Work Over Just Cash: Informal Redistribution Among Employers and Workers in Kampala, Uganda

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Abstract

This paper examines informal redistribution in the form of work in small and medium enterprises in Kampala, Uganda and its drivers. Using a field experiment, we show that employers and workers systematically choose giving/receiving work over cash transfers. Decisions imply a large willingness to pay for work on both sides of the labor market. Work redistribution choices are unaffected by the economic and training value of the task, and employers pay for zero marginal product work. Removing stakes in the game also does not affect decisions, ruling out signaling and relational personal benefits as drivers. Employers and workers motivate work redistribution mostly with fairness considerations and, secondly, with the psychosocial value of work for workers. Results appear externally valid, as giving via work predicts increased hiring in the firm, but it does not lead to higher revenues, sales, or profits, confirming that work redistribution is unlikely to be productive.

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1 Introduction

The economic view of labor markets, as conceptualized by Adam Smith, is that labor demand is driven by production needs, and labor supply by consumption needs. Contrary to this view, surplus labor models (Lewis, 1954; Ranis and Fei, 1961; Sen, 1966) propose that in contexts with abundant labor supply, as in many poor countries, employment aims to provide subsistence consumption rather than just maximize profits.[1]

Existing evidence, particularly from studies on labor supply (Breza et al., 2018, 2019; Hussam et al., 2022), supports the idea of a social labor market in poor countries (Solow, 1990).[2] Accounts also suggest a connection between labor demand and redistribution (see, for our setting, Figure 1), in line with the hypothesis that work in poor countries extends beyond production needs. However, rigorous evidence is lacking on whether work arrangements are used to share earnings and the underlying mechanisms involved in using work for redistribution.[3] Do employers pay above the marginal product of labor? If so, why not produce profit-maximizing and give through separate means?

To explore whether work serves as a channel of redistribution in poor countries, we conducted a field experiment with 399 small and medium enterprises (SMEs) in Kampala, Uganda. Our study involves both employers (399) and workers (449) since employment is an equilibrium outcome. Our empirical strategy employs a deductive approach. First, we measured redistribution via work by examining whether employers hire in response to redistribution requests and whether this aligns with workers' preferences. Second, we exploit experimental variations to test for productivity considerations and other self-serving benefits as drivers.

In the primary experiment, the Main Game, employers and workers make decisions regarding giving or receiving part of an initial payoff of UGX 15,000 (equivalent to USD 3.95) to an anonymous worker or from an anonymous employer.[4] The core decision

[1] For a review of the theoretical literature on surplus labor, see Gollin (2014).

[2] In particular, Hussam et al. (2022) finds evidence of non-economic benefits from working and positive willingness to pay for work among unemployed refugees in a refugee camp.

[3] The existence of informal redistribution in poor countries is well-established in the literature, however employment as a channel of redistribution has received little attention. The early work focuses on testing the effectiveness of sharing arrangements using consumption-based tests, without identifying the specific channels of resource sharing (e.g., Fafchamps, 2011; De Weerdt and Dercon, 2006; Foster and Rosenzweig, 2001; Grimard, 1997; Fafchamps, 1992; Ravallion and Chaudhuri, 1997; Townsend, 1994; Rosenzweig, 1988). An exception is Udry (1994), focusing on the risk pooling value of credit. Recent work (e.g., Carranza et al., 2022; Squires, 2018; Jakiela and Ozier, 2016) highlights the distortions that can arise from sharing pressures focusing on cash transfers. Related, the possibility that employers use work as a means of redistribution does not imply that they are altruistic toward workers as this may just be a response to sharing pressures.

[4] Anonymity limits the concern that unobserved characteristics or a monitoring value of work may

revolves around choosing between either giving/receiving through work (which entails performing a task at the employer's firm) or selecting an unconditional cash transfer. To make the choices non-trivial, we exploit a multiple price list setup where respondents choose between redistributing via cash or work at varying wages and transfers.[5] We consider two measures of work redistribution, or outcomes: the binary choice of work versus cash and the implicit willingness to pay for work.

Our design incorporates three experimental variations. Within the Main Game, we randomize the work arrangement task at the level of employer-worker pairs and include two tasks with lower value (of which one is a busywork task with zero marginal product). Comparing decisions across tasks isolates the impact of economic value on work redistribution decisions. We also ask respondents to participate in a version of the game, the Spectator Game, where they make decisions for others. Comparing this game to the Main Game isolates the role of signaling and self-serving relational benefits. Finally, a subset of 99 employers plays a third game, the Food versus Cash Game, where they make choices between giving food or a cash transfer.[6] Comparing this game to the Main Game tests for any aversion to giving cash.

Our results show that employers systematically choose to give via work rather than via unconditional cash transfers. In the experiment, employers choose to hire a worker to perform a task at their firm 86.5% of the time. Similarly, workers, who self-report to be employed full time, opt for working rather than simply receiving cash in 87.8% of cases. Notably, our results also show that both decisions exhibit a minimal elasticity to the offered wage when the alternative is a UGX 3,000 cash transfer, with 79.7% of employers willing to hire at UGX 10,000 (over three times the market wage) and 57.0% of workers willing to work for UGX 500.

Taken together, the experimental choices imply a large willingness to pay for work on both sides of the labor market—which is inconsistent with pure payoff-maximizing behavior, especially on the employers' side.[7] Employers' nor workers' choices are also not explained by inequality aversion,[8]. As most employers give cash over in-kind transfers,

drive decisions.

[5]Our design does not include an option for "not giving" since our focus is on testing whether redistribution affects labor demand rather than generosity per se. This design choice aligns with realistic expectations regarding resource sharing in developing countries, supported by both existing research and survey data gathered from our sample.

[6]This game is played in a subsequent phone survey in March 2023.

[7]Fewer than 6.0% of employers switch to cash transfers when the wage goes beyond the payoff-maximizing level. The equivalent number for workers is 33.2%. While most workers' choices are still inconsistent with profit-maximizing behavior, in general workers' choices appear more elastic.

[8]About a third of employers and of workers show a desire to not give/receive too small of an amount

choices are also inconsistent with aversion to giving cash.

Employers' willingness to pay for work, even double the market wage, suggests they might be willing to pay workers above their marginal product. However, this willingness could be driven by factors such as market frictions (related to, e.g., hiring or training) if the work holds economic value for the firm. To determine whether the value of work justifies these choices, we compare work redistribution between pairs randomly assigned to tasks of different values. If productivity considerations drive redistribution, we would expect less giving via work for low-value tasks. However, our results indicate that the specific task associated with the work arrangement does not significantly impact the employers' (or workers') decisions, regardless of whether the task has zero marginal product (busywork) or minimal screening/training value (sweeping).

Another explanation is that work arrangements may provide some personal benefits to employers and workers. For example, by being more observable than cash transfers, they may signal ability or generosity. Also, there may be a value that comes from meeting new people. Comparing the Main Game with the Spectator Game allows us to rule out signaling concerns as respondents make very similar decisions for themselves as for others. In addition, the pattern of redistribution decisions in the Spectator Game, especially at very low wages and when the task has no value, suggests that instrumental personal benefits are not the main driver.

Our mechanism analysis shows that work redistribution does not serve the production needs of the firms, nor managers' nor workers' personal benefits. To provide intuition on the function that work may fulfill, we ask respondents to motivate the experimental decisions. We find that employers' and workers' preferences are aligned and most choose work redistribution due to fairness considerations about redistribution. Indeed, the most common motivation—explaining roughly 60% of giving and 45% of receiving—is the belief that recipients must work to receive money.[9]

Linking the experimental data with firm characteristics reveals that more giving via work in the experiment predicts a larger number of workers hired by the firm, pointing at the external validity of the experimental labor demand. In addition, giving via work is not associated with firm sales, revenues, or profits— supporting our results that the additional work generated through redistribution is not very profitable or productive. On the labor supply side, our results may appear surprising given that many interventions

or pay below the market wage.

[9]Of the remaining choices, about 30% are explained by the fact that work is good for workers (for personal development, dignity, or mental health).

in poor countries find that job seekers often reject job offers.[10] However, our study's uniqueness lies in offering workers tasks familiar and compatible with their schedule, which likely enhances their likelihood of choosing work redistribution and highlights the importance of job amenities for labor supply in such contexts.

Our work contributes to a long-standing literature on the functioning of labor markets in poor countries. Recent empirical work challenges conformity to models of perfect competition, uncovering frictions such as wage rigidities (Kaur, 2019) and high levels of involuntary unemployment (Breza et al., 2021). The micro-foundations of these frictions highlight social aspects of labor markets, including the influence of social pressures on labor supply (Breza et al., 2019), and workers' productivity (Breza et al., 2018). Our study's contribution is to provide experimental evidence of the social and redistributive role of work in low-income countries. On the labor demand side, we show that employers hire based on factors unrelated to production needs and that employers pay wages above the marginal product of work, supporting a key insight of Lewis (1954). On the labor supply side, our study extends research by (Hussam et al., 2022) showing that willingness to pay for work holds in a context with more outside options and among a population of workers, and directly test the drivers to exclude productivity considerations.

In addition, our study bridges the literature on informal redistribution in poor countries with the research on the organization of production and low factor productivity in developing countries (see Restuccia and Rogerson, 2008; Hsieh and Klenow, 2009; McKenzie and Woodruff, 2017 and Atkin et al. (2019) for a recent review) and on social incentives in organizations both in sociology and economics (see e.g., Bandiera et al. (2005, 2009) and Ashraf and Bandiera, 2018 for a review). We show experimentally that unproductive hiring can occur due to a social value of work that reflects employers' (and workers') social preferences and reflects a previously understudies channel of redistribution. Thus, our work provides a new behavioral perspective on why firms in poor countries tend to be labor intensive and inefficiently organized, beyond the constraints related to credit, human capital, and information previously studied (Foster and Rosenzweig, 1995; De Mel et al., 2008; Hanna et al., 2014; Hsieh and Olken, 2014; Atkin et al., 2017a,b; Hardy and McCasland, 2023). Since giving via work reflects the employers' internalized social preferences, our findings highlight the potential for informal redistribution to create distortions absent explicit sharing pressures (Jakiela and Ozier, 2016; Squires, 2018; Carranza et al., 2022).

[10]For a review of these interventions, see McKenzie (2017a).

2 Setting and Sample Selection

Our study centers around the owners, managers, and workers of SMEs in Kampala, Uganda who are engaged in grain processing for human food and animal feed. We focus on grain processing for several reasons. First, it ranks among the top three sectors for labor demand in the country, along with carpentry and metal fabrications, and was consequently included as one of the sectors examined in the study of Bassi et al. (2022). Second, unlike labor-intensive service sectors such as beauty salons or restaurants, workers in grain-processing firms are typically employed under a salaried arrangement and receive a wage from their employers. In our sample of workers, all respondents confirmed receiving a wage from their respective employers. Third, the tasks performed within grain-processing firms encompass a range of skill levels, offering a valuable opportunity to manipulate the perceived value of work in our experimental setup.

2.1 Sample Selection

In August and September 2022 we conducted a listing exercise of grain-processing firms in the Greater Kampala area. We identified 491 firms within a 30-km radius from the city center.[11] We consider only firms where the owner/manager we interview gives consent to participate in the study, and we exclude firms where the owner/manager self-reports employing at least two workers, leading to a sample of 427 firms. For each firm, we interview an employer [12] and up to two workers, for a total of 427 employer and 451 worker interviews.[13] Due to a programming error in our main experiment (the task assigned to the work arrangement came up as blank) our sample is restricted to 399 firms/employers and 449 workers.[14] In March 2023, we conducted supplementary phone interviews with a random subset of 99 employers from our main sample, to further qualify our main results.

[11] As shown in Online Appendix Figure B.1, grain-processing firms are clustered geographically. Therefore, we adopted a listing approach that involved identifying major clusters in the city center through focus groups and then moving outwards from these central clusters along the main roads leading to the countryside.

[12] A person qualifies as an employer if they have hiring discretion, so either the manager or the owner

[13] Note that we can only interview workers employed in 412 firms because to identify workers, we ask employers to refer up to two workers who are working or have worked for the firm during the day, and some employers refuse.

[14] We test that respondents and firms excluded by the programming error are not statistically different from those included. Our results are unchanged if we include them.

2.2 Summary Statistics

Table 1 reports firm, employer, and worker characteristics.[15] Firms in our sample employ five to six workers on average—a number comparable to the grain-milling firms interviewed in Bassi et al. (2022). Based on their main production activity, the firms in our sample can be classified into three groups: firms dealing in grain milling for human food, those using maize milling by-products to produce animal feed, and those focusing on animal feed processing and/or trading with non-maize products. About 31.1% of the firms belong to the first group, mostly producing maize flour (24.3%, 97 firms). Of the remaining 68.9% belonging to the second group, most firms (49.9%, 199 firms) deal in maize grain processing. Workers at grain-processing firms engage in diverse activities with varying piece rates and tenure requirements. Online Appendix Table C.1 provides an overview of the common tasks performed by workers and firms in our sample, along with the corresponding piece rate and tenure requirements. In the experiment we selected four tasks: sealing, loading, weighing, and sweeping.[16]

Among the employers in the sample, 47.6% are owners and 52.4% are managers. Of the managers, 31.1% of managers are the owners' family members (16.3% of the employers). Most employers (70.4%) are men, and all except two are Ugandans. In terms of educational attainment, the employers, on average, have 8.9 years of schooling; 15.3% hold a bachelor's degree. The workers' sample primarily comprises men (95.5%), with roughly equal representation of permanent and casual workers. All respondents report being employed full time, working an average of 6 days per week for 10.4 hours per day. However, around 30% of this work time is spent being idle.

The summary statistics confirm that employers in our sample are richer than the workers in our sample and the average Ugandan, with a reported monthly salary at the time of the interview amounting to USD 109.38, while Uganda's GDP per capita in 2021 was USD 74.[17] The self-reported average monthly wage for workers is USD 77.16, translating to a daily wage of approximately USD 3 based on the number of days worked.

[15] A subset of employers was interviewed twice: once in September 2022 and again in March 2023 during a follow-up phone survey. Table 1 employers interviewed in the follow-up phone survey are a random subsample of the original sample of employers.

[16] These tasks do not require special machines to perform, making them accessible and valuable to all the firms in our sample.

[17] We ask respondents about the wage of a person in their position to ensure sensitivity regarding their own salary. In the main survey, we only ask a subsample of managers about their pay. During the subsequent follow-up phone survey, we elicit both managers' and owners' income. Generally, we use the income data obtained from the main survey. However, where income information was missing, we impute missing incomes with data from the follow-up survey, if available.

Table 1: Summary statistics and covariates balance

	Main survey		Phone survey		Means difference		Covariates balance									
							Individual tasks					Average	Value t. vs. busywork		Value t. vs. sweeping	
	Mean	Median	Mean	Median	Difference	*p*-value	Offloading	Sealing	Sweeping	Weighing	Busywork	Value tasks	Difference	*p*-value	Difference	*p*-value
Panel A: Firms																
N	399		99				125	90	86	54	44	269				
Number of workers (on day of interview)	6.42	3	6.86	3	-0.44	0.645	7.67	7.22	6.69	4.13	3.50	6.81	0.76	0.236	0.63	0.445
Number of workers (on typical day)	5.85	3	6.45	3	-0.6	0.53	6.90	6.66	6.12	3.83	3.16	6.20	0.79	0.194	0.60	0.444
Total revenue (monthly, USD)	8,479.8	2,631.58	7,686.84	2,500	792.96	0.705	10369.61	8490.92	7629.28	9761.47	3250.38	9588.11	753.19	0.570	3235.03	0.206
Total profit (monthly, USD)	931.89	394.74	868.56	326.32	63.33	0.71	1036.59	1097.08	851.49	873.48	533.28	1026.91	65.63	0.673	286.00	0.084
Establishment (years)	6.14	5	6.79	5	-0.65	0.312	6.57	6.22	5.67	5.94	5.89	6.33	0.15	0.897	0.57	0.391
Share main product	0.69	0.7	0.69	0.7	0	0.858	0.71	0.67	0.68	0.69	0.66	0.69	0.02	0.510	0.02	0.346
Revenue from USD 65 input (USD)	75.84	73.68	78.01	73.68	-2.17	0.176	75.63	78.94	77.26	70.20	73.66	75.72	-1.27	0.426	0.27	0.871
Profit from USD 65 input (USD)	10.84	8.68	13.01	8.68	-2.17	0.176	10.63	13.94	12.26	5.20	8.66	10.72	-1.27	0.426	0.27	0.871
Sales (monthly, tons)	21.53	5	20.42	6	1.11	0.819	28.54	27.81	17.68	12.98	7.38	25.10	5.55	0.229	10.24	0.056
Management score	12.68	13	12.7	13	-0.02	0.972	12.68	13.02	12.55	12.39	12.64	12.74	0.10	0.814	0.23	0.557
Panel B: Employers																
N	399		99				125	90	86	54	44	269				
Gender: male	70.43%		65.22%				0.74	0.72	0.70	0.63	0.66	0.71	0.00	0.996	0.03	0.597
Age (years)	33.22	32	33.47	32	-0.25	0.812	33.34	32.47	32.86	34.67	33.35	33.31	-0.91	0.548	0.80	0.516
Education (years)	8.91	6	8.36	6	0.55	0.373	8.95	8.09	8.76	9.89	9.55	8.85	-0.08	0.933	-0.35	0.632
Income (monthly, USD)	96.08	105.26	102.99	105.26	-6.91	0.384	115.16	113.89	161.40	99.09	89.51	108.55	13.69	0.034	-36.83	0.106
Panel C: Workers																
N	449						146	67	69	85	82	298				
Gender: male	95.55%						0.94	0.96	0.96	0.96	0.98	0.95	-0.01	0.683	-0.01	0.772
Age (years)	26.02	25					26.68	26.74	25.44	25.89	24.91	26.47	1.18	0.078	1.20	0.238
Education (years)	7.37	6					7.14	8.40	6.93	6.92	7.78	7.36	-0.81	0.219	0.54	0.425
Tenure firm (years)	1.93	1					2.04	2.49	2.00	1.76	1.37	2.06	0.62	0.015	-0.04	0.873
Hours worked (on typical day)	10.43	11					10.64	10.56	10.72	10.40	9.76	10.55	0.61	0.122	0.00	0.993
Days worked (in typical week)	6	6					5.88	6.13	6.19	5.96	5.99	5.96	-0.06	0.736	-0.16	0.310
Income (monthly, USD)	77.16	69.92					81.02	85.76	78.34	67.88	72.27	78.28	1.55	0.814	2.49	0.736
Has written contract	10.96%						0.10	0.04	0.05	0.23	0.21	0.11	-0.11	0.243	0.03	0.395
Panel D: Tasks characteristics																
Tenure (days)							8.87	4.53	0.76	3.94	8.32	6.90			6.13	0.000
Effort (1-4)							3.80	2.16	1.14	2.00	3.80	2.84			1.70	0.000
Piece rate (employers, USD)							0.20	0.13	0.17	0.04	0.20	0.14			-0.02	0.033
Piece rate (workers, USD)							0.22	0.15	0.17	0.05	0.21	0.17			0.00	0.871

Note: The table summarizes the characteristics of firms, employers, and workers in our sample and checks covariate balance for the follow-up phone survey and across tasks. The "Difference" columns shows the differences in means, whereas the "*p*-value" columns denotes the corresponding *p*-values. Firm characteristics are self-reported by the employers. Figures reported in US dollars are in nominal terms and were converted from UGX to USD using an exchange rate of 3,800 UGX/USD. *Total revenue*, *Total profit*, *Profit per worker*, *Sales*, *Age*, and *Income* are trimmed at the 99th percentile. *Hours idle time* is reported by employers in the follow-up survey (N = 99). *Income* is elicited as the pay of a manager in a comparable firm. In the follow-up phone survey we directly ask for employers' income. The task panel summarizes relevant task characteristics for each subsample (e.g., the loading subsample contains tenure, effort, and piece rate for those assigned the offloading task in the experiment). Note that task characteristics for busywork are gathered from loading the busywork task consists of a loading/offloading activity. Consequently, we do not calculate any difference between these two tasks. For *Income (USD)* we use the income data obtained from the main survey. However, where income information was missing, we impute missing incomes with data from the follow-up survey, if available.

