Time Use with Basic Income:
Evidence from a Large-scale Survey Experiment[*]

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– Preliminary –

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Abstract

What would people do when they receive cash with no strings attached? I study this question through a large-scale survey experiment with 72,134 respondents in Germany. Treated participants are instructed to imagine a specific Basic Income (BI) scenario and report intentions to change their current time use with this BI. In contrast, control participants are asked to think about and report intentions given their current situation. Outcomes are intended changes to time spent on seven activity fields. I find strong effects from the amount of BI, small differential effects from the duration of BI, and no different effects from the group size of BI recipients. Across all activity fields, intended changes are decreasing in the amount of BI. Overall, the results suggest small or no effects of BI on time use.

1 Introduction

What would people do when they receive cash with no strings attached? This question is at the heart of the ongoing debate on universal basic income. The concept of Basic Income (BI) is a guaranteed minimum income that is provided regardless of behavior, other income and means, and it is universal if everyone belonging to a geographic or political territory receives it. In its simplest form, BI is a regular, unconditional cash transfer. The idea of universal BI is not new, but ignites much hope and controversy over its prospects for the economy and society in general.[1] However, while the aggregate impact of universal BI is certainly important, the effects of BI on individual behavior need to be understood first. As high costs of experiments limit their number and size, a new approach is necessary to assess the effects of BI.

In this paper, I study the effect of BI on intentions to change time use deploying a large-scale survey experiment. During the survey, treated participants were instructed to imagine a specific BI scenario and think about their intended changes to time use with this BI. In contrast, control participants were instructed to think about intended changes to time use given their current situation. This control group provides a suitable reference that allows to difference out overoptimism in intentions with BI in the treatment group, as shown later.[2] After treatment or control instructions, all participants received the same question to record their intended changes to time use with respect to seven different activity fields. The seven activity fields are work, education, volunteering, sport, care, socializing, and hobbies.

Treatment scenarios differed in the amount, the duration and the recipient group of BI. The amount of BI was either 500 Euros, 1,000 Euros or 1,500 Euros monthly transfer. The duration of BI, which is the time span over which transfers were promised, was either 1 year or 5 years. Finally, the recipient group of BI was either only the participant or everyone in the country. The combinations of characteristics give rise to 12 treatment groups. Beside these treatment groups and the control group, the experiment contains an additional "level group". This group was asked to report current levels of time spent on each of the seven activity fields, which provides a baseline to the reported changes in the other groups. Random allocation of respondents to groups, though with different probabilities, allows to directly attribute any differences in intended changes to time use to differences in the BI scenarios.

The data consists of 72,134 respondents in Germany. To collect this data, I collaborated with the NGO *Mein Grundeinkommen*, meaning 'my basic income'. This NGO promotes the introduction of BI in Germany and operates a crowd-funded lottery of monthly, unconditional cash transfers over the course of one year among its registered users. Participants in the ex-

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1. Proponents commonly hope that universal BI secures domestic demand, spurs liberty, and improves social cohesion (Kasy 2018). In contrast, opponents criticize the idea for being too expensive, badly targeted and without incentives to work or contribute to society in some other way (Kearney and Mogstad 2019).

2. Overoptimism in intentions refers to participants overestimating the absolute size of changes that they will actually be able to realize. In the paper, I use the word 'overoptimism' to verbally differentiate between the estimations made by participants while answering the survey and the econometric estimations run on that data.

periment are registered users of *Mein Grundeinkommen* and, thus, familiar with the idea and concept of BI. More specifically, they can be considered experts that have previously imagined winning the BI lottery and the effect this would have on them. As a consequence, they should be particularly apt to imagine and evaluate the effects of BI scenarios in the survey.

The results can be summarized in five main findings. First, compared to the control group, treatment with any BI scenario reduces intended time spent on work, sport, socializing, and hobbies. In contrast, a BI scenario increases intended time spent on education, volunteering, and care. Finding negative effects in non-work activity fields is surprising as economic theory predicts that with rising levels of income people substitute working time for leisure. An explanation for this finding may be that overoptimism in the control group is in excess of that in the treatment group. Irrespective of the level of overoptimism in the control group, the pattern of effects suggests that recipients of BI intend to use it more strongly to increase their time spent on education, volunteering, and care compared to the other non-work activity fields. This finding indicates that BI may have socially desirable effects.

Second, the main treatment effects of BI scenarios on time use are generally small. The largest absolute effect is an intended 2.5 hours reduction of weekly working time when receiving a BI of 1,500 Euros. Compared against an average working time of 27 hours per week, this effect is a 9% reduction. The largest positive relative effects are in volunteering and education, which are estimated to increase by 32% and 12% with a BI of 1,500 Euros. These effects, however, are outliers and the average relative effect size of 1,500 Euros BI is 9%. Hence, the results suggests that an actual BI with cash transfers will have only small effects on time use and not significantly change people's daily routines.

Third, treatment effects show an interesting non-linearity in the amount of BI. The difference in treatment effects between a BI of 500 Euros and a BI of 1,000 Euros monthly transfers is larger than the difference in effects between a BI of 1,000 Euros and a BI of 1,500 Euros. This pattern is found across all activity fields and is consistent with marginally decreasing utility. Joint with small relative effects, this finding suggests that BI experiments should carefully weigh larger transfers against a larger recipient group. Importantly, however, all treatment effects of 500 Euros BI are either insignificantly different from zero or negative and, thus, opposite to reported intentions. If one discards negative effects, the results also suggest that there exists a threshold between 500 Euros and 1,000 Euros that BI needs to surpass to have any effect on time use.

Fourth, treatment with a BI scenario of 5 years has statistically significant, larger absolute effects than treatment with a scenario of 1 year. The difference in effects, however, is small. This suggests either that BI for more than one year has only moderate effects on time use or that participants do not account for adjustment costs in their intentions. Both explanations are in principle plausible. The first explanation suggests that it may be sufficient to make BI transfers for only one year to test the effects in an experiment. The second explanation suggests that the

duration of BI may drive a wedge between initial intentions and subsequent implementation, which could have repercussions on well-being after an experiment.

Finally, treatment effects do not differ whether BI is said to be paid only to the participant or to everyone in the country. This finding may indicate that a temporary BI has no or only small equilibrium effects, as also suggested by Egger et al. (2019) and Haushofer and Shapiro (2016). Alternatively, it may be the case that participants simply do not account for equilibrium effects in their intentions in the survey experiment.

Overall, the above results should inform the design of future BI experiments with actual cash transfers. The main constraint in research on BI are the large financial resources necessary to issue regular, unconditional cash transfers. For this reason, the number and size of experiments will essentially be limited, making it all the more important to meticulously and prudently design each experiment. To improve the experimental design and the choice of outcomes, survey experiments as the one presented in this paper are a valuable source of information that complements the predictions from economic theory. Similar arguments may suggest to take this approach also for the assessment other potential policies.

The paper relates to two strands of the economic literature. First, it speaks to the literature on unconditional cash transfers. Since the Negative Tax Experiments in the USA and Canada during the 1970s' and 80s' (Pencavel 1986) only a handful of studies have researched unconditional cash transfers in developed countries (Jones and Marinescu 2018; Akee et al. 2010; Cesarini et al. 2017; Imbens et al. 2001; Kangas et al. 2020). These studies find that there are either no or very small effects on working time. The paper contributes to this literature by also studying the effects on time spent on other activity fields. Moreover, the paper analyzes the effect of different amounts, durations and recipient groups of BI in a consistent setting. In this respect, it is particularly suited to inform the design of future BI experiments.

Second, the paper contributes to a small literature that uses ex-ante, subjective data to assess the likely effects of policies. Studies that take this approach elicit counterfactuals from stakeholders, experts or participants and use these to estimate treatment effects (Hirshleifer et al. 2016; McKenzie 2017; Groh et al. 2016). A common finding in that literature is that all groups overestimate actual treatment effects. However, DellaVigna and Pope (2018) show that estimates from different groups are similar, highly correlated with actual treatment effects and that the average expectation of the crowd outperforms almost every individual. Hence, these approaches are informative about the direction and the relative size of policy effects. The paper contributes to this literature by extending the approach as a survey experiment with a pure control group that is used to difference out overoptimism.

