{4}$$

where the subscript i denotes the individual. Note that in this individual-level fixed effects specification the income variables  $m_{jt}$  and  $y_{jt}$  are still observed at the household level, and  $\mathbf{Z}_{ijt}$  now also contains time-varying exogenous characteristics of the individual in addition to the household-level characteristics used in the specification of equation (3).

The main results of this paper are obtained by estimating specifications according to Equation (3) and Equation (4).<sup>10</sup> To address concerns regarding the impact of child benefit on fertility, I estimate specifications separately for households that have one child and households that have two children. Households that have one child and households with two children account for 85 percent of the observations in my sample and therefore estimating specifications separately for households with three children or households with four or more children would result in insufficient sample sizes. Therefore, in addition to estimating specifications separately for households with one child and households with two children, I estimate specifications using data on households with a varying number of children over time. In those specifications I include a control variable for the number of children in the household.

I also estimate specifications separately for families that have young children and families that have older children. Families may receive the child benefit until the child is 25 years of age. I define a household with young children to be a household in which the youngest child is less that 18 years old. Equivalently, a household with old children is a household whose children are all at least 18 years of age. Distinguishing between households with old children

 $<sup>^{10}</sup>$ I will also report results of regressions that include contemporaneous child benefit and household income as a robustness check.

and households with young children is interesting for two reasons. First, the child benefit is meant to ease the financial burden of raising children and to ensure that the needs of children in terms of nutrition and housing are met. Younger children will have different needs in that regard compared to older children. For example, older children are more likely to live outside of the home of the parents and no longer eat their meals at home. Second, in 2012 a change in the child benefit law expanded the eligibility criteria for children over the age of 18, while not affecting younger children. If parents of older children behave systematically different from parents of younger children in terms of how child benefit is spent, then identifying this systematically different behavior will be important in the context of the new child benefit law.

#### Data

I use data from the German Socio-Economic Panel (SOEP) to estimate specifications according to equation (3) and (4). The SOEP is a longitudinal data set that has been in place since 1984, with additional samples taken in 1993, 1998, 2000, and 2006 to counter sample attrition.<sup>13</sup> Among many other detailed household characteristics and individual characteristics of each household member, the data also contain information regarding the amount of child benefit received, as well as the number of children in the household (see Wagner et al., 2007).<sup>14</sup>

The child benefit in Germany has been administered in its current form since 1996, and

<sup>&</sup>lt;sup>11</sup>During the sample period used in this study, a child that is older than 18 but less than 25 years of age may be eligible for child benefit while the child continues her education and the child's own income falls below a threshold level

<sup>&</sup>lt;sup>12</sup>Specifically, the requirement that a child's own income falls below a certain threshold has been removed. Since the change of the law took effect in 2012, it cannot be considered in this study and will be the subject of future research.

<sup>&</sup>lt;sup>13</sup>In addition, in 2002 there was a separate sample taken that targeted high income households. Due to the fact that the tax savings due to a tax credit may be larger than the sum of the monthly cash child benefit payments for this group, I exclude the 2002 high income sample from my estimations. My results are not sensitive to omitting or including this sample in the estimations.

<sup>&</sup>lt;sup>14</sup>I use the official monthly amounts of child benefit for which households are eligible to correct for measurement error in the reported child benefit variable. Respondents are much less likely to commit an error when counting their children compared to remembering the precise amount of child benefit they receive.

therefore the sample period used in this paper is very similar to the time period during which the current child benefit policy has been in effect. Some of the outcomes that I consider in this paper are not available in all years of the survey and I will use only data from the years 1998-2009 in this paper due to data availability. While households were asked about their housing situation in every survey year 1998-2009, data regarding food expenditures have only been collected in the years 1998, 2000, 2001, 2003, 2005, and 2007. Parents were asked about their smoking behavior in 1999, 2001, 2002, 2004, 2006, and 2008, and about their drinking behavior in 2006 and 2008. Individuals indicated whether they go to the movies or to pop music concerts at least once a month and whether they attend cultural events at least once a month during the survey years 1998, 1999, 2001, 2003, 2005, and 2007–2009. Information on excursions and short vacation trips is available for the survey years 1998, 2003, and 2008. I do not hold my sample constant, but estimate all specifications using all available data.

Table 1 presents summary statistics and description of the variables used in this study. Panel (a) summarizes household-level variables and Panel (b) summarizes variables observed at the individual level. I use only data on households with children and I exclude families that have multiple generations living in one household. The average child benefit received by households is substantial. Families receive on average 261.79 Euro per month in child benefit for an average of 1.73 children per household. This means that on average, child benefit income is equivalent to about 10 percent of other household income. The youngest child in households is on average just over ten years old and single parents make up about 14 percent of the sample. As shown in Panel (b) of Table 1, parents are on average about 41 years old and about 35 percent of parents are smokers.

Figure 1 shows that there is variation in the nominal amount and real amount of child benefit received over time, conditional on the number of children. <sup>16</sup> In terms of real 2005

<sup>&</sup>lt;sup>15</sup>There was a change in 1996 in the way that the child benefit was administered in Germany. Prior to 1996, households received both a tax credit *and* a small cash benefit. From 1996 onward, the child benefit system has been administered according to the description in Section 2.

<sup>&</sup>lt;sup>16</sup>The nominal changes of child benefit always took effect on January first of a given year.

Euros, a family with two children would receive €246.42 per month in 1998. By 2009, the amount of the child benefit increased by about 25% to €306.54 per month for exactly the same two children. Note also, that in real terms child benefit is not strictly increasing over time. The amount of real child benefit was actually highest in 2002.

It is important to re-emphasize that, conditional on the number of children, the change in child benefit is exogenous and does not depend on any other family characteristics. Issues regarding the take-up of social assistance may be a concern if, for instance, a welfare stigma discourages households to apply for support for which they may be eligible (Moffitt, 1983). In the context of the German child benefit these issues are irrelevant. Due to the universal eligibility of children, the child benefit is not considered social assistance in the same sense that welfare programs are considered social assistance, and it is not associated with welfare stigma (Frick and Groh-Samberg, 2007).

#### 4 Main Results and Discussion

#### Food Expenditures

The first set of results pertains to per capita food expenditures of households. To the extent that per person monthly food expenditures of a household are correlated with the nutritional quality of the food consumed by that household, a positive impact of the child benefit on per capita food expenditures would indicate that the child benefit is used according to the intentions of policy makers. Total monthly household expenditures on food are observed in the survey years 1998, 2000, 2001, 2003, 2005, and 2007 and I construct a measure of per person food expenditures at the household level by dividing the total real monthly food expenditures of households by the number of household members.

Table 2 shows that per capita food expenditures increase significantly as child benefit increases. Point estimates of the effect range from an increase of per capita food expenditures by 40 cents per additional Euro of child benefit received for households with one child

(Column 1), to about 13 cents per additional Euro of child benefit for households with two children (Column 2). Columns 3 – 6 report the impact of child benefit on per capita food expenditures for families with a different number of children over time, controlling for the number of children in the household. Point estimates range from an increase in per capita food expenditures by 15 cents for families with one or two children, to an increase of 21 cents for households with any number of children. These results are highly statistically significant, as well as economically significant.

Table 2 also present the results of estimating the impact of child benefit on per capita food expenditures separately for households that have young children (the youngest child is under the age of age 18) and households that have older children (the youngest child is at least 18 years old). The results for the entire sample are driven by households that have young children present: Regardless of the number of children in the household, the coefficient of child benefit is statistically insignificant for households with older children. The fact that child benefit has no effect on food expenditures in households with children older than 18 years of age is intuitive. Older children are less likely to eat at home because they are more likely to attend college, participate in job training and eat their meals outside of the home.

The results in Table 2 show that household income also positively impacts per capita food expenditures. However, the effect of child benefit income is significantly larger compared to the effect of income from other sources, indicating that there is a labeling effect in child benefit income with respect to food expenditures. An F-test rejects that the coefficient of child benefit and the coefficient of other household income are identical with a p-value of < 0.00. This is true for households with young children, as well as for the pooled sample of households with children of any age. Since the effect of child benefit on per capita food expenditures for households with older children is statistically insignificant, I do not find a labeling effect for these households.

Multiplying the average household size by the estimated increase in per capita food expenditures due to an increase in child benefit provides an estimate of how much total household food expenditures change in response to changes in child benefit. Households with only one child have 2.8 members on average. In this case the point estimate of the coefficient of child benefit indicates that a one Euro increase in child benefit would result in an increase of household food expenditures by more than one Euro. However, this point estimate is not statistically significantly larger from the value that would suggest that all additional child benefit is exhausted on food (p-value = 0.7141). Estimates for all other household sizes are very reasonable and they range from an increase in total food expenditure of 49 cents for every additional Euro of child benefit for households with one or two children, to and increase of 74 cents per additional Euro for households with any number of children.

#### Housing

In this section I investigate the impact of child benefit income on outcomes related to housing. In particular, I estimate the impact of the child benefit on the probability that the household owns or rents their residence, as well as on the size of the residence.<sup>17</sup> Questions about the residential details of the household are asked in every wave of the survey so that changes in the housing conditions of households can be tracked very precisely. Since most interviews in the SOEP are completed in the first quarter of each year, <sup>18</sup> I use the monthly amount of child benefit received during the previous calendar year in all specifications related to housing. <sup>19</sup> It is possible to purchase different food immediately in response to an income shock, but housing decisions are subject to lease contracts and it may take some time to search for a new home.

Table 3 shows that the probability of renting (versus owning) a home decreases in response to an increase in the amount of child benefit. With the exception of the specification that employs only households with two children (Column 2), this effect is statistically significantly different from zero regardless of the number of children in the household. The magnitude of

<sup>&</sup>lt;sup>17</sup>I exclude from the estimations households that live in public housing.

<sup>&</sup>lt;sup>18</sup>Two thirds of all interviews are completed by March. By April about 80% of all interviews are completed.

<sup>&</sup>lt;sup>19</sup>This also means that in order to account for the potential contemporaneous effect of child benefit on labor supply, I include household income lagged by two periods in all housing related estimations.

the effect is also very consistent across family sizes: An increase in child benefit by about 100 Euro per month would be needed to increase the probability of home ownership by one percentage point. Increases in household income also make it less likely that a household rents their home, but the impact of an additional Euro in child benefit on the probability of home ownership is larger than the impact of an additional Euro in household income. Comparing the coefficient of child benefit and the coefficient of household income, an F-test rejects the hypothesis that the coefficients are equal with a p-value of at most 0.052 for all family sizes other than households with two children.<sup>20</sup>

The finding that increases in child benefit decrease the probability that household rent their home is driven by households with younger children. The bottom panel of Table 3 shows that for households with older children, increases in child benefit have no statistically significant effect on the probability of renting. At the same time, the impact of child benefit on the probability of renting for households with young children is generally statistically significant and of similar magnitude to the results for all households. It is intuitive that child benefit does not influence the decision to rent or own in the case of households with older children because children who are older than 18 years of age are very likely to move out of the house soon.

Owning a home compared to renting a home can be considered an improvement in the housing arrangement of a household, but home ownership by itself is not immediately related to the well-being of children. The size of the home is much more important to determine whether children are better off. Table 4 shows that a one Euro increase in child benefit is associated with a larger apartment by 0.0095 square meters for households with one child. This effect is statistically significant and the magnitude is consistent between specifications, ranging from an increase of 0.0094 square meters per Euro for families with two or three

<sup>&</sup>lt;sup>20</sup>In the interest of space, coefficients of control variables are not reported in the Tables, but are available upon request. All of the control variables in this specification have the expected signs. For example, single parents are more likely to rent their home, while households with a larger number of children are less likely to be renters. while statistically indistinguishable from zero, the point estimates of the coefficient of the state unemployment rate as well as the coefficient of the recession indicator are positive.

children, to an increase by 0.0145 square meters for households with one, two, or three children. In terms of square feet, this means that the average home size increases by about 10 - 16 square feet for a 100 Euro increase in child benefit.

In addition to the overall home size, I also consider the number of rooms in the home. In particular, if a child has a room to herself instead of sharing with siblings or other household members, this is a direct improvement in housing conditions related to child well-being. Table 5 present the impact of child benefit on the number of rooms larger than six square meters in the homes of households. The effect of child benefit is positive and generally highly statistically significant. The impact of child benefit on the number of rooms in the home is statistically insignificant only for households with one child. On the other hand, households with one child do increase the size of their home in square meters in response to increases in child benefit, as shown in Table 4. This difference in results is consistent with the idea that an additional room in the home will be more useful than additional square footage when there are more children in the household.

