



Labour Supply Effects of Wealth Shocks: Evidence for Germany

Nico Pestel (IZA, Germany)

Karina Doorley (IZA, Germany, and CEPS/INSTEAD, Luxembourg)

Paper Prepared for the IARIW 33rd General Conference

Rotterdam, the Netherlands, August 24-30, 2014

Session 2D

Time: Monday, August 25, Afternoon

Labor Supply Effects of Wealth Shocks: Evidence for Germany*

Preliminary work in progress – Please do not quote!

KARINA DOORLEY NICO PESTEL

July 18, 2014

Abstract

This paper examines the effect of wealth on labor market behavior in Germany. Providing convincing evidence on this relationship is challenging since wealth and labor supply may be endogenously determined. We provide a theoretical framework which outlines how individuals' labor market behavior may be expected to react to a financial windfall under different circumstances including perfect/imperfect anticipation and a credit constrained environment. We test our model predictions using rich household and individual level microdata for Germany. We find that unanticipated financial windfalls lead to a decrease in the number of hours worked by employees and an increase in the level of self-employment income. However, we find no evidence that the number of hours spent on self-employment activities increases. Rather, there is evidence that self-employed individuals expand their businesses in the wake of a financial windfall, hiring more personnel, and increasing the return on their business.

JEL Classification: D31, J22, L26

Keywords: wealth, financial windfall, labor supply, self-employment, Germany

* Karina Doorley is affiliated to IZA Bonn and CEPS/INSTEAD Luxembourg. Nico Pestel is affiliated to IZA Bonn and ZEW Mannheim. Corresponding author: Nico Pestel, Institute for the Study of Labor (IZA), P.O. Box 7240, 53072 Bonn, Germany, Tel.: +49 228 3894-160, Fax: +49 228 3894-510, Email: pestel@iza.org.

1 Introduction

This paper examines the effect of wealth shocks on labor supply behavior in Germany using rich micro data on households and individuals. There are important labor market outcomes that are affected by shocks to wealth. First, the gain in wealth may serve as an additional source of non-labor income. Substantial wealth gains can be expected to have a significant income effect and, hence, affect a worker's marginal rate of substitution between leisure and consumption. Economic theory predicts that an increase in non-labor income reduces the number of working hours supplied on the labor market. Second, households of working-age can use their (gains in) wealth to increase their future streams of consumption by dissaving and/or by consuming the additional asset income. Therefore, similar to the decision on current labor supply, wealth can be expected to have an income effect on the intertemporal labor supply decision.

Empirically, a gain in household wealth may affect labor supply decisions in various ways, both at the extensive margin, through early retirement (Krueger and Pischke, 1992; Brown et al., 2010; Bloemen, 2011), participation (Holtz-Eakin et al., 1993; Imbens et al., 2001; Bloemen and Stanca, 2001) and the intensive margin through hours worked (Joulfaian and Wilhelm, 1994; Henley, 2004). Moreover, a financial windfall could serve to finance the start-up or the extension of a business and, hence, increase the likelihood of becoming self-employed, which is another margin by which individuals and households can optimize their labor market behavior (Holtz-Eakin et al., 1994b,a; Lindh and Ohlsson, 1996; Blanchflower and Oswald, 1998; Hurst and Lusardi, 2004). Providing convincing evidence on this relationship is challenging since wealth and labor supply may be endogenously determined. Therefore, we consider several channels of how labor supply behavior is affected by (exogenous) shocks to wealth (lotteries, inheritances and gifts).

We focus on Germany, a country that is characterized by a strongly aging society, a high level of wealth inequality as well as a sharply increasing aggregate value of assets, implying a growing importance of future inheritances. Hence, the behavioral effects of inheritances will become more and more relevant as a determinant of employment structure. We use long-ranging panel micro data from the German

Socio-Economic Panel Study (SOEP 2012). This provides detailed information on the labor market histories of individuals, which can be related to past inheritances as well as expectations about future inheritances (in 2001), information on household wealth (in 2002 and 2007), information on households' financial windfalls (from 2001 onwards) as well as a rich set of individual and household characteristics.

Using household level financial windfall information, we look at the labor market behavior of individuals in response to wealth shocks, distinguishing between those who expected an inheritance and those who did not. In the first instance, we model transition probabilities in the years after the inheritance, focusing on the probability of becoming self-employed using a timeframe of up to five years pre- and post-inheritance. We apply panel regression techniques to control for unobservable characteristics that may affect labor market behavior. To examine the intensive margin, we will also model hours worked and labor income up to five years pre- and post-inheritance. We analyze the behavior of men and women separately, expecting that women, who have traditionally been found to be more risk-averse, will change their labor market behavior less than men.

We find that unanticipated financial windfalls lead to a decrease in the number of hours worked by employees. For both men and women who do not expect a financial windfall, hours of work are higher before this than afterwards. For men and women who do expect a financial windfall, we find no change in the pattern of employee hours worked in the years leading up to and following the year of the financial windfall, confirming that the effects found for those who expect a windfall are labor market reactions due to imperfect anticipation of a financial windfall. For self-employment income, we find evidence of an increase after a financial windfall for men and women who were not expecting this windfall. For men and women who do expect a financial windfall, we find no consistent pattern in the amount of self-employment income earned before and after the windfall. However, we find that the receipt of a windfall has no significant effect on the probability of being self-employed, with a slight exception for females who do not expect a windfall. In addition, we find no evidence that the number of hours spent on self-employment activities increases. Rather, there is evidence that self-employed individuals expand

their businesses in the wake of a financial windfall by hiring more personnel, and increasing the return on their business. Especially women who do not expect a financial windfall are more likely to be self-employed with employees in the years following the windfall.