2.3 Covariate Balance and Task Characteristics

Table 1 displays the balance of firm, employer, and worker characteristics across tasks as well as task characteristics. The employer, worker, and firm characteristics are mostly balanced across random task assignments. Firm and employer characteristics are balanced once controlling for geographic location and firm main activity, due to how we conducted the task randomization.[18] Only workers' tenure at the firm shows a significant differences across tasks, even after including for firm location and main activity fixed effects. Thus, we control for workers' tenure at the firm in the workers' regression analysis.[19]

In terms of task characteristics, loading has the highest average tenure requirements (8.87 days) and effort (3.80 on a 1–4 scale). Sweeping has the lowest tenure requirements, with an average of just 0.76 days. Weighing has the lowest reported piece rate of UGX 152 (USD 0.04). About 25% of employers report not paying for sweeping.[20] Compared to the average of value tasks, sweeping has statistically significant fewer tenure days required (p-value 0.000) and requires less effort (p-value 0.000). As the busywork task is derived from the loading task, mechanically busywork has the same characteristics (e.g., effort, tenure requirements) as loading.

2.4 Patterns of Informal Redistribution

Our study takes transfers as given and focuses on investigating people's preferences for the method of informal giving. This is supported by descriptive evidence showing that, in our sample, ninety-six percent of employers state that they give (work or cash). On average, employers who engage in giving state that they donate around 27.2% of their monthly income, which aligns with the self-reported estimates in Carranza et al. (2022). Most employers in our sample respond to giving requests (92.9%), although

[18]Initially, without any controls, firms assigned to tasks such as busywork or weighting exhibited lower revenues and sales. However, this discrepancy can be explained by the sequential randomization process and the parallel data collection and listing exercises. The initial randomization involved three tasks: loading, sealing, and sweeping, with loading being the most valuable and sweeping the least valuable. As we proceeded with data collection, we realized there was no variation in outcomes by task. We therefore introduced new tasks—weighting and busywork—to ensure there was enough variation in task value. It is important to mention that firms interviewed in the second half of the data collection, primarily located in the peripheries of Kampala, tend to be smaller in size.

[19]Workers' tenure at the firm is significant at the 5% significance level. Similarly, workers' age shows significance at the 10% level. The regression results are robust to the addition of workers' age.

[20]The employers' average reported payment for sweeping, conditional on paying, is UGX 973 (USD 0.26). However, it is important to note that comparing sweeping to other tasks is challenging because sweeping does not have a piece rate like the other tasks. Instead, it is defined as a 30-minute task.

some employers appear to be giving without any previous request.

Motivating our focus on work as a channel of informal redistribution, employment appears to be a prominent means of redistribution in our context. Our survey conducted in September 2022 revealed that more than 90% of respondents identify employment as the most significant channel of redistribution (Figure 1).[21]

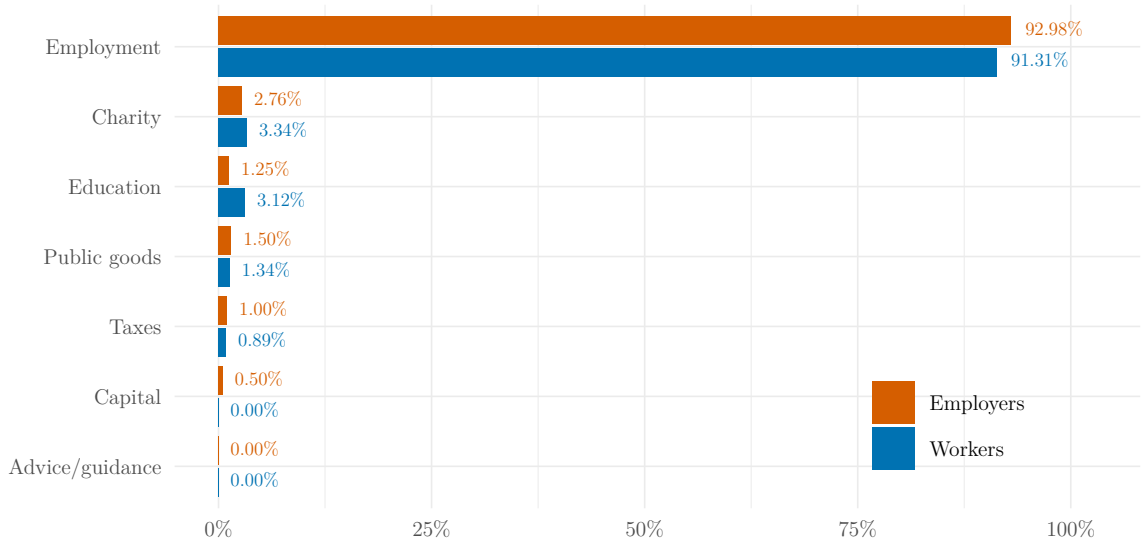


Figure 1: "What can rich people do to share earnings with poor people?"

Note: The figure presents responses from 399 employers and 449 workers. Using a pilot survey with open-ended questions, we established pre-coded answer options. In the main survey, respondents selected from these options or provided an alternative response.

In terms of giving and channels of redistribution, while most employers give some cash, 46.5% of employers have given work to help out in March 2023, and 45.5% of the employers have given both work and cash (Online Appendix Figure B.2, panel A).[22] Conditional on giving conditional on giving at all, the total value of work redistribution exceeds that of cash redistribution by almost 60% (Online Appendix Figure B.2, panel B). We also collect data on preferences for redistribution in an unconstrained manner by asking whether an employer in their position should share any portion of a UGX 15,000 lottery win. Most employers, between 70% to 92%,state that redistribution should occur.

[21]This question employed pre-coded options during the pilot phase. In a subsequent follow-up phone survey conducted in March 2023, we asked the same question in an open-ended format, and the responses remained qualitatively consistent.

[22]The high level of cash giving in the survey may sound at odds with the descriptive evidence, but likely reflects the fact that employers also receive requests from people who are perceived as not apt to work (e.g., women). In addition, due to an imprecision in the survey writing, we did not specify that cash transfers should not include other forms of giving such as credit arrangements and school fees support, which is likely to upward bias the overall level of giving via cash.

The average amount given is UGX 4,500, or a third of the employers' endowment (Online Appendix Figure B.3).[23]

3 Experimental Design

3.1 Main Game

Our primary experiment is a modified version of a dictator game, where respondents (employers or workers) choose between redistributing part of a payoff via an unconditional cash transfer or via work.[24] Specifically, employers make decisions about giving to an anonymous worker, and workers about receiving from an anonymous employer. Anonymity helps us limit the concern that unobserved characteristics or a monitoring value of work may drive decisions (Heath, 2018; Chandrasekhar et al., 2020), without undermining the realism of the design because in our setting, similar to what documented in Carranza et al. (2022), informal redistribution is not limited to close relationships.[25]

In the game, employers and workers are matched in pairs. Within each pair, the employer receives an initial payoff of UGX 15,000 (USD 3.95) and the worker's initial payoff is UGX 1,000 (USD 0.26). All participants are made aware that the initial payoffs are not final and that one person—within or outside the pair—will be tasked with redistributing a portion of the initial earnings to determine the final payoffs. Before eliciting redistribution decisions, both employers and workers are presented with a task randomly selected from activities commonly performed at grain-processing firms.

Employers are then asked whether they want to give an unconditional cash transfer to the worker or pay them to perform the pre-specified task at their firm. Similarly, workers are asked whether they want to receive an unconditional cash transfer or be paid to perform the task. To make the experimental choices non-trivial, we vary the relative price of redistribution so that the wage is equal to, higher, or lower than the

[23] We measure preferences for redistribution using two questions. The first is a first-order beliefs question that asks respondents how much a lottery winner should share with an anonymous loser, using the same setup as the experiment. This question is asked sequentially, with a yes/no question followed by a conditional amount question. About 30% answer "no," and the average redistribution is 21.6% for employers and 18.8% for workers. The second is a second-order beliefs question that asks what respondents think others believe the lottery winner should share. This question is asked non-sequentially, and only 2% answer "no redistribution," with an average redistribution of 30.4%. The difference in results could be partly due to the sequential nature of the first method leading more respondents to answer "no" to the initial sharing question.

[24] See Online Appendix Figures B.4 and B.5 for diagrams of the experimental design.

[25] The large majority of employers (88.9%) report receiving requests from acquaintances and strangers (cash, work, or in-kind), and 83.8% report giving to acquaintances and strangers.

transfer. We also vary whether the wage is above or below the market wage for the task, which we calibrate to be about UGX 3,000 based on focus group discussions with local employers and workers.

We use a multiple price list approach to elicit decisions (for an example, see Appendix Figure A1). The approach involves presenting a series of questions (up to 22) to each respondent, with the wage and transfer amounts varying across questions. We start with a question where both wage and transfer amounts are set at UGX 3,000 (the market wage for the task). In the subsequent question blocks, either the wage or the transfer are adjusted dynamically. In the first block of questions, the wage amount ranges from UGX 3,500 to UGX 10,000, while the transfer amount remains constant at UGX 3,000. The second block varies the wage amount between UGX 500 and UGX 2,500 while still keeping the transfer at UGX 3,000. In the third block the wage is fixed at UGX 3,000, and the transfer varies from UGX 500 to UGX 2,500. In the fourth and final block, the wage is again fixed at UGX 3,000, while the transfer varies from UGX 3,500 to UGX 6,500. If a respondent indicates a preference switch from redistribution via a work arrangement to an unconditional transfer (or vice versa), we assume they similarly prefer all unconditional transfers (or work arrangements) worth more to minimize the time spent on the survey (Bursztyn and Coffman, 2012).[26] All choices are made privately.

Our experiment is designed such that redistribution cannot be zero or negative. This design choice reflects expectations about giving in poor countries, which are sizable, widespread, and hard to escape as shown by recent research on social taxation (Carranza et al., 2022; Squires, 2018; Jakiela and Ozier, 2016). For example, in our sample, 68.2% of employers state that cash or job requests are a problem or a serious problem for the growth of their business (Online Appendix Figure B.6).

While the experimental giving constraint is unlikely to be binding, especially given the observed level of earnings shared by employers, the concern is that employers may choose to give via work in an attempt to give as little as possible. To test this concern, we set up the experiment to allow both the transfer and wage to be very small (UGX 500, USD 0.13), which effectively simulates scenarios where no redistribution can occur. In addition, the overall variation in wages and transfer allows us to test whether respondents' choices appear to resemble a strategy to give as little as possible.

"Work" in the Main Game is a pre-specified 30-minute task that the worker must

[26] We use a binary search-like method. In practice, this involves first presenting extreme values of the amount to be varied and then successively halving or doubling these values to efficiently narrow down the range where the preference choice switches occur.

perform in the employers' firm. To build the tasks, we select four activities commonly performed at grain-processing firms: loading/offloading, sealing, weighing, and sweeping.[27] For each activity, we define a task that would take approximately 30 minutes and for which the plausible market wage is UGX 3,000. For example, in the case of sealing, the task is "sealing ten sacks," or in the case of loading, it is "loading three sacks."

Participants are offered monetary incentives in the form of a lottery.[28] At the start of the experiment, they are informed that 5% of the pairs will be selected via a lottery and for those pairs, the experimental endowments will be realized. Additionally, one decision maker per pair will be randomly selected, and one of their redistribution choices will be implemented. Employers and workers make their choices anonymously and privately, before the lottery results are announced. We clearly communicate to employers (and workers) that if they choose work redistribution, they must hire the worker (be hired) for the pre-specified task or else they will not receive their lottery winnings.

We focus on two experimental outcomes: the respondent's work redistribution choices and the respondent's maximum willingness to pay for work. The former is equal to the dummy of work redistribution choices made by each respondent at each choice point, while the latter is equal to the largest difference in shared amount, where the respondent chooses work redistribution as opposed to a cash transfer.

3.2 Experimental Variations

Task variation in Main Game In the Main Game, we use between-subject randomization to assign different tasks with varying values to different pairs. Our goal is to test whether task value affects employers' and workers' work redistribution decisions. If an economic value of work was driving employers' giving via work, we would expect them to engage in work redistribution less often and to show a lower willingness to pay for work when the tasks have lower value. Similarly, on the workers' side, if work has a training value for them, we would expect them to be more inclined to choose work redistribution or display a higher willingness to pay for work when the task has a higher training value (e.g., higher skill requirements). This reflects the idea that workers perceive work redistribution as an opportunity to enhance their skills.

[27] See the Section 3.2 and Tables C.1 and 1 for a summary of the characteristics, including their piece rates, tenure requirements, and perceived effort levels.

[28] In this setting, the fact that earnings come from luck hinders our ability to identify preferences for redistribution through work. Previous research has explored how the source of income affects distribution preferences, showing that individuals' perceptions about fairness are influenced by whether income is earned by effort or luck (Alesina and Giuliano, 2011).

The heterogeneity of tasks used and employers/firms, however, may limit the power of our test. To address this concern, we incorporate two tasks in our randomization that have objectively lower value. The first task, busywork, involves loading and offloading three sacks onto and from a truck, and it is intentionally designed to have zero marginal product for the employer's firm. The second task, sweeping, entails sweeping the firm's floor for 30 minutes. This task consistently ranks lowest in terms of skill training (requiring less than one day of tenure) and effort, and 21.1% of employers do not expect to pay for it. Including this task allows us to account for the potential training value of the busywork task for workers, and provides a useful comparison in case the busywork task appears unusual to both employers and workers.

Spectator Game Respondents in the experiment play two versions of the game, in random order. In the Main Game version, respondents make decisions about redistribution for their pair. In another version, the Spectator Game, they make decisions about redistribution for another pair. Both games are incentive compatible. At the end of the experiment, we select 20 pairs, 20 decision makers (employer or worker), 1 game (Main Game or Spectator Game) per person, and 1 decision per game respondent, which are implemented. The variation in stakes between both games allows us to test whether work redistribution decisions are driven by instrumental social benefits such as a signaling value or networking value of work.

Food versus Cash Game We conducted a phone interview follow-up using a different experiment version. Participants choose between in-kind giving (e.g., a snack or a meal) and an unconditional cash transfer. The aim is to distinguish between preferences for work redistribution and a dislike of cash transfers. The multiple price list approach from the Main Game is used here, with three choices available. We start with a UGX 3,000 choice between a snack/meal or a transfer. Then, we vary the in-kind options' value to UGX 500, UGX 3,000, and UGX 10,000 (the cash transfer remains constant at UGX 3,000). This variation allows us to calculate the fraction of employers who opt for cash transfers when the alternative is an in-kind transfer. By comparing these outcomes with the Main Game results, we can examine whether work redistribution decisions reflect a preference for giving via work or a reluctance to give cash. Additionally, as in-kind/food redistribution is not a prominent form of giving for our respondents (see Figure 1), comparing both games helps us understand the extent to which their choices are influenced by experimenter demands.

4 Empirical Analysis

Our empirical strategy involves estimating mean outcomes and making comparisons for different experimental choices across prices, groups (employers versus workers), treatments (value work versus busywork and sweeping), and games (Main Game and Food versus Cash Game, and Spectator Game). Additionally, we use regression analysis to estimate the elasticity of decisions to prices and test for treatment effects.

Elasticity of work decisions to prices To measure the sensitivity of work redistribution decisions to variations in wages and transfers, we employ an ordinary least squares (OLS) regression:

$$Work_{ij} = \alpha + \beta_1 log(Wage)_j + \beta_2 log(Transfer)_j + \gamma_i + e_{ij}. \quad (1)$$

$Work$ is a dummy indicating the decision of respondent i for decision j. The independent variables $log(Wage)$ and $log(Transfer)$ represent the wage and cash transfer for decision j. γ denotes fixed effects for firm geographic area and main firm activity. We cluster standard errors at the respondent level and estimate separate regressions for employers and workers. To address potential discontinuities in hiring or working decisions, we conduct separate regressions for cases where the payments are below and above the market wage (UGX 3,000).

Value-of-work treatment effect We focus on two dimensions of economic value of work: productivity, and screening/training. We utilize the random assignment of the busywork task to examine employers' willingness to hire workers with zero marginal product and their willingness to pay for such work. We also explore whether workers' work redistribution choices are influenced by the unproductive nature of the task for the firm. Additionally, we utilize the randomization of the sweeping task to test employers' inclination to hire workers for tasks with low screening value, as employers state that a worker could sweep without supervision after less than one day. We also investigate whether workers are willing to work when the task has a low skill-building value.

To examine these causal relationships, we separately estimate the following regression on the sample of employers and workers:

$$Y_{ijl} = \alpha + \beta_1 I_{busywork,i} + \gamma_i + \lambda_j + v_{ijl}, \quad (2)$$

and

$$Y_{ijl} = \alpha + \beta_1 I_{sweeping,i} + \gamma_i + \lambda_j + v_{ijl}. \quad (3)$$

Y is outcome l for respondent i. j denotes the choice. $I_{busywork}$ and $I_{sweeping}$ are dummy variable indicating whether the task assigned was busywork or sweeping. We control for geographic location, main activity fixed effects, and choice characteristics (wage and transfer) with fixed effects γ and λ, respectively. Standard errors are clustered at the respondent level.

We also implement two sanity checks. First, for each specific task, we estimate the treatment effects using OLS regressions. This approach avoids assumptions about task value preferences for individual firms or employers. The regression model is as follows:

$$Y_{ijl} = \alpha + \phi I_{task,i} + \gamma_i + \lambda_j + u_{ijl}, \quad (4)$$

where Y is outcome l of respondent i. j denotes the choice. I_{task} is a categorical variable indicating the task randomly assigned to the work arrangement, γ are firm geographic location and main activity fixed effects, and λ are choice characteristics (wage and transfer combination) fixed effects. Standard errors are clustered at the firm/respondent level. We estimate the regression separately for employers and workers.

Second, we assess the correlation between task value measures (e.g., self-reported tenure requirements, piece rate, and effort) and work redistribution. We estimate the following reduced form regression:

$$Y_{ijl} = \theta_0 + \theta_1 PieceRate_i + \theta_2 Effort_i + \theta_3 TenureRequirement_i + \gamma_i + \lambda_j + \nu_{ijl}. \quad (5)$$

Y_{il} is outcome l for respondent i. j denotes the choice. $PieceRate$ is measured in Ugandan shillings, $Effort$ on a 1–3 scale, and $TenureRequirement$ in days. Similar to previous analyses, we include fixed effects for geographic location and main firm activity (γ), and for choice characteristics (wage and transfer) denoted as λ. We cluster standard errors at the respondent level and estimate the regression separately for employers and workers.

Personal stakes test To test whether respondents make different decisions when they have no stakes in the game (Spectator game), as compared to the Main Game, we exploit the following OLS regressions on the pooled game decisions:

$$Y_{ijkl} = \alpha + \beta_1 Spectator_{ij} + \gamma_i + \lambda_j + e_{ijkl}, \quad (6)$$

where Y is a dependent variable indicating outcome l of respondent i in game k. j denotes the decision. *Spectator* is a dummy independent variable indicating whether decision j refers to either game. γ are fixed effects for firm geographic area, main firm activity, task, and respondent. λ are fixed effects for choice characteristics (wage and transfer). Standard errors are clustered at the respondent level, and we estimate the regression separately for employers and workers.

5 Results

In what follows, we present the results of our experiment to measure work redistribution which are displayed in Figure 2. In addition, we discuss how the observed work redistribution decisions compare with alternative benchmarks as well as provide evidence to support the internal and external validity of the findings.