The rest of the paper is structured as follows. Section 2 explains the experiment. Section 3 describes the data and presents average current time use from the level group. Section 4 describes the empirical method. Section 5 presents the results. Finally, section 6 concludes.

2 Experimental Design

This section describes the experimental design and the considerations that guided it. The survey experiment was registered before data collection in the RCT Registry of the American Economic Association as trial AEARCTR-0003434 (Linek 2018). The full questionnaire in German language and an English translation are in the appendix.

2.1 Assignment to Groups

The online survey tool randomly assigned each survey session to one of 14 experimental groups, 12 treatment groups and 2 reference groups. Respondents in the treatment groups were asked to imagine a BI scenario that varied in its features across the groups. After this instruction, treated respondents were asked about intentions to change their current time use given the scenario. In contrast, respondents in the two reference groups were told to answer subsequent questions given their current situation.

The two reference groups differ in the type of outcome that was recorded. The first reference group, the *control group*, received the same questions on outcomes as the treatment groups, i.e. questions on intended changes to current time use. In comparison, the second reference group, the *level group*, was asked to report levels of their current time use as outcomes. The idea underlying this level group was to obtain information about average current time use of respondents without inflating the number of survey questions. The random assignment allows to extrapolate their responses to all other groups.[3]

The probability of assignment of each survey session to one group differed between treatment and reference groups. Assignment probability to a treatment group was 5%. Assignment probability to a reference group was 20%.

2.2 Treatments

Treatment was one of 12 BI scenarios that participants were asked to imagine after socio-demographic questions in the survey. A treatment scenario read as follows.

> *Imagine your country runs a basic income experiment.* ***You have been randomly selected to*** *receive a basic income of **1,000 EUR** per month for **1 year***.
>
> *Please take a short moment and think about whether you intend to use your time differently with this basic income?*

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3. In principle, the experiment could have asked all respondents to calculate and report "new" levels after changes, holding the number of survey questions constant. Such questions, however, are cognitively much more demanding, and would likely have increased survey attrition and reduced reporting accuracy.

The treatment information (bold text) differed across treatment groups. Table 1 illustrates the values that each of the three factors of BI can take. The three factors are (i) the recipient group, (ii) the amount, and (iii) the duration of BI. Cross-randomization of these factors gives rise to the 12 treatment groups ($2 \times 3 \times 2$ factor values). To increase salience, all treatment information was colored red in the online survey.

Table 1: Factors of Basic Income and their Levels

Factor	Level
Recipient group	• *You were randomly selected to* • *All citizens*
Amount	• *500 Euros* • *1,000 Euros* • *1,500 Euros*
Duration	• *1 year* • *5 years*

Contrast with treatment groups, the control group received the following instruction: '*Please take a short moment and think about whether you intend to use your time differently in your current situation.*' This sentence is similar to the last sentence of the treatment text, but differs in the qualifier '*in your current situation.*'

2.3   Outcomes

After receiving treatment or control instructions, participants were asked about intentions to change their current time use in seven activity fields. Table 2 presents the seven activity fields with the wording that was used in the survey.

Table 2: Activity Fields

Activity field	Item in the survey
(1) Work	*Gainful employment*
(2) Education	*Education and continuous learning (incl. school, university)*
(3) Volunteering	*Volunteering*
(4) Sport	*Sport / fitness / gymnastics*
(5) Care	*Care for others (e.g. children, parents)*
(6) Socializing	*Leisure time with others (e.g partner, friends)*
(7) Hobbies	*Time for yourself / hobbies (e.g. reading, gardening, watching TV)*

The question on intended changes to current time use in the seven activity fields was posed to participants using the format presented in Table 3. For each activity field, respondents were asked to choose exactly one option of intended change to current time use by marking the empty

circle under the respective heading on the same line. The 9 headings were '*20+ hours less*', '*10-19 hours less*', '*4-9 hours less*', '*1-3 hours less*', '*0 (no change)*', '*1-3 hours more*', '*4-9 hours more*', '*10-19 hours more*', and '*20+ hours more*'. The circle under the heading '*0 (no change)*' was preselected by default for all activity fields. As the list of activity fields is non-exhaustive, intended changes in time use did not need to sum to zero across the fields.

Table 3: Precise question and layout

By how many hours would you increase or decrease the time that you spend on following activity fields in a normal week?

	20+ hours less	10-19 hours less	4-9 hours less	1-3 hours less	0 (no change)	1-3 hours more	4-9 hours more	10-19 hours more	20+ hours more
• Activity field 1	○	○	○	○	◉	○	○	○	○
• Activity field 2	○	○	○	○	◉	○	○	○	○
...					...				
• Activity field 7	○	○	○	○	◉	○	○	○	○

For the analysis, I convert hour ranges to numbers of hours. Following the pre-analysis plan, each range is assigned its central number of hours, and the two open ranges, 20+ hours less / more, are assigned 30 hours.

2.4 External Validity and Overoptimism

External validity of the survey experiment is an important question. In the present context, external validity is the extent to which the survey experiment is capable to produce the same results as those that would be obtained from a BI experiment run on the same sample, but with actual transfers. Obviously, without an experiment with actual BI, external validity cannot be established. However, this survey experiment is specifically designed to produce good approximate results from which we can learn about the effects of BI for the design of future, actual experiments.

Two main concerns with the survey experiment are (i) that participants may have difficulty to imagine the BI scenarios and (ii) that intentions differ from actions (see e.g. Bound et al. 2001; Bertrand and Mullainathan 2001; Manski 2004). With regard to the first concern, I intentionally ran the experiment on BI experts, as described in the next section. These experts are familiar with the idea and concept of BI and can be expected to have previously thought about its effects.[4] As a consequence, they should be particularly apt to realistically imagine the BI scenarios. However, they may still be prone to the second type of error, which is that intentions differ from actions.

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4. My data shows that 74% of respondents read, listen or speak about BI at least once a month, and 27% do so at least once a week.

The survey and experimental design specifically address this second type of error. First, control and treatment groups were instructed to think about intended changes to time use without obvious restrictions. All instructions have positive connotations and all participants received the same question using the grammatical conjunctive to foster optimism and an enabling choice environment. In this way, the setup intentionally aimed at inducing overoptimism in the reporting of intended changes, meaning that participants report absolutely larger changes than they would actually be able to make with BI.[5]

With overoptimism present in all groups, the control group can be used to difference out the overoptimism in the treatment groups. For this empirical strategy to yield estimates that are free of overoptimism, the magnitude of overoptimism needs to be the same in the control and treatment group. Two features aid this objective. First, participants did not know that they formed part in a survey experiment. And second, each participant received only one instruction. That means, participants could not compare scenarios and adjust their answers to the variations in them. Consequently, overoptimism should be similar across all groups, especially across all treatment groups.

In section 4.1, I test for the presence of overoptimism in the control group. In section 5.3, I explore heterogeneity in treatment effects with respect to optimism to support the claim that not only the direction, but also the magnitude of overoptimism is the same in the control and treatment group.

3 Data

3.1 Data Collection

I collected data from registered users of the NGO *Mein Grundeinkommen*. *Mein Grundeinkommen*, which means 'my basic income', is a German NGO that promotes the introduction of unconditional BI. Its main activity is a regular, crowd-funded BI lottery among registered users. Winners of the lottery receive unconditional, monthly cash transfers of 1,000 Euros for one year.[6] In October 2018, *Mein Grundeinkommen* sent out an email newsletter to all its 618,172 registered users at that time with a link to the online survey. The newsletter solely asked users to participate in a scientific online survey on BI. No further information was provided, except that the approximate duration of participation is 7 minutes and responses are anonymous. The survey closed three weeks later, counting 196,728 visits to the welcome page and 85,897 survey starts.

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5. An implication of the outlined strategy is that reported intentions to change time use can be considered upper-bounds of changes to times use with actual BI.

6. Every real person can register with *Mein Grundeinkommen* on www.mein-grundeinkommen.de by providing a name, email and birth date. Until October 2018, 200 users had won the BI lottery since the start of *Mein Grundeinkommen* in 2014.

