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## Bequests and labor supply in Germany

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# TranState Working Papers

BEQUESTS AND LABOR  
SUPPLY IN GERMANY

HEIKO PETERS  
PETER SCHWARZ

No. 173

Universität Bremen • University of Bremen  
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Staatlichkeit im Wandel • Transformations of the State  
Sonderforschungsbereich 597 • Collaborative Research Center 597



*Heiko Peters  
Peter Schwarz*

***Bequests and Labor Supply in Germany***

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## ***Bequests and Labor Supply in Germany***

### **ABSTRACT**

Little is known on the effects of inheritances on the working behavior of heirs. Using panel data for Germany, we find behavioral responses that amount up to a 16% reduction in working hours for inheritances of one Mio Euro. For the majority of beneficiaries labor supply effects are, however, modest (owing to small amounts of inherited wealth). These results remain robust if we restrict the sample solely on those persons receiving an inheritance. Although more modest, higher inheritances promote a stronger adjustment in labor supply compared to small inheritances. In contrast to previous studies the partner does not adjust working hours and the full response takes place in the phase of the inheritance. Although negative income effects are present for all types of inheritances, behavioral responses are stronger if the heir receives liquid assets. The results depend, however, critically on the choice of the control group.

JEL-Classification: H24, J22

Keywords: Inheritance, labor supply, income effect, liquid assets

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## **Bequests and Labor Supply in Germany\***

### **1 INTRODUCTION**

Taxes on wealth and transfers are controversial issues in the academic and public debate (for an overview: see Kopczuk, 2012). Proponents favoring high inheritance taxes highlight that in the absence of wealth taxes inequality could rise. Utilizing data from the German Ageing Survey Szydlík (2004) shows that wealth is more often inherited among highly qualified persons. Not only the probability, but also the inherited amount is larger among citizens with a university background. In addition, citizens from Eastern Germany have a lower chance to receive an inheritance compared to their Western compatriots. However, utilizing data from the German Socioeconomic Panel Kohli et al. (2006) show that wealth inequality does not further increase. Although inheritances increase absolute differences in income opportunities, they do not add to increasing wealth inequality, which is a relative concept of equality of opportunity.<sup>1</sup> In addition, in most OECD countries wealth taxes play a minor role and constitute only a small fraction of tax revenues.

Moving to the potential behavior of the heir another important justification for taxing inheritances is that the heirs of a family business often lack the abilities of the company's founder. Recent empirical studies on the profitability of family businesses suggest that this argument has some validity. For example, Bennedsen et al. (2007) show for Danish companies that external CEOs perform better compared to the case where succession involves members of the family firm. Additional evidence supporting this hypothesis is provided by Pandeacute (2006) and Villalonga and Amit (2006). Even if the heir shares the same entrepreneurial characteristics and carefully follows the will of the bequeather there is at a quite general level a deep conflict between ascription and achievement. As Beckert (2010) notes ascription is a concept where the social status of a person is institutionally embedded in the social status of the family. Rights (as well as obligations) depend then heavily on the position of the parents. In contrast, modern so-

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\* Opinions expressed in this paper are those of the authors and do not necessarily reflect the views of Deutsche Bank AG. We would like to thank Wolfgang Franz, Christoph M. Schmidt and two anonymous referees for their helpful comments. The usual disclaimer applies.

<sup>1</sup> Nevertheless, these analyses are based on data before the German inheritance tax reform in 2009. Since business assets should be inherited more often among those on the top of the wealth distribution and business transfers are now mainly exempted, we speculate that the recent reform steps could promote to rising wealth inequality in the future.



cities are characterized by achievement. Social status should depend on the performance of the individual and not the prior performance of the parents.

Related to this argument, inheritance taxes may be justified if they decrease the ‘laziness’ of the heirs. This proposition was made more than a century ago by Andrew Carnegie, an industrialist and philanthropist, but has also nowadays some strong supporters (Carnegie, 1995). For example, Bill Gates as well as Warren Buffett announced that their relatives would receive only a small fraction of their wealth, while a big share will be devoted to charitable giving. Both justify their decision because they are in fear that a large inheritance could deaden the talents of their relatives (Lowenstein, 1995).

However, not every parent might be aware of the full consequences of an inheritance on the working behavior of the heirs. As in cases where the heir’s lack the ability to run firms, lazy heirs may be accompanied with welfare losses, too. First, a reduction of working hours has direct effects on output. Second, even if the reduction on working hours is modest, such an adjustment may indirectly reduce output whenever the human capital of heirs induces positive externalities. Third, more and more people will receive an inheritance in the OECD countries. Thus, the potential effects of inheritances on the will to work will become increasingly important in the future. Finally, if individuals reduce their labor supply after an inheritance, propositions, which favor a reduction of wealth inequality through inheritance taxes, could gain additional support.

The present paper focuses on this topic, because little is known about the will to work after receiving an inheritance. Since it is plausible to assume that parents, which in the majority of cases take the role as bequeathers, are to some extent biased in their judgment of the will and the cognitive skills of their children, the question whether heirs reduce their labor supply after they receive an inheritance, is of high policy interest. While there is a small academic literature on labor supply effects, this point has not gained much attention in policy debates. For example, the German inheritance tax reform in 2009/2010 was mainly framed by the issue, whether heirs of family-owned business should – and if so how – get a reduction of the inheritance tax bill.

For social scientists an analysis of the labor supply effects might provide fruitful insights because our results could add to the debate on ascription and aspiration. Even (or perhaps especially) those who emphasize the role of incentives on the functioning of a capitalistic economy should view large tax-exempted inheritances as problematic if the heirs lack the necessary talent and/ or ambition. While our focus on the will to work is narrow, it can nevertheless add to this debate by analyzing the working behavior of the heir after an inheritance. Studying the effect of inheritances on working behavior might also provide useful insights for economists. Estimating income effects on the decision to work is complicated because income is at least in the long run endogenous with respect to the labor supply decisions. Most labor market researchers use spousal or capital in-

come to identify income effects, but it is questionable whether these sources of income are not endogenous too (for a survey see Blundell and Macurdy, 1999). Studying inheritances might be therefore a fruitful way to identify income effects by estimating the effect of unearned income on labor supply.