The significant positive impacts of child benefit on home size (Table 4) and the number of rooms in the home (Table 5) are driven by households who have children under the age of 18. As expected, the estimated magnitude of the impact of child benefit on housing related variables is very small. For example, the results from Table 5 suggest that a 100 Euro increase of child benefit increases the number of rooms in the homes of households by about 0.04 to 0.07 rooms, depending on the number of children in the family. However, on the margin additional child benefit results in improvements in the housing situation of households with children. Moreover, there is a statistically significant labeling effect for child benefit income: parents are more likely to use additional child benefit income than income from other sources to improve their housing situation.

There are two margins along which the child benefit may impact the consumption of housing services. First, a household may choose to buy instead of renting. Second, a household may "move up" to a larger or otherwise improved home. For those households that currently rent their home, an increase in income could result in changes along either margin. The household may decide to pursue home ownership, or they may choose to rent a larger residence. On the other hand, home owners are very unlikely to go back to renting a home due to changes in child benefit income. Moreover, since selling a home is more costly and time consuming than terminating a lease, it is also less likely that home owners will purchase a larger home due to the change in child benefit income. Since there may be systematic differences in how renters react to increased income compared to owners, I estimate separate regressions for renters and owners. Additionally, I estimate the impact of child benefit income on the amount of rent paid per square meter.<sup>21</sup> Rent per square meter can be interpreted as a measure of the quality of the home and an increase in child benefit or household income may lead to households choosing to live in an identical size, but higher quality home.

Tables 6 displays the results of estimating the impact of child benefit on rent per square meter for households who rent their home. Tables 7-A/B and 8-A/B present the results of estimating the impact of child benefit on the home size as well as the number of rooms in the home separately for those households who rent their home and for households who own their home. There is no statistically significant impact of child benefit on rent per square meter paid by households. Although insignificant, the point estimate of the coefficient of child benefit is positive in all specifications. With respect to the size of homes, comparing the impact of child benefit income between renters and owners shows that the effects of child benefit on apartment size are driven by renters. Table 7-A shows that a one Euro increase in child benefit results in an increase in home size between 0.0093 and 0.0118 square meters for renters, depending on the number of children in the household. Again, this effect is driven by renters who have young children in the household. At the same time, there is no statistically significant effect of child benefit on the size of the home for home owners (Table

<sup>&</sup>lt;sup>21</sup>Home ownership is not always associated with regularly recurring payments since a household may be paying a mortgage, but they may also have inherited the home, or paid off the home already in the past. Therefore, I do not have an equivalent to monthly housing payments available for owners.

7-B). Results are very similar for the impact of child benefit on the number of rooms in the home for renters and owners. Table 8-A shows that the number of rooms in the home increases for renters, and that this effect is driven by households with young children. On the other hand, the impact of child benefit on the number of rooms in the home is statistically insignificant in every specification for home owners, as shown in Table 8-B.

#### Parents Smoking and Drinking

Parents may use child benefit to support their smoking habits if child benefit income is fungible. Therefore, I report results on whether the child benefit has any impact on the probability that parents smoke. As described in Section 3, I use a panel of individuals instead of households for these estimations and I include individual level fixed effects. Using an individual-level fixed effects specification eliminates the need to include other important determinants of smoking such as age and education (Chaloupka and Warner, 2000; Cutler and Lleras-Muney, 2010) in the estimations. Since the average parent in my sample is 41 years old, there is not enough meaningful variation in education of individuals over time and any difference in education between parents will be captured by the individual fixed effect.<sup>22</sup> Child benefit is paid to the parents of a family and is not assigned to a particular individual parent in the family. Therefore, despite the fact that estimations are performed using individual-level data, child benefit enters the estimation equations at the household level.<sup>23</sup>

Table 9 presents estimates of the impact of child benefit income on the probability of smoking. There is no statistically significant impact of child benefit on smoking participation and there is no significant effect of household income on smoking participation either. While the impact of both child benefit and household income are statistically insignificant, it is interesting to note that the sign of the point estimate of the impact of household income is

<sup>&</sup>lt;sup>22</sup>Moreover, Göhlmann (2007) finds that smoking initiation among older individuals in Germany is not affected by education.

<sup>&</sup>lt;sup>23</sup>Both parents in each household are included in the estimations individually, unless the family is headed by a single parent.

always negative, while there is no clear pattern for the coefficient of child benefit. If anything, this could indicate that smoking may be an inferior good for parents with children. Table 10 shows that child benefit does not impact smoking on the intensive margin either. I report only the impact of child benefit on the number of cigarettes smoked by parents who have one child, parents who have one or two children, and parents with any number of children because sample sizes are small for families with two children and for families with two or three children. Conditional on smoking, there is no change in the number of cigarettes consumed by parents in response to a change in child benefit, regardless of the number of children.

Table 11 present results on drinking behavior. The outcome is a dummy variable that is equal to 1 if the parent indicated to regularly consume either beer, wine, liquor, or mixed drinks and zero otherwise.<sup>24</sup> Blow et al. (2012) found that a large proportion of unexpected increases in child benefit income in the UK were spent on alcohol. While I do not have data on expenditures on alcohol, I am unable to find a significant impact on drinking behavior in response to changes in child benefit income. Note, however that respondents to the SOEP were asked about their drinking behavior only twice: in 2006 and 2008. During this time there was no change in nominal child benefit and the only identifying variation in child benefit comes from the fact that inflation decreased real child benefit between 2006 and 2008. Due to these data limitations results from the drinking behavior regressions should be taken with caution.

#### Parents' social activities

Individuals in the SOEP are also asked about leisure and social activities. In particular, individuals indicate how frequently they attend pop concerts or go to the movies, attend

<sup>&</sup>lt;sup>24</sup>The questionnaire includes separate questions for beer, wine, liquor, or mixed drinks. Respondents are asked to indicate whether they consume each of these types of beverages "Regularly", "Sometimes", "Rarely", or "Never". I consider parents to regularly drink alcohol and code the dummy variable equal to 1 if they indicated to "Regularly" consume any one or more of the above types of beverages. Results are robust to using different classification schemes.

cultural events such as classical music concerts, the opera, public lectures, or the theater, and how frequently they make excursions or take short vacation trips. All household members who are at least 17 years old answer these questions. However, in order to investigate changes in consumption patterns of parents in response to changes in child benefit, I consider only parents in my estimations. If there is a labeling effect for child benefit, then we would not expect child benefit income to be used for parents' social and leisure activities. In particular, since the child benefit is meant to ensure the basic needs of children are met, a labeling effect would not earmark child benefit income for goods such as movie tickets or tickets to the opera. In order to estimate the impact of child benefit on participation in social activities such as going to the movies or attending pop concerts, and participating in cultural events such as classical music concerts, the opera, public lectures, or theater performances, I create a dummy variable for each individual parent that takes a value of one if the parent indicated to participate in such activities at least once a month, and zero otherwise. Similarly, I create a dummy variable that takes a value of one if the parent indicated to make excursions or go on short vacation trips at least monthly. The results presented here are robust to alternative definitions of this measure, for example a dummy variable indicating whether parents participate weekly rather than monthly.

Table 12 shows that parents do indeed use child benefit income to attend pop concerts or to go to the movies. The impact of child benefit on the probability of going to the movies or to pop concerts at least once a month is positive and highly statistically significant. Based on Table 12, a 10 Euro increase in child benefit results in an increased probability of attending pop concerts or the movies at least once a month by 1.3–3 percentage points, depending on the number of children in the household. The effect of child benefit is larger for parents who have children that are all older than 18 years of age. The probability of going to the movies or pop music concerts increases by 1.3–2.7 percentage points for an additional 10 Euros of child benefit for households with young children. For households with older children, the impact of child benefit is about four times larger. Depending of the number of children in the

household, the probability of going to the movies or attending pop concerts at least monthly increases by 5.1–12 percentage points for a 10 Euro increase in child benefit. This means that parents use child benefit for their own entertainment to a larger extent when children are older, compared to when children are younger. Furthermore, the impact of an additional Euro of child benefit on the probability that parents go to the movies or to pop concerts at least once a month is statistically significantly larger than the impact of an additional Euro of household income.

Similar results hold for parents participating in cultural events, such as going to classical concerts, the opera, public lectures, or the theater. As shown in Table 13, parents are more likely to attend such cultural events as child benefit increases. Regardless of the number of children in the family, child benefit is used to a greater extent for opera, theater, or public lectures by parents who have older children. The impact of child benefit on the probability of participating in cultural events is similar in magnitude, yet somewhat smaller, compared to the magnitude of the impact of child benefit on the probability of participating in other social events such as the movies or pop music concerts.

Increases in child benefit are also associated with an increased probability of going on excursions or short vacation trips at least once a month (Table 14). However, the estimated impact of child benefit is relatively small compared to the estimates of other activities discussed above. Moreover, contrary to the impact of child benefit on the probability of going to the movies or cultural events, the increases in the probability of going on excursions or short vacation trips due to an increase in child benefit are driven by households with younger children. Since excursions of parents with young children in the household include trips such as visits to the zoo, museums, or amusement parks together with children, this result indicates that child benefit is used for the benefit of children.

Parents respond individually to questions about how frequently they participate in the activities discussed above. It is likely, though not necessary, that parents go to the movies, concerts, and trips together as couples. In about 90 percent of cases, parents in the same

households agree on whether they engage in these activities at least monthly.<sup>25</sup> The results in Tables 12, 13, and 14 are robust to restricting the estimation sample to only those cases in which parents both agree.<sup>26</sup>

#### 5 Robustness Checks

In order to test the robustness of the results obtained in this paper, I estimate several alternative specifications. My main results are based on specifications that include the lagged value of household income as a measure of other income. This avoids the potential bias introduced into the model if child benefit income affects labor supply and therefore wage income in the current period. Since the previous literature did not consider this potential confounding and estimated specifications that included contemporaneous child benefit income and household income, I examine whether any of my results change when I also use contemporaneous child benefit income and household income such that

$$Outcome_{jtk} = \alpha_k y_{jt} + \beta_k m_{jt} + \mathbf{Z}_{jt} \delta_k + \mu_{jk} + \nu_{sk} + \tau_{stk} + \varepsilon_{jtk}, \tag{5}$$

where outcomes are determined by child benefit (y) and current income (m).

Moreover, if additional child benefit income indeed causes a decrease in labor supply and therefore a decrease in household income, then  $\gamma$  is negative in

$$m_{jt} = \gamma y_{jt} + \mathbf{Z}_{jt}\lambda + \nu_{jt}, \tag{6}$$

where  $m_{jt}$  is household income (minus child benefit) in household j during year t,  $y_{jt}$  is child benefit in household j during year t, and  $\mathbf{Z}_{jt}$  is a vector of exogenous household character-

 $<sup>^{25}</sup>$ Parents agree about going to the movies or pop music concerts at least monthly in 87% of all cases, agree about participating in cultural events at least monthly in 93% of all cases, and agree about making excursions or short trips at least monthly in 84% of all cases.

<sup>&</sup>lt;sup>26</sup>Tables with results of restricting the estimation sample those cases in which parents both agree are omitted in the interest of space. Those results are available upon request.

istics. Substituting (6) back into Equation (5) results in

$$Outcome_{jtk} = (\alpha_k + \beta_k \gamma) y_{jt} + \mathbf{Z}_{jt} \delta_k + \mu_{jk} + \nu_{sk} + \tau_{stk} + \varepsilon_{jtk}. \tag{7}$$

Therefore, I also estimate reduced form specifications according to Equation (7) that only include child benefit on the right hand side. Since  $\gamma$  is expected to be negative if there is a significant impact of child benefit on household income, then for normal goods I expect the reduced form coefficient to be smaller in magnitude compared to the estimates of the main results. For inferior goods (when  $\beta_k$  is negative) the magnitude of the reduced form coefficient would be larger. In the interest of space, I only report results of the robustness checks for regressions that include children of any age. Separate results for families with young children and families with older children are available upon request.

Regarding per capita food expenditures, the results obtained by estimating Equation (5), where I include contemporaneous household income rather than lagged household income, provides very similar estimates compared to the main results (See Appendix Table 1). Furthermore, the small differences between the estimates of the coefficient of child benefit do not appear to be systematic. For households with only one child and households with two or three children, the coefficient of child benefit is smaller when estimating Equation (5) (reported in Appendix Table 1) in comparison to Equation (3) (Table 2), whereas for all other household sizes the coefficient is larger. However, there is a systematic difference in the magnitude of the household income variable. Using contemporaneous household income and child benefit in the regression increases the point estimate of the impact of household income on per capita food expenditures. The magnitude of the difference is not enough to erase the labeling effect: An F-test of whether the coefficient of child benefit and the coefficient of household income are equal rejects the null hypothesis with a p-value of < 0.00 regardless of family size.