3.2 Sample Selection

For the analysis, I use completed surveys of individual respondents that live in Germany. First, I identify individual respondents through the unique combination of IP address, monthly birth date and sex. For these respondents, I only use their first survey start, which restricts the data to a single observation for each respondent and ensures unfamiliarity with the survey and experiment. This measure yields a sample of 83,602 respondents, which corresponds to a response rate of 13.5%. Second, I identify completed surveys by respondents having answered the second to last question, which is a simple yes/no question whether the respondent lives in Germany. 75,456 respondents answered this question, indicating 10% attrition. Finally, I restrict the sample to respondents living in Germany, which reduces the sample to 72,134 respondents.

Table 4 displays the number of respondents in the control and treatment groups. Reassuringly, the control group counts close to 20% and each of the 12 treatment groups counts close to 5% of observations. The level group consisting of 14,315 respondents is not included in the table.

Table 4: Number of respondents in control and treatment groups

	Control group	you		all citizens		Total
		1 year	5 years	1 year	5 years	
Control group	14,478					14,478
500 euro		3,614	3,641	3,658	3,526	14,439
1000 euro		3,706	3,592	3,686	3,600	14,584
1500 euro		3,527	3,600	3,547	3,644	14,318
Total	14,478	21,680		21,661		57,819

Notes: The number of respondents in the level group counts 14,315 and is not included in the table.

3.3 Integrity of the Experiment

I use the following specification to test for differences in characteristics between control, level, and treatment group that were collected before treatment in the survey.

$$y_i = \beta_0 + \beta_1 L_i + \beta_2 T_i + \varepsilon_i$$

y_i is the characteristic of interest for individual i. L_i and T_i are binary indicators that, respectively, take the value 1 if the individual is in the level group or in the treatment group and are 0 otherwise. ε_i is an idiosyncratic error term. The omitted category are individuals in the control group. Thus, β_1 identifies the difference between individuals in the level and the control group, and β_2 identifies the difference between individuals in the treatment and the control group. Standard errors are clustered at IP addresses, which allows for correlation between respondents that used the same device to answer the survey. The number of IP addresses over the number of respondents is close to 0.937 in all regressions, demonstrating that most respondents used a personal device.

The results are shown in Table 5 for characteristics considered particularly interesting. Column (1) reports the mean and standard deviation of the outcome variable in the control group. Columns (2) and (3) report differences in outcomes between level and control group, and treatment and control group. Finally, columns (4), (5), and (6) report number of responses, and minimum and maximum values of the outcomes as additional summary statistics.

Table 5: Differences in Characteristics

|	(1) Control mean (std. dev.)	(2) Level group	(3) Treatment group	(4) Obs.	(5) Min	(6) Max
Age	43.132 (12.926)	−0.068 (0.156)	−0.303** (0.126)	69,840	1	90
Female	0.620 (0.485)	−0.002 (0.006)	−0.002 (0.005)	71,610	0	1
Completed Abitur (highest German school degree)	0.517 (0.500)	−0.004 (0.006)	0.004 (0.005)	71,991	0	1
Employment is main source of income	0.718 (0.450)	0.008 (0.005)	0.001 (0.004)	71,975	0	1
Monthly disposable income (in Euro)	2278.504 (2659.923)	25.571 (32.967)	12.169 (26.803)	65,522	0	20,000
Number of children in HH	0.589 (0.952)	−0.024** (0.011)	−0.022** (0.009)	71,192	0	11
Life satisfaction (0 = low ; 10 = high)	6.107 (2.014)	0.032 (0.024)	0.025 (0.019)	71,966	0	10
Frequency of having achieved plans (1 = always ; 5 = never)	3.407 (0.841)	−0.015 (0.010)	−0.005 (0.008)	71,588	1	5

Notes: OLS estimates of differences in control, level, and treatment group. Column (1) reports the mean and standard deviation (in parenthesis) of the control group for a given outcome variable. Column (2) reports the difference in outcomes between level and control group, and column (3) reports the difference in outcomes between treatment and control group. Standard errors are clustered at the level of IP addresses and reported in parenthesis below the coefficient estimates. Columns (4), (5), and (6) report number of responses, and minimum and maximum values of the outcomes. Variables "Age" and "Monthly disposable income" are top coded at 90 years and 20,000 Euros. Significance: *** $p < 0.01$, ** $p < 0.05$, ** $p < 0.1$.

The results show that the characteristics are very balanced across the three groups. Statistically significant differences exist only in respondents' age between the control and treatment group and in the number of children in the household between the control group and the other two groups. These differences, while statistically significant, are very small. Considering the testing of 16 multiple hypotheses (8 outcomes × 2 explanatory variables), two at significant effects at the 95% confidence level are inconspicuous. Thus, the results are proof of the integrity of the experiment.

3.4 Current Time Use

Figure 1 presents current time use of respondents in the level group. Due to random allocation, these levels of current time use are a baseline against which we can compare intentions to change time use in the other groups.

Figure 1: Current Time Use
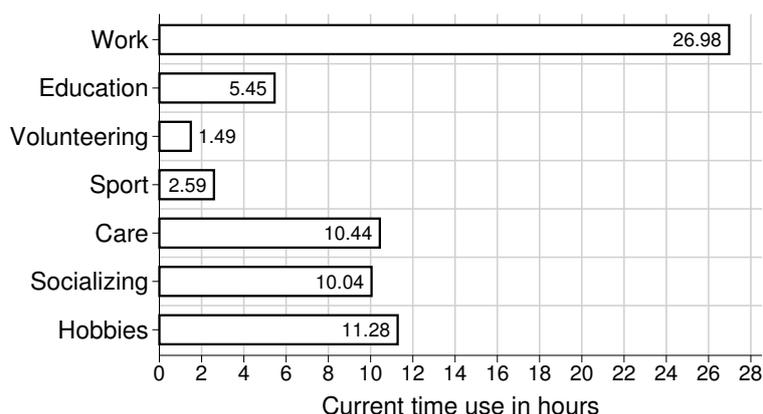
Notes: Average current time use of 14,315 respondents in the level group for each activity field.

Figure 1 shows that respondents spend on average 27 hours per week on work. They spend in total less than 10 hours per week on education, volunteering and sport, and more than 30 hours per week on care, socializing, and hobbies. In sum, the seven activity fields account for 67.4 hours in a normal week, meaning close to 10 hours of time every day. Considering that a very large fraction of the remaining time cannot be easily altered or delegated (e.g. time for sleep or eating meals), the seven activity fields arguably capture most activities across which we can expect substitutions in time use if people receive regular, unconditional cash transfers.

4 Empirical Method

4.1 Overoptimism Check

Overoptimism is assumed to prevail in all groups, as explained in section 2.4. It raises intended changes to current time use above those that would be realized in an experiment with actual cash transfers. The data allows to check this assumption for the control group. Specifically, I assess whether their reported intentions to change time use are 'realistic'.

Figure 2 presents average intended changes to time use in the control group. Participants in this group intend to increase time spent on each activity field except for work, on which they plan a reduction. The sum of changes over the activity fields amounts to an intended overall increase of 11.08 hours in a normal week. This increase corresponds to 16.5% of total time spent on the activity fields in a week, slightly more than the time spent on them on an average day. Such a large increase is unrealistic for participants in the control group, who cannot expect any external shock that allows them to gain this time from activities not included in the seven fields. Hence, this finding indicates that participants in the control group are overoptimistic in their intended changes to time use.

Figure 3 provides further support for the claim of overoptimism in the control group. It presents averages (diamonds) and 95% confidence intervals (capped bars) of the sums of abso-

Figure 2: Intended Changes to Time Use in the Control Group
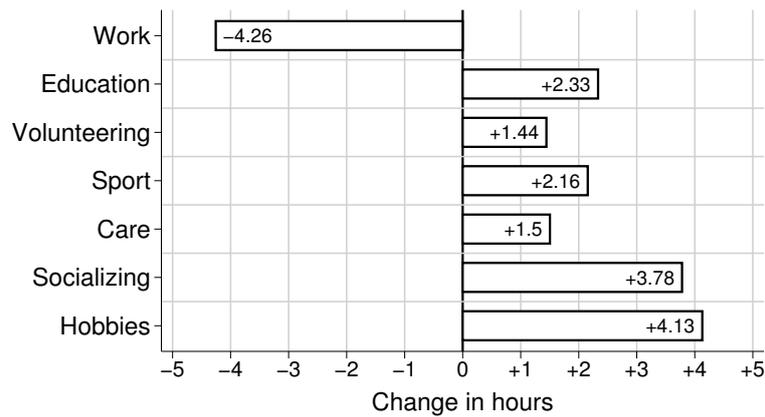
Notes: Sum of absolute changes to time spent with each activity field.

lute changes to time spent on activity fields by the reported frequency of having achieved plans in the four weeks before the survey. The sum of absolute changes to time is the *total change* and measures the size of intended changes to time use. Figure 3 shows a very strong positive relationship between this total change and the frequency of having achieved plans. Specifically, respondents that are less likely to have achieved their plans intend to make larger changes to their current time use. While understandable as a desire, implementation becomes increasingly unrealistic with more ambitious intentions and growing acknowledgment of past implementation failure. With 51% of respondents in the control group reporting to have achieved their plans never or almost never, the average respondent in that group can be considered overoptimistic in her intended changes to time use.