Our paper contributes to the literature in five ways. First, empirical evidence on labor supply effects after receiving an inheritance is quite scarce. From the best of our knowledge with the exception of Elinder et al. (2010, 2011) all studies refer to the U.S. (Holtz-Eakin et al., 1993; Joulfaian and Wilhelm, 1994; Joulfaian, 2006) and it is unclear how these results translate to other countries. Empirical studies show that working hours in the U.S. exceed those in Europe (Alesina et al., 2005). Besides different employment regulations, also differences in the spirit to work may be responsible for the different working patterns. Furthermore, institutional differences could have an impact on the comparability of results. For example, health insurance and care for elderly persons are more pronounced in Germany compared to the US and these institutional differences may push bequest motives away from unplanned events towards strategic and/or altruistic motives. Moreover, labor income is more heavily taxed in Germany, which could shift the responses towards consuming leisure. In this study, we analyze for the first time labor supply effects for German inheritances. Second, with the exception of Elinder et al. (2010, 2011) these studies analyze mainly cross-sectional data. Utilizing the German Socio-Economic Panel (SOEP) we have panel data for a long time span at hand and are able to control for unobservable characteristics of the individuals in our regressions. Third, we share information on the spouse, which increases the validity of our results because it is reasonable that in some cases the partner adjusts his/her working behavior. Fourth, we show that our basic conclusion is not altered when applying on different research designs, i.e. different control and treatment groups. As an alternative to inheritances we study also gifts which share the advantage that adjustments before and after the treatment should be less obvious. Alternatively, when concentrating solely on heirs, those who receive larger inheritances show a stronger adjustment in labor supply. Thus, our basic conclusion that an inheritance is accompanied with negative labor supply effects is not dependent on the choice of the control (or treatment) group and secures us that the estimated relationships are not dependent on non-time constant heterogeneity between heirs and non-heirs. Finally, no study has analyzed differences in working behavior with respect to the type of inheritance. This question is important, because in many countries business assets or housing is more favorably taxed. Because we have information on the type of inheritance, our analysis sheds light on the issue whether heirs receiving illiquid inheritances exhibit different adjustment patterns.

The paper proceeds as follows: Empirical studies on labor supply effects of unearned income are summarized in section two where we also derive our hypotheses. Section

three presents our dataset and discusses methodological issues. Results are presented in section four and robustness checks are performed in section five. Finally, section six concludes and discusses potential areas of future research.

## **2 REVIEW OF THE LITERATURE AND HYPOTHESES**

Few studies have been carried out focusing on labor supply effects after receiving an inheritance. With one exception all of these studies focus on the U.S. case. (Holtz-Eakin et al., 1993; Joulfaian and Wilhelm, 1994). Besides these studies, there are a few studies closely related to our approach, which analyze the labor supply effects of lottery winners. Kaplan (1987) suggests that shortly after persons won in a lottery labor supply was reduced, although there is considerable heterogeneity across people. In a similar vein are the results of Imbens et al. (2001): Those persons who won a large prize in a lottery reduced their weekly working hours compared to persons who won only a small prize by five to ten hours.

Concentrating on inheritances, Holtz-Eakin et al. (1993) use a sample of estate tax records in 1982. They merge this dataset with the personal income tax returns of the beneficiaries for 1982 and 1985 leaving 4,332 cases for their analysis. Because they have information on the employment status of married couples, they are able to analyze the employment pattern of the partner, too. They estimate the labor supply response after an inheritance by applying (ordered) logit regressions for the beneficiary and the partner. The crucial variable of their study is whether the beneficiary participates in the labor force or not. Generally, Holtz-Eakin et al. (1993) estimate quite large transition probabilities. Evaluated at the sample mean, receiving an inheritance of 350,000 US-dollar in 1982 decreases the probability of participating in the labor force by roughly twelve percentage points three years thereafter. Similar results are obtained when analyzing married couples: The probability that both partners work falls by 20 percentage points. In a similar vein is the study by Joulfaian (2006) who analyzes savings and working decisions for US-heirs. He matches estate tax records in 1989 with the income tax records of the heir in 1988 (before the inheritance) and in 1991. He concludes that receiving an inheritance of one mio US-dollar reduces the probability of labor force participation by 11%.

Whereas Holtz-Eakin et al. (1993) and Joulfaian (2006) focus on labor force participation decisions (extensive margin), Joulfaian and Wilhelm (1994) use working hours (intensive margin). Analyzing continuous measures has the advantage that also incremental changes can be analyzed, because quitting the labor force is only a reasonable option if the inheritance is very large. The authors utilize two datasets: data on inheritances from the Michigan Panel Study of Income Dynamics (PSID) and estate tax records are used which, however, share the disadvantage that the dataset can only be used

to estimate the effect of inheritances on family earnings.<sup>2</sup> The negative effect of inheritance on family earnings is highest three years after receiving the inheritance. Instead, the adjustment behavior when using the PSID dataset is quite small suggesting – contrary to the results of Holtz-Eakin et al. (1993) – that inheritances do not have a large impact on labor supply.

Whereas Joulfaian and Wilhelm (1994) do not derive clear-cut conclusions with respect to retirement decisions, Brown et al. (2010) show for a sample of elderly workers that receiving an inheritance of 100 000 US -dollar increases the probability that the worker retires by 3%. The effect is even larger if the inheritance was unanticipated.

We are aware only of two papers which analyze the effect of inheritances outside the US. Elinder et al. (2010) focus on the adjustment of labor and capital income to inheritances. Utilizing a panel from 2002-2007 of individuals who lived in Stockholm their findings suggest that inheritance induces large disincentive effects on annual labor income, indicating either that the heir adjusted working hours or switched to a less well-paid job. Moreover, their findings suggest that the full adjustment does not take place immediately after the inheritance, but is completed after three years. However, the reduction in labor income is more than compensated for by an increase of capital income subsequently after the inheritance.

In a latter study, utilizing a longer time span, Elinder et al. (2011) find, again, negative effects on labor income, which reach their maximum two years after the inheritance. Given the sparse results and the contested opinions about the inheritance tax, we expand the analyses of previous studies towards German inheritances in several ways. In line with Joulfaian and Wilhelm (1994) we study working hours (intensive margin) because the number of observations on very large inheritances is quite small in our dataset.<sup>3</sup> In contrast to Holtz-Eakin et al. (1993) and Joulfaian (2006) we do not focus our analysis solely on those people who receive an inheritance but we also evaluate labor supply responses across heirs and non-heirs. We expect that receiving an inheritance reduces labor supply through an income effect. Our first hypothesis can therefore be stated as follows:

H1: People reduce their working hours after they receive an inheritance.

While this is a reasonable hypothesis, several caveats have to be considered: First, those who inherit wealth might anticipate that the beneficiaries might reduce their labor supply. Andrew Carnegie, Bill Gates and Warren Buffett are examples for such a cautious behavior. Although it is reasonable that the decedent is aware of such incentive effects, several constraints when deciding about the distribution of wealth become important.

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<sup>2</sup> Although imprecisely measured, family earnings serve as a proxy for hours worked.

<sup>3</sup> For example, we observe only 112 cases with inheritances above 100,000 Euro.

First, in Germany every child is at least eligible to its statutory share. Due to legislative constraints it is impossible to disinherit the heir (completely). Second, for many decedents it might be very difficult to discriminate between dutiful and lazy heirs (Stark, 1998). The empirical regularity that we observe in most cases equal splits between the heirs could point to the importance of such psychological costs (Wilhelm, 1996). Nonetheless, even if the parents were able to discriminate, we would get a selection of dutiful persons into inheritances. This in turn would imply that the selection bias of the coefficient would be towards the null. Therefore it will be more difficult for us to detect significant labor supply effects, as long as less dutiful persons do receive inheritances with lower probability. Thus, detecting a negative income effect will be a strong indication that income effects are present.