The results of estimating the reduced form are also presented in Appendix Table 1. The

estimate of the impact of child benefit on per capita food expenditures from the reduced form equation is very similar to the estimate from the main results. Interestingly, the impact of child benefit on per capita food expenditures is larger in the reduced form specification compared to the specifications that include a measure of household income. However, the difference between the coefficients is small.

I also check whether my results are robust to running specifications that use the logarithm of per capita food expenditures as the outcome variable. Appendix Table 2 shows that per capita food expenditures increase between 0.08% and 0.25% for an additional Euro of child benefit, depending on the number of children in the household. The impact of child benefit is statistically significant for households with young children and households with children of any age. Similar to the main results where I use the level of per capita food expenditure as the outcome variable presented in Table 2, the impact of child benefit for households with older children is statistically insignificant. The magnitude of the impact of child benefit is also very similar in the log-linear specification compared to the main results. For example, the estimated 0.08% increase in per capita food expenditures for an additional Euro in child benefit for households with two children (Column 2 in Appendix Table 2) translates into an increase in per capita food expenditures by 11.2 cents over a mean of 140.03 Euros. This is very similar to the estimate of 12.99 cents per additional Euro in child benefit from Column 2 of Table 2.

Housing related results are also robust to using different measures of household income. Appendix Tables 3 – 5 show the results of estimating the impact of child benefit on the probability of being a renter, the size of the home in square meters, as well as the number of rooms in the home when using contemporaneous household income as the measure of household income as depicted in Equation (5), and when estimating the reduced form specification shown in Equation (7). The impact of child benefit on each of the outcomes is consistent with the main results and numerically very similar. Appendix Table 5 shows that the reduced form estimate of the impact of child benefit on the number of rooms in the

house is smaller than the estimate of the impact of child benefit when household income is included in the regression. This is as expected, although the difference is very small.

Appendix Table 6 and Appendix Table 7 show that there is no impact of child benefit on the probability that parents smoke and no impact of child benefit on the probability that parents frequently consume alcohol regardless of the measure of household income. With the exception of households with only one child present, the impact of household income on smoking remains statistically insignificant when contemporaneous child benefit and household income are used in the estimation. In the reduced form specifications, the impact of child benefit on smoking is statistically insignificant regardless of the number of children in the household, and there is no pattern in the sign of the point estimates.

Regarding parents' social activities, Appendix Table 8 and Appendix Table 9 show that there is little difference in the impact of child benefit between the main results based on Equation (3) and the results of estimating specifications including contemporaneous child benefit and household income according to Equation (5). Estimating the reduced form specification also produces results that are consistent with the main results. When using contemporaneous child benefit and household income in the specification, the impact of an additional Euro of household income on the probability of participating in cultural events is generally positive and statistically significant. The impact of an additional Euro of household income on the probability that parents go the movies or pop music concerts at least once a month is also positive and statistically significant for households with two or three children. This result is expected. However, in the specifications using the lagged value of household income, the impact of lagged household income was statistically indistinguishable from zero in all cases. Since going to the movie theater and participating in cultural events are expected to be normal goods, the former result is more intuitive and the specification using contemporaneous child benefit and household income may be preferred to the specification that uses the lagged value of household income.

Since the reduced form estimates, as well as the estimates obtained from regressions that

include contemporaneous child benefit and household income are qualitatively and quantitatively similar to the main results, I conclude that the impact of child benefit on household income through the channel of labor supply is negligible.

#### 6 Conclusion

The German child benefit is intended to ensure that children's needs in terms of nutrition and housing (among other things) are met. Since the benefit is paid in cash and is fungible, I investigate whether parents really do use the child benefit for its intended purpose. I find that households primarily increase their per capita food expenditures in response to exogenous increases in child benefit, which should improve nutrition. Households spend on average between 49 and 74 cents out of every additional Euro of child benefit on food. Households also use child benefit to improve their housing conditions: they are more likely to own their home instead of renting, and are more likely to live in a larger home if they are renters.

I also find that there is a significant labeling effect for the child benefit, indicating that households treat child benefit income differently compared to income from other sources. An increase in child benefit income leads to larger improvements in nutrition and housing conditions compared to an identical increase in general household income. This is consistent with the evidence obtained in the previous literature for the Dutch child benefit. I find no evidence that child benefit increases smoking of parents and, contrary to evidence from the United Kingdom, I do not find that child benefit income causes parents to consume more alcohol.

I find that parents use child benefit for their personal entertainment and social activities that are unrelated to the well-being of children. As child benefit increases, parents are more likely to go to the movies or to pop music concerts at least once a month, and they are more likely to attend cultural events such as classical music concerts, the opera, public lectures, or theater performances. Parents also use child benefit to make excursions and to take short

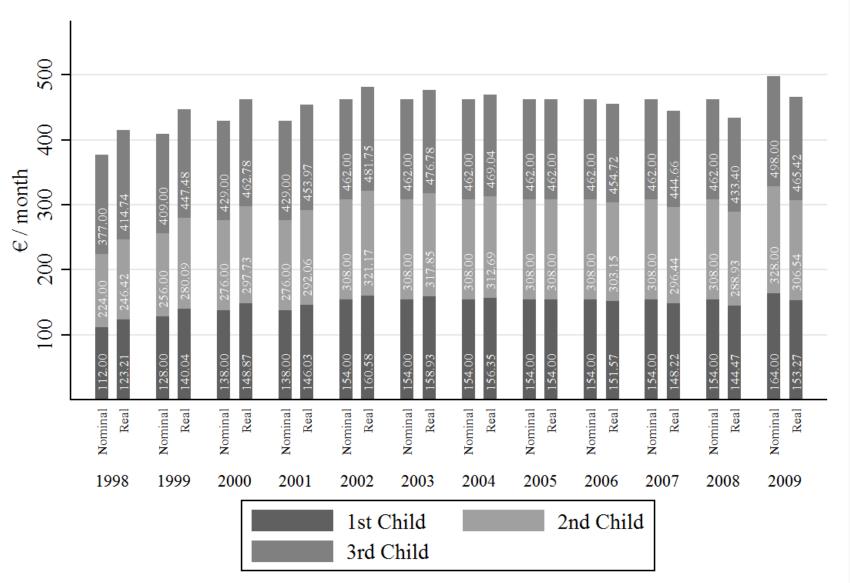
vacation trips.

Since parents may be eligible for child benefit up to the point when their child is 25 years old, I investigate whether parents of older children respond differently to changes in child benefit. Per capita household expenditure on food does not increase for households in which all children are older than 18 years, while it does for households with younger children. Similarly, the impact of child benefit on housing related variables is not significant for households with older children.

Interestingly, compared to the parents of younger children, parents whose children are older than 18 years of age are more likely to use child benefit for their personal entertainment activities such as going to the movies or pop music concerts, and they are more likely to use child benefit to attend cultural events such as classical music concerts, the opera, public lectures, or the theater. On the other hand, parents are more likely to use child benefit to go on day trips or short vacations when children are young. Given that such trips include outings to the zoo and amusement parks, this is not necessarily a detrimental outcome for the well-being of young children.

Since it is the explicit intention of the policy maker to ensure the wellbeing of children in terms of nutrition and housing, these results show that the child benefit does indeed have the desired effect for families with non-adult children. Parents improve nutrition and housing conditions in response to an increase in child benefit when children are young, and parents do not use the child benefit to increase smoking or drinking. Once children are older, however, parents no longer improve nutrition and housing conditions when child benefit increases. Rather they use the child benefit for their own social activities and entertainment, i.e. they increase expenditures on goods that are assignable directly to the parents, not the children.

Figure 1: Child Benefit Amounts, 1998-2009



Note: Numbers inside the bars represent cumulative totals

 Table 1: Summary Statistics

Panel (a) Variables Observed at the Household Level

Variable	Description	Mean	Std. Dev	Obs
Child Benefit	Real Child Benefit in 2005€/month	261.79	134.54	39,598
HH Income	Real Net Houshold Income in	2655.23	1424.60	38,084
	2005€/month			
Number of Children	Number of Children in Household for	1.7322	0.8377	$39,\!598$
	which child benefit is received			
Only Child	Household has one child	0.4549	0.4980	$39,\!598$
Two Children	Household has two children	0.4012	0.4902	$39,\!598$
Three Children	Household has three children	0.1125	0.3160	$39,\!598$
Four or more Children	Household has at least four children	0.0313	0.1742	$39,\!598$
Single Parent	Single Parent	0.1387	0.3457	39598
Age of Youngest Child	Age of the youngest child in the house-	10.276	6.739	$39,\!598$
	hold			
Food Expenditure	Total per capita monthly expenditures on	148.59	67.77	$20,\!590$
	food in the household			
Renter	Household rents or owns their residence	0.4543	0.4979	37,135
	(Rent=1/Own=0)			
Size $(m^2)$	Size of the residence measured in square	112.74	41.98	37,136
` ,	meters			
Number of Rooms	The number of rooms in the home larger	4.5681	1.6197	37,136
	than 6 square meters			
$\mathrm{Rent}/m^2$	Rent per square meter in real	5.8539	1.9343	16,117
,	2005€/month			,
Unemployment Rate	State-level unemployment rate	10.260	4.379	39,598
Recession	Country is in recession in current year	0.4783	0.4995	$39,\!598$
	v			

Panel (b) Variables Observed at the Individual Level

Variable	Description	Mean	Std. Dev	Obs
Age	Age of Parent	40.88	8.33	70,875
Smoking	Parent Smokes	0.3535	0.4781	$35,\!693$
Number of Cigarettes	Number of Cigarettes smoked per day among smokers	16.2879	8.8358	7,985
Drinking	Parent regularly consumes alcohol	0.1506	0.3577	11,159
Movies or Pop Concerts	Parents go to the movies or pop music concerts at least once a month	0.2277	0.4194	44,089
Cultural Events	Parents attend cultural events such as classical music concerts, the opera, public lectures, or the theater at least once a month	0.1459	0.3531	44,111
Short Trips	0.2577	0.4374	16,269	

Note: Net HH Income does not include the Child Benefit. Real Child Benefit and real net household income were calculated using the overall consumer price index. Rent per square meter is deflated using the specific rent-and-utility price index. Summary statistics for housing related variables exclude households that have receiving subsidized public housing.

**Table 2:** The Impact of Child Benefit on Per Capita Monthly Food Expenditures in Households.

	Per Person Real Monthly Household Food Expenditures						
	(1)	(2)	(3)	(4)	(5)	(6)	
	Families with						
	1 Child	2 Children	1 or 2 Children	2 or 3 Children	1, 2, or 3 Children	Any Number of Children	
Households with children of any age							
Child Benefit	0.3971*** (0.1091)	0.1299*** (0.0391)	0.1482*** (0.0358)	0.1614*** (0.0323)	0.1829*** (0.0303)	$0.2070^{***}$ (0.0272)	
HH Income	0.0069*** (0.0019)	0.0034* (0.0014)	0.0051*** (0.0011)	$0.0030^*$ $(0.0012)$	0.0047*** (0.0010)	0.0046*** (0.0009)	
p(CB = HH Income) Observations	$0.0004 \\ 6,942$	$0.0013 \\ 6,856$	0.0001 $13,798$	$0.0000 \\ 8,803$	$0.0000 \\ 15,745$	0.0000 $16,295$	
Households with young children							
Child Benefit	0.4304*** (0.1305)	0.1376*** (0.0405)	0.1587*** (0.0376)	0.1666*** (0.0332)	0.1879*** (0.0315)	0.1984*** (0.0281)	
HH Income	$0.0062^*$ $(0.0024)$	0.0048*** (0.0013)	0.0051*** (0.0011)	0.0038** (0.0012)	$0.0045^{***}$ $(0.0010)$	$0.0045^{***}$ (0.0010)	
p(CB = HH Income) Observations	$0.0012 \\ 5,067$	0.0011 $6,292$	0.0000 $11,359$	$0.0000 \\ 8,182$	0.0000 $13,249$	0.0000 $13,793$	
Households with old chi	ildren						
Child Benefit	0.5283 $(0.3718)$	0.3169 $(0.3532)$	0.3071 $(0.2172)$	0.1256 $(0.3003)$	0.3028 $(0.2043)$	0.2763 $(0.1998)$	
HH Income	0.0005 $(0.0043)$	-0.0021 $(0.0027)$	0.0010 $(0.0027)$	-0.0022 $(0.0027)$	0.0007 $(0.0027)$	0.0006 $(0.0026)$	
p(CB = HH Income) Observations	0.1565 $1,406$	$0.3680 \\ 355$	$0.1588 \\ 1,761$	$0.6710 \\ 391$	0.1394 $1,797$	0.1679 $1,800$	

Note: All specifications include household fixed effects. Standard errors clustered at the household level are in parenthesis. p < 0.1, p < 0.05, p < 0.01. p = HH Income is the p-value of an F-test testing the null hypothesis that the coefficient of Child Benefit (CB) equals the coefficient of other household income. Households with young children have at least one child under the age of 18 living in the households. Families with older children have children who are all at least 18 years of age. Household income does not include the Child Benefit. Both Child Benefit and Household Income are Measured in Real 2005  $\in$ . Household income is lagged by one year. Other controls included in each specification are single parent indicators, a quadratic term in the age of the youngest child, the state level unemployment rate, dummy variables for whether the country was in a recession during a sample year, dummy variables for states, as well as state-specific year trends. Specifications for Columns (3)-(6) also control for the number of children in the household.