Figure 3: Intentions and Implementation in the Control Group
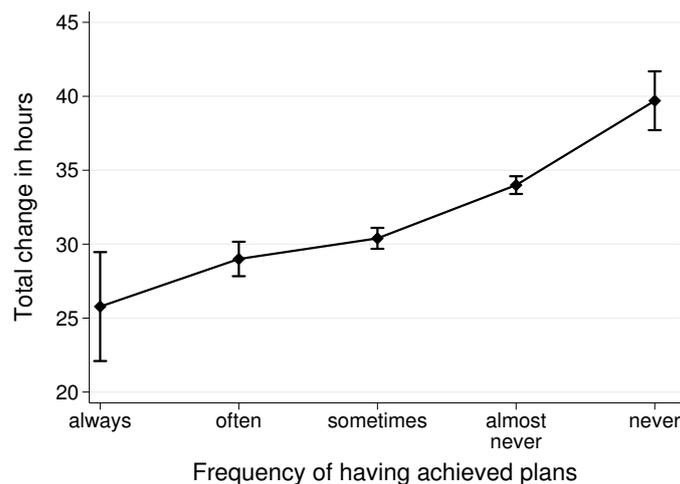
Notes: Average intended changes of time spent on each activity field in the control group.

A second implication of the above is that the frequency of having achieved plans in the past can be considered a rank measure of overoptimism. Respondents that are less likely to have achieved their plans are more overoptimistic in their intentions. I will use this rank measure in section 5.3 to study whether the control group indeed differences out overoptimism in the treat-

ment groups. Specifically, I study heterogeneity in treatment effects and test for constant effects across the different frequencies of having achieved plans. As intentions vary strongly with this frequency, finding constant treatment effects would suggest the same variation in overoptimism in control and treatment groups. Hence, this finding supports the claim that the control group differences out overoptimism in the treatment group, which suggests that the results are informative of changes to time use in an actual BI experiment.

4.2 Specification

To analyze the average effect of treatment with a BI scenario, I estimate the following OLS regression equation for each outcome.

$$\mathbb{E}_i(\Delta y_i) = \beta_0 + \beta_1 T_i + \varepsilon_i \tag{1}$$

An outcome $\mathbb{E}_i(\Delta y_i)$ is individual i's intended change to time spent on one activity field. T_i is a treatment indicator that takes the value 1 if individual i was treated with a BI scenario and 0 otherwise. ε_i is an idiosyncratic error term that I cluster at the IP address in all estimations. This clustering allows for correlations across different respondents who used the same electronic device to answer the online survey. The 57,819 respondents in the control and treatment groups that are included in these regressions form part of 54,805 cluster, indicating that most participants used a personal device. The coefficient β_0 provides the average intended change to time spent on the activity field in the control group. Coefficient β_1 is the average effect of being treated with any of the 12 BI scenarios.

I use modifications of equation 1 to estimate the main effects in the three factors (i) amount, (ii) duration, and (iii) recipient group of BI. Due to independent randomization in the three factors, the main effects of each factor are estimated with data from all control and treatment participants. The specification to estimate the three main effects in the amount of BI is

$$\mathbb{E}_i(\Delta y_i) = \beta_0 + \beta_1 T_{500,i} + \beta_2 T_{1000,i} + \beta_3 T_{1500,i} + \varepsilon_i. \tag{2}$$

$T_{500,i}$, $T_{1000,i}$, and $T_{1500,i}$ are treatment indicators that take the value 1 if individual i was treated with a BI scenario with monthly payments of either 500 Euros, 1,000 Euros or 1,500 Euros and are 0 otherwise. The coefficients β_1, β_2, and β_3 are the corresponding treatment effects. Analogue specifications are used to estimate the main effects in the other two factors, the duration and the recipient group of BI.

To estimate heterogeneity in treatment effects, I use the following regression equation.

$$\mathbb{E}_i(\Delta y_i) = \beta_0 + \beta_1 T_i \times X_i + \beta_2 T_i + \beta_3 X_i + \varepsilon_i \tag{3}$$

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X_i is the characteristic across which I expect heterogeneous treatment effects, and the coefficient β_1 is an estimate of this heterogeneity. If X_i is a binary indicator with values 1 and 0, β_1 is the difference in the treatment effect among participants with $X_i = 1$ minus the treatment effect among participants with $X_i = 0$.

Finally, to account for testing the effect of BI on seven outcomes, I present Bonferroni-corrected confidence intervals for the 95% confidence level.[7] These are presented in addition to standard 95% confidence intervals without adjustment.

5 Results

5.1 Overall Effects

Figure 4 presents the overall effects of treatment with any BI scenario on intended changes to time spent on each of the seven activity fields. These treatment effects are obtained from estimations of equation 1. The diamond shaped markers are point estimates, the black horizontal bars are 95% confidence intervals, and the grey horizontal bars are Bonferroni-corrected confidence intervals at that level, accounting for multiple hypothesis testing of the seven effects. Treatment with any BI scenario significantly affects intended changes to time spent on each activity field at the 95% confidence level. When correcting for multiple hypothesis testing, only the effect in care becomes insignificant with a p-value of 0.126.

Figure 4: Overall Treatment Effects
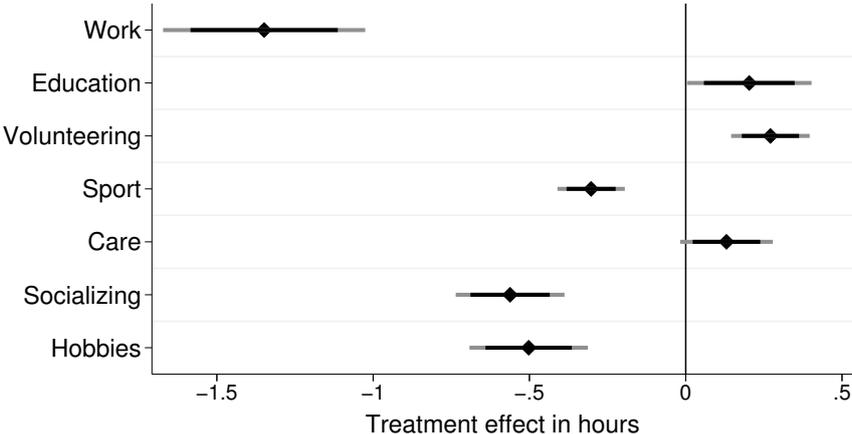
Notes: Average effects of treatment with any BI scenario (diamonds). Black horizontal bars are 95% confidence intervals. Grey horizontal bars are Bonferroni-corrected confidence intervals. All estimates are obtained from separate estimations of equation 1. Standard errors are clustered for IP addresses. Number of observations: 57,819. Number of clusters: 54,805.

The results are striking in at least two ways. First, all effects are small. The largest absolute effect of treatment with any BI scenario is a reduction of weekly working time by 1.35 hours,

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7. The Bonferroni correction for seven multiple hypotheses of 95% confidence intervals corresponds to the 99.3% confidence interval based on the t-distribution.

which corresponds to 5% of average working time (compare Figure 1). The effects on changes to time spent on the other six activity fields, i.e. non-working time, average 7.5% of time spent on an activity field. Importantly, each treatment effect is absolutely smaller than the intended change to time spent on the respective activity field in the control group (compare Figure 2). In this respect, treatment alters the sizes of intended changes, but not their directions. The small magnitudes suggest that BI has only small effects on time use.