5.1 Work Redistribution in the Experiment

Work redistribution choices Our main results reveal that when asked to give, most employers choose to give via work, and when given the opportunity to make decisions about how to receive money, most workers choose to receive via work. Across combinations of wage and transfers, employers choose to give by hiring the worker to perform a task in 86.5% of cases, on average, and 90.2% choose to hire when the wage equals the transfer. For workers, 89.5% choose to work instead of receiving an unconditional cash transfer of equal value. On average, they choose the work arrangement over an unconditional cash transfer 87.8% of the time, a number that is not statistically different from the employers' average (p-value 0.753).[29]

The alignment of decisions between employers and workers suggests that employers have a reasonable expectation that the work arrangement will indeed be carried out. Thus, and since we are those who implement both the wage and transfer payments, it is unlikely that employers choose work redistribution with the hope of evading wage payments. Moreover, the fact that employers and workers make their experimental

[29] We refer to a regression equation where we pool all respondent data from the Main Game (N = 18,656) and includes choice type, task, firm location, and main activity fixed effects, with clustered standard errors at the respondent level. The dependent variable is the work dummy, while the independent variable is the worker dummy.

decision privately suggests these work redistribution choices are not the result of external pressures or coordination.[30]

Sensitivity of work redistribution decisions to wage and transfer Employers and workers in the Main Game display limited sensitivity to changes in wage and transfer amounts. Irrespective of the wage and transfer offered, most employers choose to hire as opposed to giving a cash transfer, with the share of them hiring ranging from 70.7% to 97.0%. Similarly, most workers choose to work at all wages and transfers combinations, with 77.9% opting to work for wages lower than the transfer on average. At the highest wage of UGX 10,000 (over three times the market wage), 79.7% of employers opt to hire the worker instead of providing a cash transfer three times lower. In the regression framework of Table 2, a 1% increase in the wage above UGX 3,000 is associated with a mere 0.089 percentage point reduction in employers choosing to give via work (panel A, column 2).

At the other extreme, at the lowest offered wage (UGX 500 versus UGX 3,000 transfer), 70.7% of employers still choose to hire workers. Only around 21% of employers switch from hiring to transfers when the wage decreases from UGX 3,000 to UGX 500, resulting in a small but positive semi-elasticity of "labor demand" (Table 2, column 3). This behavior may be attributed to a reluctance to give small amounts and to avoid paying below the market wage, explaining the negative semi-elasticity of work redistribution to transfers in Table 2, column 5. Thus, to summarize, while most employers are willing to pay for work, they are also okay with workers paying to work, and only a few are not willing to pay below the market wage.

For workers, most of them also choose to work at all wage and transfer combination. 57% of workers choose to work for UGX 500 (equivalent to USD 0.13) instead of accepting a UGX 3,000 cash transfer. Similarly, 84.9% of workers prefer to work for the market wage as opposed to receiving a cash transfer over twice as large. In a regression framework, as shown in Table 2, column 1, a 1% increase in the offered wage is associated with a 0.1 percentage point increase in the likelihood of a worker choosing work instead of cash. Thus, for most workers, the value of work appears to outweigh the immediate monetary benefit they would receive through a cash transfer. A final observation is that, when comparing the redistribution patterns of workers (panel B) and employers (panel A) in Table 2, it becomes apparent that workers' choices exhibit relatively higher

[30]While work realizations may be observable, the implementation of work arrangements resulting from the matching process does not occur immediately. Consequently, both employers and workers can easily hide their choices from potential observers.

sensitivity to wages and transfers. However, we cannot definitively identify whether this difference is driven by differences in preferences or income effects.[31]

Willingness to pay The observed work redistribution decisions imply a large and positive willingness to pay for work on both sides of the labor market. The results are summarized in Appendix Figure A2. Among employers, 97.7% are willing to pay for work,[32] and their average willingness to pay is UGX 6,085. This amount is significant as it exceeds twice the market wage, represents 40.6% of their initial payoff, and accounts for 38.9% of the self-reported employers' daily income. Among workers, 77.9% of the time on average they choose to work in exchange for a wage lower than the alternative transfer, and their willingness to pay is UGX 3,004, on average—about 26% of their daily wage.[33]

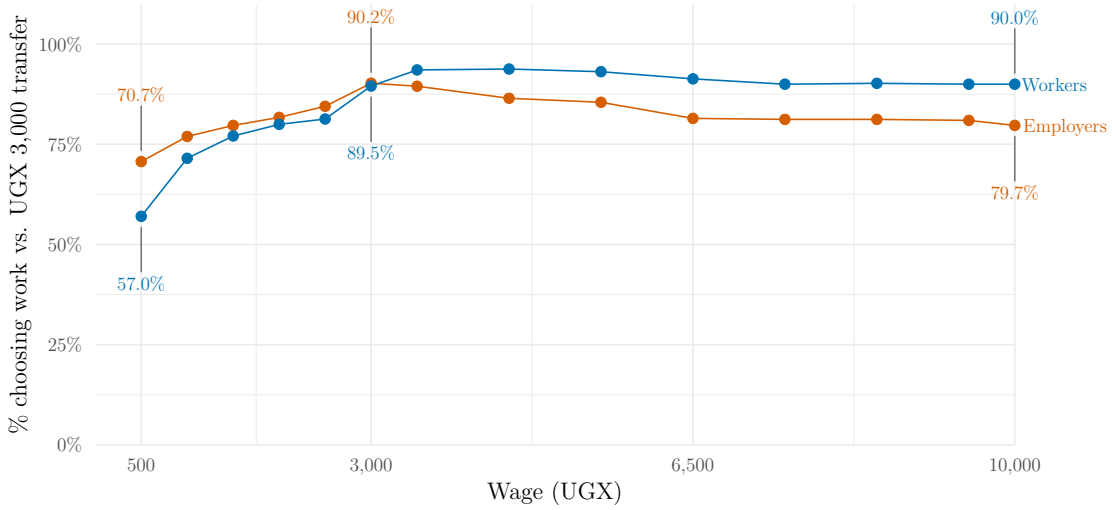
Since this willingness to pay is almost double the market wage, the evidence suggests that employers are willing to pay above the marginal product of labor and thus indicates actual "giving" from the employers side. However, it is important to note that Appendix Figure A2 reveals a symmetric pattern in the willingness to pay for both employers and workers, centered around the wage equal to transfer cutoff. That is when the transfer exceeds the wage, employers exhibit a negative willingness to pay and vice versa. This is a relevant pattern, as it suggests that the observed patterns cannot be simply explained with altruism or generosity.

Aversion to giving cash or preference for work redistribution Importantly, our evidence contradicts the hypothesis that work redistribution decisions stem from reluctance to give or receive unconditional cash transfers. Indeed, the Food versus Cash Game, where employers have to make decisions between giving in-kind (food) or cash at various prices, most employers (79.8%) choose to give cash unconditionally when the alternative is an in-kind contribution of equal value (Appendix Figure A3). These results also imply that preferences for giving via work among employers are not driven by concerns about recipients wasting cash.

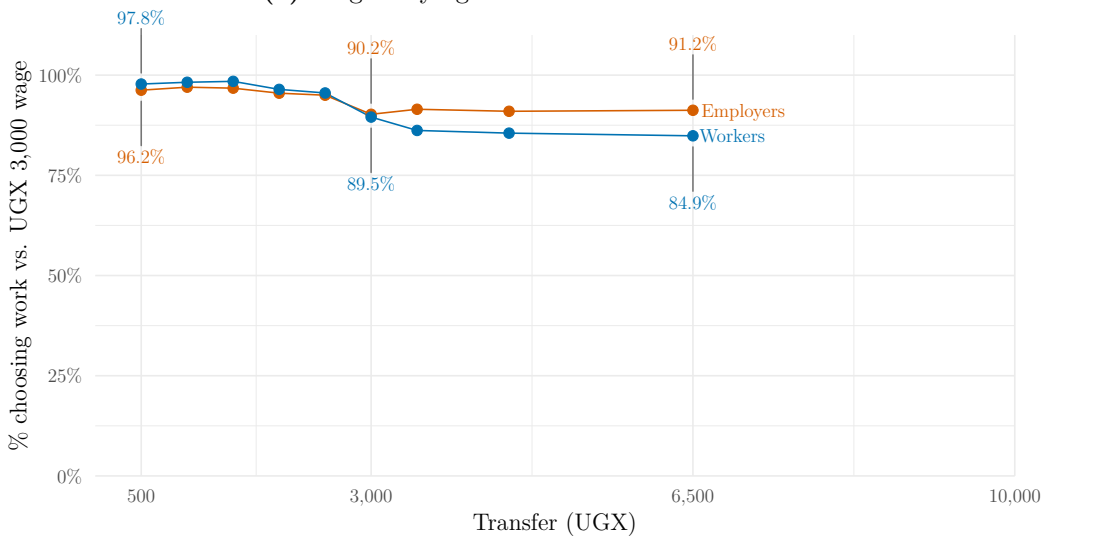
[31] An analysis of heterogeneity in experimental choices shows that they are uncorrelated with income (see Online Appendix Table C.2), but this may be due to income homogeneity within the categories of workers and employers.

[32] We define willingness to pay as the maximum amount an employer is ready to offer for work when the wage is strictly higher than the cash transfer and, conversely, the maximum amount a worker is willing to forego to work for a wage rather than receiving a higher cash transfer.

[33] By design, the workers' willingness to pay could not exceed UGX 3,500 because we do not allow for negative wages and capped the transfer amount to UGX 6,500.



(a) Wage varying



(b) Transfer varying

Figure 2: Work redistribution choices

Note: The figure summarizes the main results from the Main Game, with respect to the work outcome. In total, 399 employers make up to 22 decisions each about giving, and 449 workers make up to 22 decisions each about receiving. Panel A plots the share of work redistribution choices by wage when the alternative is a UGX 3,000 unconditional cash transfer. Panel B plots the share of work redistribution choices by transfer when the alternative is hiring at UGX 3,000 for a task. Note that we let the transfer only increase to UGX 6,500.

Table 2: Work redistribution decisions by wage and transfer (Main Game)

	(1) Overall	(2) W = [3,000, 10,000]	(3) W = [500, 3,000]	(4) T = [3,000, 6,500]	(5) T = [500, 3,000]
	Work	Work	Work	Work	Work
Panel A: Employers					
log(Wage)	0.017	-0.089	0.097		
	(0.010)	(0.016)	(0.011)		
log(Transfer)	-0.064			0.008	-0.024
	(0.008)			(0.016)	(0.007)
Fixed effects					
Firm location	Y	Y	Y	Y	Y
Main activity	Y	Y	Y	Y	Y
Overall work share	0.865	0.865	0.865	0.865	0.865
Share hiring at W = min(W)	0.707	0.902	0.707		
Share hiring at T = min(T)	0.962			0.902	0.962
Obs.	8,778	3,591	2,394	1,596	2,394
R2	0.045	0.079	0.083	0.039	0.025
Panel B: Workers					
log(Wage)	0.099	-0.019	0.164		
	(0.010)	(0.016)	(0.012)		
log(Transfer)	-0.087			-0.051	-0.034
	(0.008)			(0.015)	(0.007)
Controls					
Tenure firm (years)	Y	Y	Y	Y	Y
Fixed effects					
Firm location	Y	Y	Y	Y	Y
Main activity	Y	Y	Y	Y	Y
Overall work share	0.878	0.878	0.878	0.878	0.878
Share hiring at W = min(W)	0.570	0.895	0.570		
Share hiring at T = min(T)	0.978			0.895	0.978
Obs.	9,878	4,041	2,694	1,796	2,694
R2	0.084	0.029	0.119	0.144	0.037

Note: The table summarizes the relationship between hiring decisions and the price of redistribution (wage and transfer) in the Main Game. The dependent variable, *Work*, is a dummy for the respondent choosing the work redistribution. *Wage* is the wage associated with the work arrangement for a given decision and spans from UGX 500 to UGX 10,000. *Transfer* is the unconditional cash transfer for a given decision and spans from UGX 500 to UGX 6,500. The outside options are a UGX 3,000 transfer or wage, respectively, as shown in Appendix Figure A1. In total, 399 employers and 449 workers make up to 22 choices each: 8 choices in column 1, 5 choices in column 2, 3 choices in column 3, and 5 choices in column 4. The choice at wage equal to transfer is included in every quadrant. We split the sample around the cutoff when the wage equals the transfers to allow for heterogeneity in the response to prices as in Card et al. (2015). Regressions include firm location and main activity fixed effects, and they control for tenure at the firm. Standard errors are clustered at the respondent level.

5.2 Analysis of Work Redistribution Patterns

In this section, we examine the observed work redistribution patterns to determine whether they can be interpreted as a preference for work redistribution or if they can be explained by other plausible benchmarks, such as profit-maximization or altruism.

Payoff maximizing choices The patterns of work redistribution shown by both employers and workers challenge the notion that work redistribution is chosen to minimize their giving or other payoff-maximizing behavior (see Online Appendix A for the derivations). For an employer, considering an average value of work of UGX 3,000 (the market wage), the optimal strategy to maximize the payoffs in the game would be to hire workers only when the wage is below or equal to UGX 6,000 as illustrated in Online Appendix Figure A.1, panel A. A worker should instead choose the cash transfer whenever the donation offered is equal to or larger than the wage and especially so when the offered wage is lower than UGX 3,000 (market wage).[34]

Most employers' behavior is incompatible with payoff maximization, even accounting for the value of work. 90.5% of employers are willing to pay for work more than UGX 3,000, 79.7% of employers hire when the wage is three times the transfer, and only 4.0% of employers switch from hiring to transfer when the wage moves from UGX 5,500 to UGX 6,500. Something worth emphasizing is that this data contradicts the notion that employers aim to give as little as possible and, thus, indicates the redistribution imposed by our experimental design is unlikely to be a binding constraint.

Most workers are also not payoff-maximizing: 57.0% are willing to pay at a UGX 500 wage, and 14.5% switch to transfers when the wage decreases from UGX 1,000 to UGX 500. About 33% switch to transfers when the wage decreases from UGX 3,000 to UGX 500 (in contrast, only 14.8% of employers switch to transfers when the wage increases from UGX 3,000 to UGX 10,000). Workers' behavior in the aggregate, however, appears relatively closer to payoff maximization compared to employers. Their implied semi-elasticity (panel B, column 3) is about two times larger than that of employers (panel A, column 2). These differences are possibly due to less strong preferences for work redistribution or income effects.

Generosity Generosity alone, namely absent a preference for work redistribution, cannot explain the large willingness to pay for work. Employers do not seem to be maximizing their sharing with workers, and workers do not appear to be minimizing their receipts from employers. Under such preferences, employers (workers) should hire (work) only if the wage is equal or larger (smaller) to the transfer (Online Appendix Figure A.2).[35]

[34]The example is the optimal strategy for the subset of decisions where the wage is varying and the alternative cash transfer is fixed at UGX 3,000. When the transfer varies and the wage is fixed at UGX 3,000, assuming a value of work equal to the market wage, an employer should always give via work. A worker should choose to receive work, unless the transfer exceeds UGX 3,000. See Online Appendix A Benchmark 1 for details.

[35]Details are in Online Appendix A Benchmark 2.

Our data instead show that most employers hire when the wage is UGX 500 and most workers choose to work when the wage is UGX 10,000. Moreover, only 5.5% of employers switch from hiring to transfers when the wage increases from UGX 2,500 to UGX 3,500. Overall, only 21.3% of employers switch from hiring to transfer in between a wage of UGX 3,000 and UGX 500, and only 8.5% of workers switch from hiring to transfer in between a wage of UGX 3,000 and UGX 10,000 while the unconditional cash transfer remains constant.

Inequality aversion or other targeted sharing ratio The experimental choices of employers and workers do not appear motivated by inequality aversion. Respondents do not behave as if to minimize the deviation from an equal split of resources, which would imply hiring at wages equal to or exceeding UGX 4,500 when the transfer is fixed at UGX 3,000, and hiring at a transfer value equal or below UGX 1,500 when the wage is fixed at UGX 3,000 as shown in Online Appendix A Benchmark 3 (Online Appendix Figure A.3).

Furthermore, there is no evidence suggesting that respondents' behavior is driven by a specific sharing ratio or a desire to achieve a particular distribution outcome. For instance, as shown in Online Appendix Figure A.4, if we assume a plausible target of UGX 4,500, which is the most commonly self-reported preference for sharing in the absence of constraints (Online Appendix Figure B.3), the patterns of work redistribution decisions would be expected to differ significantly from what we observe in the experiment. This indicates that the observed preferences for work redistribution are not simply driven by a fixed sharing ratio or a specific distribution goal.

5.3 Estimate Size, and Design Features

Our findings indicate robust and strong preferences for work redistribution among both employers and workers. In what follows, we discuss the influence of design choices and examine the generalizability of these results.

Order and anchoring effects While we did not randomize the order of choices presented to respondents, we do not believe that the high rates of preferences for work redistribution and willingness to pay for work are driven by anchoring effects. Indeed, we employed a dynamic sequence of questions to prevent respondent boredom, as done in Bursztyn and Coffman (2012). Additionally, we asked for motivations behind each

extreme decision point to gain deeper insights into respondents' thought processes and also reduce potential confounding factors.[36]

In addition, while we cannot completely rule out the influence of question order on the observed willingness to pay for work, the preference for work redistribution consistently emerged in several of our pilot and focus groups, where we exploited different price sequences and combinations. For example, in a small-scale pilot with 33 respondents for a total of 10 decisions, the percentage of the work redistribution decision ranges between 79.4% at a UGX 1,000 wage, 88.2% at a UGX 3,000 wage, and 67.6% at a UGX 5,000 wage, while the unconditional cash transfer outside option stays constant at UGX 3,000. While these decisions indeed imply a slightly higher elasticity, the numbers imply that most respondents choose work redistribution irrespective of the question order.[37]

Privacy of decisions and one-off hiring/working decisions The private nature of work redistribution decisions in the experiment, along with the spot labor market setting, likely contributes to the observed large willingness to pay for work, particularly from employers. Since decisions are made privately, and our research team directly handles worker payments to ensure implementation, employers are unlikely to be held accountable for the high wages paid. This one-time hiring decision allows employers to be more generous with their wage offers. Similarly, workers' willingness to accept very low wages may be influenced by the privacy of their decisions. Only the unknown employer (and the research team) would be aware if they choose to work for less than the market wage. This limited accountability may weaken the impact of social pressures, as seen in previous studies (e.g., Breza et al., 2018).

Workers' familiarity with the task and job The workers' familiarity with assigned tasks in our experiment, and the assumption by employers that workers are familiar with the work, likely contributes to the very strong preferences for work redistribution observed in the experiment among both employers and workers.

On the workers' side, considering the impact of familiarity helps reconcile our findings with existing literature on job interventions that fail to create as many (or any) jobs

[36] Our reasoning was that by randomizing choices, we would have likely included many non-obvious ordering which could have led to confusion and noise. In itself, the dynamic sequence of choices, where we first ask about the wage and transfer equal to UGX 3,000 and then ask about the UGX 10,000 wage, may help reduce anchoring by making the choices more extreme, but it may also lead respondents to fail to fully update to the extent of the new cost.

[37] This pilot study is not a perfect comparison to our study as it was conducted in a poorer area, did not specify a specific task, and had different endowments.

as economic theory would suggest, such as studies on matching mechanisms (Loiacono, 2023; Bassi and Nansamba, 2022; Abebe et al., 2021; see McKenzie, 2017b for a review). By offering simple tasks that workers are familiar with and that fit their current work schedule, we remove constraints, making it easier for workers to express their work redistribution preferences.

On the employers' side, assuming workers are up to the task helps explain the extremely strong preferences for redistribution. In everyday life, employers may receive redistribution requests they cannot satisfy with work, such as when they believe the person is unable or unfit to perform the task (e.g., women). Familiarity can also explain why, in a similar context of small firms in Ghana, Hardy and McCasland (2023) finds evidence of the widespread use of an entrance fee mechanism for hiring apprentices.

Summary and discussion In our experiment, employers and workers consistently choose work redistribution. However, our analysis shows that most respondents' chosen patterns of redistribution are inconsistent with payoff-maximizing behavior, particularly among employers. Employers do not appear to use work redistribution to give as little as possible; instead, there is evidence of a preference for a lower bound in redistribution.[38] However, the overall patterns of redistribution cannot be solely explained by generosity or other preferences such as inequality aversion. Additionally, there is no evidence to support the interpretation of our results as an aversion to giving cash.

We interpret the evidence as strong preferences for work redistribution on both sides of the labor market, given the observed willingness to pay for work. The experimental results align with self-reported giving data, with over 45% of employers reporting to have given work to help out recently. Quantitatively, the experimental results appear to be even stronger. We do not believe that design features such as order effects and anchoring are driving work redistribution. Instead, the privacy of decisions and one-off hiring/working decisions, along with workers' familiarity with their assigned tasks, likely remove constraints that may need to be traded off in real-life situations. Additionally, employers not knowing the workers and their level of need, along with a desire for screening, may also strengthen employers' preferences for giving via work.