The paper is organized as follows: Section 2 presents a theoretical framework for our hypotheses. Section 3 describes the data and section 4 the methodology. Our results are presented in section 5. Section 6 concludes.

2 Theory

2.1 Perfect Anticipation

The life-cycle model of consumption shows how windfall recipients can be expected to behave. Suppose that an individual receives an inheritance that is completely anticipated, as may be the case in countries such as Germany where parents are forbidden by law from disinheriting their children. This inheritance will not affect labor supply and consumption post-inheritance as it will already have been taken into account in the optimal choice of labor supply from the beginning of the life-cycle. It is only unanticipated inheritances that will affect labor supply after the inheritance.

Suppose that an individual begins life in period 1 and lives for T time periods. There is no uncertainty regarding wages, self-employment income, prices or the length of life. The individual will choose consumption, c , and labor supply, h , to maximise lifetime utility, given a particular discount rate which we assume is equal to the interest rate, r , and is exogenous. The maximisation problem becomes:

$$\max_{c_t, h_t} \sum_{t=1}^T (1/1 + r)^{t-1} u(c_t, h_t) \quad (1)$$

We follow Blanchflower and Oswald (1998) in assuming that, given the same income and hours of work, for a certain proportion of the population, β , the utility from being self-employed:

$$u_t = u(s(h_t, k_t), h_t) + i \quad (2)$$

is greater than the utility of being employed:

$$u_t = u(w(h_t), h_t) \quad (3)$$

where w is the income from working as an employee and depends only on hours worked, h . The income from self-employment, s , is a function of hours worked, h , and capital invested in the business, k , and i is the non-pecuniary utility from being one's own boss. Utility is maximised subject to a series of intertemporal budget constraints. Denoting W_t the financial windfall received in time t , lifetime consumption for the employed is:

$$C^w = \sum_{t=1}^T (w(h_t) + W_t) \quad (4)$$

while for the self-employed:

$$C^s = \sum_{t=1}^T (s(h_t, k_t) + W_t) \quad (5)$$

The windfall is received in period p , before the end of life in period T . Assuming that $W_{t=p} > 0$ and $W_{t \neq p} = 0$, the optimal path for hours of work, assuming that the individual does not switch between employment and self-employment, for a perfectly anticipated windfall is:

$$h_1 = h_2 = \dots = h_p = \dots = h_T \quad (6)$$

2.2 Imperfect anticipation

In the case of an unanticipated windfall, this hours of work path will no longer hold and there may be a change in consumption and labor supply in time period p . The employed or self-employed windfall recipient has a number of options. He can maintain hours of work, h and increase consumption by the same amount for each year after p as consumption of W is smoothed between time p and time T . Alternatively, the windfall recipient can reduce hours of work, h , and supplement his consumption from labor earnings with consumption from capital earnings (the

windfall). If the windfall recipient is self employed, another path is also possible. If

$$\sum_{t=1}^T (s(h_t, k_t) + W_t) < \sum_{t=1}^T (s(h_t, k_t + W_t)) \quad (7)$$

the windfall recipient can supplement capital with the financial windfall in order to increase self-employment income and, therefore, consumption, after time p .

Of course, the windfall recipient may choose a mix of these options, slightly reducing hours worked, slightly supplementing capital (if self-employed) and slightly increasing consumption after time p . The new optimal hours of work path satisfies:

$$h_1 = h_2 = \dots = h_{p-1} \geq h_p = \dots = h_T \quad (8)$$

and, if self-employed, the windfall recipient has the following self-employment income path:

$$s_1 = s_2 = \dots = s_{p-1} \leq s_p = \dots = s_T \quad (9)$$

With imperfect anticipation of windfalls, that is, partial anticipation, we may expect hours of work, self-employment income and labor supply to change both before (in anticipation) and after (to adjust for the imperfect anticipation) time p

2.3 Credit constraints

In a world where credit is constrained, two further results are possible. Firstly, even if the windfall is perfectly anticipated, a liquidity constrained windfall recipient may not be able to adjust their hours of work before time p . Therefore, we may see a labor supply effect after time p , even for perfectly anticipated inheritances.

Secondly, those who are not working or employed before the financial windfall may fall into the category of those for whom the utility from being self-employed is greater than the utility of being employed for the same income and hours of work, i.e. they belong to the proportion, β , of the population for whom $i > 0$. Credit constraints may prevent them from borrowing the capital required to become self-employed. For a particular windfall recipient, who begins with no venture capital, $k = 0$, the utility from being self-employed (with capital, $k = W_t$) may be greater

than the utility from remaining an employee or out of work:

$$u\left(\sum_{t=1}^T (w(h_t) + W_t)\right) < u\left(\sum_{t=1}^T (s(h_t, W_t))\right) + i \quad (10)$$

In this case, they may use their financial windfall to switch from non-employment/employment to self-employment.