Second, effects in non-work activity fields are positive and negative. This finding is surprising as economic theory predicts a substitution of working time for leisure with rising levels of income. While the effect on the intention to change working time is negative, as expected, only half of the effects in non-work activity fields are positive. Most interestingly, the effects on intended changes to time spent on activity fields that are clearly associated with leisure, i.e. sport, socializing, and hobbies, are all strongly negative, contradicting economic theory. In contrast, effects in the other non-work activity fields, education, volunteering, and care, which are more strongly associated with effortful engagement, are positive. This finding of both positive and negative treatment effects in non-work activity fields potentially arises from the control group's interpretation of the question on intended changes, which may have caused excessive overoptimism beyond that in the treatment group. In any case, the particular pattern across the activity fields suggests that BI may increase some feeling of responsibility in recipients to use this resource, paid for by the community, in a socially desirable way.
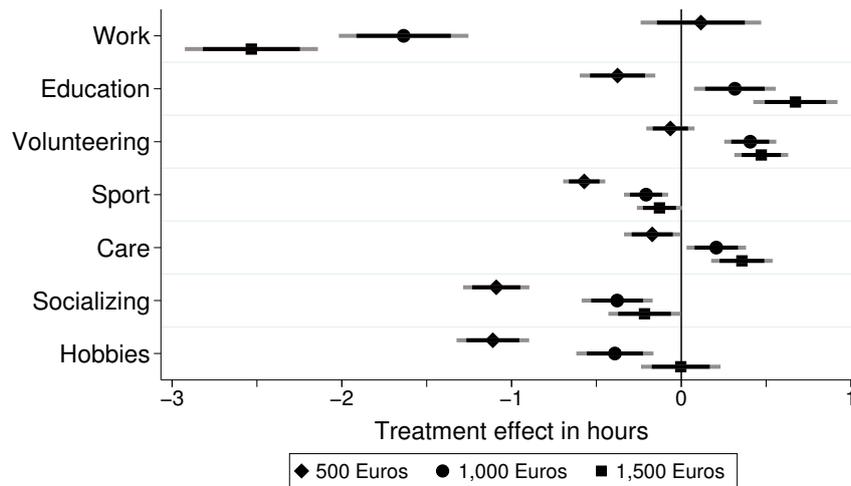
5.2 Main Effects

5.2.1 Amount of BI

Figure 5 presents the main effects of different amounts of BI. It displays point estimates on the treatment indicators for scenarios with monthly transfers of 500 Euros (diamonds), 1,000 Euros (circles) and 1,500 Euros (squares), obtained from estimations of equation 2. Black horizontal bars are 95% confidence intervals, and grey horizontal bars are Bonferroni-corrected confidence intervals, accounting for the testing of seven multiple hypotheses.

Figure 5 shows that treatment effects are generally small. Only five effects are larger than 10% of time currently spent on the respective activity fields. These are two negative effects in sport and socializing with 500 Euros BI and three positive effects in volunteering with 1,000 and 1,500 Euros BI and in education with 1,500 Euros BI. The relative size of the remaining treatment effects averages 4%. In absolute terms, all main effects of different amounts of BI are smaller than the intended changes to time spent on the respective activity fields in the control group (see Figure 2). That means participants treated with different amounts of BI all intend, on average, time reductions in work and time increases in every other activity field.

The intended changes of treated participants contain a non-linearity that is expected from marginal utility theory and evident in the treatment effects. Specifically, the difference in treat-

Figure 5: Main Effects: Amount of Basic Income

Notes: Main effects with respect to different amounts of BI in scenarios (diamonds, circles, squares). Black horizontal bars are 95% confidence intervals. Grey horizontal bars are Bonferroni-corrected confidence intervals. Estimates for each outcome are obtained from separate estimations of equation 2. Standard errors are clustered for IP addresses. Number of observations: 57,819. Number of clusters: 54,805.

ment effects of scenarios with 500 and 1,000 Euros BI is larger than the difference in treatment effects of scenarios with 1,000 and 1,500 Euros. This non-linearity is observable in every activity field. It suggests that the marginal effects of BI decrease after some threshold below 1,000 Euros of BI. At the same time, all treatment effects of 500 Euros BI are either insignificantly different from zero or negative, opposing reported intentions. If one discards negative effects, this finding would suggest a threshold effect of BI at some amount above 500 Euros.

Overall, the findings are informative for future experimental research on BI in three ways. First, the generally small size of treatment effects advises a prudent power analysis and to potentially focus on a limited set of outcomes to avoid pitfalls from multiple hypotheses testing. Second, the onset of marginally decreasing effects after some threshold below 1,000 Euros suggests that BI experiments should carefully weigh larger amounts of BI against a larger recipient group when allocating limited financial resources. And finally third, the results suggest that BI should be larger than monthly transfers of 500 Euros. This last advice is also supported by the recent Finnish BI experiment, which finds effects on perceived well-being, but no effects on behavior with a BI of 560 Euros per month (Kangas et al. 2020).

5.2.2 Duration of BI

Figure 6 presents the main effects of different durations of BI. Diamond shaped markers are point estimates of treatment effects when monthly BI transfers are made over 1 year, and circle shaped markers are point estimates of monthly BI transfers over a 5-year period in a scenario. Black horizontal bars are 95% confidence intervals, and grey horizontal bars are Bonferroni-corrected confidence intervals of that level, accounting for seven multiple hypothesis tests.

These estimates are obtained from estimating a variation of equation 2 that only contains two treatment indicators, one for each duration of BI in scenarios.

Figure 6: Main Effects: Duration of Basic Income
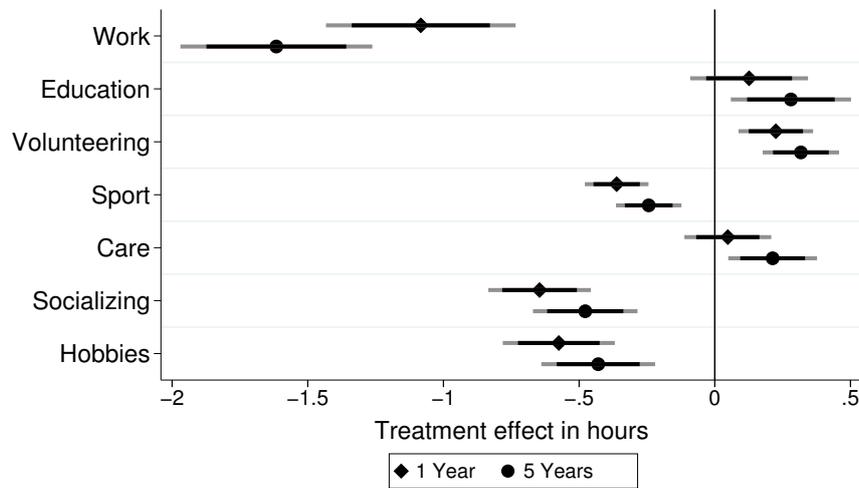
Notes: Main effects with respect to different durations of BI in scenarios (diamonds and circles). Black horizontal bars are 95% confidence intervals. Grey horizontal bars are Bonferroni-corrected confidence intervals. Estimates for each outcome are obtained from separate estimations of a variation of equation 2. Standard errors are clustered for IP addresses. Number of observations: 57,819. Number of clusters: 54,805.

Treatment effects in Figure 6 are larger in absolute terms for scenarios with 5 years compared to 1 year of BI. The difference in treatment effects on working time is 0.53 hours and strongly statistically significant, even after correcting for multiple hypothesis testing. In contrast, the differences in effects on time spent on non-work activity fields are much smaller and surprisingly similar, ranging between 0.09 to 0.17 hours. All of these differences in non-work activity fields are statistically significant at the 95% confidence level, but become marginally significant and insignificant after correcting for multiple hypotheses testing.[8]

In conclusion, the findings suggest that the duration of BI above 1 year seems to be only a minor determinant of intended changes to time use. While this conclusion has important implications for BI experiments with actual transfers that also study intentions, caution may be warranted when outcomes are behaviors. The recorded intentions may not account for adjustment costs that hamper the implementation of intentions. This interpretation is supported by the similar size of differences in treatment effects across the non-work activity fields despite arguably large differences in adjustment costs. With large adjustment costs, even in only a few activity fields, the duration of actual BI experiments may have strong effects on behavior. In this respect, the duration of BI may drive a wedge between intentions and implementation with potential consequences for participants' well-being after an experiment.