[38] Our data do not allow us to identify the lower bound, nor to distinguish between preferences for giving not-too-small amounts and preferences for paying at least the market wage as in Breza et al. (2019).

6 Drivers of Work Redistribution Preferences

We interpret our first set of results as establishing that employers and workers have an internalized preference for giving and receiving via work, and act upon it when asked to make redistribution decisions.[39] In what follows, we aim to uncover the underlying drivers of this preference. In particular, given the observed willingness to pay for work, our goal is to understand whether there are any direct benefits, economic or relational, that can explain employers' or workers' decisions.

We experimentally test for two hypotheses. The first hypothesis is that work redistribution may have an economic value for the firm/the worker, either through direct or indirect means such as screening. The second is that work redistribution has a relational value for the firm/the worker, either because it is more observable and allows one to signal or because it allows one to expand their network.

6.1 Economic Value of Work

Employers may prefer work redistribution due to the economic value that work provides to the firm. This value could justify paying wages above the marginal product of labor, particularly in situations where there are hiring frictions or difficulties in finding workers with the necessary skills. To test for this hypothesis, we leverage the random variation in the three task assignments across subjects. We compare the behavior of employers randomly assigned to the busywork task and sweeping task with those assigned to any of the value tasks, and we compare the behavior of workers randomly assigned to the busywork task or the sweeping task with those assigned to any of the value tasks. Additionally, we can test for the impact of each individual task on work redistribution as well as whether there is any correlation between task characteristics and work redistribution.

The descriptive analysis, summarized in Figure 3 and Online Appendix Figure B.7, suggests that the value of tasks is not driving employers' nor workers' work redistribution decisions. Panel A shows that the distribution of employers giving via work decisions across wages is similar across tasks and is always way above 50%. Most notably, the patterns of work redistribution decisions are nearly indistinguishable when employers are in a pair randomly assigned to the busywork task, compared to when they are assigned to a value task. In addition, 86.4% of employers are willing to pay UGX 10,000—three

[39] While social pressures could also be a driver of work redistribution in real life, the fact that work redistribution choices in the experiment are private suggest that this is not the primary explanation of the experimental results.

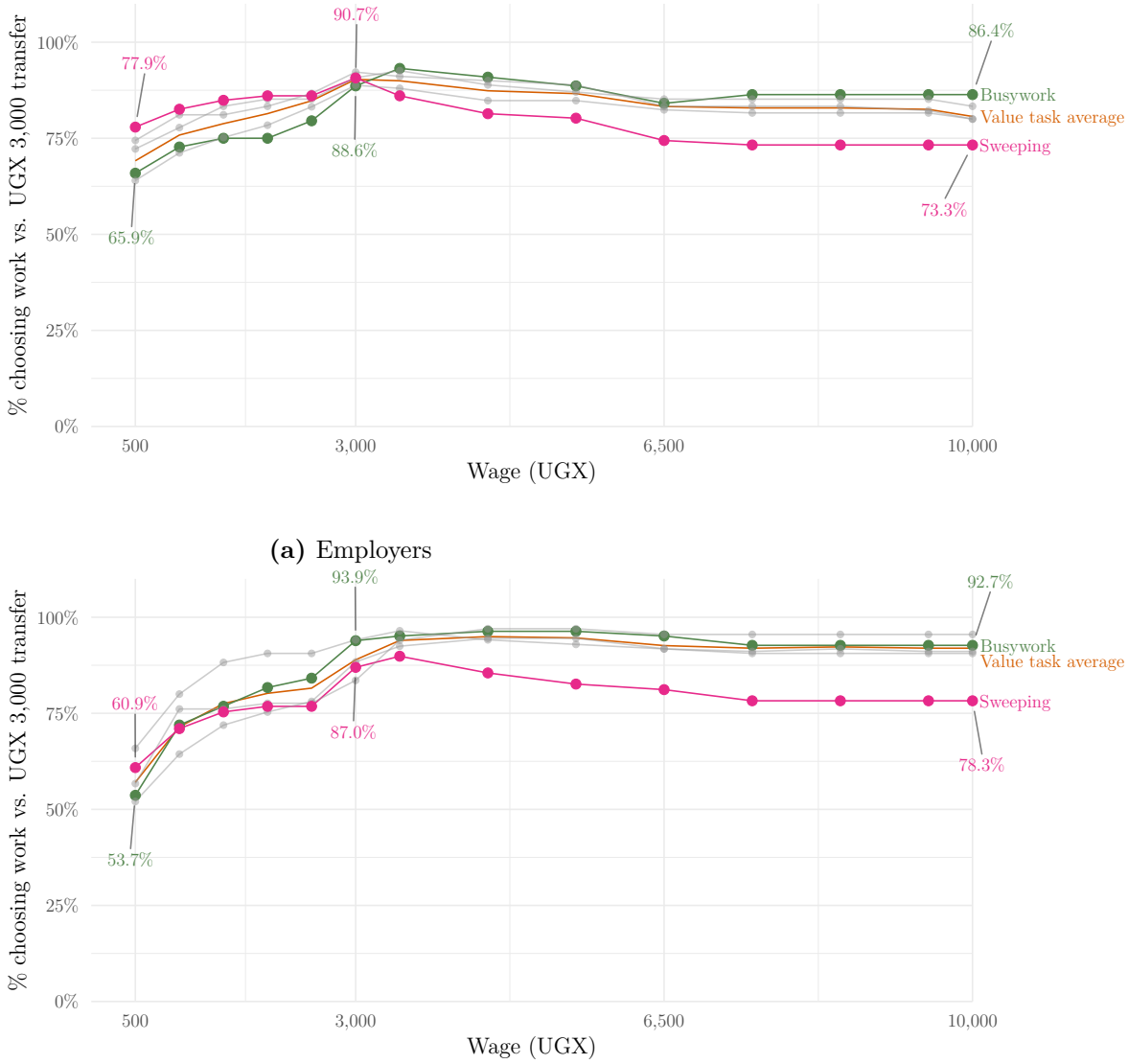


Figure 3: Work redistribution decisions by wage and by task

Note: The graph summarizes the analysis of work redistribution decisions by task value. Tasks are randomly assigned. Panel A plots employers' work redistribution decisions by wage when the alternative is a UGX 3,000 unconditional cash transfer. Panel B plots workers' work redistribution decisions by wage when the alternative is a UGX 3,000 unconditional cash transfer. The low-value tasks are busywork and sweeping.

times the market wage—to have a worker engage in busywork instead of giving this worker three times smaller unconditional cash transfer.[40] We observe similar patterns

[40]During fieldwork, field officers reported that most respondents initially expressed surprise about the busywork task. However, when the field officers clarified that the task was referred to as "busywork," as instructed to do, respondents reacted positively and no longer felt confused.

Table 3: Work redistribution by task value (Main Game) and stakes (Spectator Game)

	(1) Work	(2) Work	(3) Work	(4) Work	(5) Work	(6) WTP	(7) WTP	(8) WTP	(9) WTP	(10) WTP
Panel A: Employers										
Task: Loading	-0.040					-0.688				
	(0.045)					(0.350)				
Task: Sealing	-0.008					-0.761				
	(0.048)					(0.374)				
Task: Weighing	-0.003					-0.299				
	(0.043)					(0.367)				
Task: Sweeping	-0.036					-1.150				
	(0.050)					(0.386)				
Busywork		0.021					0.531			
		(0.038)					(0.312)			
Sweeping			-0.014					-0.435		
			(0.031)					(0.256)		
Effort (1-4)				-0.012					0.086	
				(0.013)					(0.105)	
Piece rate (thousand UGX)				-0.078					-0.536	
				(0.100)					(0.652)	
Tenure requirement (days)				0.001					0.003	
				(0.002)					(0.017)	
No stakes (Spectator Game)					0.013					0.203
					(0.007)					(0.072)
Fixed effects										
Choice type	Y	Y	Y	Y	Y	N	N	N	N	N
Respondent	N	N	N	N	Y	N	N	N	N	Y
Task	N	N	N	N	Y	N	N	N	N	Y
Mean outcome	0.865	0.869	0.864	0.865	0.865	6.085	6.177	6.048	6.085	6.085
Obs.	8,778	6,886	7,810	6,864	17,556	399	313	355	312	798
Panel B: Workers										
Task: Loading	-0.021					-0.097				
	(0.022)					(0.122)				
Task: Sealing	0.013					-0.238				
	(0.031)					(0.192)				
Task: Weighing	0.006					-0.088				
	(0.024)					(0.125)				
Task: Sweeping	-0.055					-0.279				
	(0.036)					(0.216)				
Busywork		-0.001					0.080			
		(0.020)					(0.105)			
Sweeping			-0.046					-0.120		
			(0.031)					(0.199)		
Effort (1-4)				-0.057					0.065	
				(0.048)					(0.318)	
Piece rate (thousand UGX)				-0.330					-1.649	
				(0.104)					(0.722)	
Tenure requirement (days)				0.022					0.022	
				(0.014)					(0.091)	
No stakes (Spectator Game)					-0.004					0.017
					(0.005)					(0.028)
Fixed effects										
Choice type	Y	Y	Y	Y	Y	N	N	N	N	N
Respondent	N	N	N	N	Y	N	N	N	N	Y
Task	N	N	N	N	Y	N	N	N	N	Y
Mean outcome	0.878	0.889	0.875	0.878	0.878	3.004	3.057	2.941	3.004	3.004
Obs.	9,878	8,360	8,074	9,878	19,756	449	380	367	449	898

Note: The table summarizes the mechanism analysis. *Work* is a dummy for the respondent choosing the work redistribution. *Max WTP* is the maximum willingness to pay for work, in a thousand Ugandan shillings. *Piece rate task (thousand UGX)* is the wage of the assigned task self-reported by employers. *Effort level (1–4)* is assessed by employers. *Tenure task (days)* is the duration a worker needs to work on a task with minimal or no supervision. Changing observations across columns depend on the fact that we elicit piece rate and tenure requirements only for the tasks regularly performed at their firm. Task characteristics in the workers' regression are defined at the task level the mean of the employers' answers. The data are from the Main, except for column (5) and column (10) where we pool the Main Game and the Spectator Game decisions. *No stakes (Spectator Game)* is a dummy taking value one if the decision is from the Spectator Game. Standard errors are clustered at the respondent level and all regressions include firm location and main activity fixed effects.

for employers in pairs randomly assigned to a sweeping task, which has such a small tenure requirement that it is unlikely to help employers screen workers. The slightly

lower likelihood of hiring at higher wages (and vice versa, higher likelihood at lower wages) may be explained by the fact that sweeping is often unpaid work. The average willingness to pay for giving via work is also broadly similar across tasks, including sweeping.

Regarding workers, Figure 3, panel B displays similar patterns in their work redistribution choices. Notably, workers show a high likelihood of choosing to work even when the task has no value for the employers and is unproductive (busywork). There is a slight decrease in the likelihood of choosing to work at higher wages when the task is sweeping, similar to what observed in the employers' data. However, this is likely attributable to the fact that sweeping is often an unpaid task rather than its training value. Indeed, at lower wages, workers show an equal likelihood of choosing to work across tasks.

The regression analysis, in Table 3, supports the conclusions of the descriptive analysis for employers, panel A, and workers, panel B. Column 1 shows that the likelihood of choosing work redistribution is unaffected by the task assigned. Column 2 shows that being assigned to busywork does not affect work redistribution decisions (p-value 0.585), relative to being assigned any of the other tasks, and column 3 that, on average, the same is true for the sweeping task,[41] Column 4 shows that the task's perceived effort levels, self-reported piece rates, or tenure requirements do not predict giving or receiving via work. Columns 5–8 present the equivalent results for the willingness-to-pay outcome.

Our interpretation of the task randomization analysis is that giving and receiving via work is not driven by the economic value of the task. This interpretation is further supported by descriptive evidence. For example, there is no evidence of employers facing strong hiring frictions in this setting that may justify paying higher wages (see, e.g., Online Appendix Figure B.6). Moreover, the average worker in our sample has nearly two years of experience in this sector, indicating familiarity with the tasks and thus, reducing the training value of work. Additionally, work redistribution decisions do not exhibit heterogeneity based on skills (measured by the number of machines workers can use), income, or job tenure (see Online Appendix Table B.8). These findings indicate that factors other than training value drive workers' preference for work redistribution.

The fact that work redistribution is independent of productivity considerations is particularly significant on the employers' side, as it highlights the influence of non-

[41] Even if the overall willingness to pay is not statistically different, respondents appear slightly less likely to choose work redistribution when the task is randomly assigned to be sweeping, especially at high wage. This pattern is likely explained by the fact that many employers do not pay for sweeping task. Even if assuming that the pattern is explained by some skill-screening value of work, this would only explain about 7.8% of workers' choices and 2% of employers'.

economic factors on the organization of production. Paying above the marginal product of labor indicates actual "giving" behavior, and in particular, the willingness of employers to pay for busywork offers novel empirical support to a fundamental concept in the Lewis model (1954) of "disguised unemployment."

6.2 Signaling or Relational Value of Work

Our findings show that employers and workers are not engaging in work redistribution for firm-productivity considerations or to enhance their training. Instead, other personal benefits might be driving their choices. It is particularly important to focus on the employers' side, as their choices could potentially impact firm productivity. In particular, work arrangements, even if choices are made privately, are more visible than cash transfers. Thus, employers and workers might use work redistribution to signal generosity, success, effort, or skills. Additionally, work redistribution entails a social interaction and can facilitate networking and relationship-building.

To test signaling benefits in work redistribution, we compare employers' and workers' decisions in the Spectator Game (making decisions for others) and the Main Game (making decisions for themselves). If signaling benefits were the driver, we'd expect lower work redistribution and willingness to pay in the Spectator Game. However, the data reveals little difference in decisions between the Main Game and the Spectator Game, suggesting signaling is not a significant factor (see Figure 4 and Online Appendix Figure B.9). This conclusion is confirmed by a regression analysis, presented in Table 3, column 5. In particular, employers are slightly more likely to choose work redistribution when making decisions for another pair (1.3 percentage points, p-value 0.064), while workers are as likely to choose work redistribution when making decisions for themselves as when they make decisions for others.

To test for personal benefits in the form of a relational value using the Spectator Game data we rely on the assumption is that in this game respondents act as a "social planner," which balances both the employer and worker needs. Take, for example, an employer which has to choose whether or not to hire a worker to perform a task for themselves (Main Game) or for another employer (Spectator Game). If they make decisions based on their personal benefit, we should expect the employer to be less likely to choose work redistribution in the Spectator Game, especially when the work redistribution is valuable for themselves but also costly for the worker (low wage or high transfer). On the workers' side, the idea behind the test is similar. If a worker

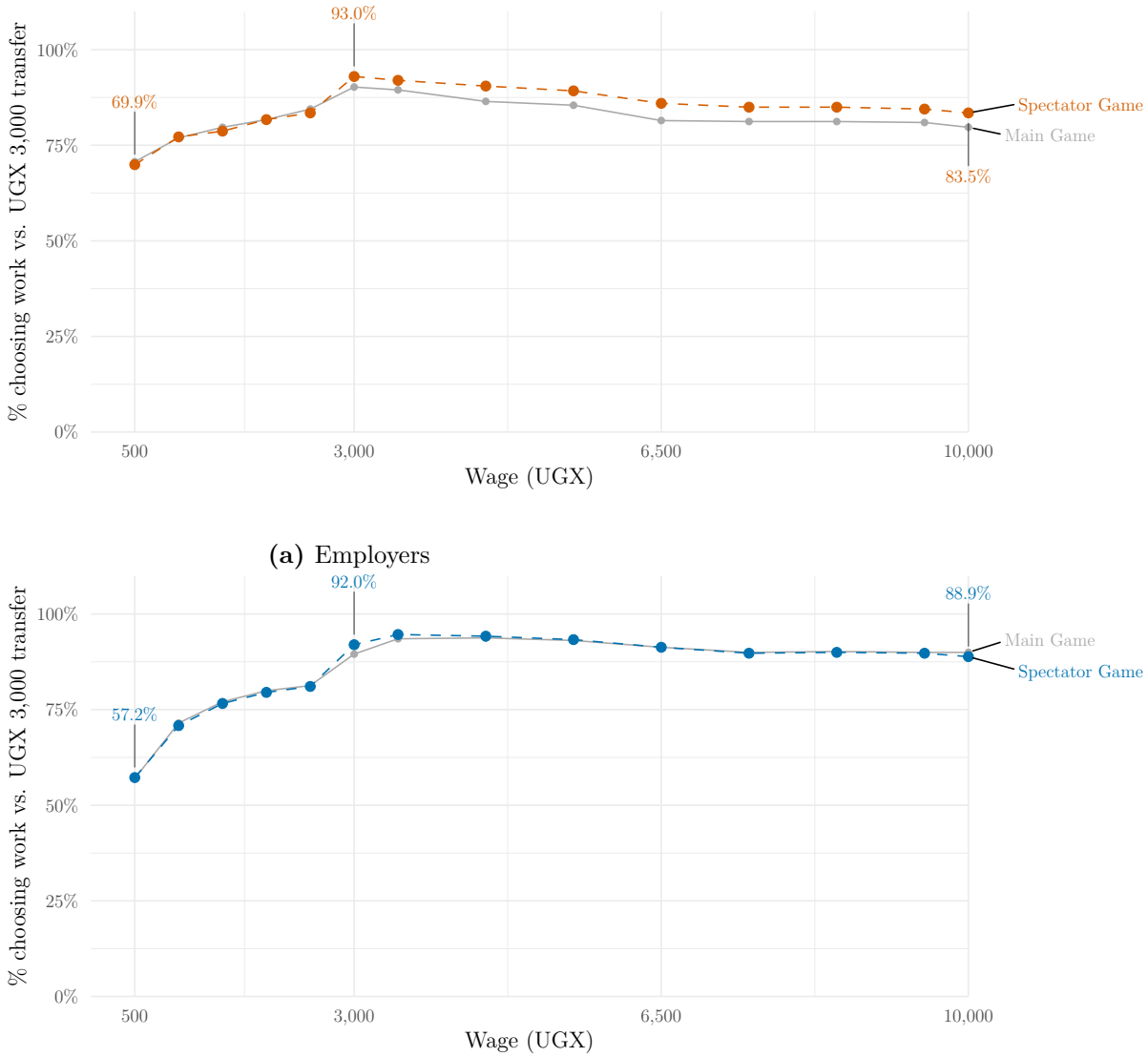


Figure 4: Main Game versus Spectator Game

Note: Data are from the Spectator Game and the Main Game. The figure plots the share of work choices by wage when the alternative is a UGX 3,000 unconditional cash transfer. Panel A depicts differences for the employers (N = 399), whereas panel B shows them for the workers (N = 449).

was only making decisions based on their personal benefit in the Main Game, then in the Spectator Game we would expect a lower likelihood to resort to work redistribution especially when this is costly for the employer and the work task has no value. This is not the case: the regression analysis in Online Appendix Table C.3, column 2, shows that the interaction between Spectator Game and a dummy for the lowest wage is not

statistically significant; similarly, workers, column 4, are as likely to engage in busywork or sweeping at very high wages in the Spectator Game, as in the Main Game.

In summary, our evidence suggests that employers' and workers' decisions are not solely driven by their own personal signaling or relational benefits. This is reinforced by the fact that for employers it would be easy to connect with new workers, and the tasks are likely too short to create much relational value for workers. Additionally, we find no evidence that owners, who may face a trade-off between personal benefits and firm productivity, make systematically different decisions than managers (Online Appendix Figure B.8, panel A). Similarly, on-call workers (casual workers), for whom the value of relationship or signaling may be stronger, make very similar decisions as contract workers (permanent workers) as shown in Online Appendix Figure B.8, panel B.

6.3 Work Redistribution Motivations and Discussion

Investigating the drivers of work redistribution, our analysis rules out social pressures by design, and, via the mechanism analysis, the value of work, and signaling and relational benefits as the drivers of work redistribution decisions. This suggests that internalized preferences, orthogonal to productivity considerations and likely social in nature, are driving these decisions. These preferences may be altruistic, e.g., if employers anticipate the mental health or dignity value for workers, but need not be.