**Table 3:** The Impact of Child Benefit on the Probability that Households Rent Their Home.

		P	robability of	Being a Re	nter	
	(1)	(2)	(3)	(4)	(5)	(6)
			Famili	ies with		
	1 Child	2 Children	1 or 2 Children	2 or 3 Children	1, 2, or 3 Children	Any Number of Children
Households with childre	n of any age					
Child Benefit	-0.0001** (0.0000)	-0.0001 (0.0000)	-0.0001*** (0.0000)	-0.0001* (0.0000)	-0.0001*** (0.0000)	-0.0001*** (0.0000)
HH Income	-0.0000*** (0.0000)	-0.0000** (0.0000)	-0.0000*** (0.0000)	-0.0000** (0.0000)	-0.0000*** (0.0000)	-0.0000*** (0.0000)
p(CB = HH Income) Observations	0.0252 $10,829$	0.1539 $11,628$	0.0007 $22,457$	0.0522 $14,875$	0.0001 $25,704$	0.0002 $26,581$
Households with young	children					
Child Benefit	-0.0002* (0.0001)	-0.0001 (0.0000)	-0.0001** (0.0000)	-0.0001 (0.0000)	-0.0001** (0.0000)	-0.0001** (0.0000)
HH Income	-0.0000** (0.0000)	-0.0000** (0.0000)	-0.0000*** (0.0000)	-0.0000** (0.0000)	-0.0000*** (0.0000)	-0.0000*** (0.0000)
p(CB = HH Income) Observations	$0.0394 \\ 7,557$	0.3081 $10,595$	0.0169 $18,152$	0.1197 $13,737$	0.0064 $21,294$	0.0095 $22,161$
Households with old chi	ldren					
Child Benefit	-0.0000 (0.0000)	-0.0000 (0.0000)	0.0000 $(0.0000)$	-0.0000 (0.0000)	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$
HH Income	-0.0000* (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)
p(CB = HH Income) Observations	0.8705 1,775	$0.9440 \\ 425$	0.5112 $2,200$	$0.9891 \\ 463$	0.4395 $2,238$	$0.5022 \\ 2,242$

Note: All specifications include household fixed effects. Standard errors clustered at the household level are in parenthesis.  ${}^*p < 0.1, {}^{**}p < 0.05, {}^{***}p < 0.01.$  p(CB = HH Income) is the p-value of an F-test testing the null hypothesis that the coefficient of Child Benefit (CB) equals the coefficient of other household income. Households with young children have at least one child under the age of 18 living in the households. Families with older children have children who are all at least 18 years of age. Household income does not include the Child Benefit. Both Child Benefit and Household Income are Measured in Real 2005  $\in$ . Child Benefit is lagged by one year. Household income is lagged by two years. Other controls included in each specification are single parent indicators, a quadratic term in the age of the youngest child, the state level unemployment rate, dummy variables for whether the country was in a recession during a sample year, dummy variables for states, as well as state-specific year trends. Specifications for Columns (3)-(6) also control for the number of children in the household.

**Table 4:** The Impact of Child Benefit on the Size (Square Meters) of Homes of Households.

		Si	ze of Home	in Square I	Meters	
	(1)	(2)	(3)	(4)	(5)	(6)
			Fami	lies with		
	1 Child	2 Children	1 or 2 Children	2 or 3 Children	1, 2, or 3 Children	Any Number of Children
Households with childre	n of any a	ge				
Child Benefit	$0.0095^*$ $(0.0046)$	0.0079 $(0.0045)$	$0.0133^{***}$ $(0.0037)$	$0.0094^*$ $(0.0043)$	$0.0145^{***}$ (0.0036)	0.0128*** (0.0034)
HH Income	0.0008* (0.0003)	$0.0006 \\ (0.0005)$	0.0009** (0.0003)	0.0009* (0.0004)	0.0011*** (0.0003)	0.0012*** (0.0003)
p(CB = HH Income) Observations	0.0586 $10,829$	0.1045 $11,628$	0.0008 $22,457$	0.0516 $14,875$	0.0002 $25,704$	0.0007 $26,581$
Households with young	children					
Child Benefit	0.0078 $(0.0056)$	0.0089 $(0.0051)$	0.0131** (0.0044)	0.0093 $(0.0048)$	0.0127** (0.0040)	0.0108** (0.0039)
HH Income	0.0006 $(0.0004)$	0.0005 $(0.0006)$	0.0008* (0.0004)	$0.0010^*$ $(0.0005)$	0.0011** (0.0003)	0.0011*** (0.0003)
p(CB = HH Income) Observations	$0.1960 \\ 7,557$	0.0949 $10,595$	0.0049 $18,152$	0.0861 $13,737$	0.0041 $21,294$	0.0145 $22,161$
Households with old chi	ildren					
Child Benefit	0.0036 $(0.0086)$	-0.0033 (0.0124)	-0.0009 (0.0065)	0.0140 $(0.0125)$	0.0035 $(0.0064)$	0.0037 $(0.0064)$
HH Income	-0.0000 (0.0006)	0.0001 $(0.0004)$	0.0001 $(0.0003)$	0.0003 $(0.0004)$	0.0002 $(0.0003)$	0.0002 $(0.0003)$
p(CB = HH Income) Observations	0.6754 $1,775$	$0.7775 \\ 425$	$0.8750 \\ 2,200$	$0.2706 \\ 463$	0.6073 $2,238$	$0.5840 \\ 2,242$

Note: All specifications include household fixed effects. Standard errors clustered at the household level are in parenthesis. p < 0.1, p < 0.05, p < 0.05, p < 0.01. p < 0.01.

**Table 5:** The Impact of Child Benefit on the Number of Rooms in the Homes of Households.

			Numbe	r of Rooms		
	(1)	(2)	(3)	(4)	(5)	(6)
			Fami	ilies with		
	1 Child	2 Children	1 or 2 Children	2 or 3 Children	1, 2, or 3 Children	Any Number of Children
Households with childre	n of any ag	ge				
Child Benefit	0.0003 $(0.0002)$	$0.0003^*$ $(0.0002)$	0.0006*** (0.0001)	0.0004** (0.0002)	$0.0007^{***} $ $(0.0001)$	0.0006*** (0.0001)
HH Income	0.0000 (0.0000)	0.0000** (0.0000)	0.0000*** (0.0000)	0.0001*** (0.0000)	0.0001*** (0.0000)	0.0001*** (0.0000)
p(CB = HH Income) Observations	0.1662 $10,829$	0.0555 $11,628$	0.0002 $22,457$	0.0145 $14,875$	$0.0000 \\ 25,704$	$0.0000 \\ 26,581$
Households with young	children					
Child Benefit	0.0003 $(0.0003)$	$0.0004^*$ $(0.0002)$	$0.0005^{**}$ (0.0002)	0.0004* $(0.0002)$	0.0006*** (0.0001)	$0.0005^{***}$ $(0.0001)$
HH Income	0.0000 $(0.0000)$	$0.0000 \\ (0.0000)$	$0.0000^*$ $(0.0000)$	0.0000** (0.0000)	0.0000*** (0.0000)	0.0000*** (0.0000)
p(CB = HH Income) Observations	$0.2278 \\ 7,557$	0.0301 $10,595$	0.0039 $18,152$	0.0290 $13,737$	0.0006 $21,294$	0.0025 $22,161$
Households with old chi	ldren					
Child Benefit	0.0003 $(0.0004)$	-0.0004 (0.0007)	0.0004 $(0.0003)$	-0.0004 (0.0005)	0.0004 $(0.0003)$	0.0004 $(0.0003)$
HH Income	0.0001* (0.0000)	0.0001*** (0.0000)	0.0001** (0.0000)	0.0001*** (0.0000)	0.0001** (0.0000)	0.0001** (0.0000)
p(CB = HH Income) Observations	0.6018 1,775	$0.4553 \\ 425$	0.2173 $2,200$	$0.3300 \\ 463$	$0.2782 \\ 2,238$	$0.2595 \\ 2,242$

Note: All specifications include household fixed effects. Standard errors clustered at the household level are in parenthesis.  ${}^*p < 0.1, {}^{**}p < 0.05, {}^{***}p < 0.01.$  p(CB = HH Income) is the p-value of an F-test testing the null hypothesis that the coefficient of Child Benefit (CB) equals the coefficient of other household income. Households with young children have at least one child under the age of 18 living in the households. Families with older children have children who are all at least 18 years of age. Household income does not include the Child Benefit. Both Child Benefit and Household Income are Measured in Real  $2005 \in$ . Child Benefit is lagged by one year. Household income is lagged by two years. Other controls included in each specification are single parent indicators, a quadratic term in the age of the youngest child, the state level unemployment rate, dummy variables for whether the country was in a recession during a sample year, dummy variables for states, as well as state-specific year trends. Specifications for Columns (3)-(6) also control for the number of children in the household.

**Table 6:** The Impact of Child Benefit on the Amount of Rent Paid per Square Meter.

			Rent Per	Square Me	ter	
	(1)	(2)	(3)	(4)	(5)	(6)
			Fami	ilies with		
	1 Child	2 Children	1 or 2 Children	2 or 3 Children	1, 2, or 3 Children	Any Number of Children
Households with childre	n of any ag	ge				
Child Benefit	0.0002 $(0.0004)$	0.0002 $(0.0003)$	0.0002 $(0.0002)$	0.0004 $(0.0003)$	0.0003 $(0.0002)$	0.0002 $(0.0002)$
HH Income	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$
p(CB = HH Income) Observations	0.7124 $5,285$	$0.5425 \\ 4,281$	$0.5487 \\ 9,566$	$0.1294 \\ 5,498$	0.2816 $10,783$	0.4419 $11,129$
Households with young	children					
Child Benefit	0.0004 $(0.0004)$	0.0002 $(0.0003)$	0.0002 $(0.0002)$	0.0005 $(0.0003)$	0.0004 $(0.0002)$	0.0003 $(0.0002)$
HH Income	0.0001 $(0.0000)$	-0.0000 (0.0000)	$0.0000 \\ (0.0000)$	-0.0000 (0.0000)	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$
p(CB = HH Income) Observations	0.4535 3,940	$0.4669 \\ 3,974$	$0.4916 \\ 7,914$	$0.0972 \\ 5,170$	$0.1228 \\ 9,110$	$0.1598 \\ 9,455$
Households with old chi	ildren					
Child Benefit	0.0022 $(0.0012)$	0.0009 $(0.0023)$	0.0016 $(0.0009)$	-0.0004 (0.0020)	0.0014 $(0.0008)$	0.0014 $(0.0008)$
HH Income	-0.0000 (0.0001)	0.0004** (0.0001)	0.0001 $(0.0000)$	0.0003** (0.0001)	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$
p(CB = HH Income) Observations	0.0692 684	0.8277 116	0.0729 800	0.7257 123	0.0902 807	0.0902 807

Note: All specifications include household fixed effects. Standard errors clustered at the household level are in parenthesis. p < 0.1, p < 0.05, p < 0.01. p < 0.01.