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8. The differences in treatment effects on time spent on education, volunteering, and hobbies become statistically insignificant when correcting for multiple hypotheses testing.

5.2.3 Recipient Group of BI

Figure 6 presents the main effects of different recipient groups of BI. Diamond shaped markers are point estimates of treatment effects when only the participant receives BI. Circle shaped markers are point estimates of treatment effects when all citizens in the country receive BI. Black horizontal bars are 95% confidence intervals, and grey horizontal bars are Bonferroni-corrected confidence intervals of that level. The estimates are obtained from estimation of a variation of equation 2 that only contains two treatment indicators, one for each recipient group in the BI scenarios.

Figure 7: Main Effects: Recipient of Basic Income
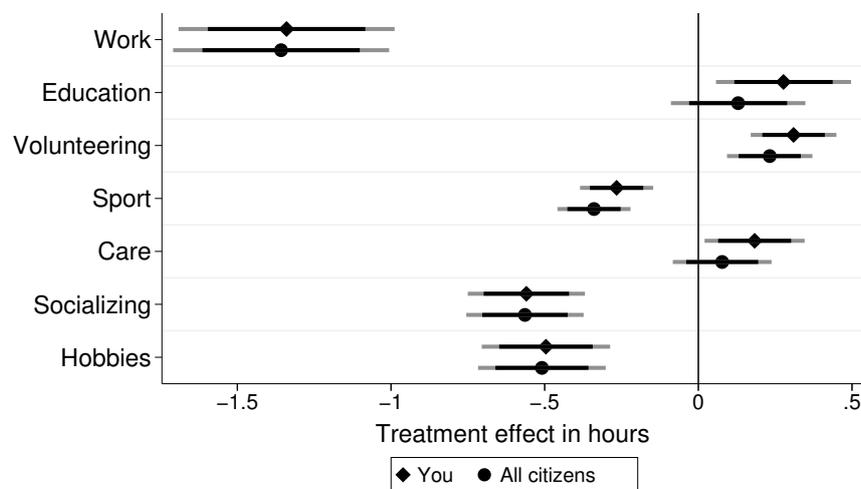
Notes: Main effects with respect to different recipients of BI in scenarios (diamonds and circles). Black horizontal bars are 95% confidence intervals. Grey horizontal bars are Bonferroni-corrected confidence intervals. Estimates for each outcome are obtained from separate estimations of a variation of equation 2. Standard errors are clustered for IP addresses. Number of observations: 57,819. Number of clusters: 54,805.

In every activity field, the two treatment effects are statistically indifferent after correcting for multiple hypotheses testing. This finding indicates that participants do either not anticipate or cannot assess equilibrium effects from every citizen in the country receiving BI. In fact, recent research suggests that unconditional cash transfers have no or only minimal general equilibrium effects (Egger et al. 2019; Haushofer and Shapiro 2016). Hence, the size of the recipient group of temporary BI may not only be irrelevant for intentions, but for actual behavior as well.

5.3 Validity Check

Figure 8 presents heterogeneity in treatment effects with respect to the frequency of having achieved plans in the past. Specifically, the figure displays differences in treatment effects (diamond, circle, square and triangles shaped markers) estimated by a variation of equation 3 that includes indicators and interactions for each frequency level. The baseline treatment effect is the effect of participants who achieved their plans "sometimes". The treatment effects for the other frequency levels are evaluated against this baseline. The black horizontal bars are 95%

confidence intervals, and the grey horizontal bars are Bonferroni-corrected confidence intervals that account, as before, for seven multiple hypothesis tests.

Figure 8: Treatment Effect Differences by Frequency of Having Achieved Plans
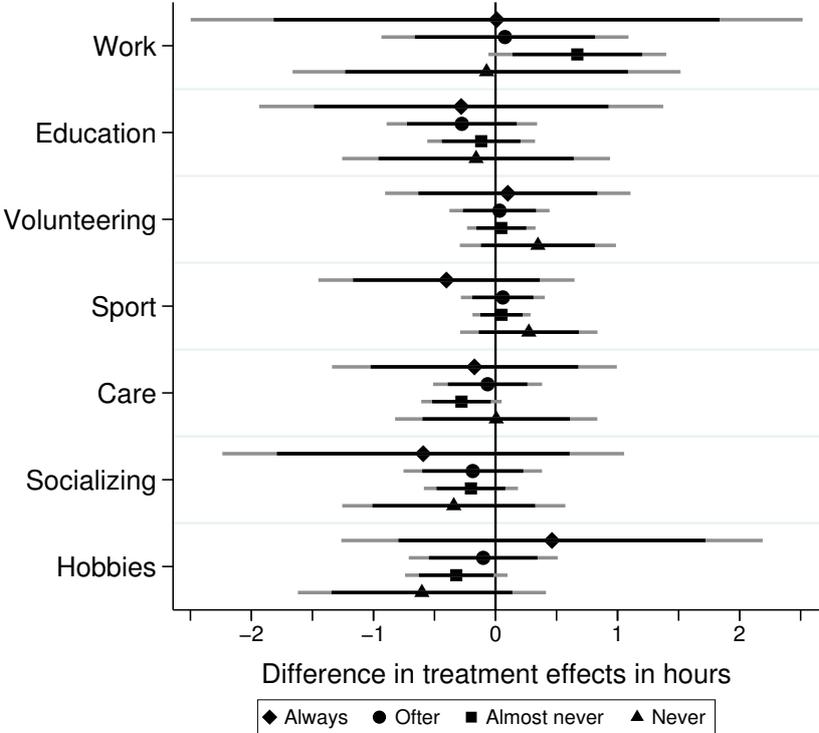
Notes: Differences in overall treatment effects by frequency of achieving plans. The reference treatment effect is the the effect for participants that achieve their plans "sometimes". Black horizontal bars are 95% confidence intervals. Grey horizontal bars are Bonferroni-corrected confidence intervals. Estimates for each outcome are obtained from separate estimations of a variation of equation 3. Standard errors are clustered for IP addresses. Number of observations: 57,819. Number of clusters: 54,805.

By and large, Figure 8 shows the absence of heterogeneity in treatment effects with respect to the frequency of having achieved plans. Point estimates are very close together at around zero and none of the differences is statistically significant after correcting for multiple hypothesis testing. This finding is instructive considering that there are large differences in intended changes to time use across the different frequencies of having achieved plans (see Figure 3). The absence of differences in treatment effects, thus, means that intended changes to time use vary in the same way across the frequency levels in the control and treatment group. With the frequency of having achieved plans being a rank measure of overoptimism (as explained in section 4.1 above), this finding strongly supports the claim that the control group differences out overoptimism of intended changes to time use in the treatment group. Consequently, estimated treatment effects from BI scenarios should be overoptimism-free and informative of treatment effects that can be expected in a BI experiment with actual transfers.

6 Conclusion

This paper deployed a large-scale survey experiment to study intentions to change time use with BI. During the survey, treated participants were instructed to imagine a specific BI scenario and report their intended changes to time use with this BI. In contrast, control participants were asked to think about and report intended changes given their current situation. This control group provides a suitable reference that allows to difference out overoptimism in intentions with BI, which is the tendency to intend larger changes than those that can realistically be implemented. Comparing treated against the control participants thus yields treatment effects that can realistically be expected from a BI experiment with actual cash transfers. Intended changes to time use were recorded with respect to the seven activity fields work, education, volunteering, sport, care, socializing, and hobbies. To study the effects of different dimensions of BI, scenarios varied in the amount, the duration and the recipient group of BI.

The main findings can be summarized in three points. First, treatment with a BI scenario reduced intended time spent on work, sport, socializing, and hobbies, and increased intended time spent on education, volunteering, and care, compared to the control group. The negative effects of BI in sport, socializing, and hobbies contradict economic theory and likely arise from excessive overoptimism in the control group. Irrespective of this, the results pattern indicates a stronger intended reallocation of time to education, volunteering and care compared to the other three non-work activity fields. In this respect, BI may have socially desirable effects.

Second, treatment effects are generally small. The largest absolute effect is an intended 2.5 hours reduction of weekly working time when receiving a BI of 1,500 Euros. This effect is a 9% reduction. Larger relative effects of a BI with the same amount are found only for education and volunteering. This evidence suggests that BI will not significantly change people's daily routines.