Indeed, based on our analysis of employers' and workers' self-reported motivations, work redistribution choices mostly reflect fairness concerns in giving but are also, at least in part, self-serving as workers acknowledge the psycho-social benefits of work.[42] Figure 5 presents a summary of motivations when the wage equals the transfer, and Online Appendix Figure B.10 shows the motivation across all wages. The most common reason for choosing work redistribution, mentioned by 59.1% of employers and 44.9% of workers, is that the recipient must work in exchange for money and cannot receive free money. The second most common reason, mentioned by 18.3% of employers and 19.3% of workers, is that working is better for the recipient's personal development.[43] The third most common reason, mentioned by 10.9% of employers and 13.1% of workers, is that working is good for the recipient's mental health and dignity. The remaining 11 motivations account for the rest of the responses.

[42]Respondents were asked to provide motivations for only five decisions in the Main and Spectator game: the one associated with the same wage/transfer and the four extremes.

[43]The option is pre-coded as "build skills". Our interpretation is based field officers accounts and the fact that employers and workers are as likely to state that working improves a worker's skills when

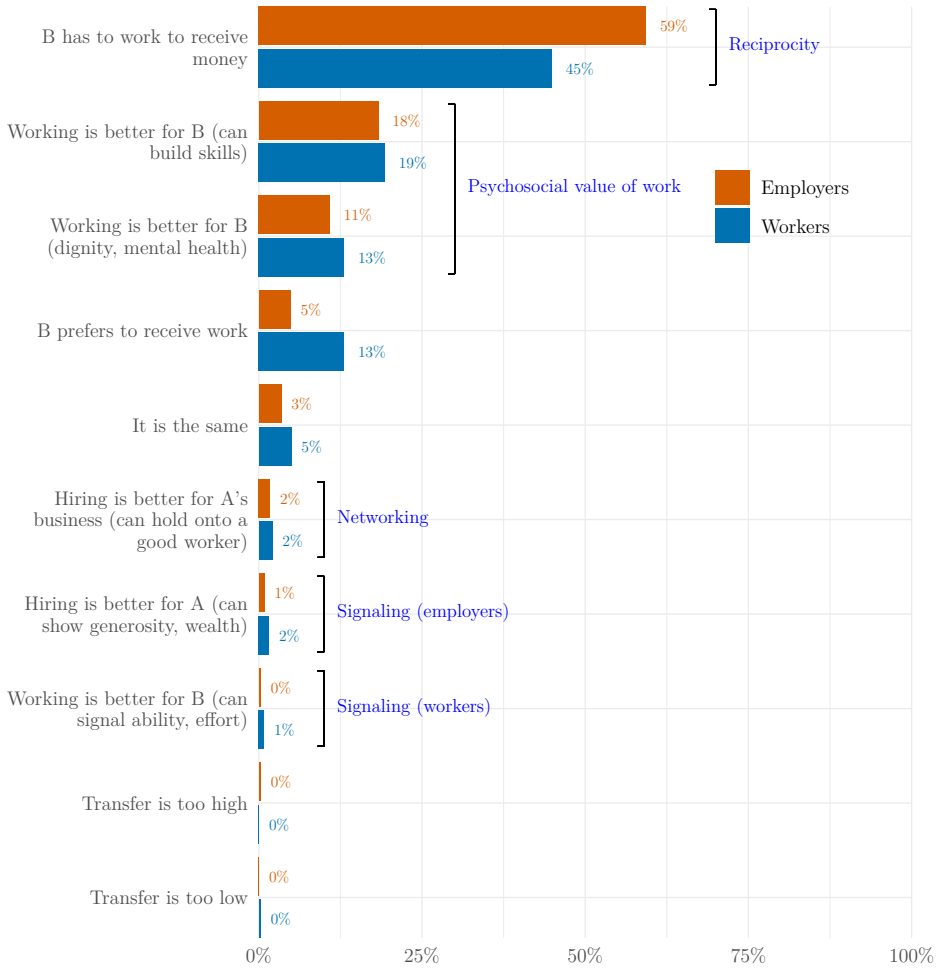


Figure 5: Self-reported reasons for work redistribution decisions: Employer and worker comparison

Note: The figure plots the motivation for work choices self-reported by employers and workers, by task. We focus on the reasons for the "Wage UGX 3,000 – Transfer UGX 3,000" choice. A stands for the anonymous giver, and B stands for the anonymous receiver. This figure contains the reason the hiring choice from 350 employers and 383 workers. Respondents with missing reasons (10 employers and 19 workers) are not included in this figure.

These strong fairness consideration are not specific to developing countries and are in line with existing research in behavioral economics, which highlights altruism, fairness, and reciprocity as significant motivators (see Fehr and Schmidt, 2006 for a review). The notion of "free money", in particular, resembles discussions of the disincentive effect of welfare programs that motivate theoretical models such as Bisin and Verdier (2004) and are often cited as supporting the lower levels of welfare observed in the U.S. as compared to, for example, continental Europe (Alesina et al., 2002). Relative to most

randomly assigned to tasks such as sweeping.

existing work on redistribution preferences (e.g., Alesina and Giuliano, 2011; Alesina and Angeletos, 2005), whose focus is givers, our study is unique in that they allow us to show that givers' and recipients' preferences are aligned and recipients, at least in our context, also do not want "free money".

7 External Validity: Giving via Work, Labor Demand, and Firm Outcomes

To assess the external validity of our findings, we analyze how the experimental data correlates with firm input and output data. We concentrate on two key results: 1) the preference for work redistribution, and 2) the independence of work redistribution from productivity considerations. In this analysis, we examine whether the inclination to give via work in the experiment is linked to firms that have a higher labor intensity and hire more workers, and whether giving via work is associated with improved outcomes.[44] We estimate the following regression specification on the sample of employers:

$$std(Y_{ik}) = \alpha + \beta_1 GivingViaWork_i + \beta_2 MaxAmountGiven_i + \gamma_i + e_{ik},$$

where Y indicates one standardized characteristic k of the firm of employer i. *GivingViaWork* is the sum of the employer's work redistribution choices in the Main Game.[45] To separate preferences for giving via work from generosity, we control for the maximum amount given in the experiment, *MaxAmountGiven*. γ are fixed effects for firm geographic area, main firm activity, and task. Standard errors are clustered at the respondent level.

The results of the analysis show that employers' preferences for work redistribution in the experiment is reflected in the firm's organization of production. Appendix Table B1, panel A, indicates that one additional work redistribution decision in the experiment is associated with 0.018 standard deviations more workers (p-value 0.061) and 0.038 standard deviations more permanent workers (p-value 0.000).[46] We do not find any significant negative impact of preferences for work redistribution on the variety of

[44] Our focus is on giving via work, as employers are the ones initiating hiring decisions.

[45] We also consider an alternative definition of work redistribution preferences, using the average share of work decisions rather than the sum, and the results are unaffected.

[46] The correlation remains statistically significant and is actually stronger when we also control for measures of firm size, such as sales and revenues, in panel B. These are potential bad controls, so we do not consider this our preferred specification.

machines used by firms, although the coefficient is negative. However, given the coarse measure of technology adoption (we elicit the variety of machines used instead of the number of machines), we cannot rule out the possibility that giving via work in the experiments is associated with more labor-intensive firms.

Moving on to analyzing the correlation with firm outcomes, Appendix Table B1 shows that the propensity to give via work in the experiment is not associated with any measure of productivity or firm size (no increased profits, revenues, or sales). Thus, the correlational analysis is consistent with our experimental results and supports the idea that the extra work resulting from work redistribution is not productive or profitable for the firm. However, we should be cautious not to infer causality from these correlations. It is possible that a higher propensity to give via work preferences may lead to more hiring, but it could also be the case that firms with more workers face stronger labor market frictions. Furthermore, it could also be that firms that give more via work and, in turn, have more workers or more output are more likely to be taxed by their community.

8 Conclusions and Implications For Policy

Our study shows that employment is a salient channel of redistribution in poor countries. Employers and workers are willing to pay to give/receive via work as opposed to transfers. We can exclude that these decisions are driven by any productivity considerations, as employers are willing to pay for zero marginal product work and workers are as willing to work for tasks with lower or higher training value. Both employers and workers are likely to hire/work when making decisions for others, showing that these decisions are not also not the result of personal relational benefits (signaling, networking).

Thus, redistribution via work appears to be driven by a social value, that is, orthogonal to productivity or self-serving, attached to work that is shared by both parties, as confirmed in the motivations for work redistribution self-reported by employers and workers. We interpret these results as evidence in support of a social function of labor markets in poor countries. In particular, our results show for the first time that labor demand in these contexts extends beyond profit-maximization purposes, lending empirical backing to one of the fundamental assumptions underlying surplus labor models.

Implications for firm productivity Our findings have important implications for understanding firm productivity and the organization of production in poor countries. Work redistribution is substantial, with nearly half of the employers reporting to engage

in it. On average, employers who hire workers to help them out, have hired four additional workers in the past month. Each of these workers is allocated work that amounts to a full week's pay for a single worker. Collectively, this amounts to approximately 4% of the firm's monthly profits.

Giving via work also directly and indirectly impacts the organization of production. Given that several employers (38.4% in August 2022 and 28.3% in March 2023) report providing work despite not needing labor, giving via work implies a mechanical reduction in output per worker—a key measure of firm productivity. Additionally, our survey evidence, summarized in Online Appendix Figure B.11, suggests that every extra worker hired requires additional resources, such as monitoring time (14.1%), tools or machines (18.2%), or capital (19.2%).

Work redistribution thus can distort the organization of production and firm performance even absent redistribution pressures, that is, even if employers do not try to avoid giving. More generally, the fact that owners and managers make hiring decisions orthogonal to productivity considerations can help explain why opportunities are left on the table (De Mel et al., 2008; Fafchamps et al., 2014; Banerjee et al., 2022) or why managers' training programs fail to have significant impacts (Atkin et al., 2019).

Implications for social assistance programs Our findings are relevant to the implementation of social assistance programs in poor countries. Consistent with Banerjee et al. (2017), and contrary to the stereotype of "lazy welfare recipients," our results suggest that workfare programs, which require beneficiaries to engage in work-related activities in exchange for assistance, not only have targeting benefits (Bertrand et al., 2021; Besley and Coate, 1992) but also better align with individuals' preferences for redistribution. Our results are not in contradiction with the work of Alik-Lagrange and Ravallion (2018), which shows direct disutility of work requirements in India. It is possible that recipients' preferences for work redistribution in our context are influenced by the familiarity and similarity of the offered task to their normal job. A similar perspective may also apply to the debate between unconditional and conditional cash transfers. While unconditional cash transfers are often seen as more cost-effective (Haushofer and Shapiro, 2016), they lack an element of reciprocity and may be perceived as unfair. Further research is needed to explore whether large-scale workfare or welfare programs, by reducing the need for informal social assistance, could have positive effects on firm productivity in poor countries.

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A Appendix Figures

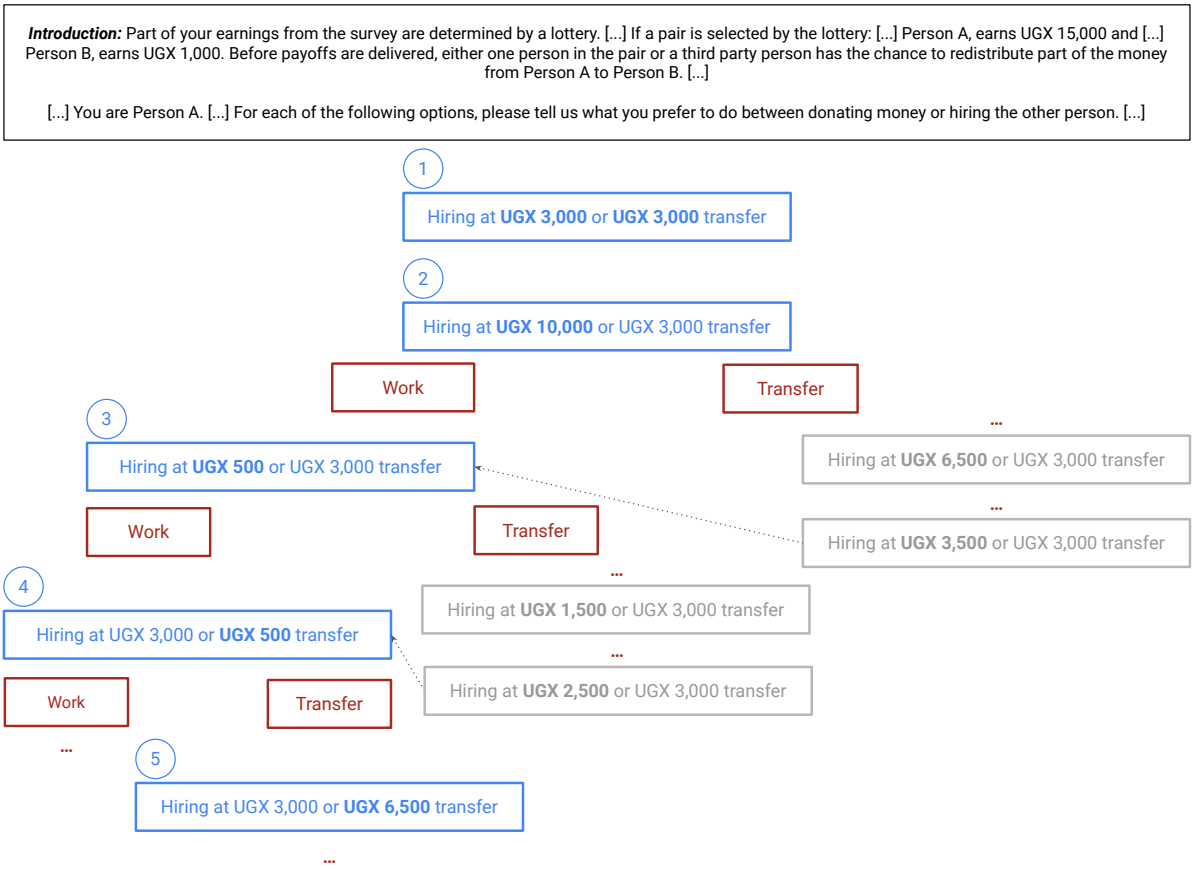


Figure A1: Experimental flow example

Note: The figure presents a visualization of the flow for the redistribution choices of employers. The questions in the blue boxes are asked to every respondent. When a respondent switches from hiring to donation or vice versa, we dynamically lower/increase the price to find the switching point (gray boxes). In this illustration, we assume that the employer, person A, chooses hiring at the equal choice (blue box 1). This implies that a switching point only occurs if the respondent opts for transfer when deciding between a UGX 10,000 wage and a UGX 3,000 transfer (blue box 2). In this case, we show the choices in the gray boxes. If not, we directly proceed to the choice between a UGX 500 wage and a UGX 3,000 transfer (blue box 3).

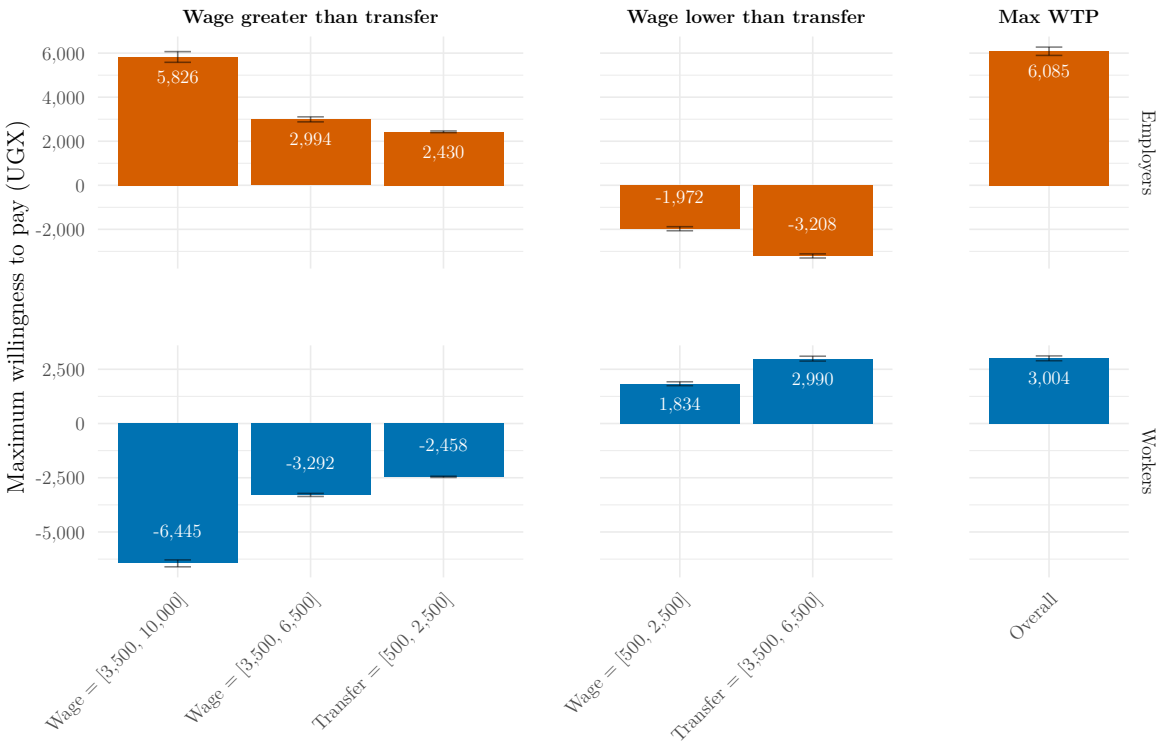


Figure A2: Willingness to pay for work redistribution

Note: The figure summarizes the main results from the Main Game, with respect to the willingness-to-pay outcome. Maximum willingness to pay is the largest difference between the wage associated with the work arrangement, conditional on choosing work redistribution, and the alternative cash transfer. Note that the willingness to pay for workers is mechanically lower than for employers as we do not allow for negative wages. Each bar represents the willingness to pay within a range of varying wages or transfers. Confidence intervals are at the 95% level.

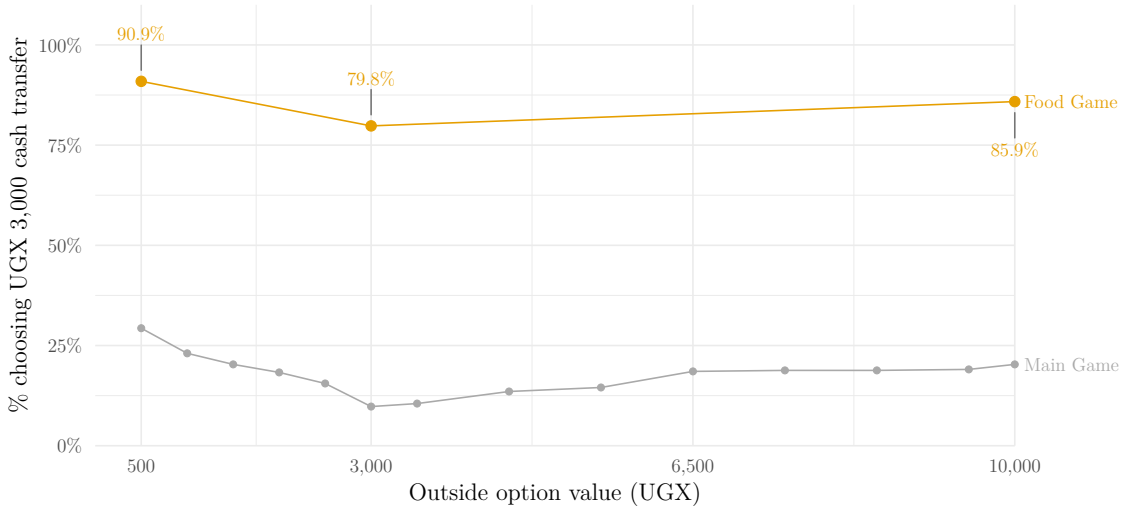


Figure A3: Food versus Cash Game: Giving via cash

Note: The figure plots the share of the redistribution choices of UGX 3,000 unconditional cash transfers when the outside option is a meal or snack worth UGX 500, UGX 3,000, or UGX 10,000. The data are from our follow-up phone survey, which consists of a random selection of employers (N = 99) from the main sample. As a comparison, the gray line plots the employers' cash transfer redistribution decisions from the Main Game, where the outside option is a wage ranging from UGX 500 to UGX 10,000.