In addition, whether a person adjusts its behavior after it receives an inheritance depends on anticipation. If the person was already aware that it would receive an inheritance in the future, it might reduce its labor supply before it receives the inheritance.<sup>4</sup> Neglecting such expectations would again bias the coefficient towards zero. Reduction of labor supply is difficult, if the person is ‘monitored’ by the decedents. In this case, reducing labor supply too early might have detrimental effects on the inherited amount. Second, although it is reasonable that some heirs are aware that they will receive a transfer in the future, at best the rough amount of the inheritance will be known to most heirs. With unknown amounts labor supply effects in advance of an inheritance should be modest. Finally, even if the heir knows the exact amount, liquidity constraints might impede a strong reaction before the inheritance (Elinder et al., 2011).

We follow Joulfaian and Wilhelm (1994) and utilize the question in our dataset whether the heir thinks that she/he will receive an additional inheritance in the future. From this question, we can infer whether the expectation channel has a significant impact on the working behavior of the heir. Those expecting an additional inheritance should not reduce labor supply as long as such behavior signals laziness towards potential decedents. Therefore our second hypothesis is:

H2: Those heirs, who believe that they will receive an additional inheritance in the future, reduce their labor supply less strongly compared to compatriots who do not think so.

Inheritance taxes are heavily debated because some observers emphasize the special role of liquidity constraints at the time when the tax has to be paid. Accordingly, one might think that an adjustment of labor supply depends not only on the inherited amount but also on its liquidity. For example, an inheritance consisting of cash or shares can be

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<sup>4</sup> Even without such expectation effects labor supply might be reduced before the persons inherits. As suggested by the exchange model of Bernheim et al. (1985) the heir might spend more time together with his/her parents.

more easily sold at the market than a house or business assets. In addition, as Beckert (2008) notes different normative justifications exist in order to (de-)legitimize inheritances. According to Beckert (2008) these principles can be classified by the degree of autonomy the testator has in distributing his/her wealth and the addressor of the inheritances. Whereas in Anglo-Saxon states such as the USA the community principle – a deep distrust toward the state combined with the idea to secure equality of opportunity – is the predominant view on inheritances, in Germany inheritances taxes are opposed because they interfere into family relationships (Beckert, 2008, p. 526-527). Therefore, it is reasonable to think that even in the absence of liquidity constraints, different types of adjustments should be observed due to the predominance of the family principle in Germany: Selling the house (or the company), which symbolizes the ‘lifework’ of the descendent is a more difficult job, than consuming ‘anonymous’ cash. Thus, owing to liquidity constraints and/or psychological costs we can derive hypothesis 3:

H3: Labor supply effects will be more pronounced if the person receives liquid assets.

Finally, it is less certain whether the beneficiary reduces labor supply after an inheritance in all cases. We account for this by analyzing the labor supply effects of the partner. By doing so, we treat the labor supply of the husband as exogenous. Taken together we expect that people receiving (large) inheritances reduce their labor supply. Besides the amount of the inheritance, the responsiveness should depend on expectation effects and the liquidity of assets.

### **3 DATA AND METHODS**

We use data from the GSOEP, which is a household survey for Germany collected annually by the German Institute of Economic Research (DIW Berlin), for the period ranging from 1984 to 2008 (see Haisken-De New and Frick, 2005; Wagner et al., 2007, for a detailed description). In 2001 respondents were asked whether they received an inheritance and if so, they were asked to provide further information about the inheritance, namely the year they received the inheritance, the amount and its type – house or property, stocks, cash, business assets or other types –, by whom they received the inheritance and if they expect to receive an inheritance in the future. We used the information about the year of the inheritance of each respondent to merge the inheritance data up to 2001 with a panel data set containing person specific information – yearly hours of work, yearly individual labor income, household post government income, household asset income, life satisfaction, educational attainment, disability, number of children and marital status – of each respondent from the year 1984 to 2008. The analy-

sis concentrates on West Germany, because for the Eastern part the first wave started in 1991.<sup>5</sup>

We focus our analysis on dependent employment for three reasons. First, working hours on the self-employed might be more imprecisely measured compared to dependent employment. Second, the number of cases on self-employed persons receiving an inheritance is too small in our data set to study their behavior seriously. Third, there is ample evidence that inheritances might be not only associated with disincentive effects but can serve also as a new source of financing. For this special group access to capital implies that working hours might be even expanded if self-employed persons are liquidity constrained.<sup>6</sup>

In our basic regressions we compare the labor supply of heirs with non-heirs. Here we use the following panel regression model (equation 1) with individual and time fixed effects to estimate the effect of inheritances on the yearly hours of work.

$$Y_{it} = \sum_k \beta_k x_{k,it} + \mu_1 Inheritance_{i(t-1)} + \lambda_i + \eta_t + \varepsilon_{it} \quad (1)$$

$Y$  are yearly hours worked,  $\mu_1$  measures the impact of the inheritance (or gift) on hours worked either of the beneficiary or the partner,  $\beta$  are the parameter estimates for our control variables  $x_k$  and  $\lambda_i$  are individual fixed effects. Time effects are captured by  $\eta_t$  in order to control for reductions in working hours attributed to recessions. Employing individual fixed effects is necessary to estimate the time profile after receiving an inheritance, because beneficiaries may differ significantly with respect to the rest of the population. In our basic specification the sample is restricted to persons with positive hours of work because our aim is to identify labor supply responses. For persons who already do not work disincentive effects through inheritances cannot arise by definition.<sup>7</sup> However, from a purely statistical point of view, truncation of the sample can lead to biased

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<sup>5</sup> The results remain nearly identical when including East Germany. The dataset shares only a few number of cases for the Eastern part.

<sup>6</sup> Indeed previous studies show that receiving an inheritance increases the probability to start a business (Blanchflower and Oswald, 1998). As Fairlie and Krashinsky (2012) have shown, on a more general level household wealth increases the likelihood of selection into entrepreneurship and this selection steadily increases across the distribution of wealth. While wealth may be more endogenous compared to receiving an inheritance the authors show that their results remain robust when concentrating on a more exogenous measure of wealth, i.e. unanticipated housing price changes. In addition, self-employed persons receiving an inheritance are more likely to perform better compared to those who do not receive an inheritance (Holtz-Eakin et al., 1994).

<sup>7</sup> We therefore implicitly followed the approach proposed by Holtz-Eakin et al. (1993) and Joulfaian and Wilhelm (1994) who concentrated their analysis on the working population.

coefficients. Accounting for this we estimated a probit model where at the first step the decision to work was modeled as a function of our explanatory variables, a gender dummy and educational attainment. The predicted values of a positive labor supply were then introduced in the second step of our analysis in order to correct for selection effects.

When testing for the relevance of the expectation channel we use a question from the SOEP where the respondent is asked whether he/she presumes to receive an additional inheritance in the future. In addition, we analyze whether liquid (cash, stocks) or illiquid (house or property, business assets, other types) inheritances have a (different) impact on labor supply adjustments. We disaggregate inheritances into dummy variables including the amount of the inheritance for the respective asset type. Whenever the heir does not receive an inheritance of the respective asset category the variable takes a value of zero.