**Table 7-A:** The Impact of Child Benefit on the Size (Square Meters) of Homes for Households that Rent their Home.

		Size of	Home in Se	quare Meters	(Renters)	
	(1)	(2)	(3)	(4)	(5)	(6)
			Fam	ilies with		
	1 Child	2 Children	1 or 2 Children	2 or 3 Children	1, 2, or 3 Children	Any Number of Children
Households with childre	n of any a	ge				
Child Benefit	0.0058 $(0.0051)$	0.0076 $(0.0049)$	$0.0093^*$ $(0.0037)$	$0.0090^*$ $(0.0042)$	0.0118** (0.0036)	$0.0117^{***}$ $(0.0030)$
HH Income	$0.0007 \\ (0.0004)$	0.0013** (0.0005)	0.0012*** (0.0003)	0.0015*** (0.0004)	0.0014*** (0.0003)	0.0014*** (0.0003)
p(CB = HH Income) Observations	$0.3198 \\ 5,488$	$0.2014 \\ 4,522$	0.0257 $10,010$	$0.0778 \\ 5,787$	0.0037 $11,275$	0.0007 $11,626$
Households with young	children					
Child Benefit	0.0029 $(0.0053)$	$0.0061 \\ (0.0051)$	0.0081* (0.0040)	0.0082 $(0.0046)$	0.0106** (0.0040)	0.0104** (0.0032)
HH Income	$0.0006 \\ (0.0005)$	0.0016** (0.0005)	0.0012** (0.0004)	0.0018*** (0.0004)	0.0014*** (0.0003)	0.0015*** (0.0003)
p(CB = HH Income) Observations	$0.6656 \\ 4{,}105$	$0.3684 \\ 4,203$	$0.0899 \\ 8,308$	$0.1598 \\ 5,447$	$0.0216 \\ 9,552$	$0.0065 \\ 9,902$
Households with old chi	ldren					
Child Benefit	-0.0092 (0.0091)	-0.0018 (0.0034)	0.0002 $(0.0064)$	0.0007 $(0.0039)$	0.0019 $(0.0059)$	0.0019 $(0.0059)$
HH Income	-0.0001 (0.0005)	-0.0009** (0.0002)	-0.0003 (0.0004)	-0.0010*** (0.0002)	-0.0003 (0.0004)	-0.0003 (0.0004)
p(CB = HH Income) Observations	0.3221 704	0.7906 $121$	$0.9452 \\ 825$	0.6775 $128$	$0.7098 \\ 832$	$0.7098 \\ 832$

Note: All specifications include household fixed effects. Standard errors clustered at the household level are in parenthesis. p < 0.1, p < 0.05, p < 0.01. p = HH Income is the p-value of an F-test testing the null hypothesis that the coefficient of Child Benefit (CB) equals the coefficient of other household income. Households with young children have at least one child under the age of 18 living in the households. Families with older children have children who are all at least 18 years of age. Household income does not include the Child Benefit. Both Child Benefit and Household Income are Measured in Real  $2005 \in \mathbb{C}$ . Child Benefit is lagged by one year. Household income is lagged by two years. Other controls included in each specification are single parent indicators, a quadratic term in the age of the youngest child, the state level unemployment rate, dummy variables for whether the country was in a recession during a sample year, dummy variables for states, as well as state-specific year trends. Specifications for Columns (3)-(6) also control for the number of children in the household.

**Table 7-B:** The Impact of Child Benefit on the Size (Square Meters) of Homes for Households that Own their Home.

		Size of	Home in So	quare Meter	rs (Owners)	
	(1)	(2)	(3)	(4)	(5)	(6)
			Fami	ilies with		
	1 Child	2 Children	1 or 2 Children	2 or 3 Children	1, 2, or 3 Children	Any Number of Children
Households with childre	n of any ag	ge				
Child Benefit	0.0022 $(0.0071)$	-0.0022 $(0.0052)$	0.0043 $(0.0053)$	0.0012 $(0.0049)$	$0.0068 \ (0.0051)$	$0.0058 \ (0.0051)$
HH Income	-0.0003 (0.0003)	-0.0004 $(0.0005)$	-0.0002 (0.0003)	-0.0002 (0.0004)	-0.0001 (0.0003)	-0.0000 $(0.0003)$
p(CB = HH Income) Observations	$0.7243 \\ 5,341$	$0.7226 \\ 7,106$	0.3897 $12,447$	$0.7898 \\ 9,088$	0.1761 $14,429$	0.2515 $14,955$
Households with young	children					
Child Benefit	-0.0029 (0.0100)	0.0007 $(0.0059)$	0.0037 $(0.0063)$	0.0014 $(0.0055)$	0.0049 $(0.0057)$	0.0040 $(0.0060)$
HH Income	-0.0006 (0.0005)	-0.0008 (0.0006)	-0.0008 (0.0004)	-0.0004 $(0.0005)$	-0.0004 (0.0004)	-0.0004 $(0.0004)$
p(CB = HH Income) Observations	0.8197 $3,452$	0.7911 $6,392$	$0.4705 \\ 9,844$	$0.7492 \\ 8,290$	0.3558 $11,742$	0.4665 $12,259$
Households with old chi	ldren					
Child Benefit	-0.0011 (0.0106)	-0.0084 (0.0148)	-0.0043 (0.0084)	0.0166 $(0.0161)$	0.0018 $(0.0086)$	0.0021 $(0.0086)$
HH Income	-0.0002 (0.0007)	0.0001 $(0.0005)$	0.0001 $(0.0003)$	$0.0005 \\ (0.0005)$	0.0002 $(0.0003)$	0.0002 $(0.0003)$
p(CB = HH Income) Observations	0.9348 $1,071$	$0.5609 \\ 304$	$0.5999 \\ 1,375$	$0.3149 \\ 335$	0.8474 $1,406$	0.8257 $1,410$

Note: All specifications include household fixed effects. Standard errors clustered at the household level are in parenthesis. p < 0.1, p < 0.05, p < 0.01. p < 0.01.

**Table 8-A:** The Impact of Child Benefit on the Number of Rooms in Homes of Households that Rent their Home.

		N	Number of I	Rooms (Ren	nters)	
	(1)	(2)	(3)	(4)	(5)	(6)
			Fami	ilies with		
	1 Child	2 Children	1 or 2 Children	2 or 3 Children	1, 2, or 3 Children	Any Number of Children
Households with childre	n of any ag	ge				
Child Benefit	0.0002 $(0.0002)$	0.0004 $(0.0002)$	0.0004** (0.0002)	0.0003 $(0.0002)$	0.0005** (0.0001)	$0.0005^{**}  (0.0001)$
HH Income	$0.0000 \\ (0.0000)$	0.0001 $(0.0000)$	0.0000* (0.0000)	0.0000 $(0.0000)$	0.0000* (0.0000)	0.0000** (0.0000)
p(CB = HH Income) Observations	$0.3403 \\ 5,488$	$0.1204 \\ 4,522$	0.0077 $10,010$	$0.1659 \\ 5,787$	0.0027 $11,275$	0.0028 $11,626$
Households with young	children					
Child Benefit	0.0002 $(0.0002)$	0.0003 $(0.0002)$	$0.0004^*$ $(0.0002)$	0.0002 $(0.0002)$	$0.0004^*$ $(0.0002)$	$0.0004* \\ (0.0002)$
HH Income	$0.0000 \\ (0.0000)$	0.0001 $(0.0000)$	$0.0000^*$ $(0.0000)$	$0.0000 \\ (0.0000)$	$0.0000^*$ $(0.0000)$	$0.0000^*$ $(0.0000)$
p(CB = HH Income) Observations	0.4839 4,105	$0.2508 \\ 4,203$	$0.0358 \\ 8,308$	$0.3961 \\ 5,447$	$0.0247 \\ 9,552$	$0.0326 \\ 9,902$
Households with old chi	ldren					
Child Benefit	-0.0002 (0.0006)	0.0017 $(0.0010)$	0.0002 $(0.0004)$	0.0013 $(0.0008)$	0.0002 $(0.0003)$	0.0002 $(0.0003)$
HH Income	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$	$0.0000^*$ $(0.0000)$	$0.0000 \\ (0.0000)$	$0.0000^*$ $(0.0000)$	$0.0000^*$ $(0.0000)$
p(CB = HH Income) Observations	0.6309 704	0.0983 121	0.6319 825	0.1038 128	0.6612 832	0.6612 832

Note: All specifications include household fixed effects. Standard errors clustered at the household level are in parenthesis. p < 0.1, p < 0.05, p < 0.01. p < 0.01.

**Table 8-B:** The Impact of Child Benefit on the Number of Rooms in Homes of Households that Own their Home.

		N	Number of l	Rooms (Own	ners)	
	(1)	(2)	(3)	(4)	(5)	(6)
			Fam	ilies with		
	1 Child	2 Children	1 or 2 Children	2 or 3 Children	1, 2, or 3 Children	Any Number of Children
Households with childre	n of any ag	ge				
Child Benefit	-0.0001 (0.0004)	0.0002 $(0.0002)$	0.0003 $(0.0002)$	0.0004 $(0.0002)$	0.0005** (0.0002)	$0.0005^*$ $(0.0002)$
HH Income	-0.0000 (0.0000)	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$
p(CB = HH Income) Observations	$0.7191 \\ 5,341$	$0.5436 \\ 7,106$	$0.1090 \\ 12,447$	$0.1134 \\ 9,088$	0.0109 $14,429$	0.0154 $14,955$
Households with young	children					
Child Benefit	-0.0003 (0.0006)	0.0003 $(0.0002)$	0.0002 $(0.0002)$	0.0004 $(0.0002)$	0.0004 $(0.0002)$	0.0003 $(0.0002)$
HH Income	-0.0000 (0.0000)	$0.0000 \\ (0.0000)$	-0.0000 (0.0000)	$0.0000 \\ (0.0000)$	-0.0000 (0.0000)	-0.0000 (0.0000)
p(CB = HH Income) Observations	0.6655 $3,452$	$0.1955 \\ 6,392$	$0.4259 \\ 9,844$	$0.0946 \\ 8,290$	0.0689 $11,742$	0.0995 $12,259$
Households with old chi	ildren					
Child Benefit	-0.0001 (0.0006)	-0.0010 (0.0008)	0.0001 $(0.0004)$	-0.0008 (0.0006)	$0.0001 \\ (0.0004)$	0.0001 $(0.0004)$
HH Income	$0.0000 \\ (0.0000)$	0.0001*** (0.0000)	$0.0000^*$ $(0.0000)$	0.0001*** (0.0000)	$0.0000^*$ $(0.0000)$	$0.0000^*$ $(0.0000)$
p(CB = HH Income) Observations	0.8545 1,071	0.1519 304	0.8071 $1375$	0.1725 335	0.9137 1,406	0.8823 1,410

Note: All specifications include household fixed effects. Standard errors clustered at the household level are in parenthesis. p < 0.1, p < 0.05, p < 0.01. p = HH Income is the p-value of an F-test testing the null hypothesis that the coefficient of Child Benefit (CB) equals the coefficient of other household income. Households with young children have at least one child under the age of 18 living in the households. Families with older children have children who are all at least 18 years of age. Household income does not include the Child Benefit. Both Child Benefit and Household Income are Measured in Real 2005  $\in$ . Child Benefit is lagged by one year. Household income is lagged by two years. Other controls included in each specification are single parent indicators, a quadratic term in the age of the youngest child, the state level unemployment rate, dummy variables for whether the country was in a recession during a sample year, dummy variables for states, as well as state-specific year trends. Specifications for Columns (3)-(6) also control for the number of children in the household.

Table 9: The Impact of Child Benefit on the Probability that Parents Smoke.