Third, treatment effects display a non-linearity in the amount of BI. For all activity fields, the difference in treatment effects of scenarios with 500 Euros and 1,000 Euros BI is larger than the difference in treatment effects of scenarios with 1,000 Euros and 1,500 Euros. This non-linearity is consistent with marginally decreasing utility of BI. At the same time, however, all effects from 500 Euros BI are negative or statistically indifferent from zero. If one discards negative effects, the results additionally suggest a threshold effect of BI between 500 Euros and 1,000 Euros monthly transfers.

Overall, the survey experiment suggests that future BI experiments should make monthly transfers that are larger than 500 Euros, but not necessarily larger than 1,000 Euros as the marginal utility of BI seems to decreases after that amount. In addition, the small effect sizes suggest that it may be advisable to focus on a limited set of outcomes to sidestep issues of multiple hypotheses testing. The combination of these recommendations calls for a prudent power analyses and carefully weighing larger transfers against a larger recipient group. Finally,

future research should verify to what extent the source of monthly transfers, which in the survey experiment is the government, matters for the effects on different outcomes, and whether BI has indeed socially desirable effects.

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Appendix (for online publication)

The next pages present the questionnaire in German language and a translation into English.

Fragebogen: Zeitnutzung mit Grundeinkommen   Questionnaire: Time use with basic income

	Eröffnungstext	Introductory Text
A0	Wir haben 14 bis 19 kurze Fragen an dich. Alle Antworten sind anonym und werden ausschließlich für die Forschung verwendet. Bitte benutze nicht den "Zurück-Button" deines Browsers, da sonst die Umfrage abbricht.	We would like to ask you 14 to 19 short questions. All answers are anonymous and will be used exclusively for research. Please do not use the „Back-Button" of your browser as it will interrupt the survey.
A	**Teil 1:**	**Section 1**
A1	{ALLE} **1. Wie zufrieden bist du gegenwärtig, alles in allem, mit deinem Leben?** Frageart: Skala 0-10 0 = überhaupt nicht zufrieden ; 10 = sehr zufrieden	{ALL} **1. How satisfied are you all in all with your life?** Type of question: Scale 0-10 0 = not satisfied at all ; 10 = very satisfied
A2	{ALLE} **2. Bitte denke einmal an die letzten 4 Wochen. Wie oft kam es in dieser Zeit vor, …** Liste: • … dass du dich gehetzt oder unter Zeitdruck gefühlt hast? • … dass du dich ruhig und ausgeglichen gefühlt hast? • … dass du nicht das geschafft hast, was du dir vorgenommen hast? • … dass du dir Sorgen um deine wirtschaftliche / finanzielle Situation gemacht hast? Frageart: Auswahl einer Option • Immer	{ALL} **2. Please think about the last 4 weeks. During this time, how often …** List: • … did you feel rushed or under time pressure? • … did you feel calm and balanced? • … did you not manage to achieve what you had planned? • … were you worried about your economic / financial situation? Type of question: Selection of one option • Always • Often

	- Oft - Manchmal - Fast nie - Nie	- Sometimes - Almost never - Never
A3	{ALLE} **3. Wie häufig kommt es vor, …** Liste: … dass du deinen Kontostand anschaust / überprüfst? … dass du über Grundeinkommen liest, hörst oder sprichst? Frageart: Auswahl einer Option - Täglich - Mindestens 1 Mal pro Woche - Mindestens 1 Mal pro Monat - Seltener - Nie	{ALL} **3. How often do you …** List: … check the balance of your bank account? … read, listen or speak about basic income? Type of question: Selection of one option - Daily - At least once a week - At least once a month - Less often - Never
A4	{ALLE} **4. Wie wichtig, würdest du sagen, ist dir beruflicher Erfolg?** Frageart: Skala 0-10 0 = überhaupt nicht wichtig ; 10 = sehr wichtig	{ALL} **4. How important would you say is career success to you?** Type of question: Scale 0-10 0 = not important at all ; 10 = very important
A5	{ALLE} **5. Und wie wichtig, würdest du sagen, ist (oder war) beruflicher Erfolg für deiner Mutter und deinen Vater in ihrem eigenen Leben?**	{ALL} **5. And how important would you say is (or was) career success for your mother and father in their lives?** List:

	Liste: • Wichtigkeit für deine Mutter • Wichtigkeit für deinen Vater Frageart: Skala 0-10 0 = überhaupt nicht wichtig ; 10 = sehr wichtig	• Importance for your mother • Importance for your father Type of question: Scale 0-10 0 = not important at all ; 10 = very important
B	**Teil 2**	**Section 2**
B0	{ALLE} **6. Bist du ein Crowdhörnchen?** (Crowdhörnchen sind Menschen, die automatisch in regelmäßigen Zeitabständen für Mein Grundeinkommen spenden.) Frageart: Auswahl einer Option • Ja • Nein • Weiß nicht / keine Angabe	{ALL} **6. Are you a Crowdhörnchen?** (Crowdhörnchen are people who donate automatically in regular time intervals for Mein Grundeinkommen.) Type of question: Selection of one option • Yes • No • Don' know / no answer
B1	{ALLE} **7. In welchem Monat und Jahr wurdest du geboren?** Liste: • Monat • Jahr Frageart: Dropdown • Monat: Januar, … , Dezember • Jahr: 2018, … , 1910	{ALL} **7. In which month and year were you born?** List: • Month • Year Type of question: Dropdown • Month: Januar, … , December • Year: 2018, … , 1910
B2	{ALLE} **8. Welches ist dein biologisches Geschlecht?**	{ALL} **8. What is your biological sex?**

	Frageart: Auswahl einer Option • Weiblich • Männlich • Weder noch	Type of question: Selection of one option • Female • Male • Neither
B3	{ALLE} **9. Hast du die deutsche Staatsangehörigkeit?** Frageart: Auswahl einer Option • Ja • Nein	{ALL} **9. Do you have German citizenship?** Type of question: Selection of one option • Yes • No
B4	{ALLE} **10. Welchen höchsten Schulabschluss hast du gemacht?** (Bei ausländischen Abschlüssen, wähle bitte den ähnlichsten deutschen Abschluss aus.) Frageart: Auswahl einer Option • Keinen Abschluss • Volks- / Hauptschule (DDR: 8. Klasse) • Realschule / Mittlere Reife (DDR: 10. Klasse) • Fachhochschulreife • Abitur	{ALL} **10. What is your highest school degree?** (For foreign degrees please select the equivalent German degree.) Type of question: Selection of one option • No degree • Volks- / Hauptschule (DDR: 8. Klasse) • Realschule / Mittlere Reife (DDR: 10. Klasse) • Fachhochschulreife • Abitur
B5	{ALLE} **11. Wie viele Personen gehören inklusive dir selbst zu deinem Haushalt?** (Bitte wähle WG aus, wenn du in einer Wohngemeinschaft wohnst.)	{ALL} **11. How many people, including yourself, belong to your household?** (Please select WG if you are living in a Wohngemeinschaft [shared flat].)

	Frageart: Dropdown • WG • 1 Person (nur ich) • 2 Personen (inkl. mir) • … • 10 Personen (inkl. mir) • 11+ Personen (inkl. mir)	Type of question: Dropdown • WG • 1 Person (only me) • 2 Persons (incl. me) • … • 10 Persons (incl. me) • 11+ Persons (incl. me)
B6	{ALLE} **12. Wie viele Kinder, die du erziehst oder erzogen hast, leben mit dir im selben Haushalt?** Frageart: Dropdown • 0 (keine Kinder) • 1 Kind • 2 Kinder • … • 10 Kinder • 11+ Kinder	{ALL} **12. How many children that you raise or have raised are living with you in the same household?** Type of question: Dropdown • 0 (no children) • 1 Child • 2 Children • … • 10 Children • 11+ Children
B7	{ALLE} **13. Woher beziehst du hauptsächlich dein Einkommen zum Leben?** Frageart: Auswahl einer Option • Aus Arbeit • Vom Staat (z.B. gesetzliche Rente, Arbeitslosengeld, Sozialhilfe) • Von der Familie (z.B. Eltern) oder durch die / den Partner*in • Erspartes, Kapitaleinkünfte, Mieteinnahmen oder private / betriebliche Rente	{ALL} **13. What is your main source of income for living?** Type of question: Selection of one option • From Work • From the State (e.g. statutory pension, unemployment insurance, welfare) • From your family (e.g. parents) or through your partner • Saved money, income from capital, rental revenues or private / company pension • Other income source (e.g. scholarship)