We employ a number of socio-demographic controls to account for potential heterogeneity among individuals. First, we expect that persons sharing disabilities work only to a lesser extent. We control for this effect by a simple dummy variable. Second, the existence of children might induce different effects on working hours. On the one hand even the primary earner of the family might work less compared to persons who do not have children because in many companies a norm that employees with children leave the workplace earlier might be existent; on the other hand existence of children might cause an increase in hours worked in order to keep the standard of living. Thus, the net effect for employees with children is unclear. Third, we introduce the marital status of the person and control for the age of the respondent. Younger persons should work more, whereas elderly persons might decide to work less, because they have already accumulated wealth and can effort less working hours. An alternative channel promoting less work among the elderly is that Germany has several governmental programs favoring part time work. Therefore we introduce age with a quadratic term to allow for a bell-shaped relationship.<sup>8</sup> If a nearby-person dies the heir might suffer and for this reason might reduce working hours. We control for this effect by utilizing a question on the well-being of the person. Finally, we control for net household wealth and the labor income of the employee. Higher income should increase the incentive to work more hours. Note, however, that the income of the employee could be endogenous with respect to working hours. We have experimented with several alternatives, but they were weak according to the first stage F-statistic or not really exogenous according to Hansen's J test. We used an instrument variable estimator, where all variables of the second stage were regressed together with different combinations of educational achievement,

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<sup>8</sup> Another factor, which is able to explain less working hours for the elderly, are segmented labor markets.



industry sector dummies as well as dummies on work experience on income. Since weak instrumental variables can lead to even greater biases than fixed effects regressions without instrumentation (see Murray, 2006), our preferred models are those with fixed individual and time effects. All monetary variables, e.g. labor income, household asset income and inheritances, are measured in prices of 2005.

Our basic identification strategy rests on the comparison of employees who receive an inheritance with those who do not. This approach was also undertaken by Joulfaian and Wilhelm (1994). By following this approach we control for several variables, which could be different between these two groups. Moreover the fixed effects estimator secures that all time-constant differences (e.g. ability or gender) is kept in the individual fixed effects.

However, even when including these control variables it might be possible that (unobserved) time-varying heterogeneity between beneficiaries and those who do not receive an inheritance remains. For example, heirs might adjust their labor supply before the inheritance because they have to take care of their relatives. In the aftermath of an inheritance it might be necessary to reduce working hours because the death of a nearby person can result in substantial effort arranging the funeral or the heir reduces working hours simply because of grief.

We propose several approaches to cope with time-varying heterogeneity. First, adjustments due to caring or grief are only present in the case of inheritances but not if we analyze inter vivo transfers. Therefore, we use gifts as an alternative measure to study wealth effects. Secondly, instead of a different treatment group (i.e. gifts), we use a different “control group”. For this reason we follow the approach proposed by Holtz-Eakin et al. (1993); Elinder et al. (2010, 2011) and – by analyzing lottery prizes – Imbens et al. (2001). We provide robustness tests when concentrating solely on those persons who receive an inheritance (or a gift). By concentrating on this more homogenous group we identify labor supply effects by the amount of inheritances. Thus, when concentrating solely on the heirs, those who receive a higher inheritance should more heavily adjust their labor supply. When restricting the sample to heirs using a panel regression model with individual and time fixed effects is not suitable, because the amount of the inheritance is constant across time for every individual and will be captured by the individual fixed effects then. Therefore we estimate equation 1 with a fixed-effects vector decomposition estimator proposed by Plümer and Troeger (2007) (see table 7).<sup>9</sup> Finally, an Ashenfelter (1978)-dip can be alleviated if one looks on variation over a longer time span. Instead of yearly variation we use as a robustness check three year averages be-

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<sup>9</sup> The fixed effects vector decomposition estimator has not been without critique, see the Symposium in Political Analysis 19:2.

fore and after the inheritance. In that case we identify the labor supply response by a simple dummy in the post-inheritance period.<sup>10</sup>

#### **4 RESULTS**

Before turning to the regression results, it is useful to provide some descriptive statistics about our dataset in table 1 and table 2. In total, out of the 12,657 persons in our sample 290 inherited and 221 persons received a gift. Unsurprisingly, the distribution of inheritances is skewed to the right (figure 1). Whereas the average amount is 129,561 Euro, 50 percent of the beneficiaries receive less than 48,342 Euro. The results are similar for gifts: The average amount is 125,688, 50 percent received less than 48,544. Thus, for the majority of the beneficiaries quitting the job will be an unfeasible strategy, because the amount of the inheritance (or gift) will be too low. Disaggregating by type of inheritance shows that the average inheritance on housing and business assets is by far higher than average cash inheritances. When comparing gifts and inheritances among different donors, the average amounts are similar. One exception are gifts between married persons, perhaps because tax considerations play a role when transferring wealth towards the partner.

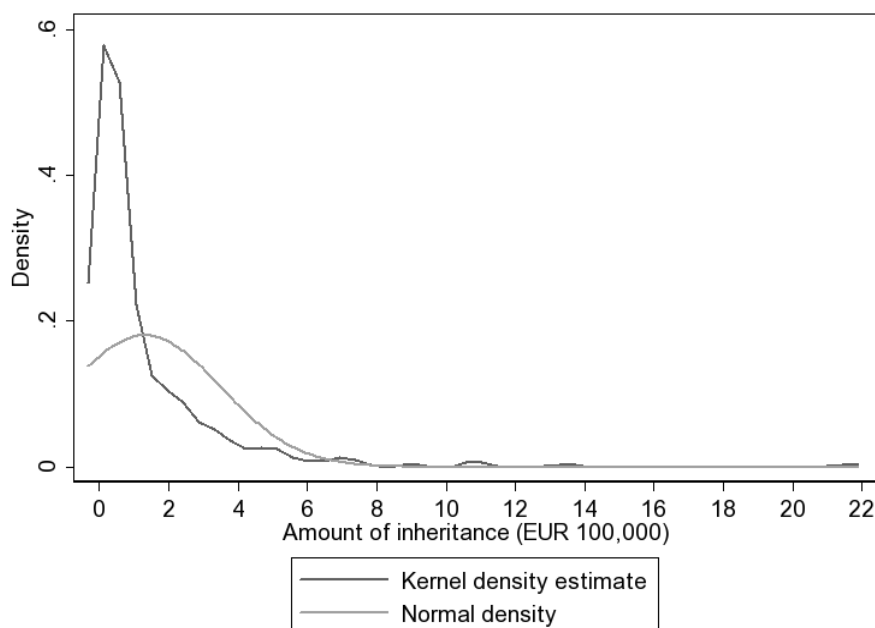
The persons in our dataset work on average 1,843 hours per year, which is by far less than in the USA. Note that people who receive an inheritance do work slightly less than their counterparts who do not receive an inheritance. This difference is not statistically different according to a mean difference t-test (t-value: 0.61; p-value: 0.54). A similar relationship holds for gifts (t-value: 0.15; p-value: 0.88). With respect to the control variables, average yearly gross labor income in Germany is approximately 33,235 Euro. On average, labor income as well as the heir's educational background is significantly different from that of non-heirs. Persons receiving an inheritance (or a gift) have on average a higher labor income. According to a mean difference t-test the yearly labor income of heirs is significantly higher at the 1 percent level compared to non-heirs (t-value: -6.78; p-value: 0.00). Similar results can be observed for gifts (t-value: -8.41; p-value: 0.00). Finally, with respect to human capital we see that heirs share a higher educational attainment. Given that wealth is more often inherited among highly qualified people this result is not surprising.<sup>11</sup>

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<sup>10</sup> Because heirs and non-heirs share different characteristics with respect to educational attainments, we further estimated models where we split the dataset on persons (heirs and non-heirs) with an academic degree and those who do not share an academic background. In both cases, we find more or less negative labor supply effects. Results are available upon request.