			Smoking	Participation	on	
	(1)	(2)	(3)	(4)	(5)	(6)
			Pare	ents with		
	1 Child	2 Children	1 or 2 Children	2 or 3 Children	1, 2, or 3 Children	Any Number of Children
Parents with children o	f any age					
Child Benefit	0.0002 $(0.0006)$	0.0001 $(0.0002)$	0.0002 $(0.0002)$	-0.0001 (0.0002)	-0.0001 $(0.0002)$	-0.0001 (0.0001)
HH Income	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)
p(CB = HH Income) Observations	0.7057 $12,756$	0.5492 $13,157$	$0.4000 \\ 25,913$	0.4765 $16,973$	0.6204 $29,729$	0.7265 $30,773$
Parents with young chil	ldren					
Child Benefit	0.0002 $(0.0007)$	0.0001 $(0.0002)$	0.0001 $(0.0002)$	-0.0002 (0.0002)	-0.0002 $(0.0002)$	-0.0001 (0.0002)
HH Income	$0.0000 \\ (0.0000)$	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)
p(CB = HH Income) Observations	$0.7791 \\ 9,127$	0.6457 $12,095$	0.7993 $21,222$	0.4135 $15,808$	0.2854 $24,935$	0.3948 $25,969$
Parents with old childre	en					
Child Benefit	-0.0004 (0.0014)	0.0018 $(0.0020)$	$0.0008 \\ (0.0008)$	0.0005 $(0.0019)$	0.0003 $(0.0008)$	$0.0006 \\ (0.0008)$
HH Income	-0.0000* (0.0000)	$0.0000 \\ (0.0000)$	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)
p(CB = HH Income) Observations	0.7834 $2,785$	$0.3769 \\ 685$	$0.3575 \\ 3,470$	$0.8085 \\ 757$	$0.6925 \\ 3,542$	$0.4418 \\ 3,550$

Note: All specifications include individual fixed effects. Standard errors clustered at the individual level are in parenthesis. p < 0.1, p < 0.05, p < 0.01. p < 0.01

**Table 10:** The Impact of Child Benefit on the Number of Cigarettes that Parents Smoke.

	Number	of Cigarett	tes Per Day
	(1)	(2)	(3)
		Parents wi	th
	1 Child	1 or 2 Children	Any Number of Children
Parents with children of	any age		
Child Benefit	-0.4689 $(0.5989)$	-0.0405 $(0.0291)$	-0.0139 $(0.0144)$
HH Income	0.0001 $(0.0002)$	$0.0000 \\ (0.0001)$	$0.0000 \\ (0.0001)$
p(CB = HH Income) Observations	$0.4336 \\ 3,185$	$0.1638 \\ 5,861$	0.3353 $6,907$
Parents with young chil	dren		
Child Benefit	-1.0667 $(0.6309)$	-0.0535 $(0.0330)$	-0.0194 $(0.0153)$
HH Income	0.0002 $(0.0002)$	0.0001 $(0.0001)$	0.0001 $(0.0001)$
p(CB = HH Income) Observations	0.0911 $2,371$	$0.1045 \\ 4,845$	$0.2020 \\ 5,875$
Parents with old childre	$\overline{n}$		
Child Benefit	-2.0466 (1.3411)	-0.0173 $(0.1929)$	0.0634 $(0.1251)$
HH Income	-0.0003 $(0.0005)$	-0.0001 $(0.0005)$	-0.0001 (0.0004)
p(CB = HH Income) Observations	$0.1277 \\ 604$	$0.9290 \\ 729$	$0.6121 \\ 740$

Note: All specifications include individual fixed effects. Standard errors clustered at the individual level are in parenthesis. \*p < 0.1, \*\*p < 0.05, \*\*\*p < 0.01. p(CB = HH Income) is the pvalue of an F-test testing the null hypothesis that the coefficient of Child Benefit (CB) equals the coefficient of other household income. Parents with young children have at least one child under the age of 18. Parents with older children have children who are all at least 18 years of age. Household income does not include the Child Benefit. Both Child Benefit and Household Income are Measured in Real 2005 €. Household income is lagged by one year. Other controls included in each specification are single parent indicators, a quadratic term in the age of the youngest child, the state level unemployment rate, dummy variables for whether the country was in a recession during a sample year, dummy variables for states, as well as state-specific year trends. Specifications for Columns (2) and (3) also control for the number of children in the household.

**Table 11:** The Impact of Child Benefit on the Probability that Parents Regularly Drink Alcohol.

		]	Drinking Al	cohol Regu	larly	
	(1)	(2)	(3)	(4)	(5)	(6)
			Pare	ents with		
	1 Child	2 Children	1 or 2 Children	2 or 3 Children	1, 2, or 3 Children	Any Number of Children
Parents with children of	f any age					
Child Benefit	-0.0357 $(0.0750)$	0.0467 $(0.0758)$	-0.0005 $(0.0019)$	0.0042 $(0.0029)$	0.0016 $(0.0013)$	0.0007 $(0.0010)$
HH Income	0.0000* (0.0000)	-0.0000 (0.0000)	$0.0000 \\ (0.0000)$	-0.0000 (0.0000)	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$
p(CB = HH Income) Observations	$0.6339 \\ 3,942$	$0.5379 \\ 3,967$	$0.8082 \\ 7,909$	$0.1485 \\ 5,074$	$0.2289 \\ 9,016$	$0.4567 \\ 9,295$
Parents with young chil	dren					
Child Benefit	-0.1051 $(0.0789)$	0.0862 $(0.0749)$	0.0010 $(0.0021)$	0.0027 $(0.0029)$	0.0021 $(0.0015)$	0.0010 $(0.0010)$
HH Income	0.0000* (0.0000)	$-0.0000^*$ $(0.0000)$	-0.0000 (0.0000)	-0.0000* (0.0000)	-0.0000 (0.0000)	$0.0000 \\ (0.0000)$
p(CB = HH Income) Observations	0.1832 $2,635$	$0.2496 \\ 3,521$	$0.6430 \\ 6,156$	$0.3507 \\ 4,581$	0.1489 $7,216$	$0.3537 \\ 7,491$
Parents with old childre	en					
Child Benefit	-0.0167 $(0.0337)$	-0.0460 $(0.0376)$	0.0045 $(0.0101)$	0.0007 $(0.0010)$	0.0029 $(0.0082)$	0.0030 $(0.0043)$
HH Income	0.0000 (0.0000)	0.0001 $(0.0001)$	$0.0000 \\ (0.0000)$	0.0001 $(0.0001)$	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$
p(CB = HH Income) Observations	$0.6201 \\ 1,031$	$0.2207 \\ 310$	$0.6595 \\ 1,341$	$0.5194 \\ 339$	0.7225 $1,370$	0.4929 $1,372$

Note: All specifications include individual fixed effects. Standard errors clustered at the individual level are in parenthesis. p < 0.1, p < 0.05, p < 0.01. p = HH Income is the p-value of an F-test testing the null hypothesis that the coefficient of Child Benefit (CB) equals the coefficient of other household income. Parents with young children have at least one child under the age of 18. Parents with older children have children who are all at least 18 years of age. Household income does not include the Child Benefit. Both Child Benefit and Household Income are Measured in Real 2005  $\in$ . Household income is lagged by one year. Other controls included in each specification are single parent indicators, a quadratic term in the age of the youngest child, the state level unemployment rate, dummy variables for whether the country was in a recession during a sample year, dummy variables for states, as well as state-specific year trends. Specifications for Columns (3)-(6) also control for the number of children in the household.

**Table 12:** The Impact of Child Benefit on the Probability that Parents Go to the Movies or Attend Pop Music Concerts at least Once per Month

	Going to the Movies or Pop Music Concerts Once a Month									
	(1)	(2)	(3)	(4)	(5)	(6)				
		Parents with								
						Any				
	$\begin{array}{c} 1 \\ Child \end{array}$	$\mathcal{Z}$ $Children$	1 or 2 Children	2 or 3 Children	1, 2, or 3 Children	Number of Children				
Parents with children o	f any age									
Child Benefit	0.0030*** (0.0004)	0.0013*** (0.0002)	0.0013*** (0.0002)	0.0017*** (0.0002)	0.0016*** (0.0001)	$0.0015^{***}$ $(0.0001)$				
HH Income	-0.0000 (0.0000)	$0.0000 \\ (0.0000)$	-0.0000 (0.0000)	$0.0000 \\ (0.0000)$	-0.0000 (0.0000)	-0.0000 (0.0000)				
p(CB = HH Income) Observations	0.0000 $15,952$	0.0000 $16,394$	$0.0000 \\ 32,346$	$0.0000 \\ 21,120$	$0.0000 \\ 37,072$	$0.0000 \\ 38,364$				
Parents with young chil	dren									
Child Benefit	0.0027*** (0.0006)	0.0013*** (0.0002)	0.0013*** (0.0002)	0.0017*** (0.0002)	0.0016*** (0.0002)	$0.0016^{***}$ $(0.0001)$				
HH Income	-0.0000 (0.0000)	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$	-0.0000 (0.0000)				
p(CB = HH Income) Observations	0.0000 $11,326$	0.0000 $14,962$	$0.0000 \\ 26,288$	0.0000 $19,529$	$0.0000 \\ 30,855$	$0.0000 \\ 32,136$				
Parents with old childre	en									
Child Benefit	0.0123*** (0.0016)	$0.0051^{**}  (0.0017)$	$0.0067^{***}$ (0.0009)	$0.0055^{***}$ (0.0015)	0.0066*** (0.0009)	$0.0068^{***}$ (0.0009)				
HH Income	-0.0000 (0.0000)	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$				
p(CB = HH Income) Observations	0.0000 3,546	0.0024 $953$	$0.0000 \\ 4,499$	0.0003 $1,053$	$0.0000 \\ 4,599$	$0.0000 \\ 4,605$				

Note: All specifications include individual fixed effects. Standard errors clustered at the individual level are in parenthesis. p < 0.1, p < 0.05, p < 0.01. p = 10 HH Income is the p-value of an F-test testing the null hypothesis that the coefficient of Child Benefit (CB) equals the coefficient of other household income. Parents with young children have at least one child under the age of 18. Parents with older children have children who are all at least 18 years of age. Household income does not include the Child Benefit. Both Child Benefit and Household Income are Measured in Real 1000 Household income is lagged by one year. Other controls included in each specification are single parent indicators, a quadratic term in the age of the youngest child, the state level unemployment rate, dummy variables for whether the country was in a recession during a sample year, dummy variables for states, as well as state-specific year trends. Specifications for Columns (3)-(6) also control for the number of children in the household.

**Table 13:** The Impact of Child Benefit on Cultural Events Attended by Parents (Opera, Classical Music Concerts, Public Lectures, Theater.)

	Attending Cultural Events (Opera, Classical Music Concerts, Public Lectures, Theater) Once a Month								
	(1)	(2)	(3)	(4)	(5)	(6)			
			Pare	nts with					
	1 Child	, ,							
Parents with children o	f any age								
Child Benefit	0.0023*** (0.0003)	0.0011*** (0.0001)	0.0011*** (0.0001)	0.0016*** (0.0001)	0.0014*** (0.0001)	$0.0013^{***}$ $(0.0001)$			
HH Income	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)			
p(CB = HH Income) Observations	0.0000 $15,963$	0.0000 $16,396$	0.0000 $32,359$	$0.0000 \\ 21,122$	$0.0000 \\ 37,085$	$0.0000 \\ 38,379$			
Parents with young chil	ldren								
Child Benefit	0.0025*** (0.0004)	0.0009*** (0.0002)	0.0010*** (0.0001)	0.0015*** (0.0001)	0.0014*** (0.0001)	$0.0013^{***} $ $(0.0001)$			
HH Income	-0.0000* (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)			
p(CB = HH Income) Observations	0.0000 $11,333$	0.0000 $14,963$	0.0000 $26,296$	0.0000 $19,530$	$0.0000 \\ 30,863$	$0.0000 \\ 32,146$			
Parents with old childre	en								
Child Benefit	0.0096*** (0.0014)	0.0052** (0.0018)	0.0062*** (0.0009)	0.0067*** (0.0016)	0.0066*** (0.0009)	0.0063*** (0.0009)			
HH Income	-0.0000 (0.0000)	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$			
p(CB = HH Income) Observations	$0.0000 \\ 3,551$	$0.0037 \\ 953$	$0.0000 \\ 4,504$	$0.0000 \\ 1,053$	$0.0000 \\ 4,604$	$0.0000 \\ 4,610$			

Note: All specifications include individual fixed effects. Standard errors clustered at the individual level are in parenthesis. p < 0.1, p < 0.05, p < 0.01. p = 10 HH Income is the p-value of an F-test testing the null hypothesis that the coefficient of Child Benefit (CB) equals the coefficient of other household income. Parents with young children have at least one child under the age of 18. Parents with older children have children who are all at least 18 years of age. Household income does not include the Child Benefit. Both Child Benefit and Household Income are Measured in Real  $2005 \in$ . Household income is lagged by one year. Other controls included in each specification are single parent indicators, a quadratic term in the age of the youngest child, the state level unemployment rate, dummy variables for whether the country was in a recession during a sample year, dummy variables for states, as well as state-specific year trends. Specifications for Columns (3)-(6) also control for the number of children in the household.

**Table 14:** The Impact of Child Benefit on the Probability that Parents Make Excursions or Go on Short Vacation Trips at least Once per Month.