B Appendix Tables

Table B1: Giving via work in the Main Game and firm outcomes

	(1) N workers (std)	(2) N permanent workers (std)	(3) N machines (std)	(4) Workers' earnings (std)	(5) Management score (std)	(6) Manager pay (std)	(7) Firm profits (log)	(8) Firm revenues (log)	(9) Firm sales (log)	(10) Revenues UGX 250,000 (log)
Panel A: Without controls										
Giving via work	0.016	0.036	-0.018	-0.010	0.072	0.012	0.003	0.027	0.016	0.002
	(0.011)	(0.010)	(0.011)	(0.017)	(0.015)	(0.023)	(0.028)	(0.030)	(0.024)	(0.002)
Max amount given (thousand UGX)	-0.006	-0.028	0.072	0.030	-0.050	0.103	0.020	0.013	0.010	-0.014
	(0.020)	(0.018)	(0.025)	(0.034)	(0.034)	(0.059)	(0.052)	(0.053)	(0.051)	(0.007)
Fixed effects										
Task	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Firm location	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Main activity	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Dependent variable mean	6.419	1.857	2.496	276.869	0.000	365.115	7.419	9.214	1.715	5.635
Obs.	399	399	399	370	399	130	303	338	387	372
Panel B: With controls										
Giving via work	0.022	0.037	-0.011	-0.001	0.073	0.011				
	(0.008)	(0.009)	(0.012)	(0.020)	(0.018)	(0.026)				
Max amount given (thousand UGX)	-0.015	-0.045	0.059	0.018	-0.067	0.116				
	(0.014)	(0.019)	(0.025)	(0.036)	(0.037)	(0.070)				
Firm revenues (monthly, thousand UGX)	0.000	0.000	0.000	0.000	0.000	0.000				
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)				
Firm sales (monthly, tons)	0.010	0.006	0.002	0.004	0.002	-0.008				
	(0.002)	(0.002)	(0.002)	(0.001)	(0.001)	(0.020)				
Fixed effects										
Task	Y	Y	Y	Y	Y	Y				
Firm location	Y	Y	Y	Y	Y	Y				
Main activity	Y	Y	Y	Y	Y	Y				
Dependent variable mean	6.419	1.857	2.496	276.869	0.000	365.115				
Obs.	334	334	334	311	334	103				

Note: The table presents data from the Main Game, focusing on the relationship between hiring preferences and firm inputs. *Giving via work* is the sum of the respondent's work redistribution choices (range = [0, 22], mean = 19.03). *Max amount given (thousand UGX)* is the largest amount given in the Main Game by each respondent in thousand Ugandan shillings (range = [3, 10], mean = 8.94). *Firm sales* are the monthly sales in tons, and *Firm profits* are recorded for August 2022 in thousand Ugandan shillings. *N workers* is the number of workers (permanent and casual) employed at the interview date. *N permanent workers* denotes the number of permanent workers employed on a typical day in August 2022 for the production of the firm's main product. *N machines* is the number of different machine types the respondent firm uses (owned or rented). *Workers' earnings* is the monthly wage of employed permanent workers in a thousand Ugandan shillings. The *Management score* is calculated as the standardized sum of the answers to 15 questions on management practices as in Bassi et al. (2022). *Manager pay* (thousand UGX) is defined as the respondent's estimate of the monthly earnings of managers of nearby firms, collected from 32% of employers. All the dependent variables in (1) -(6) are standardized and standard errors are clustered at the respondent level. Dependent variable means in column 1-6 refer to the non-manipulated variables.

Work Over Just Cash: Informal Redistribution Among Employers and Workers in Kampala, Uganda Online Appendix

Jul 28, 2023

A Benchmarks

In this appendix, we derive a set of plausible benchmarks for the redistribution behavior of employers and workers in the experiment: profit maximization, generosity, inequality aversion and targeting an optimal amount given.

Set-up Let the wage in the game be defined as w, while the unconditional cash transfer is t. There are two players, the employer and the worker, indexed with $i \in (A, B)$. Person A is the employer, while person B the worker. l_i is the initial endowment of each player. v the value of work. The function $h_i(w, t, v)$ represents the choice of choosing work redistribution at the combination of wage w and unconditional cash transfer t of each respondent, and the value of work v. For simplicity, in this analysis we assume that work has always the same value, the market wage, for the employer across all tasks and that the work has no monetary economic value for the worker. Therefore, the work redistribution choice function is defined as:

$$h_i(w,t) = \begin{cases} 1 & \text{if respondent } i \text{ chooses to hire/work at } w \text{ and } t, \\ 0 & \text{if respondent } i \text{ chooses to give/receive cash at } w \text{ and } t. \end{cases}$$

We denote p_i as respondent i's payoff functions, which depends on their choice at wage

w and transfer t. Thus,

$$\text{Employer's payoff} = p_A = \begin{cases} l_A + v - w & \text{if } h_A(w,t) = 1 \\ l_A - t & \text{if } h_A(w,t) = 0 \end{cases}$$

$$\text{Worker's payoff} = p_B = \begin{cases} l_B + w & \text{if } h_B(w,t) = 1 \\ l_B + t & \text{if } h_B(w,t) = 0 \end{cases}$$

The initial endowments are set such that $l_A = 15{,}000$ and $l_B = 1{,}000$, and the value of work is $v = 3{,}000$. The wage w can take values in between 500 and 10,000, while the transfer t varies within 500 and 6,500. When the wage or transfer are different from 3,000, the corresponding wage and transfer is fixed at $\bar{w} = \bar{t} = 3{,}000$. Hence, the set of (w,t) combinations is defined as $(w,t) \in [500,\ 10{,}000] \times [3{,}000] \cup [3{,}000] \times [500,\ 6{,}500]$.

Our goal is to derive the decision rule $h_i^*(w,t)$, which outlines respondent i's choices for hiring or receiving work at wage w and transfer t according to the above-mentioned set of optimization problems. For ease of exposition, we present the results of the analysis in two parts. First, we investigate respondents' decisions for the subset of choices when the wage is varying and the transfer is fixed at $\bar{t}$. Second, we derive respondents' decisions as a function of the transfer when the wage is fixed at $\bar{w}$. All values should be understood and measured in Ugandan shillings.

Benchmark 1: Payoff maximization Suppose each respondent's objective is to maximize their payoff $p_i(.)$. We are interested in the choice $h_i(w,t)$ at every w and t combination. The decision rule that maximizes payoff at every (w,t) combination is determined by $h_i^*(w,t) = \arg\max_{h(.)} p_i(w,t)$.

First, consider the payoff of person A, the employer. Remember that $v = 3{,}000$, and $l_A = 15{,}000$. For all $w \in [500, 10{,}000]$, then the transfer is fixed at $\bar{t} = 3{,}000$, so that:

$$p_A(w,t|t=\bar{t}) = \begin{cases} 15{,}000 - w + v & \text{if } h_A(w,t) = 1, \\ 12{,}000 & \text{if } h_A(w,t) = 0 \end{cases}$$

thus, a payoff-maximizing employer should hire at any wage $w \leq 6{,}000$, when $\bar{t} = 3{,}000$. For all $t \in [500, 6{,}500]$, the wage is fixed at $\bar{w} = 3{,}000$. Thus:

$$p_A(w,t|w=\bar{w}) = \begin{cases} 15{,}000 & \text{if } h_A(w,t) = 1, \\ 15{,}000 - t & \text{if } h_A(w,t) = 0, \end{cases}$$

thus, a payoff-maximizing employer should hire at any transfer $t \in [500, 6{,}500]$, when $\bar{w} =$ 3,000. Combining both, we arrive at the decision rule which is illustrated in Appendix Figure A.1 and summarized as follows:

$$h_A^*(w,t) = \begin{cases} 1 & \text{if } (w,t) \in [500,\ 6{,}000] \times [3{,}000] \cup [3{,}000] \times [500,\ 6{,}500] \\ 0 & \text{if } (w,t) \in [500,\ 10{,}000] \times [3{,}000]. \end{cases}$$

Consider the payoff of person B, the worker. Remember that and $l_B = 15{,}000$. For all $w \in [500, 10{,}000]$, then the transfer is fixed at $\bar{t} = 3{,}000$, so that:

$$p_B(w,t|t=\bar{t}) = \begin{cases} 1{,}000 - w & \text{if } h_B(w,t) = 1, \\ 1{,}000 & \text{if } h_A(w,t) = 0 \end{cases}$$

thus, a payoff-maximizing worker should work at any wage $w \geq 3{,}000$, when $\bar{t} = 3{,}000$. For all $t \in [500, 6{,}500]$, the wage is fixed at $\bar{w} = 3{,}000$. Thus:

$$p_B(w,t|w=\bar{w}) = \begin{cases} 1{,}000 & \text{if } h_B(w,t|w=\bar{w}) = 1, \\ 1{,}000 - t & \text{if } h_B(w,t|w=\bar{w}) = 0, \end{cases}$$

a profit-maximizing worker should work at any transfer $t \leq 3{,}000$, when $\bar{w} = 3{,}000$. Combining both, we arrive at the decision rule which is illustrated in Appendix Figure A.1 and summarized as follows:

$$h_B^*(w,t) = \begin{cases} 1 & \text{if } (w,t) \in [3{,}000,\ 10{,}000] \times [3{,}000] \cup [3{,}000] \times [500,\ 3{,}000] \\ 0 & \text{if } (w,t) \in [500,\ 3{,}000] \times [3{,}000] \cup [3{,}000] \times [3{,}000,\ 6{,}500] \end{cases}$$

Person B opts to receive work when the wage w exceeds the transfer t, and conversely choose to accept the transfer if t surpasses the wage w. This divergence from Person A's behavior stems from the fact that person B does not derive value from work.

Benchmark 2: Generosity Assume that person A aims to maximize giving, while Person B's objective is to minimize receipts. The benchmark decision rules can be defined as $h_A^*(w,t) = \arg\max_{h(.)} h(w,t)w + (1 - h(w,t))t$ for employers and $h_B^*(w,t) = \arg\min_{h(.)} h(w,t)w + (1 - h(w,t))t$ for workers.

The amount that given or received depends directly on the wage or transfer given, so a generous employer (worker) should choose hiring or giving a cash transfer to maximize

(minimize) the following function:

$$h_i(w,t)w + (1 - h_i(w,t))t = \begin{cases} w & \text{if } h_i(w,t) = 1, \\ t & \text{if } h_i(w,t) = 0. \end{cases}$$

For Person A, the decision rule results in:

$$h_A^*(w,t) = \begin{cases} 1 & \text{if } (w,t) \in [3{,}000,\ 10{,}000] \times [3{,}000] \cup [3{,}000] \times [500,\ 3{,}000], \\ 0 & \text{if } (w,t) \in [500,\ 3{,}000] \times [3{,}000] \cup [3{,}000] \times [3{,}000,\ 6{,}500], \end{cases}$$

while for person B, it results in:

$$h_B^*(w,t) = \begin{cases} 1 & \text{if } (w,t) \in [500,\ 3{,}000] \times [3{,}000] \cup [3{,}000] \times [3{,}000,\ 6{,}500], \\ 0 & \text{if } (w,t) \in [3{,}000,\ 10{,}000] \times [3{,}000] \cup [3{,}000] \times [500,\ 3{,}000]. \end{cases}$$

To summarize, person A, who aims to maximize giving, should hire when the wage w is greater or equal than the transfer t, while they should give cash when the transfer t exceeds w. Similarly, for Person B, who aims to minimize receiving, the optimal strategy is always to choose the lesser amount between the wage and transfer. See Appendix Figure A.2 for a graphical illustration of the shape of the decision rules h_A^* and h_B^* and the implied payoffs.

Benchmark 3: Inequality aversion A plausible objective for respondents is to use redistribution to minimize inequality within the pair, namely to get as close as possible to a 50-50 split of the sum of the two payoffs. Formally, this results in the decision rule $h_i^*(w,t) = \arg\min_{h(w,t)} |p_A(h(w,t),w,t) - p_B(h(w,t),w,t)|$, namely minimize the absolute value of the difference in the final payoffs of person A and person B.

The absolute value of the difference in payoffs for all wages $w \in [500, 10{,}000]$ is:

$$p_A(.|t = \bar{t}) - p_B(.|t = \bar{t}) = \begin{cases} 17{,}000 - 2w & \text{if } h_A(w,t) = 1, \\ 14{,}000 & \text{if } h_A(w,t) = 0 \end{cases}$$

thus, for those decisions when transfer is fixed as when $\bar{t} = 3{,}000$, both person A and person B should choose work redistribution at any wage $w \geq 4{,}500$.

For all $t \in [500, 6{,}500]$, instead, the difference in payoffs is:

$$p_A(.|w=\bar{w}) - p_B(.|w=\bar{w}) = \begin{cases} 11{,}000 & \text{if } h_B(w,t)=1, \\ 14{,}000 - 2t & \text{if } h_B(w,t)=0, \end{cases}$$

thus, when the wage is constant at $\bar{w} = 3{,}000$, both person A and person B should choose work redistribution for any transfer $t \leq = 1{,}500$.

Combining both, we arrive at the decision rule which is illustrated in Appendix Figure A.3 and summarized as follows:

$$h_i^*(w,t) = \begin{cases} 1 & \text{if } (w,t) \in [4{,}500,\ 10{,}000] \times [3{,}000] \cup [3{,}000] \times [500,\ 1{,}500] \\ 0 & \text{if } (w,t) \in [500,\ 4{,}500] \times [3{,}000] \cup [3{,}000] \times [1{,}500,\ 6{,}500] \end{cases}$$

See Appendix Figure A.3 for a graphical illustration of the shape of the decision rules h_i^* and the implied payoffs.

Benchmark 4: Target a shared amount different from 50% An alternative option is that respondents may want to give/receive an amount that is not 50%. In fact, in the unrestricted preferences for redistribution most respondents state that the person A should give about UGX 4,500 — close to a 30-70 split of the sum of the endowments (see Appendix Figure B.3).

The decision rule that minimizes the distance from a 30-70 split of the payoffs is: $h_i^*(w,t) = \arg\min_{h(w,t)} h(w,t)|w - 4{,}500| + (1 - h(w,t))|t - 4{,}500|$.

First, for all $w \in [500, 10{,}000]$, then the transfer is fixed at $\bar{t} = 3{,}000$, so that:

$$h(.|t=\bar{t})|w-4{,}500| + (1-h(.|t=\bar{t}))|t-4{,}500| = \begin{cases} |w-4{,}500| & \text{if } h_i(w,t|w=\bar{w})=1, \\ 1{,}500 & \text{if } h_i(w,t|w=\bar{w})=0 \end{cases}$$

thus, the respondent should hire at any wage $3{,}000 \leq w \leq 6{,}000$, when $\bar{t} = 3{,}000$. Consider that for all $t \in [500, 6{,}500]$, the wage is fixed at $\bar{w} = 3{,}000$. Thus:

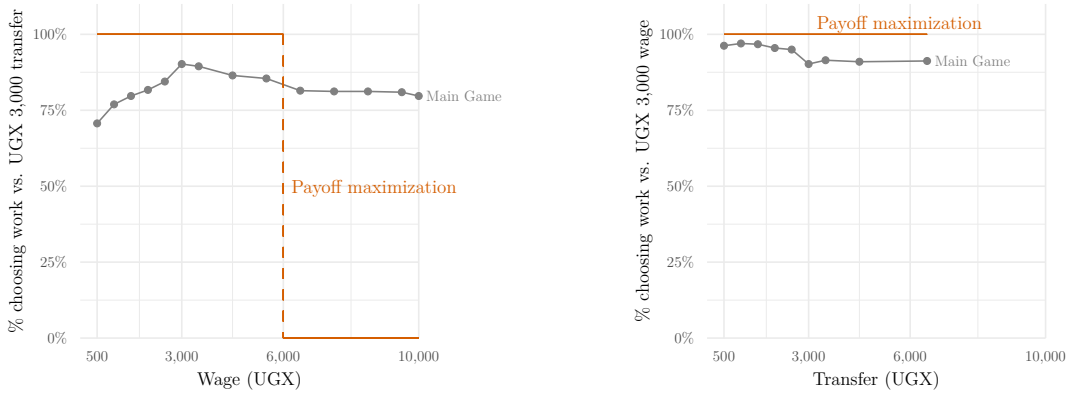
$$h(.|w=\bar{w})|w-4{,}500| + (1-h(.|w=\bar{w}))|t-4{,}500| = \begin{cases} 1{,}500 & \text{if } h_i(w,t|w=\bar{w})=1, \\ |t-4{,}500| & \text{if } h_i(w,t|w=\bar{w})=0. \end{cases}$$

a respondent should hire at any transfer $t \leq = 1{,}500$ and $t \geq = 6{,}000$, when $\bar{w} = 3{,}000$. Combining both, we arrive at the decision rule summarized as follows:

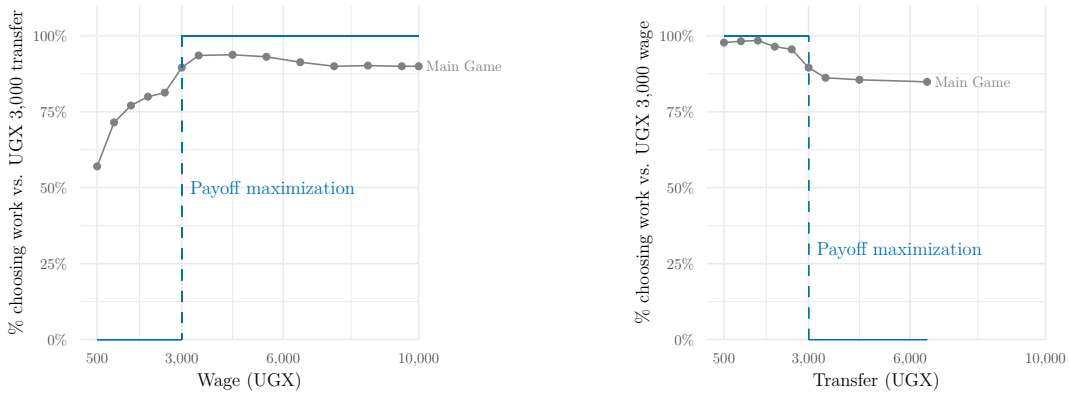
$$h_i^*(w,t) = \begin{cases} 1 & \text{if } (w,t) \in [3{,}000,\ 6{,}000] \times [3{,}000] \cup [3{,}000] \times \{[500, 3,000] \cup [6000, 6,500] \\ 0 & \text{if } (w,t) \in [500,\ 3{,}000] \cup [6{,}000,\ 10{,}000] \times [3{,}000] \cup [3{,}000] \times [3{,}000,\ 6{,}000] \end{cases}$$

The rationale behind the indifference points at 3,000 and 6,000 is that they are always 1,500 away, which is implied by the outside option. See Appendix Figure A.4 for a graphical illustration of the shape of the decision rules h_i^* and the implied payoffs.