<sup>11</sup> Joulfaian and Wilhelm (1994) derive the same result in their U.S.-dataset. Using a different survey Szydlík (2004) also shows for the German case that wealth is more often inherited among persons with a university degree.

Figure 1: Kernel density of the amount of the inheritance



Source: Own calculations, SOEP

Table 1: Inheritance, descriptive statistics

	Persons receiving an inheritance	Persons receiving a gift
Number of persons	290	221
Average amount bequest/gift	129,561	125,688
From whom inheritance or gift		
One or both parents	62%	73%
Average amount	154,600	132,158
Parents-in-law	3%	7%
Average amount	203,323	101,143
Grandparents	11%	10%
Average amount	53,779	112,842
Husband or wife	2%	1%
Average amount	169,321	440,568
Other's	22%	9%
Average amount	71,822	72,244
Type of bequest		
Liquid	56%	61%
Average amount	45,139	50,713
Illiquid	29%	35%
Average amount	197,075	251,226
Both types	15%	4%
Average amount	334,606	132,777

Source: Own calculations, SOEP

Table 2: Descriptive statistics

	<i>Persons receiving an inheritance</i>	<i>Persons receiving a gift</i>	<i>Persons receiving no inheritance / gift</i>
Working hours	1,834	1,841	1,844
Gross yearly labor income	36,854	39,741	33,057
Household asset income	3,384	2,948	1,866
Age	45	41	40
Life satisfaction (scala 1 to 10 (highest))	7.29	7.23	7.25
Married	71%	72%	62%
Children	51%	52%	40%
Disabled	6%	4%	6%
Educational attainment (ISCED)			
(2) Lower secondary education	11%	9%	16%
(3) Upper secondary education	47%	39%	53%
(4) Post-secondary non tertiary education	5%	8%	5%
(5) First stage of tertiary education	12%	18%	9%
(6) Second stage of tertiary education	25%	26%	17%

Source: Own calculations, SOEP

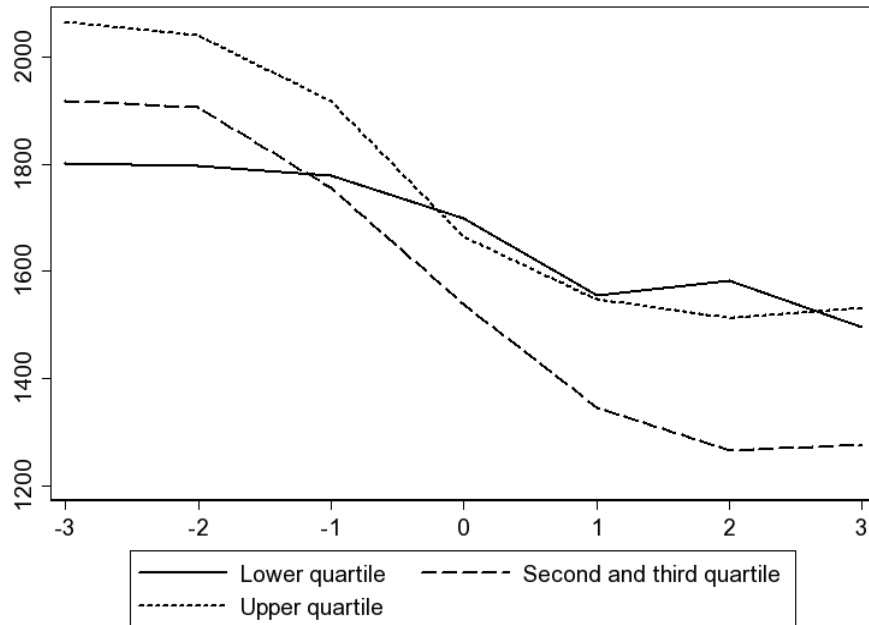
Figure 2 provides a graphical analysis of the working patterns disaggregated by the amount of the inheritance.<sup>12</sup> For all quartiles of the distribution we observe a downward shift in working hours which – depending on the amount of the inheritance – starts slightly before wealth is inherited. Whereas the adjustment profile for persons receiving the median inheritance is similar to that of wealthy beneficiaries, people in the lowest quartile adjust their working hours more modestly. While this first descriptive impression is in line with a view emphasizing the importance of income effects, table 3 shows the results for our basic specification. Column (a) provides the results of the fixed effects regression without controlling for sample selection, whereas tables (b-e) show estimates when applying the sample selection correction (Inverse Mills-ratio). Column (e) uses gifts instead of inheritances as an alternative treatment group. As can be seen, disabled persons and respondents with at least one child work less. In addition, a bell-shaped relationship between the age of the person and working hours can be observed.

Turning to our variable on inheritances, we see that the income effect is across all specifications significant and negative. Increasing inheritances by 100,000 Euro reduces yearly hours worked by around 30 hours (table 3 specifications a-e). Evaluated at the sample mean a person receiving the average inheritance of 130,000 Euro reduces working hours by 1.6 percent. Thus, a person who receives a very large inheritance of – say

<sup>12</sup> Similar patterns can be observed for gifts. They are available upon request.

more than one million Euro – reduces labor supply by approximately 300 hours, which is evaluated at the sample mean a reduction of roughly 16% percent in working hours.

Figure 2: Changes of yearly working hours before and after the inheritance ( $t=0$  year of inheritance)



Source: Own calculations, SOEP

While for the majority of beneficiaries labor supply effects are modest (owing to small amounts of inherited wealth), for large inheritances the disincentive effects are sizeable. Although the relationship between inheritances and the will to work is robust and evidence for hypothesis 1, there is no evidence in favor of hypothesis 2. Beneficiaries, who expect to get an additional inheritance in the future, do not work more compared to persons who do not. Column e shows the results for those who receive a gift. Qualitatively the results remain unchanged when studying gifts instead of inheritances.