	Making	Making Excursions or Going on Vacation Trips Once a Month								
	(1)	(2)	(3)	(4)	(5)	(6)				
		Parents with								
	1 Child	2 Children	1 or 2 Children	2 or 3 Children	1, 2, or 3 Children	Any Number of Children				
Parents with children of	f any age									
Child Benefit	0.0012 $(0.0009)$	0.0008 $(0.0004)$	0.0010** (0.0003)	$0.0007^*$ $(0.0003)$	0.0008** (0.0003)	$0.0006^*$ $(0.0003)$				
HH Income	-0.0000 (0.0000)	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$				
p(CB = HH Income) Observations	$0.2038 \\ 5,833$	$0.0780 \\ 5,948$	0.0025 $11,781$	$0.0331 \\ 7,689$	0.0054 $13,522$	0.0208 $13,975$				
Parents with young chil	dren									
Child Benefit	$0.0028^*$ $(0.0013)$	0.0007 $(0.0005)$	0.0011** (0.0004)	0.0006 $(0.0004)$	$0.0008^*$ $(0.0003)$	$0.0006^*$ $(0.0003)$				
HH Income	-0.0000 (0.0000)	$0.0000 \\ (0.0000)$	-0.0000 (0.0000)	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$				
p(CB = HH Income) Observations	0.0264 $4,147$	$0.1566 \\ 5,401$	$0.0059 \\ 9,548$	$0.1349 \\ 7,079$	0.0181 $11,226$	0.0352 $11,674$				
Parents with old childre	$\overline{n}$									
Child Benefit	-0.0044 $(0.0035)$	0.0068 $(0.0048)$	-0.0008 (0.0018)	0.0068 $(0.0048)$	-0.0009 (0.0018)	-0.0008 (0.0017)				
HH Income	0.0003** (0.0001)	0.0001 $(0.0001)$	$0.0002^*$ $(0.0001)$	0.0001 $(0.0001)$	$0.0002^*$ $(0.0001)$	0.0002* $(0.0001)$				
p(CB = HH Income) Observations	0.1912 1,277	$0.1638 \\ 346$	0.5994 $1,623$	$0.1631 \\ 384$	$0.5540 \\ 1,661$	0.5566 $1,663$				

Note: All specifications include individual fixed effects. Standard errors clustered at the individual level are in parenthesis. p < 0.1, p < 0.05, p < 0.01. p = 10 HH Income is the p-value of an F-test testing the null hypothesis that the coefficient of Child Benefit (CB) equals the coefficient of other household income. Parents with young children have at least one child under the age of 18. Parents with older children have children who are all at least 18 years of age. Household income does not include the Child Benefit. Both Child Benefit and Household Income are Measured in Real 2005  $\in$ . Household income is lagged by one year. Other controls included in each specification are single parent indicators, a quadratic term in the age of the youngest child, the state level unemployment rate, dummy variables for whether the country was in a recession during a sample year, dummy variables for states, as well as state-specific year trends. Specifications for Columns (3)-(6) also control for the number of children in the household.

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## A Appendix Tables

**Appendix-Table 1:** Robustness Checks of the Impact of Child Benefit on Per Capita Monthly Food Expenditures in Households.

	Per	Per Person Real Monthly Household Food Expenditures							
	(1)	(2)	(3)	(4)	(5)	(6)			
		Families with							
	1 Child	2 Children	1 or 2 Children	2 or 3 Children	1, 2, or 3 Children	$Any \ Number\ of \ Children$			
Contemporaneous Child	Benefit and	d Household	Income (E	quation 5)					
Child Benefit	0.3616*** (0.0927)	0.1306*** (0.0374)	0.1664*** (0.0333)	0.1612*** (0.0310)	$0.1972^{***}$ (0.0285)	$0.2222^{***}$ (0.0260)			
HH Income	0.0111*** (0.0015)	0.0056*** (0.0015)	0.0089*** (0.0010)	0.0054*** (0.0012)	0.0081*** (0.0010)	$0.0077^{***}$ $(0.0009)$			
p(CB = HH Income) Observations	0.0002 8,980	$0.0009 \\ 7,987$	$0.0000 \\ 16,967$	$0.0000 \\ 10,255$	0.0000 $19,235$	0.0000 $19,880$			
Reduced Form (Equation	n 7)								
Child Benefit	0.4004*** (0.0925)	0.1421*** (0.0369)	0.1853*** (0.0330)	0.1708*** (0.0307)	0.2119*** (0.0282)	0.2309*** (0.0255)			
Observations	$9,\!294$	8,298	17,592	10,634	19,928	20,590			

Note: All specifications include household fixed effects. Standard errors clustered at the household level are in parenthesis. p < 0.1, p < 0.05, p < 0.05, p < 0.01. p < 0.01. p < 0.05 equals the p-value of an F-test testing the null hypothesis that the coefficient of Child Benefit (CB) equals the coefficient of other household income. Households with young children have at least one child under the age of 18 living in the households. Families with older children have children who are all at least 18 years of age. Household income does not include the Child Benefit. Both Child Benefit and Household Income are Measured in Real 2005  $\in$ . Household income is lagged by one year. Other controls included in each specification are single parent indicators, a quadratic term in the age of the youngest child, the state level unemployment rate, dummy variables for whether the country was in a recession during a sample year, dummy variables for states, as well as state-specific year trends. Specifications for Columns (3)-(6) also control for the number of children in the household.

**Appendix-Table 2:** Robustness Check:The Impact of Child Benefit on Per Capita Monthly Food Expenditures in Households using a log specification.

	Log Per Person Real Monthly Household Food Expenditures							
	(1)	(2)	(3)	(4)	(5)	(6)		
			Fami	lies with				
	1 Child	2 Children	1 or 2 Children	2 or 3 Children	1, 2, or 3 Children	Any Number of Children		
Households with childre	n of any age	e						
Child Benefit	0.0025*** (0.0006)	0.0008** (0.0003)	0.0010*** (0.0002)	0.0011*** (0.0002)	0.0012*** (0.0002)	$0.0010^{***}$ (0.0002)		
$\begin{array}{l} \mbox{HH Income} \\ \\ \mbox{p(CB = HH Income)} \\ \mbox{Observations} \end{array}$	0.0000*** (0.0000) 0.0000 6,942	0.0000* (0.0000) 0.0031 6,856	0.0000*** (0.0000) 0.0000 13,798	0.0000* (0.0000) 0.0000 8,803	0.0000*** (0.0000) 0.0000 15,745	0.0000*** (0.0000) 0.0000 16,295		
Households with young	children							
Child Benefit	0.0030*** (0.0007)	0.0009** (0.0003)	0.0011*** (0.0002)	0.0011*** (0.0002)	0.0012*** (0.0002)	$0.0010^{***}$ $(0.0002)$		
$\begin{aligned} & \text{HH Income} \\ & \text{p(CB = HH Income)} \\ & \text{Observations} \end{aligned}$	0.0000** (0.0000) 0.0001 5,067	0.0000** (0.0000) 0.0029 6,292	0.0000*** (0.0000) 0.0000 11,359	0.0000** (0.0000) 0.0000 8,182	0.0000*** (0.0000) 0.0000 13,249	0.0000*** (0.0000) 0.0000 13,793		
Households with old chi	ldren							
Child Benefit	0.0026 $(0.0018)$	0.0024 $(0.0022)$	0.0017 $(0.0012)$	0.0011 $(0.0019)$	0.0016 $(0.0011)$	0.0013 $(0.0011)$		
HH Income	$0.0000 \\ (0.0000)$	-0.0000 (0.0000)	$0.0000 \\ (0.0000)$	-0.0000 (0.0000)	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$		
p(CB = HH Income) Observations	0.1565 $1,406$	$0.2749 \\ 355$	0.1388 $1,761$	$0.5624 \\ 391$	0.1554 $1,797$	0.2362 1,800		

Note: All specifications include household fixed effects. Standard errors clustered at the household level are in parenthesis. p < 0.1, p < 0.05, p < 0.01. p = 10 HH Income is the p-value of an F-test testing the null hypothesis that the coefficient of Child Benefit (CB) equals the coefficient of other household income. Households with young children have at least one child under the age of 18 living in the households. Families with older children have children who are all at least 18 years of age. Household income does not include the Child Benefit. Both Child Benefit and Household Income are Measured in Real  $2005 \in 10$ . Household income is lagged by one year. Other controls included in each specification are single parent indicators, a quadratic term in the age of the youngest child, the state level unemployment rate, dummy variables for whether the country was in a recession during a sample year, dummy variables for states, as well as state-specific year trends. Specifications for Columns (3)-(6) also control for the number of children in the household.

**Appendix-Table 3:** Robustness Checks of the Impact of Child Benefit on the Probability that Households Rent their Home.

	Probability of Being a Renter								
	(1)	(2)	(3)	(4)	(5)	(6)			
		Families with							
	1 Child	2 Children	1 or 2 Children	2 or 3 Children	1, 2, or 3 Children	Any Number of Children			
Contemporaneous Child	Benefit and	Household .	Income (Equ	ation 5)					
Child Benefit	-0.0001** (0.0000)	-0.0001** (0.0000)	-0.0002*** (0.0000)	-0.0001** (0.0000)	-0.0001*** (0.0000)	-0.0001*** (0.0000)			
HH Income	-0.0000*** (0.0000)	-0.0000*** (0.0000)	-0.0000*** (0.0000)	-0.0000*** (0.0000)	-0.0000*** (0.0000)	-0.0000*** (0.0000)			
p(CB = HH Income) Observations	0.0054 $13,191$	0.0284 $12,871$	$0.0000 \\ 26,062$	0.0134 $16,459$	0.0000 $29,650$	$0.0000 \\ 30,617$			
Reduced Form (Equation	n 7)								
Child Benefit	-0.0001** (0.0000)	-0.0001* (0.0000)	-0.0001*** (0.0000)	-0.0001** (0.0000)	-0.0001*** (0.0000)	-0.0001*** (0.0000)			
Observations	13,654	13,389	27,043	17,079	30,733	31,718			

Note: All specifications include household fixed effects. Standard errors clustered at the household level are in parenthesis. p < 0.1, p < 0.05, p < 0.01. p = 10.05 HH Income) is the p-value of an F-test testing the null hypothesis that the coefficient of Child Benefit (CB) equals the coefficient of other household income. Households with young children have at least one child under the age of 18 living in the households. Families with older children have children who are all at least 18 years of age. Household income does not include the Child Benefit. Both Child Benefit and Household Income are Measured in Real 2005  $\in$ . Child Benefit is lagged by one year. Household income is lagged by two years. Other controls included in each specification are single parent indicators, a quadratic term in the age of the youngest child, the state level unemployment rate, dummy variables for whether the country was in a recession during a sample year, dummy variables for states, as well as state-specific year trends. Specifications for Columns (3)-(6) also control for the number of children in the household.

**Appendix-Table 4:** Robustness Checks of the Impact of Child Benefit on the Size (Square Meters) of Homes of Households.

		Size of Home in Square Meters							
	(1)	(2)	(3)	(4)	(5)	(6)			
		Families with							
	1	2	1 or 2	2 or 3	1, 2, or 3	Any Number of			
	Child	Children	Children	Children	Children	Children			
Contemporaneous Child	Benefit and	d Househole	d Income (E	Equation 5)					
Child Benefit	$0.0092^*$ $(0.0046)$	$0.0094^*$ $(0.0043)$	$0.0153^{***}$ (0.0036)	0.0109** (0.0040)	$0.0161^{***}$ (0.0034)	$0.0150^{***}$ (0.0032)			
HH Income	0.0014*** (0.0003)	$0.0008 \\ (0.0005)$	0.0014*** (0.0003)	0.0011** (0.0004)	$0.0014^{***}$ $(0.0003)$	$0.0015^{***}$ $(0.0003)$			
p(CB = HH Income) Observations	0.0858 13,191	0.0473 $12,871$	0.0001 $26,062$	0.0159 $16,459$	0.0000 $29,650$	$0.0000 \\ 30,617$			
Reduced Form (Equation	n 7)								
Child Benefit	0.0070 $(0.0042)$	$0.0087^*$ $(0.0042)$	0.0138*** (0.0035)	0.0104** (0.0040)	0.0150*** (0.0033)	0.0144*** (0.0031)			
Observations	13,654	13,389	27,043	17,079	30,733	31,718			

Note: All specifications include household fixed effects. Standard errors clustered at the household level are in parenthesis. p < 0.1, p < 0.05, p < 0.05, p < 0.01. p < 0.05 are HH Income) is the p-value of an F-test testing the null hypothesis that the coefficient of Child Benefit (CB) equals the coefficient of other household income. Households with young children have at least one child under the age of 18 living in the households. Families with older children have children who are all at least 18 years of age. Household income does not include the Child Benefit. Both Child Benefit and Household Income are Measured in Real  $2005 \in$ . Child Benefit is lagged by one year. Household income is lagged by two years. Other controls included in each specification are single parent indicators, a quadratic term in the age of the youngest child, the state level unemployment rate, dummy variables for whether the country was in a recession during a sample year, dummy variables for states, as well as state-specific year trends. Specifications for Columns (3)-(6) also control for the number of children in the household.