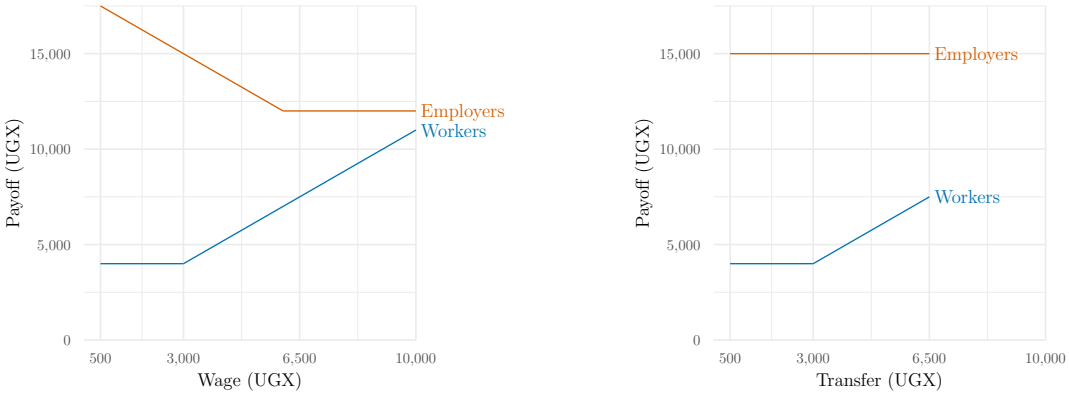
Graphical representations



(a) Employers' decision function ($h^*_A(w,t)$)



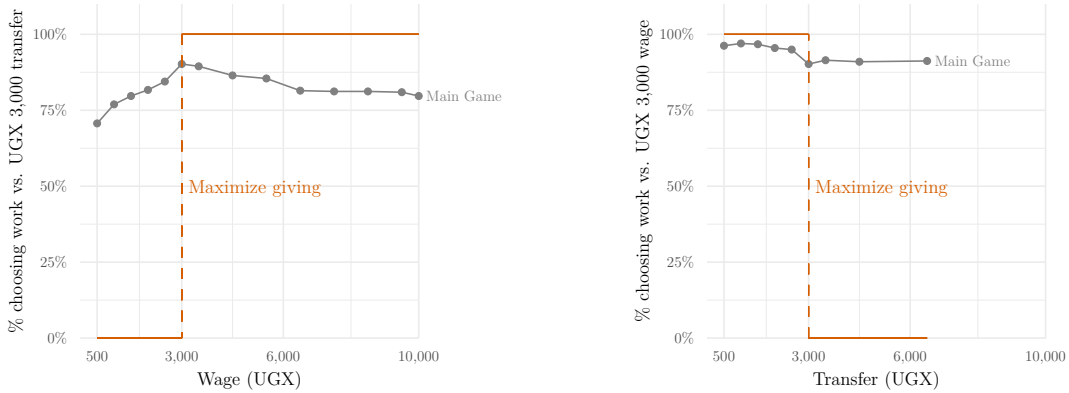
(b) Workers' decision function ($h^*_B(w,t)$)



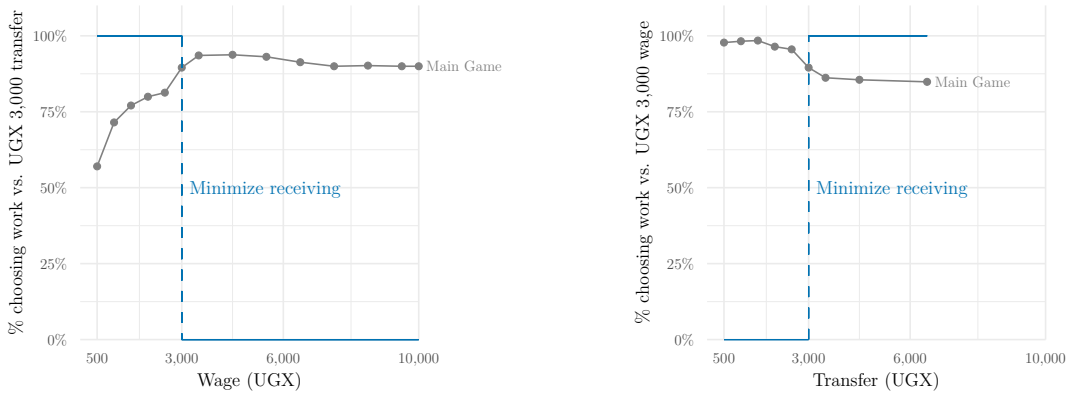
(c) Payoffs functions

Figure A.1: Benchmark 1: Payoff maximization

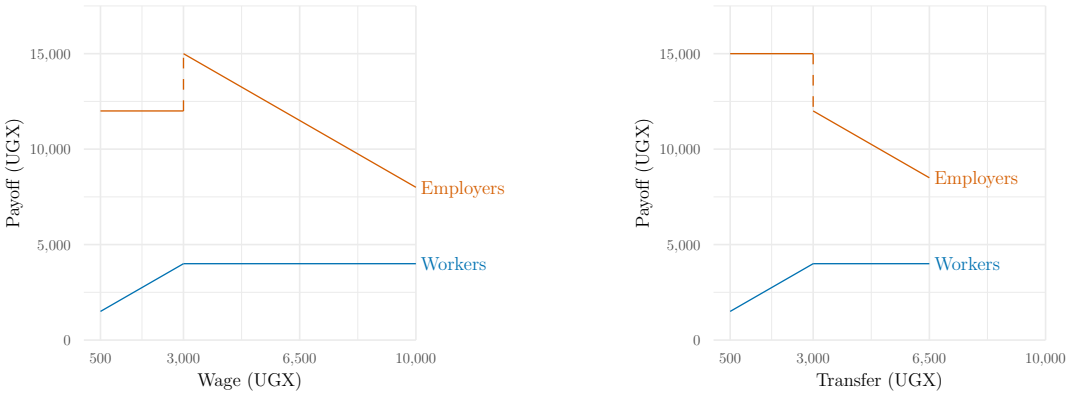
Note: The figures illustrate Benchmark 1 from Appendix A, which derives a benchmark where both employers and workers aim to maximize their payoffs. Panel A delineates the decision function $h^*_A(.)$, representing the optimal choice that maximizes the employer's (A) payoffs. Conversely, Panel B illustrates the decision function $h^*_B(.)$, denoting the choice that yields maximum payoffs for the worker (B). Both panels compare the respective decision function with data drawn from the Main Game. Lastly, Panel C presents the resulting payoffs derived from these decision functions.



(a) Employers' decision function ($h^*_A(w,t)$)



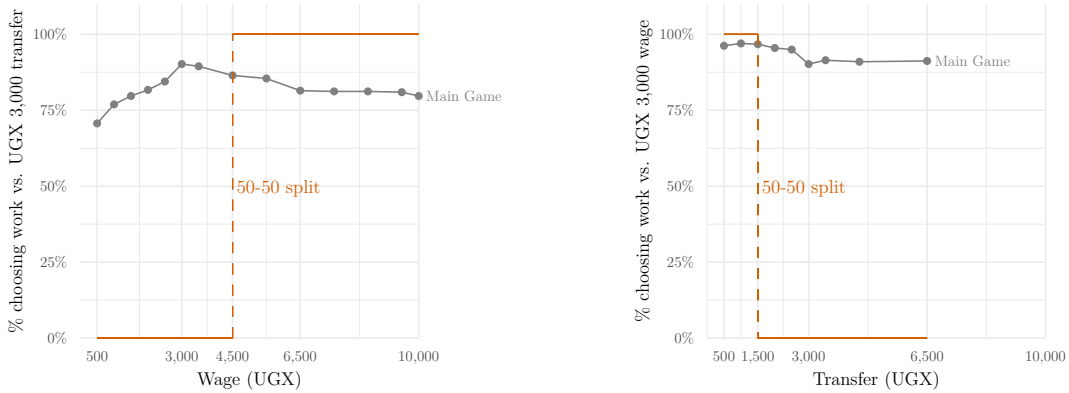
(b) Workers' decision function ($h^*_B(w,t)$)



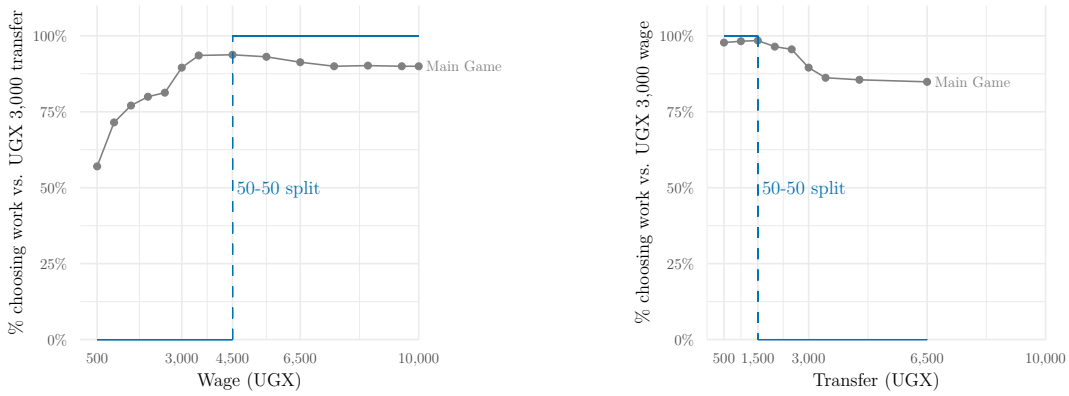
(c) Payoff functions

Figure A.2: Benchmark 2: Maximize giving (employers) and minimize receiving (workers)

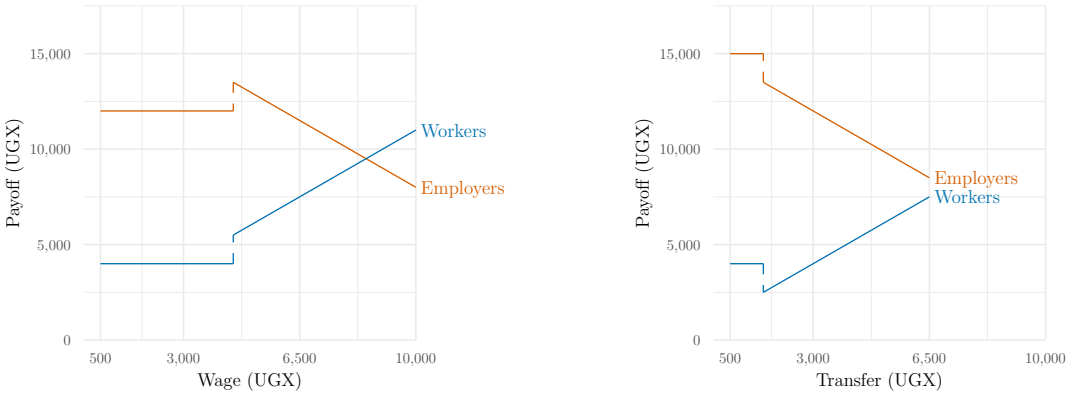
Note: The figures illustrate Benchmark 2 from Appendix A, where Person A, the employer, aims to maximize giving, and Person B, the worker, seeks to minimize receipts. Panel A presents the decision function $h^*_A(.)$, representing the optimal choice that maximizes giving for A. Conversely, Panel B shows the decision function $h^*_B(.)$, which denotes the decision that minimizes receipts for B. Both panels compare the respective decision function with data drawn from the Main Game. Lastly, Panel C displays the payoffs resulting from these decision functions.



(a) Employers' decision function ($h^*_A(w,t)$)



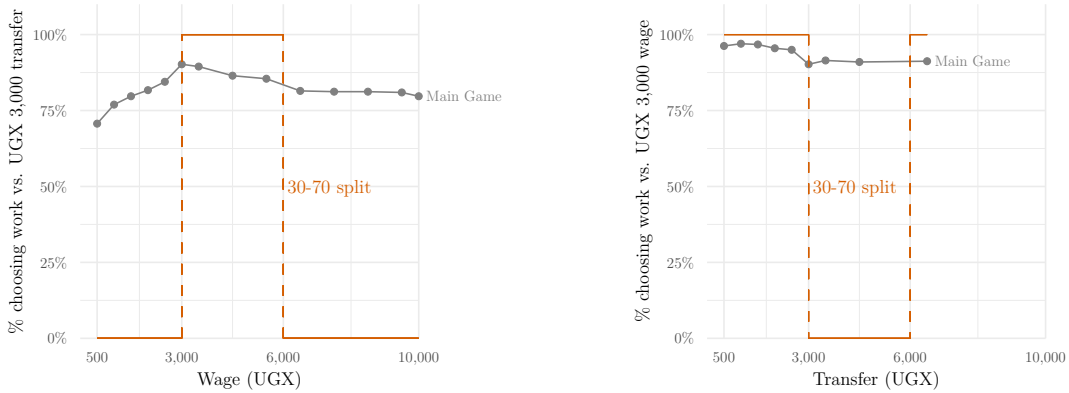
(b) Workers' decision function ($h^*_B(w,t)$)



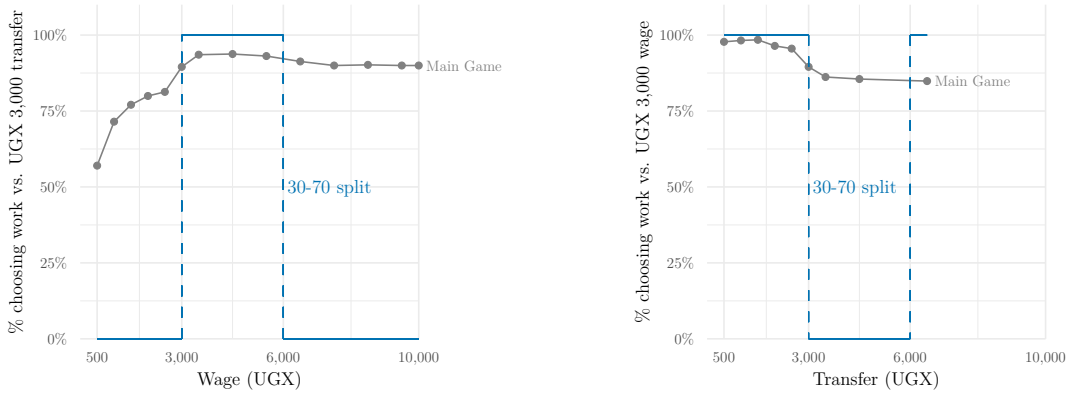
(c) Payoff functions

Figure A.3: Benchmark 3: 50-50 split

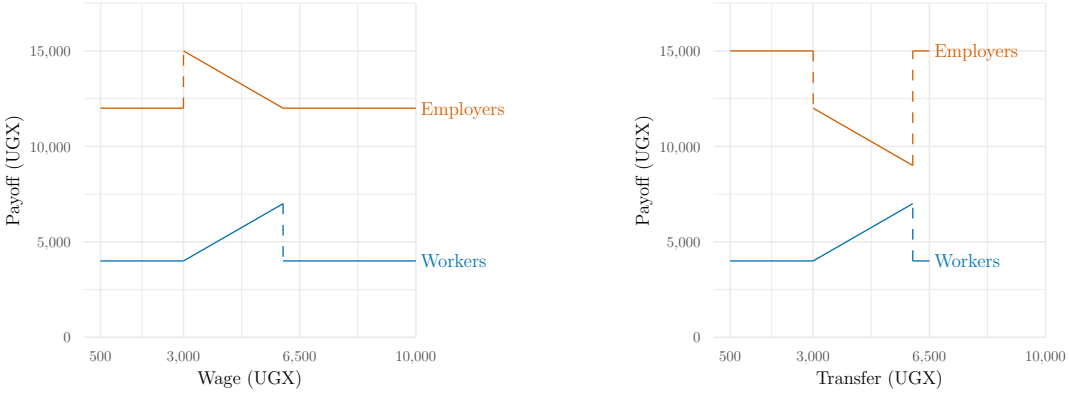
Note: The figures showcase Benchmark 3 from Appendix A, under the assumption that a respondent intends to distribute payoffs as evenly as possible, thereby minimizing the difference between Person A's and Person B's payoffs. Panel A displays the decision function $h^*_A(.)$, representing the optimal choice that contributes to minimizing this payoff difference for A. Conversely, Panel B illustrates the decision function $h^*_B(.)$ for person B. Both panels compare the respective decision function with data drawn from the Main Game. Lastly, Panel C displays the payoffs resulting from these decision functions.



(a) Employers' decision function ($h_A^*(w,t)$)



(b) Workers' decision function ($h_B^*(w,t)$)



(c) Payoff functions

Figure A.4: Benchmark 4: Target UGX 4,500 giving

Note: The figures represent Benchmark 4 from Appendix A, predicated on the assumption that respondents aim to approximate a 30-70 split (UGX 4,500) in payoffs as closely as possible. Panel A outlines the decision function $h_A^*(.)$, showcasing the optimal decision that best achieves this targeted split for Person A. Panel B exhibits the decision function $h_B^*(.)$ for person B. Both panels compare the respective decision function with data drawn from the Main Game. Lastly, Panel C displays the payoffs resulting from these decision functions.

B Figures

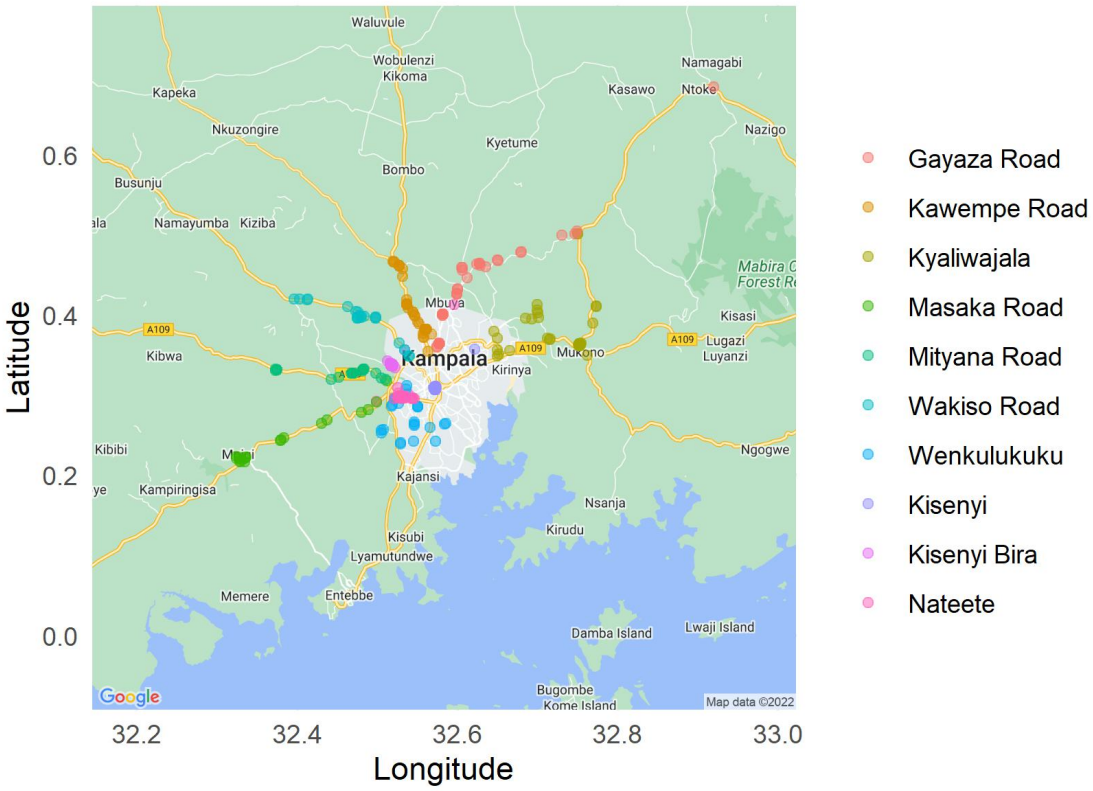
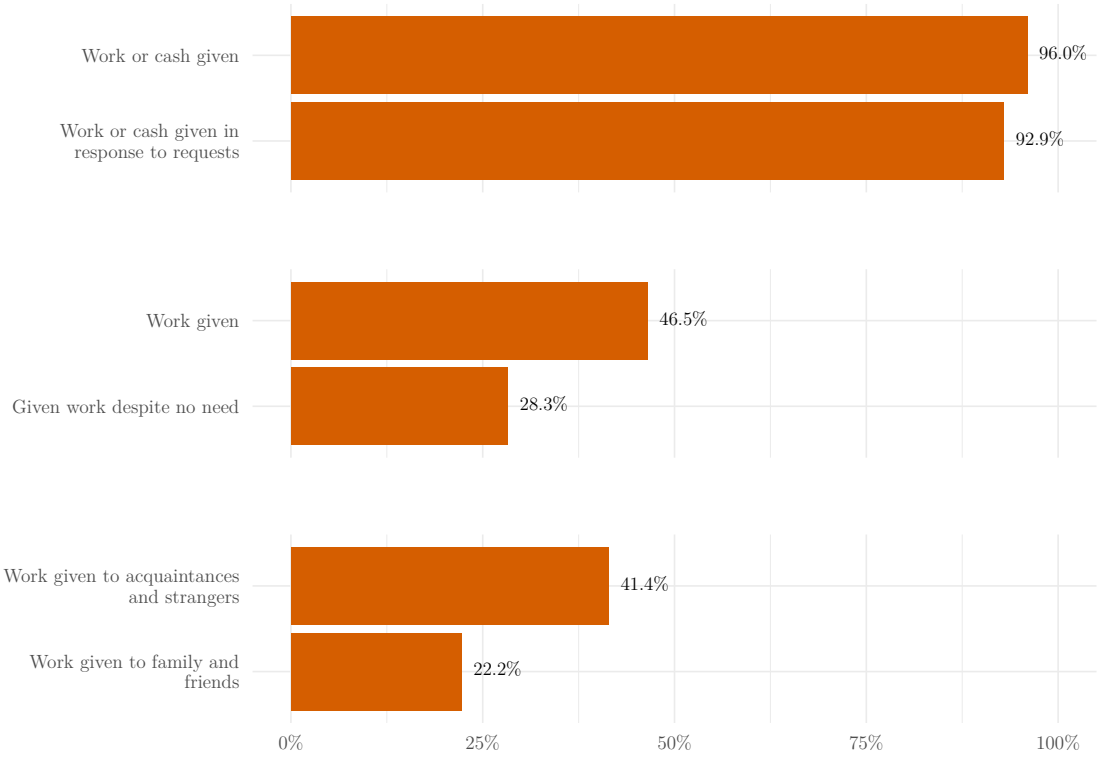
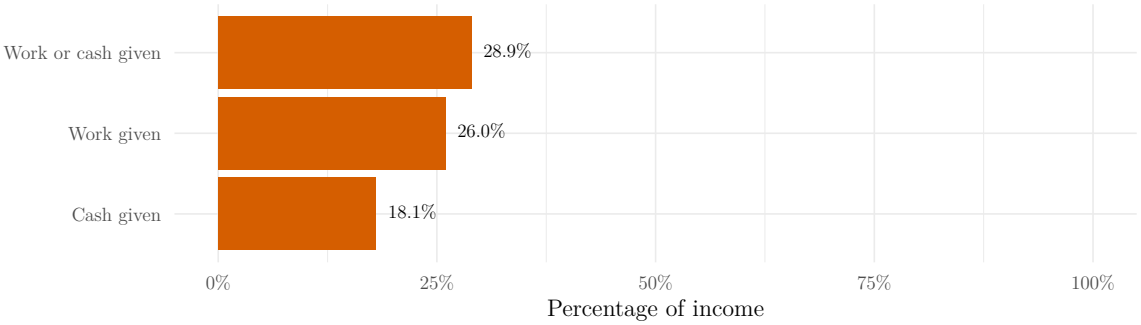


Figure B.1: Location of grain-processing firms

Note: The figure shows the locations of the 399 grain-processing firms for which we interview either the owner or manager in August 2022. The colors identify the area or road of the firm's location. For one firm, the GPS coordinates were not captured accurately.