2.4 Testable hypotheses

This framework leads to a number of testable hypotheses. Assuming that inheritances are not perfectly anticipated and that credit constraints may exist, the existence of discontinuities in the following variables in the wake of a windfall would indicate a causal effect of the windfall.

Firstly, we can check whether hours of work stays the same or decreases after a windfall (Equation 8). Second, we can test if hourly self-employment income increases in the wake of a windfall (9). Thirdly, we can check if capital in own businesses (measured by the number of employees that a self-employed person has) increases after the windfall (Equation 7). Lastly, we can model switches from employment to self-employment (Equation 10)

3 Data

The German Socio-Economic Panel Study (GSOEP) with its long-ranging panel micro data (1984-2012) provides detailed information on the labor market histories of individuals, information relating to past inheritances as well as expectations about future inheritances (in 2001), information on windfall incomes of households (from 2001 onwards) as well as a rich set of individual and household characteristics.

Using household level financial windfall information, we look at the labor market behavior of individuals in response to wealth shocks, distinguishing between those who expected an inheritance and those who did not. In wave 2001, individuals are asked whether they expect an inheritance or other transfer in the future.¹

¹ The exact wording of the survey question is as follows: “*What do you think, are you going to*

From the wave 2001 onwards, respondents are asked whether they have received some windfall income, like inheritances, gifts or lotteries, in the year prior to the survey year.

Figures 1 and 2 show the year by year probability of the occurrence as well as the median level of windfall incomes by expectation status. It turns out that on average, respondents are able to assess the likelihood of a windfall. More than 50% of those who stated in 2001 that they would receive something in the future did so within the following ten years, much more than those who did not expect this or stated that they did not know. On the other hand, assessment of the likelihood of a windfall is not perfect. While the probability of windfall occurrence is much lower for those who do not expect it, this is not zero. So, some windfalls were indeed not expected and can be thought of as exogenous shocks to household wealth.

In the first instance, we will model transition probabilities in the years after the inheritance, focusing on the probability of becoming self-employed using a timeframe of up to five years pre- and post-inheritance. We use the long-ranging panel aspect of the GSOEP to apply panel regression techniques and control for unobservable characteristics that may affect labor market behavior. To examine the intensive margin, we will also model hours worked and labor income up to five years pre- and post-inheritance. We will examine the behavior of men and women separately, expecting that women, who have traditionally been found to be more risk-averse, will change their labor market behavior less than men.

4 Empirical Approach

Windfall recipients may differ from non-recipients in their observable and unobservable characteristics, e.g., preferences for work, risk etc. We deal with this issue by exploiting the longitudinal nature of our data to estimate models with individual fixed effects. We run the following fixed effect model to examine the effects of inheritances on a range of dependent variables:

inherit something or receive a gift of substantial value (again) in the future?" Individuals could respond with “*Yes, that is certain*”, “*Yes, probably*”, “*No*” or “*Don’t know*”.

$$y_{it} = \sum_{-5}^5 \delta_t W_{i0} + \beta X_{it} + \theta_t + a_i + u_{it} \quad (11)$$

where y_{it} represents a number of possible dependent variables, including individual i 's labor income, labor hours or employment status in year t .

The variable of interest is W_{i0} , the windfall amount. We group inheritances, gifts and lottery receipts together for the baseline model but also examine the effects of these instruments separately. We interact the windfall amount, W_{i0} , with dummy variables indicating the number of years pre- or post-inheritance, ($t \in -5, 5$) to estimate the magnitude of the responses in the years preceding and following the inheritance. An effect observed in the years preceding the inheritance amount would indicate that the windfall was imperfectly anticipated. In looking at just the post-windfall period in this case, we would underestimate the causal effect of the windfall. We will, however, separately use the information in the data relating to the expectation of a windfall to look at the casual effect of unanticipated windfalls separately from anticipated ones.

X_{it} includes controls for age, gender, family type, education and a dummy variable for those in East Germany. We include a full set of year dummies, θ_t , to capture time effects such as the macroeconomic environment. a_i captures an individual fixed effect which controls for factors which are assumed to be constant over time but which may be correlated with the dependent and independent variables. The idiosyncratic error u_{it} is assumed to be uncorrelated with W_{i0} , X_{it} and a_i .

Sample selection and definitions. We use waves 2001–2012 from the GSOEP data and restrict the sample to individuals who experienced a windfall at some point during this period. Moreover, we focus on individuals' first windfall event and exclude rare cases with multiple windfalls. Furthermore, the sample consists of household heads and their spouse in the age range 25–59 and we exclude multi-generation households. Finally, we create a binary indicator for expecting a windfall gain by combining “*Yes (certain/probably)*” (= 1) and “*No (No/Don't know)*” (= 0). Since we do not know from the data whether the windfall in period $t = 0$ occurred before or after the survey interview took place in that particular year, we use $t =$

-1 as a base period. Table 1 provides an overview of summary statistics on the estimation sample.

5 Results

Tables 2–8 show the results of the fixed effects model (11), using a number of different dependent variables: employee hours of work, employee income, self-employed hours of work, self-employed income and self-employment status. The results of these models are presented separately for men and women and for those who anticipated a financial windfall and those who did not. Controls include a polynomial in age, years of education, dummies for different household types (single, single parent, couple with and without children), a dummy for East Germany as well as year fixed effects.