	• Andere Einkommensquelle (z.B. Stipendium)	
B71	{WENN B7!="Aus Arbeit"} **14. Wie hoch war dein Einkommen vor Abzügen im letzten Monat?** (Ohne Einmal- oder Sonderzahlungen. Abzüge sind z.B. Steuern, Krankenkassenbeiträge, Unterhaltszahlungen.) in Euro Frageart: Freie numerische Angabe Diese Frage ist wichtige. Wenn du diese Frage trotzdem überspringen möchtest, klicke auf weiter.	{IF B7!="From Work"} **14. How much was your income before deductions in the last month?** (Without one-time or extra payments. Deductions are e.g. taxes, health insurance fees, child support.) in Euro Type of question: Numeric response This question is important. If you would still like to skip this question click continue.
B721	{WENN B7=="Aus Arbeit"} **14. Wie hoch war dein Brutto-Einkommen (oder Gewinn vor Steuern) im letzten Monat?** (Ohne Einmal- oder Sonderzahlungen oder Entgelte für Überstunden. Dein Brutto-Einkommen ist dein Arbeitseinkommen vor Abzügen wie z.B. Steuern, Krankenkassenbeiträge, Unterhaltszahlungen.) in Euro Frageart: Freie numerische Angabe Diese Frage ist wichtige. Wenn du diese Frage trotzdem überspringen möchtest, klicke auf weiter.	{IF B7=="From Work"} **14. How much was your gross income (or profit before taxes) in the last month?** (Without one-time or extra payments or overtime compensation. Your gross income is your income from work before deductions like e.g. taxes, health insurance fees, child support.) in Euro Type of question: Numeric response This question is important. If you would still like to skip this question click continue.
B722	{WENN B7=="Aus Arbeit"}	{IF B7=="From Work"}

	15. Im Vergleich zu folgenden Gruppen, ist dein Einkommen aus Arbeit eher höher oder eher niedriger? (Bitte schätze, wenn du das Einkommen dieser Gruppen nicht kennst.) Liste: • Im Vergleich zu Deinen Arbeitskollegen • Im Vergleich zu Deinen Freunden Frageart: Auswahl einer Option • Höher • Ein wenig höher • Gleich hoch • Ein weniger niedriger • Niedriger	**15. In comparison to following groups, is your income from work rather higher or lower?** (Please guess if you do not know the income of these groups.) List: • In comparison to your work colleagues • In comparison to your friends Type of question: Selection of one option • higher • a little higher • equal • a little lower • lower
B723	{WENN B7=="Aus Arbeit"} **16. Wie viele Wochenstunden beträgt deine vereinbarte Arbeitszeit ohne Überstunden?** (Wenn du keine vereinbarte Arbeitszeit hast, schätze die Anzahl der Stunden, welche du arbeitest.) Anzahl der Wochenstunden Frageart: Freie numerische Angabe	{IF B7=="From Work"} **16. How many hours per week is your working time according to your contract?** (If you have no defined number of working hours per week, state the number of hours which you usually work.) Number of hours per week Type of question: Numeric response
C	**Teil 3**	**Section 3**
T1	**Zufällige Zuordnung zu einer von 14 Gruppen.** **Gruppen** • 12 Behandlungsgruppen • 1 Kontrollgruppe • 1 Level-Gruppe	**Random assignment to one of 14 groups.** **Groups** • 12 Treatment groups • 1 Control group • 1 Level group

C1	{WENN T1=="Level-Gruppe"}
	
	17. Bitte nimm dir kurz Zeit und überlege, …
	Wie viele Stunden verbringst du in einer normalen Woche mit folgenden Bereichen?
	("0" bedeutet, dass du in einer normalen Woche keine Zeit damit verbringst.)
	
	Liste:
	  1. Berufstätigkeit
	  2. Aus- und Weiterbildung, Lernen (auch Schule, Studium, Promotion)
	  3. Ehrenamtliche Tätigkeiten
	  4. Sport / Fitness / Gymnastik
	  5. Betreuung anderer (z.B. Kinder, Eltern)
	  6. Freizeit mit anderen (z.B. Partner*in, Freund*innen)
	  7. Zeit für dich selbst / Hobbies (z.B. Lesen, Gärtnern, Fernsehen)
	
	Anzahl der Wochenstunden
	
	Frageart: Dropdown
	  1. 1
	  2. 2
	  3. 3
	  … …
	  100. 100
		{IF T1=="Level group"}
		
		17. Please take a short moment and think, …
		How many hours in a normal week do you spend with following activity fields?
		("0" means that in a normal week you do not spend any time with this activity field.)
		
		List:
		  1. Gainful employment
		  2. Education and continuous learning (incl. school, university)
		  3. Volunteering
		  4. Sport / fitness / gymnastics
		  5. Care for others (e.g. children, parents)
		  6. Leisure time with others (e.g partner, friends)
		  7. Time for yourself / hobbies (e.g. reading, gardening, watching TV)
		
		Number of hours per week
		
		Type of question: Dropdown
		  1. 1
		  2. 2
		  3. 3
		  … …
		  100. 100

C2	{WENN T1!="Level-Gruppe"} **17. Wie viele Stunden würdest du in einer normalen Woche mehr oder weniger mit folgenden Bereichen verbringen?**	{IF T1!="Level group"} **17. By how many hours would you increase or decrease the time that you spend on following activity fields in a normal week?**

	Liste:		**List:**

	German	English
	Liste:	**List:**
	1. Berufstätigkeit 2. Aus- und Weiterbildung, Lernen (auch Schule, Studium, Promotion) 3. Ehrenamtliche Tätigkeiten 4. Sport / Fitness / Gymnastik 5. Betreuung anderer (z.B. Kinder, Eltern) 6. Freizeit mit anderen (z.B. Partner*in, Freund*innen) 7. Zeit für dich selbst / Hobbies (z.B. Lesen, Gärtnern, Fernsehen)	1. Gainful employment 2. Education and continuous learning (incl. school, university) 3. Volunteering 4. Sport / fitness / gymnastics 5. Care for others (e.g. children, parents) 6. Leisure time with others (e.g partner, friends) 7. Time for yourself / hobbies (e.g. reading, gardening, watching TV)
	Frageart: Auswahl einer Option, Default 0 • 20+ Stunden weniger • 10-19 Stunden weniger • 4-9 Stunden weniger • 1-3 Stunden weniger • 0 (keine Veränderung) • 1-3 Stunden mehr • 4-9 Stunden mehr • 10-19 Stunden mehr • 20+ Stunden mehr	Type of question: Selection one option, Default 0 • 20+ hours less • 10-19 hours less • 4-9 hours less • 1-3 hours less • 0 (no change) • 1-3 hours more • 4-9 hours more • 10-19 hours more • 20+ hours more
D	**Teil 4**	**Section 4**
D1	{ALLE} *2 Fragen noch…* **18. Wohnst du in Deutschland?** (Wenn du keinen Wohnort hast, beantworte die Frage bitte für deinen gegenwärtigen Aufenthaltsort.) Frageart: Auswahl einer Option • Ja • Nein	{ALL} *2 questions left…* **18. Do you live in Germany?** (If you do not have a residence, answer the question for your current whereabouts.) Type of question: Selection of one option • Yes • No

D21	{WENN D1==„Ja"} **Wie lautet die Postleitzahl deines Wohnortes?** (Wenn du keinen Wohnort hast, beantworte die Frage bitte für deinen gegenwärtigen Aufenthaltsort.) Frageart: Freie numerische Angabe	{IF D1==„Yes"} **What is the post code of your residence?** (If you do not have a residence, answer the question for your current whereabouts.) Type of question: Numerical response
D22	{WENN D1==„Nein"} **In welchem Land wohnst du?** (Wenn du keinen Wohnort hast, beantworte die Frage bitte für deinen gegenwärtigen Aufenthaltsort.) Frageart: Auswahl einer Option • Österreich • Schweiz • Sonstige-EU • Nicht-EU	{IF D1==„No"} **In which country do you live?** (If you do not have a residence, answer the question for your current whereabouts.) Type of question: Selection of one option • Austria • Switzerland • EU other • Non-EU