Table 3: Effect of an inheritance/gift on labor supply: heirs vs. non-heirs

	(a)	(b)	(c)	(d)	(e)
	Inheritance				Gift
Inheritance or gift	-46.39** (-2.54)	-33.16** (-2.11)	-33.13** (-2.11)	-32.71** (-2.08)	-24.82** (-2.50)
Labor income	736.77*** (10.29)	240.19*** (5.57)	246.59*** (5.65)	246.56*** (5.65)	265.25*** (6.09)
H asset income	-137.99*** (-3.52)	-23.09 (-0.52)	-21.15 (-0.48)	-21.09 (-0.48)	-36.21 (-0.78)
Age	37.91*** (9.17)	4.89 (1.40)	11.43*** (3.21)	11.47*** (3.22)	9.93*** (2.80)

	(a)	(b)	(c)	(d)	(e)
	<i>Inheritance</i>			<i>Gift</i>	
Age <sup>2</sup>	-0.54*** (-11.22)	-0.14*** (-3.41)	-0.20*** (-4.81)	-0.20*** (-4.82)	-0.18*** (-4.32)
Life satisfaction	8.66*** (4.83)	-13.19*** (-6.94)	-12.84*** (-6.77)	-12.83*** (-6.77)	-10.86*** (-5.64)
Disability, dummy	-167.04*** (-8.78)	-154.23*** (-9.03)	-151.71*** (-8.89)	-151.66*** (-8.91)	-139.95*** (-8.42)
Children dummy	-221.30*** (-21.66)	-192.67*** (-20.18)	-175.69*** (-18.83)	-175.63*** (-18.82)	-176.25*** (-18.63)
Single, dummy			119.09*** (7.19)	119.15*** (7.20)	112.69*** (6.73)
Widowed, dummy			-41.44 (-0.83)	-41.20 (-0.82)	-2.34 (-0.05)
Divorced, dummy			38.65** (2.06)	38.66** (2.06)	38.96** (2.01)
Separated, dummy			-1.57 (-0.08)	-1.52 (-0.08)	-8.46 (-0.44)
Inheritance or gift expected, dummy				-19.08 (-0.30)	-2.83 (-0.05)
Constant	1208.86*** (14.72)	2242.02*** (27.75)	2040.85*** (24.31)	2039.85*** (24.33)	2041.34*** (24.05)
Inv. Mills-ratio		-684.28*** (-25.73)	-684.19*** (-25.69)	-684.26*** (-25.69)	-635.04*** (-22.92)
Person fixed effects			yes		
Time fixed effects			yes		
Observations		83121			82489
Persons		12567			12547
R <sup>2</sup> overall	0.26	0.34	0.34	0.34	0.33
R <sup>2</sup> within	0.07	0.10	0.10	0.10	0.09
R <sup>2</sup> between	0.26	0.43	0.42	0.42	0.41

*Note:* The dependent variable is yearly working hours and the amount of the inheritance or gift is lagged by one period. All regressions use heteroskedasticity-robust standard errors clustered at the level of the individual. T-values are given in parentheses. Star levels \*, \*\*, \*\*\* denote significance at the 10%, 5% and 1% level respectively.

*Source:* Own calculations, SOEP

## 5 ROBUSTNESS ANALYSIS

So far, we have shown that individuals adjust their labor supply after receiving an inheritance. In this section, we address four additional issues. First, it could be the case that also the partner adjusts labor supply. Second, up to now, we have concentrated our analysis on the year after the heir receives an inheritance. Alternatively, if the heir has some knowledge about the gift or inheritance, adjustment may take place earlier. Therefore, we present some sensitivity analysis for adjustments on former years. Thirdly, alt-

though we observe a similar reaction in the case of inter vivos transfers we propose alternative tests to address the issue of time-varying heterogeneity. We analyze labor supply effects by solely concentrating on the heirs. There are many reasons why heirs and non-heirs could differ, for example, because an inheritance involves not

*Table 4: Reactions of the partner (only inheritances)*

	(a)	(b)	(c)	(d)
Inheritance	5.035 (0.61)	6.133 (0.82)	6.015 (0.80)	6.249 (0.83)
Inheritance expected, dummy			-10.687 (-0.20)	
Heir's partner variables:				
Labor income	274.445*** (7.33)	269.377*** (7.33)	270.175*** (7.33)	270.218*** (7.33)
Age	42.655*** (8.27)	62.658*** (12.76)	64.313*** (12.97)	64.317*** (12.97)
Age <sup>2</sup>	-0.587*** (-10.34)	-0.858*** (-15.68)	-0.873*** (-15.82)	-0.873*** (-15.82)
Disability, dummy	-133.600*** (-7.34)	-132.617*** (-7.33)	-132.409*** (-7.32)	-132.402*** (-7.32)
Children dummy		-218.081*** (-18.25)	-214.118*** (-18.10)	-214.104*** (-18.09)
Single, dummy		64.033** (2.19)	64.056** (2.19)	
Widowed, dummy		98.238 (0.94)	98.240 (0.94)	
Divorced, dummy		-5.963 (-0.16)	-5.949 (-0.16)	
Separated, dummy		19.287 (0.39)	19.292 (0.39)	
Constant	1216.744*** (10.70)	1005.006*** (9.32)	957.125*** (8.77)	956.990*** (8.77)
Person fixed effects		yes		
Time fixed effects		yes		
Observations		67654		
Persons		10684		
R <sup>2</sup> overall	0.093	0.080	0.080	0.080
R <sup>2</sup> within	0.029	0.045	0.045	0.045
R <sup>2</sup> between	0.142	0.127	0.127	0.127

*Note:* The dependent variable is yearly working hours of the partner of the heir and the amount of the inheritance is lagged by one period. Except for the inheritance variable all other independent variables are personal characteristics of the partner. All regressions use heteroskedasticity-robust standard errors clustered at the level of the individual. T-values are given in parentheses. Star levels \*, \*\*, \*\*\* denote significance at the 10%, 5% and 1% level respectively.

*Source:* Own calculations, SOEP

only a transfer of wealth but also the death of a person to whom the heir (often) had a close relationship. In this case our counterfactual is not the non-heir anymore but the amount the heir receives. Those heirs receiving only a small inheritance should show only small labor supply effects. Thus, effectively we focus on a different control group. As a final alternative, instead of relying on yearly data, we average the periods before and after the inheritance and measure labor supply responses by an inheritance dummy. Finally, given that some assets are less liquid than others are, we expect that it is more difficult to adjust in these cases.

It seems reasonable that not only income, but also wealth might be pooled together in partnerships. Holtz-Eakin et al. (1994) provide evidence that when focusing on partnerships the probability of quitting the labor force increases from 12 to 20 percent. This result indicates that the adjustment of the partner is somewhat lower, though reasonable. Table 4 shows the results when we focus on the labor supply of the partner. Note that the control variables refer (with the exception of the inheritance amount) to the heir's partner.<sup>13</sup> As can be seen, in contrast to Holtz-Eakin et al. (1993) we cannot find any labor supply responses when focusing on the partner.