Income and hours worked of employees. Our first hypothesis is that hours of work should either stay constant or decrease after a financial windfall, depending on whether it was anticipated or not and whether or not credit constraints exist. Table 2 shows the effect of a financial windfall on hours of employee work before and after the financial windfall. We find that there is no significant pattern of changes in hours worked by men irrespective of anticipation of a financial windfall. Women who do expect the windfall significantly decrease their labor supply by about 2.5 hours per week per EUR 100,000 right at and after receiving the windfall. For women not expecting a windfall, there is no longer-run impact on their hours worked. They even slightly increase their labor supply in the years following the unexpected financial gain, but this increase disappears later on. This finding supports the view that credit constraints might play a role in the labor supply decisions of women in expectation of a windfall. Similar results are found for wage income (Table 3).

Income and hours worked of the self-employed. Our second hypothesis is that self-employment income is unchanged or higher in the wake of a financial windfall, depending on whether it was anticipated or not and whether or not credit constraints exist. We find evidence of higher self-employment income after a finan-

cial windfall for men and women who were not expecting this windfall. Table 4 shows the effect of a financial windfall on self-employment income before and after the financial windfall. Men who do not expect a financial windfall earn up to EUR 5,400 more self-employment income, per EUR 100,000 of windfall in the years following the windfall. For women who do not expect a financial windfall, we find that, in the years following the windfall, they earn more self-employment income. This amounts to up to EUR 2,100 more annual self-employment income per annum per EUR 100,000 of financial windfall, the effect is only statistically significant in 3 to 5 years after the windfall. For men and women who do expect a financial windfall, we find no consistent pattern in the amount of self-employment income earned before and after the windfall.

As discussed in Section 2, there are two potential channels through which self-employment income can change. The first is hours of self-employment while the second is capital invested. We look at hours of self-employment. Table 5 shows the effect of a financial windfall on hours of self-employed work before and after the financial windfall. We find little changes in the hours of self-employment reported by men or women, regardless of whether or not the windfall was expected.

Self-employment status. The second possible explanation for the increase in self-employment income observed after a financial windfall is an increase in capital due to the windfall being used to increase the capital base of the business. We check this hypothesis in two ways. Credit constraints could prevent a would-be entrepreneur from becoming self-employed and this problem may be solved on receipt of a financial windfall. So, we first look at the change in the probability of being self-employed after a financial windfall. Secondly, we examine the change in the probability of being self-employed with employees after the windfall.

We find that the receipt of a windfall has no effect on the probability of being self-employed Table 6. So, there is no concrete evidence that self-employment increases on the intensive or extensive margins in response to a financial windfall. We do, however, find that an unexpected windfall increases the number of workers employed by a self-employed woman. Women who do not expect a financial windfall

are more likely to be self-employed with employees in the years following the windfall. The magnitude of this effect is up to 4.4 percentage points per EUR 100,000 of windfall (Table 7). This is also true when we examine the probability of being self-employed with at least 10 employees (Table 8) and is, once again, only present for women who do not expect a financial windfall. The magnitude of the effect is up to 1.7 percentage points per EUR 100,000 of financial windfall.

6 Preliminary Conclusions

This paper examines effects of wealth shocks on labor market behavior in Germany. We provide a theoretical framework which outlines how individuals' labor market behavior may be expected to react to a financial windfall under different circumstances including perfect/imperfect anticipation and a credit constrained environment. We test our model predictions using rich household and individual level micro-data for Germany.

We find that unanticipated financial windfalls lead to a decrease in the number of hours worked by employees especially for women anticipating the windfall and mainly after receiving it. This is consistent with the case of imperfect anticipation and/or credit constraints. Moreover, we find that a windfall is associated with an increase in the level of self-employment income. However, we find no or little evidence that the number of hours spent on self-employment activities or the probability of becoming self-employed at all increases. Hence, the “extensive margin” of self-employment. Rather, there is evidence that self-employed individuals expand their businesses in the wake of a financial windfall, hiring more personnel, and increasing the return on their business (“intensive margin”). This pattern is particularly pronounced for women who do not expect the windfall.

From a policy perspective, these results may have implications for alleviating the access to credit for small and medium-sized businesses. When unexpected windfall income is invested in the expansion of business activities and thereby creating additional employment, this may imply that access to required credit was not given before the windfall and is therefore consistent with credit constraints for self-

employed. In addition, this reinforces the question of how business capital should be treated in inheritance taxation.

In the next steps, we plan to expand the paper by closely looking at potential heterogeneity of the results. First, we will examine whether the type of windfall (inheritance, gift or lottery) matters for our results. Second, the magnitude of windfall income may play a different role with exceptionally large amounts driving the results. Finally, we will provide more functional form specifications and robustness checks.