**Appendix-Table 5:** Robustness Checks of the Impact of Child Benefit on the Number of Rooms in the Homes of Households.

		Number of Rooms								
	(1)	(2)	(3)	(4)	(5)	(6)				
		Families with								
	1 Child	2 Children	1 or 2 Children	2 or 3 Children	1, 2, or 3 Children	Any Number of Children				
Contemporaneous Child	l Benefit ar	nd Househo	ld Income (.	Equation 5)						
Child Benefit	0.0004 $(0.0002)$	0.0004** (0.0002)	0.0007*** (0.0001)	$0.0005^{***}$ $(0.0001)$	$0.0007^{***}$ $(0.0001)$	$0.0007^{***} $ $(0.0001)$				
HH Income	0.0000** (0.0000)	0.0000** (0.0000)	$0.0000^{***}$ $(0.0000)$	0.0000** (0.0000)	0.0000*** (0.0000)	$0.0000^{***}$ $(0.0000)$				
p(CB = HH Income) Observations	0.0853 $13,191$	0.0084 $12,871$	$0.0000 \\ 26,062$	0.0019 $16,459$	0.0000 $29,650$	$0.0000 \\ 30,617$				
Reduced Form (Equation	n 7)									
Child Benefit	0.0002 $(0.0002)$	0.0005** (0.0002)	0.0006*** (0.0001)	0.0005*** (0.0001)	0.0007*** (0.0001)	$0.0007^{***} $ $(0.0001)$				
Observations	13,654	13,389	27,043	17,079	30,733	31,718				

Note: All specifications include household fixed effects. Standard errors clustered at the household level are in parenthesis.  ${}^*p < 0.1$ ,  ${}^{**}p < 0.05$ ,  ${}^{***}p < 0.01$ . p(CB = HH Income) is the p-value of an F-test testing the null hypothesis that the coefficient of Child Benefit (CB) equals the coefficient of other household income. Households with young children have at least one child under the age of 18 living in the households. Families with older children have children who are all at least 18 years of age. Household income does not include the Child Benefit. Both Child Benefit and Household Income are Measured in Real 2005  $\in$ . Child Benefit is lagged by one year. Household income is lagged by two years. Other controls included in each specification are single parent indicators, a quadratic term in the age of the youngest child, the state level unemployment rate, dummy variables for whether the country was in a recession during a sample year, dummy variables for states, as well as state-specific year trends. Specifications for Columns (3)-(6) also control for the number of children in the household.

**Appendix-Table 6:** Robustness Checks for the Impact of Child Benefit on the Probability that Parents Smoke.

		Smoking Participation							
	(1)	(2)	(3)	(4)	(5)	(6)			
		Parents with							
						Any			
	1	2	1 or 2	2 or 3	1, 2, or 3	$Number\ of$			
	Child	Children	Children	Children	Children	Children			
Contemporaneous Child	Benefit ar	nd Househo	ld Income (	Equation 5	)				
Child Benefit	0.0003	0.0002	0.0002	-0.0000	-0.0000	0.0000			
	(0.0005)	(0.0002)	(0.0002)	(0.0002)	(0.0002)	(0.0001)			
HH Income	0.0000*	-0.0000	0.0000	-0.0000	0.0000	0.0000			
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)			
p(CB = HH Income)	0.6272	0.2834	0.2752	0.9199	0.9953	0.7319			
Observations	15,131	14,014	29,145	18,074	33,205	34,329			
Reduced Form (Equatio	n 7)								
Child Benefit	0.0002	0.0002	0.0002	-0.0001	-0.0000	-0.0000			
	(0.0005)	(0.0002)	(0.0002)	(0.0002)	(0.0002)	(0.0001)			
Observations	15,718	14,643	30,361	18,824	34,542	35,693			

Note: All specifications include individual fixed effects. Standard errors clustered at the individual level are in parenthesis. p < 0.1, p < 0.05, p < 0.01. p < 0.01

**Appendix-Table 7:** Robustness Checks of the Impact of Child Benefit on the Probability that Parents Drink Alcohol Regularly.

		Drinking Alcohol Regularly							
	(1)	(2)	(3)	(4)	(5)	(6)			
	Parents with								
	1	$egin{array}{cccccccccccccccccccccccccccccccccccc$							
	Child	Children	Children	Z or 3 Children	1, 2, or 3 Children	Number of Children			
Contemporaneous Child	l Benefit ar	nd Househo	ld Income (	Equation 5	)				
Child Benefit	-0.0664	0.0362	-0.0004	0.0039	0.0012	0.0007			
	(0.0911)	(0.0725)	(0.0017)	(0.0026)	(0.0012)	(0.0009)			
HH Income	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)			
p(CB = HH Income)	0.4665	0.6174	0.8026	0.1413	0.3131	0.4083			
Observations	4,789	4,395	9,184	5,624	10,413	10,727			
Reduced Form (Equation	n 7)								
Child Benefit	-0.0679	0.0361	-0.0012	0.0032	0.0005	0.0004			
	(0.0857)	(0.0719)	(0.0016)	(0.0026)	(0.0012)	(0.0008)			
Observations	4,948	4,619	9,567	5,894	10,842	11,159			

Note: All specifications include individual fixed effects. Standard errors clustered at the individual level are in parenthesis. p < 0.1, p < 0.05, p < 0.01. p < 0.01

**Appendix-Table 8:** Robustness Checks of the Impact of Child Benefit on the Probability that Parents Go to the Movies or Attend Pop Music Concerts at least Once per Month.

		Going to the Movies or Concerts Once a Month							
	(1)	(2)	(3)	(4)	(5)	(6)			
			Parer	nts with					
	1 Child	2 Children	1 or 2 Children	2 or 3 Children	1, 2, or 3 Children	Any Number of Children			
Contemporaneous Child	Benefit and	d Household	l Income (E	quation 5)					
Child Benefit	0.0028*** (0.0004)	0.0011*** (0.0002)	0.0011*** (0.0002)	0.0016*** (0.0002)	0.0014*** (0.0001)	$0.0014^{***}$ $(0.0001)$			
HH Income	-0.0000 (0.0000)	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$	$0.0000^*$ $(0.0000)$	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$			
p(CB = HH Income) Observations	0.0000 18,834	0.0000 17,368	0.0000 36,202	0.0000 $22,305$	0.0000 41,139	0.0000 42,512			
Reduced Form (Equatio	n 7)								
Child Benefit	0.0027*** (0.0004)	0.0011*** (0.0002)	0.0011*** (0.0002)	0.0016*** (0.0002)	0.0014*** (0.0001)	$0.0014^{***}$ $(0.0001)$			
Observations	19,529	18,062	37,591	23,158	42,687	44,089			

Note: All specifications include individual fixed effects. Standard errors clustered at the individual level are in parenthesis. p < 0.1, p < 0.05, p < 0.01. p = 10 HH Income is the p-value of an F-test testing the null hypothesis that the coefficient of Child Benefit (CB) equals the coefficient of other household income. Parents with young children have at least one child under the age of 18. Parents with older children have children who are all at least 18 years of age. Household income does not include the Child Benefit. Both Child Benefit and Household Income are Measured in Real  $2005 \in$ . Household income is lagged by one year. Other controls included in each specification are single parent indicators, a quadratic term in the age of the youngest child, the state level unemployment rate, dummy variables for whether the country was in a recession during a sample year, dummy variables for states, as well as state-specific year trends. Specifications for Columns (3)-(6) also control for the number of children in the household.

**Appendix-Table 9:** Robustness Checks of the Impact of Child Benefit on the Probability that Parents Go to the Opera or to Public Lectures at least once per Month.

	Going to the Opera or Attending Public Lectures Once a Month						
	(1)	(2)	(3)	(4)	(5)	(6)	
			Parei	nts with			
	1 Child	2 Children	1 or 2 Children	2 or 3 Children	1, 2, or 3 Children	Any Number of Children	
Contemporaneous Child	Benefit and	d Household	l Income (E	quation 5)			
Child Benefit	0.0025*** (0.0003)	0.0010*** (0.0001)	0.0010*** (0.0001)	0.0015*** (0.0001)	0.0013*** (0.0001)	$0.0012^{***}$ $(0.0001)$	
HH Income	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$	0.0000** (0.0000)	$0.0000^*$ $(0.0000)$	$0.0000^{***}$ $(0.0000)$	$0.0000^{***}$ $(0.0000)$	
p(CB = HH Income) Observations	0.0000 18,848	0.0000 $17,373$	$0.0000 \\ 36,221$	0.0000 22,311	0.0000 41,159	0.0000 $42,533$	
Reduced Form (Equation	n 7)						
Child Benefit	0.0026*** (0.0003)	0.0011*** (0.0001)	0.0011*** (0.0001)	0.0015*** (0.0001)	0.0014*** (0.0001)	$0.0013^{***}$ $(0.0001)$	
Observations	19,546	18,067	37,613	23,162	42,708	44,111	

Note: All specifications include individual fixed effects. Standard errors clustered at the individual level are in parenthesis. p < 0.1, p < 0.05, p < 0.01. p = 10 HH Income is the p-value of an F-test testing the null hypothesis that the coefficient of Child Benefit (CB) equals the coefficient of other household income. Parents with young children have at least one child under the age of 18. Parents with older children have children who are all at least 18 years of age. Household income does not include the Child Benefit. Both Child Benefit and Household Income are Measured in Real  $2005 \in$ . Household income is lagged by one year. Other controls included in each specification are single parent indicators, a quadratic term in the age of the youngest child, the state level unemployment rate, dummy variables for whether the country was in a recession during a sample year, dummy variables for states, as well as state-specific year trends. Specifications for Columns (3)-(6) also control for the number of children in the household.

**Appendix-Table 10:** Robustness Checks of the Impact of Child Benefit on the Probability that Parents Make Excursions or Go on Short Vacation Trips at least Once per Month.

	Making	Making Excursions or Going on Vacation Trips Once a Month							
	(1)	(2)	(3)	(4)	(5)	(6)			
		Parents with							
	1 Child	2 Children	1 or 2 Children	2 or 3 Children	1, 2, or 3 Children	Any Number of Children			
Contemporaneous Child	Benefit ar	nd Househo	ld Income (	Equation 5	)				
Child Benefit	0.0012 $(0.0009)$	0.0007 $(0.0004)$	0.0010** (0.0003)	$0.0006 \\ (0.0003)$	$0.0006* \\ (0.0003)$	$0.0005^*$ $(0.0002)$			
HH Income	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$	$0.0000 \\ (0.0000)$			
p(CB = HH Income) Observations	0.1936 6,951	0.0813 $6,387$	0.0019 $13,338$	$0.0759 \\ 8,221$	0.0263 $15,172$	0.0528 $15,670$			
Reduced Form (Equatio	n 7)								
Child Benefit	0.0016 (0.0009)	0.0006 $(0.0004)$	0.0009** (0.0003)	0.0005 $(0.0003)$	0.0006* (0.0003)	0.0004 $(0.0002)$			
Observations	7,212	6,650	13,862	8,550	15,762	16,269			

Note: All specifications include individual fixed effects. Standard errors clustered at the individual level are in parenthesis.  ${}^*p < 0.1$ ,  ${}^{**}p < 0.05$ ,  ${}^{***}p < 0.01$ . p(CB = HH Income) is the p-value of an F-test testing the null hypothesis that the coefficient of Child Benefit (CB) equals the coefficient of other household income. Parents with young children have at least one child under the age of 18. Parents with older children have children who are all at least 18 years of age. Household income does not include the Child Benefit. Both Child Benefit and Household Income are Measured in Real 2005  $\in$ . Household income is lagged by one year. Other controls included in each specification are single parent indicators, a quadratic term in the age of the youngest child, the state level unemployment rate, dummy variables for whether the country was in a recession during a sample year, dummy variables for states, as well as state-specific year trends. Specifications for Columns (3)-(6) also control for the number of children in the household.