*Table 5: Effect of an inheritance on labor supply: heirs vs. non-heirs, different lags*

	(a)	(b)	(c)	(d)	(e)	(f)
	<i>Inheritance</i>					
Inheritance (t-5)	13.384 (0.71)					16.017 (0.84)
Inheritance (t-4)		7.360 (0.45)				-5.024 (-0.38)
Inheritance (t-3)			7.038 (0.48)			2.804 (0.18)
Inheritance (t-2)				16.662 (1.06)		4.795 (0.24)
Inheritance (t-1)	-36.080** (-1.98)	-40.744*** (-2.77)	-42.575*** (-2.83)	-49.447*** (-2.91)	-32.705** (-2.08)	-43.922** (-2.15)
Labor income	139.165*** (3.35)	159.994*** (3.41)	190.112*** (4.29)	217.288*** (5.06)	246.557*** (5.65)	84.954** (2.23)
HH asset income	-77.509** (-2.17)	-12.217 (-0.20)	-22.198 (-0.33)	-31.710 (-0.49)	-21.092 (-0.48)	-72.648** (-1.97)
Age	27.078*** (5.00)	20.031*** (4.11)	21.523*** (4.97)	17.909*** (4.50)	11.470*** (3.22)	27.557*** (4.72)
Age <sup>2</sup>	-0.332*** (-5.45)	-0.290*** (-5.24)	-0.283*** (-5.70)	-0.264*** (-5.75)	-0.199*** (-4.82)	-0.351*** (-5.36)
Life satisfaction	-10.636*** (-4.25)	-12.145*** (-5.24)	-13.628*** (-6.33)	-13.379*** (-6.62)	-12.834*** (-6.77)	-10.954*** (-4.26)

<sup>13</sup> We also experimented with the controls of the partner, but results were similar. They are available upon request.



	(a)	(b)	(c)	(d)	(e)	(f)
	<i>Inheritance</i>					
Disability, dummy	-171.537*** (-7.59)	-160.992*** (-7.70)	-157.323*** (-8.14)	-154.315*** (-8.38)	-151.658*** (-8.91)	-170.701*** (-7.12)
Children dummy	-156.440*** (-12.56)	-164.570*** (-14.17)	-172.061*** (-15.79)	-173.045*** (-17.08)	-175.631*** (-18.82)	-152.297*** (-11.65)
Single, dummy	98.344*** (4.45)	90.867*** (4.40)	97.172*** (5.06)	115.758*** (6.36)	119.145*** (7.20)	90.191*** (4.01)
Widowed, dummy	-36.514 (-0.48)	-7.754 (-0.11)	-8.150 (-0.14)	-20.836 (-0.38)	-41.201 (-0.82)	-16.276 (-0.20)
Divorced, dummy	18.277 (0.81)	40.130* (1.78)	30.396 (1.41)	39.514* (1.94)	38.662** (2.06)	20.686 (0.85)
Separated, dummy	5.028 (0.20)	7.202 (0.31)	-1.152 (-0.05)	4.571 (0.21)	-1.515 (-0.08)	-2.912 (-0.11)
Inheritance expected, dummy	-31.900 (-0.37)	-35.847 (-0.47)	-26.326 (-0.37)	-18.274 (-0.27)	-19.080 (-0.30)	-65.295 (-0.69)
Constant	1680.847*** (13.42)	1901.243*** (16.73)	1804.991*** (17.86)	1918.515*** (20.60)	2039.847*** (24.33)	1729.564*** (12.84)
Inv. Mills-ratio	-750.279*** (-23.42)	-741.109*** (-23.42)	-748.649*** (-25.19)	-719.507*** (-25.61)	-684.261*** (-25.69)	-728.701*** (-20.45)
Person fixed effects			yes			
Time fixed effects			yes			
Observations	43821	51114	59456	69021	83121	40073
Persons	7591	8408	9368	10410	12567	6812
R <sup>2</sup> overall	0.360	0.349	0.359	0.345	0.337	0.339
R <sup>2</sup> within	0.106	0.106	0.106	0.103	0.102	0.097
R <sup>2</sup> between	0.438	0.430	0.454	0.433	0.416	0.431

Note: The dependent variable is yearly working hours and the amount of the inheritance is lagged by one period. All regressions use heteroskedasticity-robust standard errors clustered at the level of the individual. T-values are given in parentheses. Star levels \*, \*\*, \*\*\* denote significance at the 10%, 5% and 1% level respectively.

Source: Own calculations, SOEP

Table 5 presents the same regressions as in table 3 where we additionally include lags from t-5 up to t-2. For example t-5 measures whether we observe an adjustment five years before up to two years before the inheritance. Thus, these additional regressors give some advice whether the heir adjusts prior to the inheritance. As can be seen none of these coefficients measuring prior adjustments is statistically significant. Therefore, there is little evidence that heirs reduce working hours prior to the inheritance because they are well-informed. Accordingly, the main response takes place one year after the heir receives the inheritance.<sup>14</sup> This permanent response is similar to those shown in

<sup>14</sup> Thus, labor supply responses take immediately place after the inheritance. This result is somewhat in contrast to

table 3. Heirs receiving an inheritance of one Mio Euro permanently decrease their working hours by roughly 300 hours.

Up to now, we have compared heirs with non-heirs. In order to reduce heterogeneity across time we average the yearly variation in our dataset. We focus on three-year averages before and after the inheritance. Moreover, we focus now solely on heirs (or solely on persons receiving a gift). Table 6 provides a descriptive overview before and after the treatment. Those who inherited wealth reduced their labor supply by more than 200 hours, whereas the reactions for inter vivo transfers are smaller. While these results are smaller compared to those when using non-heirs as a control group, they nonetheless suggest that negative incentives to work are present after a person receives large transfers.<sup>15</sup>

*Table 6: Average working time three years before and after receiving an inheritance/gift, descriptive statistics*

3-year average	<i>Inheritance</i>		<i>Gift</i>	
	<i>pre</i>	<i>post</i>	<i>pre</i>	<i>post</i>
Number of persons	186		147	
Amount	125,690		122,925	
Working hours	1829	1611	1781	1671
Gross yearly labor income	35,959	33,784	35,478	37,095
Life satisfaction	7.42	7.30	7.46	7.29

Source: Own calculations, SOEP

Finally, from a policy perspective it is important to know whether labor supply effects depend on the type of inheritance. For example, the German reform of the inheritance tax in 2009 exempts the value of housing from the parents towards the children (as well between spouses).<sup>16</sup> In addition, in many countries business assets are taxed more lightly than private property. Although there may be many pros and cons against preferential tax treatments of specific asset types, an important justification of preferential tax treatment would be that heirs do not adjust (or adjust to a lower extent) in case of illiquid assets.

Testing this argument requires that we differentiate between liquid and illiquid inheritances.<sup>17</sup> Liquid assets contain cash transfers and assets which can be sold at the stock

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those of Elinder et al. (2010) who show that the full adjustment takes places after three years.

<sup>15</sup> Results remain stable in a multivariate analysis. They are available upon request.

<sup>16</sup> However, exemption is only granted if the child (or the husband) does not rent or sell the house to third persons within a time span of 10 years.

<sup>17</sup> An alternative, with less demanding restrictions on the equality of the control variables is to split the sample into illiquid and liquid inheritances. We have also experimented with a sample split and derived nearly identical re-

market, whereas illiquid assets are business assets, the value of housing and other types of inheritances (for example paintings). 56 percent of the bequests involved a transfer of liquid assets, 29 percent illiquid assets, and in 15 percent of the cases, both types of assets were transferred (see table 1). Receiving solely illiquid assets serves as our reference group.