References

- Blanchflower, D. G. and A. J. Oswald (1998). What Makes an Entrepreneur? *Journal of Labor Economics* 16(1), 26–60.
- Bloemen, H. G. (2011, October). The Effect of Private Wealth on Retirement Rate: An Empirical Analysis. *Economica* 78(312), 637–655.
- Bloemen, H. G. and E. G. F. Stancanelli (2001). Individual Wealth, Reservation Wages, and Transition into Employment. *Journal of Labor Economics* 19(2), 400–439.
- Brown, J. R., C. C. Coile, and S. J. Weisbenner (2010). The Effect of Inheritance Receipt on Retirement. *Review of Economics and Statistics* 92(2), 425–434.
- Henley, A. (2004). House Price Shocks, Windfall Gains and Hours of Work: British Evidence. *Oxford Bulletin of Economics and Statistics* 66(4), 439–456.
- Holtz-Eakin, D., D. Joulfaian, and H. S. Rosen (1993). The Carnegie Conjecture: Some Empirical Evidence. *Quarterly Journal of Economics* 108(2), 413–435.
- Holtz-Eakin, D., D. Joulfaian, and H. S. Rosen (1994a). Entrepreneurial Decisions and Liquidity Constraints. *RAND Journal of Economics* 25(2), 334–347.
- Holtz-Eakin, D., D. Joulfaian, and H. S. Rosen (1994b). Sticking it Out: Entrepreneurial Survival and Liquidity Constraints. *Journal of Political Economy* 102(1), 53–75.
- Hurst, E. and A. Lusardi (2004). Liquidity Constraints, Household Wealth, and Entrepreneurship. *Journal of Political Economy* 112(2), 319–347.
- Imbens, G. W., D. B. Rubin, and B. I. Sacerdote (2001). Estimating the Effect of Unearned Income on Labor Earnings, Savings, and Consumption: Evidence from a Survey of Lottery Players. *American Economic Review* 91(4), 778–794.
- Joulfaian, D. and M. O. Wilhelm (1994). Inheritance and Labor Supply. *Journal of Human Resources* 29(4), 1205–1234.

Krueger, A. B. and J.-S. Pischke (1992). The Effect of Social Security on Labor Supply: A Cohort Analysis of the Notch Generation. *Journal of Labor Economics* 10(4), 412–437.

Lindh, T. and H. Ohlsson (1996). Self-Employment and Windfall Gains: Evidence from the Swedish Lottery. *Economic Journal* 106(439), 1515–1526.

Appendix

A Graphs

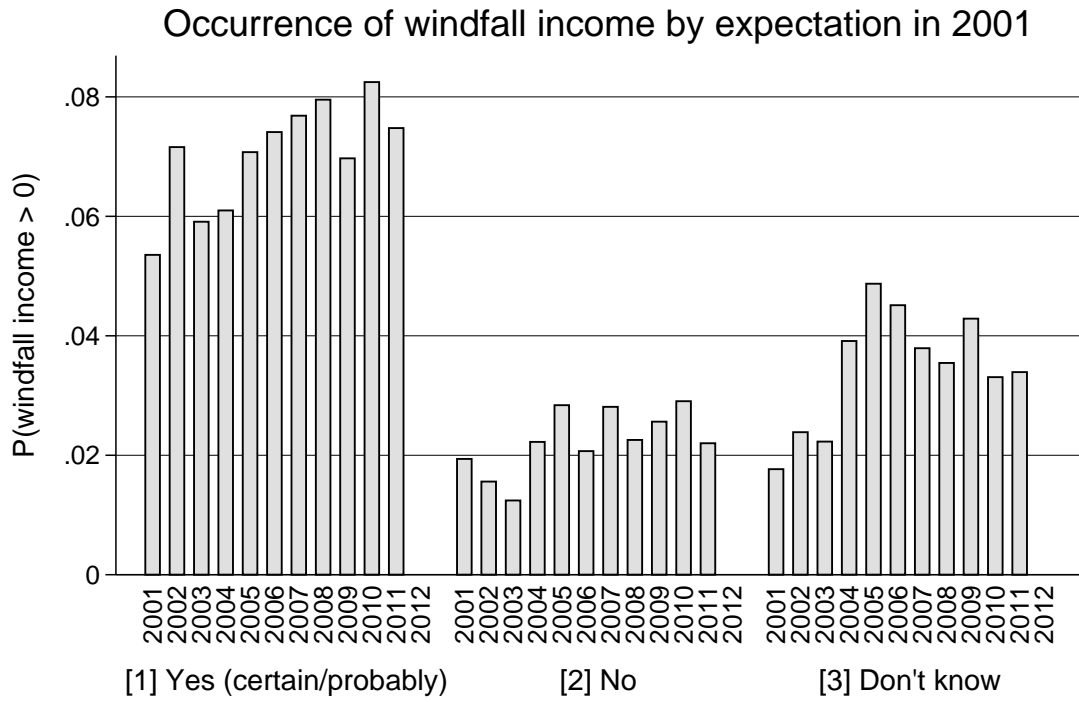


Figure 1: Probability of windfall occurrence

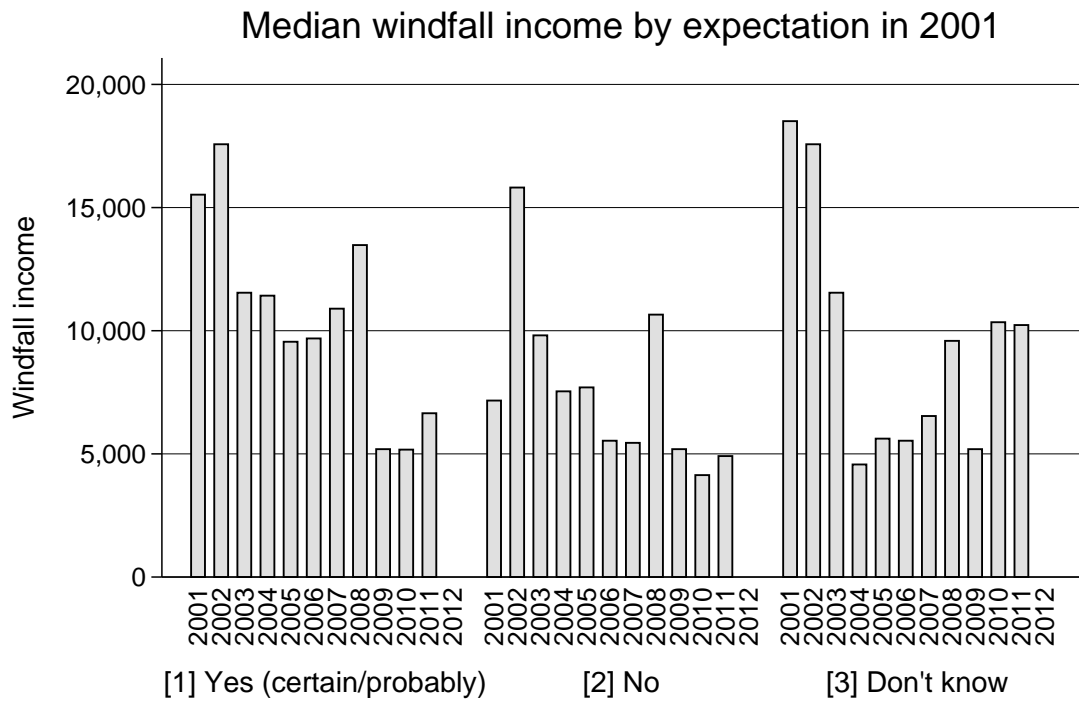


Figure 2: Median windfall income

B Tables

Table 1: Sample statistics

	mean	sd	min	max	N
Age	43.78	8.12	25	59	18731
Female	0.51	0.50	0	1	18731
East Germany	0.15	0.35	0	1	18731
Education	13.35	2.86	7	18	18731
Single	0.19	0.39	0	1	18731
Single parent	0.04	0.20	0	1	18731
Couple w/o kids	0.24	0.43	0	1	18731
Couple with kids	0.53	0.50	0	1	18731
Windfall	49292.61	138930.15	0	1442909	18731
Hours worked	32.22	18.41	0	80	18731
Hours worked in self-employment	4.55	13.98	0	80	18731
Self-employed	0.11	0.31	0	1	18731
Self-employed with any employees	0.03	0.18	0	1	18731
Self-employed with 10+ employees	0.01	0.09	0	1	18731
Wage income	29686.76	26879.98	0	470625	18731
Self-employment income	4111.35	18746.47	0	479814	18731

Table 2: Hours worked by employees

	(1)	(2)	(3)	(4)
	Men, exp.	Men, not exp.	Women, exp.	Women, not exp.
Windfall/100K x (t = -5)	0.410 (0.714)	0.952 (0.544)	-3.141 (0.004)	0.364 (0.255)
Windfall/100K x (t = -4)	-0.208 (0.823)	2.544 (0.036)	-1.191 (0.217)	0.803 (0.010)
Windfall/100K x (t = -3)	-0.971 (0.273)	1.722 (0.114)	-0.685 (0.420)	0.306 (0.326)
Windfall/100K x (t = -2)	-0.225 (0.794)	-0.656 (0.538)	-0.305 (0.476)	0.487 (0.115)
Windfall/100K x (t = 0)	-0.011 (0.989)	-0.221 (0.819)	-2.636 (0.000)	0.624 (0.042)
Windfall/100K x (t = 1)	-0.772 (0.327)	-0.659 (0.512)	-0.601 (0.145)	0.971 (0.002)
Windfall/100K x (t = 2)	-0.200 (0.824)	-0.253 (0.802)	-2.663 (0.000)	0.415 (0.192)
Windfall/100K x (t = 3)	-0.871 (0.324)	-1.519 (0.140)	-2.603 (0.000)	-0.005 (0.988)
Windfall/100K x (t = 4)	-0.810 (0.375)	-2.129 (0.044)	-2.511 (0.000)	0.107 (0.910)
Windfall/100K x (t = 5)	-1.570 (0.136)	-0.933 (0.410)	-0.519 (0.239)	0.213 (0.826)
Controls	X	X	X	X
Year FE	X	X	X	X
R^2	0.046	0.042	0.146	0.117
Log-likelihood	-10340.170	-14242.630	-10738.077	-17270.010
Observations	2873	3907	2906	4858