Table 7 shows the results. According to the estimates the labor supply response increases markedly when the heir gets liquid assets compared to the case where the beneficiary receives only illiquid assets. However, in the case where the heir receives both types of assets the responses are strongest. The latter result corresponds with the descriptive impression indicating that larger amounts of wealth are transferred if the heir receives both types of assets. However, when including additionally non-heirs to our sample our regression results do not remain stable.<sup>18</sup>

*Table 7: Liquid and illiquid inheritances (heirs/donee only)*

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	<i>Inheritance</i>				<i>Gift</i>		
Liquid inheritance/gift, dummy	-106.126*** (-4.99)	-54.525*** (-2.62)	-56.630*** (-2.74)	-61.971*** (-3.02)	-76.550*** (-3.74)	-76.550*** (-3.74)	20.263 (0.93)
Liquid and illiquid, dummy	-290.557*** (-9.26)	-198.250*** (-6.49)	-223.713*** (-7.34)	-211.913*** (-7.00)	-226.145*** (-7.46)	-226.145*** (-7.45)	-149.750*** (-2.66)
Labor income	2518.474*** (62.85)	1005.909*** (14.92)	964.939*** (14.38)	954.480*** (14.26)	991.925*** (14.91)	991.925*** (14.90)	208.847*** (4.00)
HH asset income	-206.837*** (-4.31)	-67.293 (-1.42)	-69.672 (-1.48)	-84.298* (-1.81)	-54.351 (-1.15)	-54.351 (-1.13)	-171.373** (-2.51)
Age	92.889*** (10.74)	51.616*** (5.69)	44.844*** (4.97)	69.688*** (7.48)	79.250*** (8.40)	79.250*** (8.38)	87.198*** (7.46)
Age <sup>2</sup>	-0.944*** (-10.24)	-0.439*** (-4.40)	-0.359*** (-3.61)	-0.663*** (-6.37)	-0.741*** (-7.08)	-0.741*** (-7.07)	-0.821*** (-6.12)
Life satisfaction	13.651** (2.15)	-21.350*** (-3.31)	-22.009*** (-3.44)	-18.325*** (-2.88)	-14.741** (-2.31)	-14.741** (-2.30)	-22.753*** (-3.33)
Disability, dummy			-347.235*** (-10.56)	-345.029*** (-10.57)	-346.627*** (-10.60)	-346.627*** (-10.59)	-281.676*** (-5.88)
Children dummy				-218.547*** (-9.96)	-188.932*** (-7.98)	-188.932*** (-7.97)	-224.081*** (-8.25)
Single, dummy					249.904*** (7.89)	249.904*** (7.83)	-86.813** (-2.13)
Widowed, dummy					-589.634*** (-11.77)	-589.634*** (-11.76)	237.014** (2.32)
Divorced, dummy					218.565*** (4.58)	218.565*** (4.57)	21.464 (0.58)

sults. They are available upon request.

<sup>18</sup> Results are available upon request.

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	<i>Inheritance</i>			<i>Gift</i>			
Separated, dummy					214.806*** (3.56)	214.806*** (3.56)	59.654 (0.87)
Inheritance or gift expected, dummy						-0.000 (-0.00)	-0.000 (-0.00)
Constant	1451.137*** (-5.62)	235.880 (0.88)	423.379 (1.58)	8.574 (0.03)	-357.892 (-1.31)	-357.892 (-1.30)	-41.439 (-0.13)
Inv. Mills- ratio		-771.361*** (-19.92)	-761.893*** (-19.79)	-720.398*** (-18.65)	-686.713*** (-17.81)	-686.713*** (-17.81)	-896.693*** (-21.48)
eta	1.000*** (46.60)	1.000*** (41.08)	1.000*** (41.40)	1.000*** (41.72)	1.000*** (42.11)	1.000*** (42.07)	1.000*** (40.72)
Person fixed effects				yes			
Time fixed effects				yes			
Observations			2377				1840
R <sup>2</sup>	0.817	0.827	0.830	0.832	0.835	0.835	0.841
Wald test of equality of coefficients (first row: F-statistic and second row: p-value)							
Liquid =	39.79	25.57	34.82	28.40	28.37	28.09	9.77
liquid and illiquid	0.00	0.00	0.00	0.00	0.00	0.00	0.00

*Note:* The dependent variable is yearly working hours, the amount of the inheritance is lagged by one period and the sample is restricted to heirs only. Panel fixed effects with vector decomposition. T-values are given in parentheses. Star levels \*, \*\*, \*\*\* denote significance at the 10%, 5% and 1% level respectively.

*Source:* Own calculations, SOEP

## 6 CONCLUSION

Utilizing panel data for Germany during the time span from 1984 to 2008, we have focused on labor supply adjustments after receiving an inheritance. How do our results relate to existing studies? First, we find negative labor supply effects after individuals receive an inheritance, reaching its maximum shortly after receiving the inheritance. Using different approaches to estimate income effects our results indicate that a one mio Euro inheritance is accompanied with a reduction between 150 and 300 hours of work. This result is in line with previous research. Second, when analyzing the behavior of the partner we do not find an adjustment. This contradicts the finding of Holtz-Eakin et al. (1993), because these authors show that also the partner, though more modestly, adjusts working behavior.

From an economic policy perspective our results might provide useful insights. First, – equity considerations could lead to the justification of inheritance tax, because – in line with previous research – our results indicate that wealth is inherited less often among poorer households. Secondly, negative labor supply effects provide – besides

equity considerations – even from an allocative point of view a justification for an inheritance tax. Thirdly, more favorable taxation of business assets and housing might be justified to some degree, because the adjustment of people receiving those assets is smaller compared to those receiving only liquid assets.

We stress three points, which we think are important and we have to leave to future research. First, we were not able to derive robust results when analyzing liquid and illiquid inheritances. Given this conflicting evidence, further research is needed in order to derive clear-cut answers with respect to our third hypothesis. Moreover, because liquidity constraints as well as psychological barriers could account for different responses it seems worth to differentiate between these competing hypotheses in future research. Second, the empirical literature, which looks on wealth in general (Fairlie and Krashinsky, 2012; Lindh and Ohlsson, 1996) and more specifically on inheritances (Blanchflower and Oswald, 1998; Schäfer et al., 2011) on entrepreneurial activity, concludes that those with higher wealth or more specifically higher inheritances establish more often new firms. Therefore, for a comprehensive evaluation of the inheritance tax one has to identify whether entrepreneurial activity after an inheritance is a) in the long run successful and b) is based on specific types of assets. While there is a small amount of empirical literature available with respect to a) (Holtz-Eakin et al. 1994; Schäfer and Talavera, 2006), we are not aware of studies analyzing b). In order to test these hypotheses one has to link those studies analyzing entrepreneurship after inheritance with disaggregated data on the type of inheritance.

Finally, although quitting the labor force is only a feasible strategy for a small fraction of lucky ones, these cases will gain increasing importance since more and more wealth will be inherited in Germany (and other OECD countries) in the next decade. While we have shown that heirs adjust their labor supply after receiving an inheritance it is an open question what they do in their spare time. Of course enjoying the freedom of a sweet life, will be a tempting option for some, but it could be the case that at least some heirs “payback”, either through donations and / or through voluntary work in non-profit organizations. Because the normative implications of an inheritance tax hinge to some extent on these options, it would be interesting to analyze the behavior of heirs beyond labor supply effects, an exercise, which we leave for future research.

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