p-values in parentheses

Table 3: Wage income

	(1)	(2)	(3)	(4)
	Men, exp.	Men, not exp.	Women, exp.	Women, not exp.
Windfall/100K x (t = -5)	-14.529 (0.992)	860.464 (0.653)	-3547.108 (0.000)	116.740 (0.663)
Windfall/100K x (t = -4)	-464.056 (0.705)	4860.679 (0.001)	-1384.351 (0.114)	552.490 (0.035)
Windfall/100K x (t = -3)	-284.753 (0.808)	4656.856 (0.000)	-1452.370 (0.060)	431.249 (0.098)
Windfall/100K x (t = -2)	1537.378 (0.177)	4216.713 (0.001)	-431.993 (0.266)	1252.869 (0.000)
Windfall/100K x (t = 0)	1685.497 (0.104)	679.442 (0.563)	-1682.947 (0.000)	73.837 (0.774)
Windfall/100K x (t = 1)	610.564 (0.558)	864.505 (0.481)	-922.679 (0.014)	1754.331 (0.000)
Windfall/100K x (t = 2)	57.985 (0.961)	-377.257 (0.760)	-460.268 (0.224)	359.584 (0.177)
Windfall/100K x (t = 3)	417.019 (0.721)	-493.107 (0.694)	-1777.665 (0.000)	399.394 (0.146)
Windfall/100K x (t = 4)	-673.464 (0.577)	462.417 (0.720)	-1743.065 (0.000)	559.372 (0.478)
Windfall/100K x (t = 5)	-1167.585 (0.402)	-378.858 (0.784)	-1437.246 (0.000)	38.009 (0.963)
Controls	X	X	X	X
Year FE	X	X	X	X
R^2	0.059	0.056	0.085	0.112
Log-likelihood	-30991.614	-42012.967	-30528.963	-49961.567
Observations	2873	3907	2906	4858

p-values in parentheses

Table 4: Self-employment income

	(1)	(2)	(3)	(4)
	Men, exp.	Men, not exp.	Women, exp.	Women, not exp.
Windfall/100K x (t = -5)	431.850 (0.750)	-1904.818 (0.242)	473.482 (0.405)	26.401 (0.882)
Windfall/100K x (t = -4)	785.011 (0.484)	-2076.469 (0.099)	-567.848 (0.252)	111.068 (0.523)
Windfall/100K x (t = -3)	282.235 (0.792)	-6112.728 (0.000)	-100.347 (0.818)	131.305 (0.448)
Windfall/100K x (t = -2)	736.603 (0.479)	-4762.502 (0.000)	90.559 (0.681)	28.038 (0.870)
Windfall/100K x (t = 0)	-3.912 (0.997)	-1005.432 (0.314)	75.669 (0.720)	-162.738 (0.341)
Windfall/100K x (t = 1)	395.815 (0.678)	1100.737 (0.291)	282.840 (0.182)	221.774 (0.199)
Windfall/100K x (t = 2)	-761.848 (0.483)	-333.504 (0.750)	89.612 (0.676)	192.264 (0.277)
Windfall/100K x (t = 3)	-505.797 (0.636)	-85.828 (0.936)	167.109 (0.441)	314.130 (0.085)
Windfall/100K x (t = 4)	2306.505 (0.037)	825.967 (0.452)	144.683 (0.510)	2135.595 (0.000)
Windfall/100K x (t = 5)	2661.984 (0.037)	5447.854 (0.000)	13.921 (0.951)	1756.256 (0.001)
Controls	X	X	X	X
Year FE	X	X	X	X
R^2	0.052	0.046	0.016	0.031
Log-likelihood	-30731.226	-41377.074	-28879.377	-47976.267
Observations	2873	3907	2906	4858

p-values in parentheses

Table 5: Hours worked in self-employment

	(1)	(2)	(3)	(4)
	Men, exp.	Men, not exp.	Women, exp.	Women, not exp.
Windfall/100K x (t = -5)	0.464 (0.515)	-0.542 (0.598)	1.837 (0.000)	-0.023 (0.904)
Windfall/100K x (t = -4)	0.300 (0.610)	-1.284 (0.106)	-0.660 (0.128)	0.252 (0.169)
Windfall/100K x (t = -3)	0.547 (0.331)	-0.759 (0.287)	0.136 (0.722)	0.113 (0.535)
Windfall/100K x (t = -2)	0.325 (0.552)	0.284 (0.684)	0.068 (0.722)	0.121 (0.502)
Windfall/100K x (t = 0)	0.046 (0.926)	-0.124 (0.844)	0.062 (0.738)	-0.021 (0.907)
Windfall/100K x (t = 1)	0.137 (0.784)	-0.170 (0.796)	0.061 (0.744)	0.043 (0.811)
Windfall/100K x (t = 2)	-0.203 (0.722)	-0.347 (0.599)	-0.026 (0.889)	0.225 (0.227)
Windfall/100K x (t = 3)	-0.140 (0.803)	-0.716 (0.287)	0.218 (0.250)	0.445 (0.021)
Windfall/100K x (t = 4)	0.745 (0.199)	0.051 (0.941)	0.144 (0.452)	0.690 (0.211)
Windfall/100K x (t = 5)	1.379 (0.039)	-0.458 (0.536)	0.110 (0.578)	0.260 (0.647)
Controls	X	X	X	X
Year FE	X	X	X	X
R^2	0.044	0.024	0.023	0.047
Log-likelihood	-9037.395	-12587.247	-8411.412	-14669.447
Observations	2873	3907	2906	4858

p-values in parentheses

Table 6: Self-employed

	(1)	(2)	(3)	(4)
	Men, exp.	Men, not exp.	Women, exp.	Women, not exp.
Windfall/100K x (t = -5)	0.008 (0.598)	-0.005 (0.798)	0.115 (0.000)	0.001 (0.815)
Windfall/100K x (t = -4)	0.005 (0.679)	-0.020 (0.214)	-0.022 (0.115)	0.005 (0.226)
Windfall/100K x (t = -3)	0.019 (0.113)	-0.020 (0.182)	0.006 (0.624)	0.004 (0.351)
Windfall/100K x (t = -2)	0.006 (0.624)	0.000 (0.974)	-0.001 (0.810)	0.003 (0.422)
Windfall/100K x (t = 0)	0.003 (0.744)	-0.003 (0.795)	-0.000 (0.940)	-0.000 (0.953)
Windfall/100K x (t = 1)	0.004 (0.669)	-0.004 (0.757)	0.003 (0.596)	0.001 (0.780)
Windfall/100K x (t = 2)	-0.001 (0.928)	-0.007 (0.624)	-0.002 (0.796)	0.005 (0.246)
Windfall/100K x (t = 3)	0.002 (0.868)	-0.007 (0.634)	0.004 (0.523)	0.010 (0.027)
Windfall/100K x (t = 4)	0.017 (0.157)	-0.009 (0.532)	-0.000 (0.939)	0.006 (0.674)
Windfall/100K x (t = 5)	0.026 (0.068)	-0.008 (0.621)	0.001 (0.885)	0.013 (0.348)
Controls	X	X	X	X
Year FE	X	X	X	X
R^2	0.018	0.034	0.041	0.059
Log-likelihood	2061.593	2594.668	1620.436	3508.579
Observations	2873	3907	2906	4858

p-values in parentheses

Table 7: Self-employed with any employees

	(1)	(2)	(3)	(4)
	Men, exp.	Men, not exp.	Women, exp.	Women, not exp.
Windfall/100K x (t = -5)	0.005 (0.686)	-0.015 (0.260)	0.001 (0.924)	0.002 (0.640)
Windfall/100K x (t = -4)	0.008 (0.432)	-0.008 (0.448)	-0.008 (0.378)	0.002 (0.550)
Windfall/100K x (t = -3)	-0.001 (0.912)	-0.008 (0.387)	-0.010 (0.245)	0.002 (0.548)
Windfall/100K x (t = -2)	0.002 (0.845)	-0.003 (0.707)	-0.004 (0.367)	-0.000 (0.922)
Windfall/100K x (t = 0)	-0.001 (0.935)	-0.000 (0.954)	0.003 (0.530)	0.003 (0.405)
Windfall/100K x (t = 1)	0.008 (0.403)	0.000 (0.985)	0.002 (0.611)	0.002 (0.453)
Windfall/100K x (t = 2)	-0.000 (0.984)	-0.001 (0.934)	0.005 (0.258)	0.005 (0.095)
Windfall/100K x (t = 3)	0.000 (0.982)	0.000 (0.957)	0.003 (0.433)	0.007 (0.035)
Windfall/100K x (t = 4)	0.016 (0.120)	-0.000 (0.989)	0.002 (0.653)	0.038 (0.000)
Windfall/100K x (t = 5)	0.024 (0.044)	0.015 (0.115)	-0.004 (0.343)	0.044 (0.000)
Controls	X	X	X	X
Year FE	X	X	X	X
R^2	0.038	0.010	0.036	0.055
Log-likelihood	2513.130	4416.566	2706.047	5009.639
Observations	2873	3907	2906	4858

p-values in parentheses

Table 8: Self-employed with 10+ employees

	(1)	(2)	(3)	(4)
	Men, exp.	Men, not exp.	Women, exp.	Women, not exp.
Windfall/100K x (t = -5)	0.003 (0.691)	-0.000 (0.992)	0.001 (0.862)	-0.000 (0.965)
Windfall/100K x (t = -4)	0.001 (0.833)	-0.000 (0.955)	0.002 (0.687)	0.000 (0.849)
Windfall/100K x (t = -3)	-0.001 (0.875)	-0.001 (0.898)	0.001 (0.853)	0.000 (0.830)
Windfall/100K x (t = -2)	-0.000 (0.991)	-0.001 (0.913)	-0.001 (0.435)	0.000 (0.847)
Windfall/100K x (t = 0)	-0.002 (0.759)	-0.001 (0.831)	-0.000 (0.878)	0.000 (0.869)
Windfall/100K x (t = 1)	-0.001 (0.907)	-0.001 (0.764)	0.001 (0.739)	0.002 (0.090)
Windfall/100K x (t = 2)	-0.004 (0.532)	-0.001 (0.765)	-0.001 (0.699)	0.001 (0.150)
Windfall/100K x (t = 3)	-0.005 (0.424)	-0.001 (0.834)	-0.000 (0.881)	0.001 (0.187)
Windfall/100K x (t = 4)	0.014 (0.028)	-0.001 (0.867)	-0.000 (0.833)	0.017 (0.000)
Windfall/100K x (t = 5)	-0.008 (0.293)	-0.001 (0.850)	-0.002 (0.295)	0.016 (0.000)
Controls	X	X	X	X
Year FE	X	X	X	X
R^2	0.039	0.010	0.013	0.043
Log-likelihood	3862.569	6836.268	4976.660	10871.417
Observations	2873	3907	2906	4858

p-values in parentheses