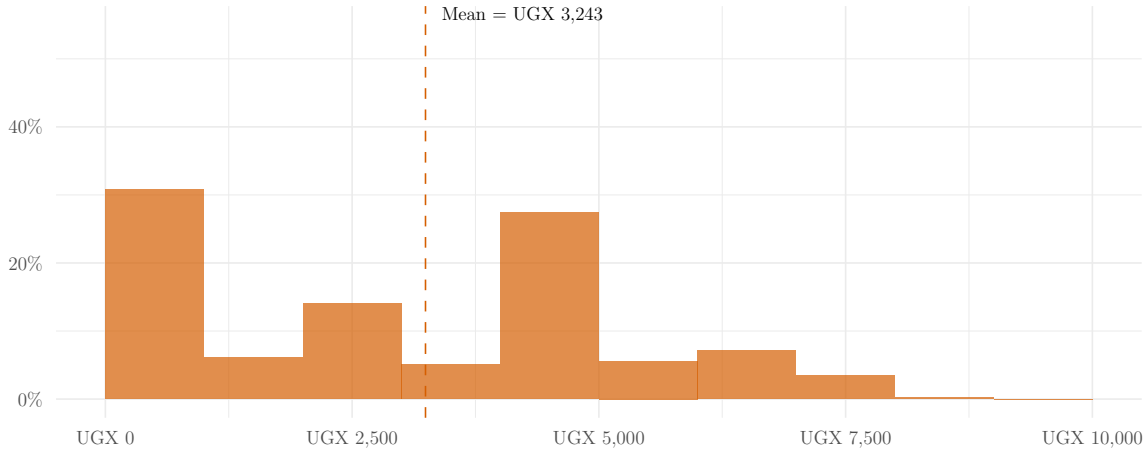
(a) Cash and work given



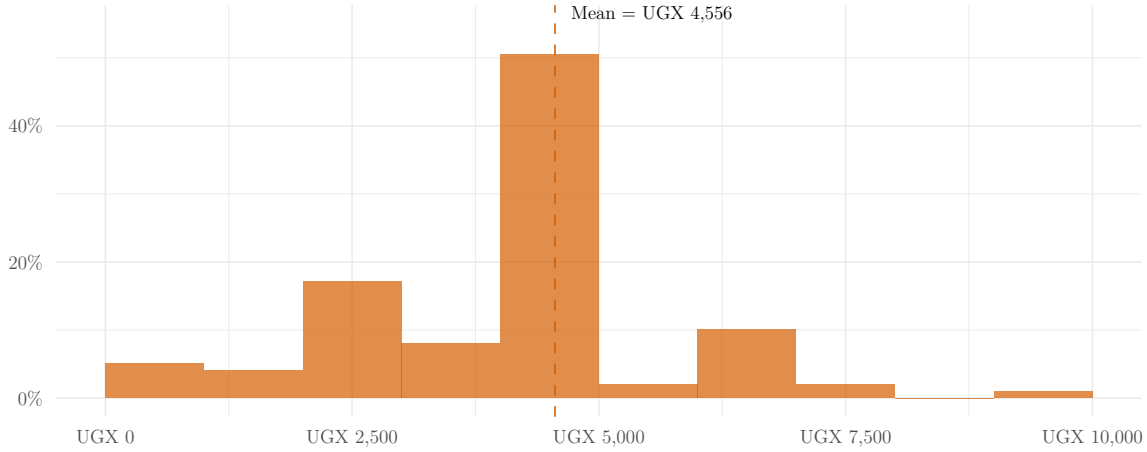
(b) Amount given, as percentage of income

Figure B.2: Employers' self-reported redistribution habits

Note: Panel A shows the percentage of respondents giving work or cash. Responses are considered over a one-month period. On average, 60.6% of respondents received work requests, 90.9% received cash requests. For the "work given despite no need" bar, employers are asked whether they have provided financial assistance by offering a job in the past month if the roles filled were a necessity. This is also asked a subset of respondents in the main survey (N = 138), where 46.4% report giving work, and 38.4% giving work despite having no need for the work given. Panel B displays the answers to the question "Last month, what is the total value of work [cash] you offered to anyone to support them financially?". Given any form of giving, employers on average offer work to 3.96 people and cash to 4.31 people. The average income, based on the follow-up survey, is UGX 560,740 (USD 147.56). Data from both panels are from our follow-up phone survey in March 2023.



(a) First-order beliefs



(b) Second-order beliefs

Figure B.3: Employers' self-reported redistribution preferences

Note: Panel A uses data from our main survey. Respondents reported their unconditional redistribution preferences before participating in the experiment. We ask respondents how much a lottery winner whose payoff was UGX 15,000 should give to an anonymous loser whose payoff was UGX 1,000. The bunching at zero in panel A can be likely attributed to the manner the question was asked, as we initially inquire if participants want to redistribute at all. Panel B uses data from our follow-up phone survey, which consists of a random selection of employers (N = 99) from the main sample. The question is worded as follows: "If we asked 10 employers or owners in Kampala the following question: 'Absent any constraints, how much money should Person A share?' What would be the most common amount?"

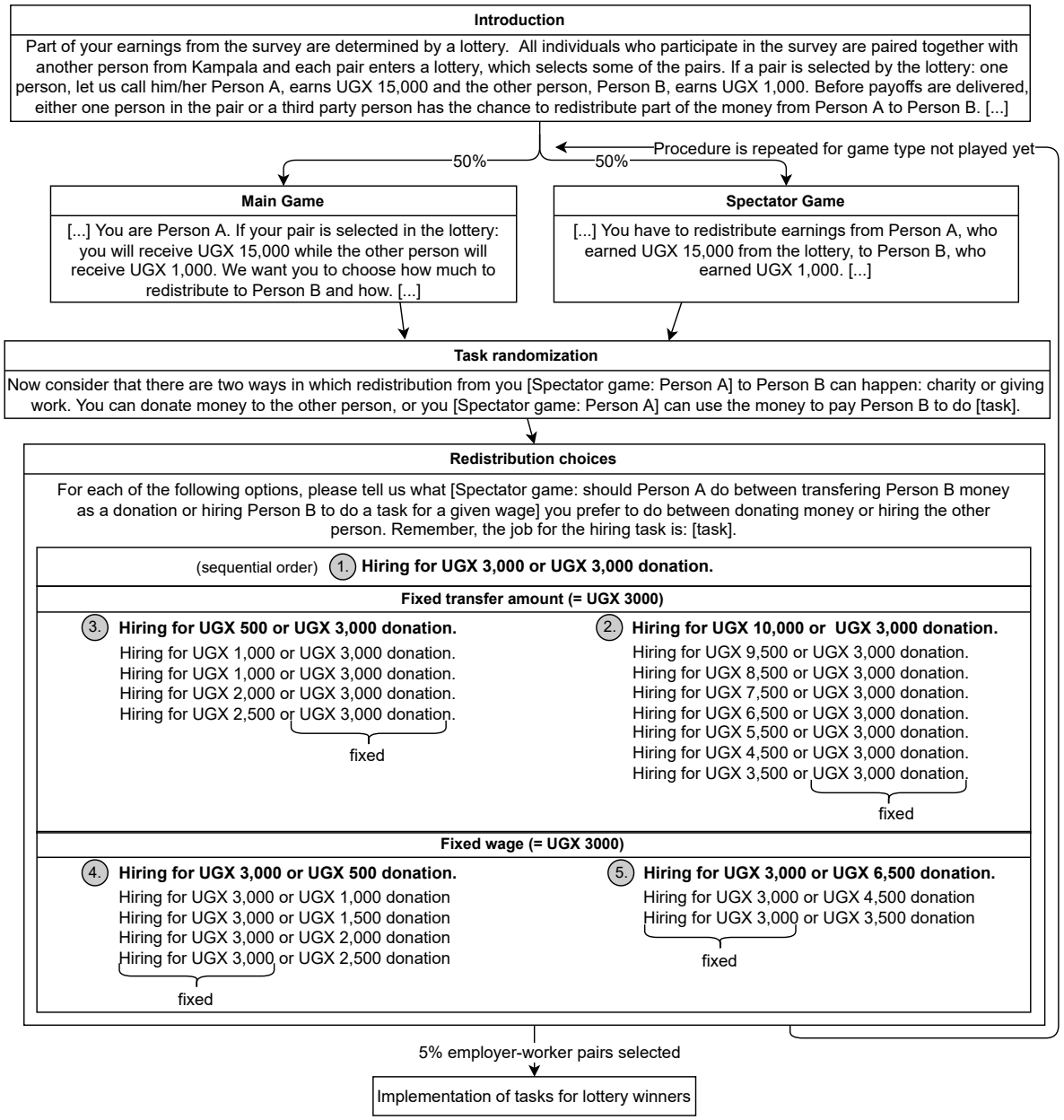


Figure B.4: Experimental flow and wording for employers

Note: The figure provides an overview of the experimental design for the employers. Each box contains the specific wording associated with each step in the preference part of the survey. The order of the Main Game and the Spectator Game is randomized. The task assignment is also randomized, with tasks including offloading, sealing, weighing, sweeping, and busywork. Consequently, the wording for the redistribution choice varies based on the game type and the assigned task. [task] offers a detailed description of the specific task assigned. All respondents are asked about the extreme cases of the redistribution choice (highlighted in bold), while subsequent choices are presented depending on the respondent's previous responses. The numbers 1–5 (shown in gray) indicate the sequence in which the choice blocks are presented.

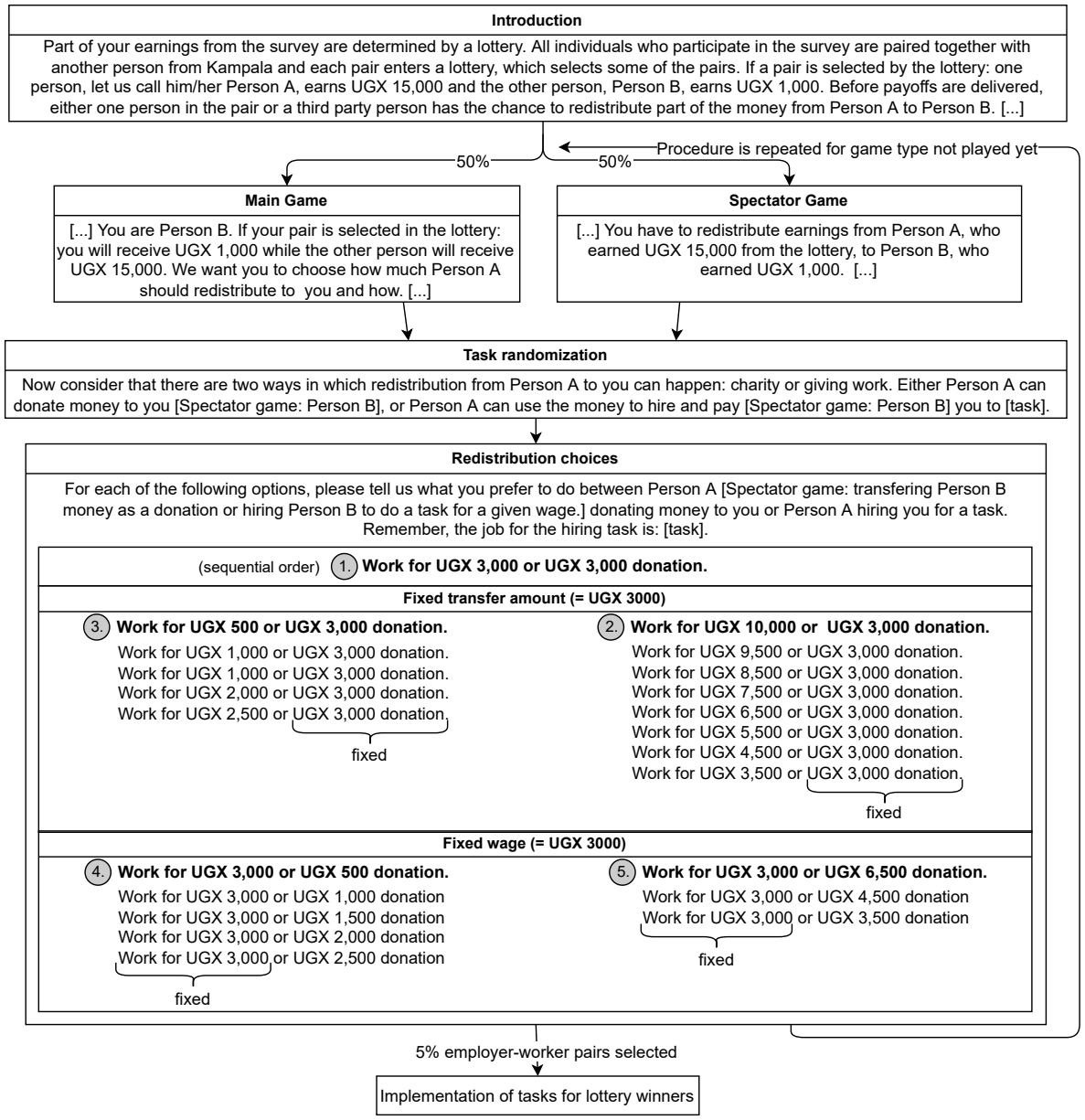


Figure B.5: Experimental flow and wording for workers

Note: The figure provides an overview of the experimental design for the workers. Each box contains the specific wording associated with each step in the preference part of the survey. The order of the Main Game and the Spectator Game is random. The task assignment is also randomized, with tasks including offloading, sealing, weighing, sweeping, and busywork. Consequently, the wording for the redistribution choice varies based on the game type and the assigned task. [task] offers a detailed description of the specific task assigned. All respondents are asked about the extreme cases of the redistribution choice (highlighted in bold), while subsequent choices are presented depending on the respondent's previous responses. The numbers 1–5 (shown in gray) indicate the sequence in which the choice blocks are presented.

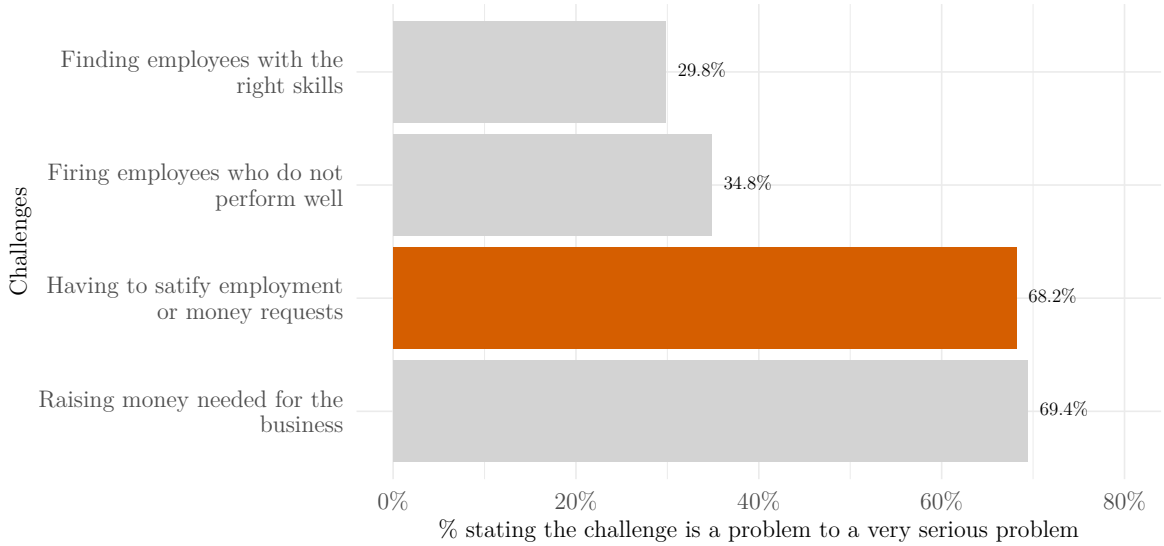
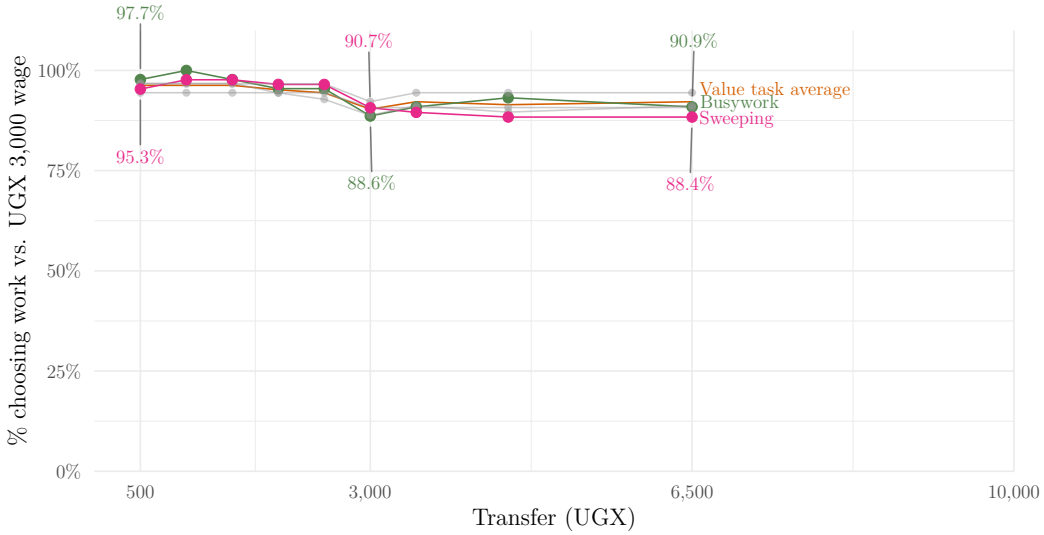
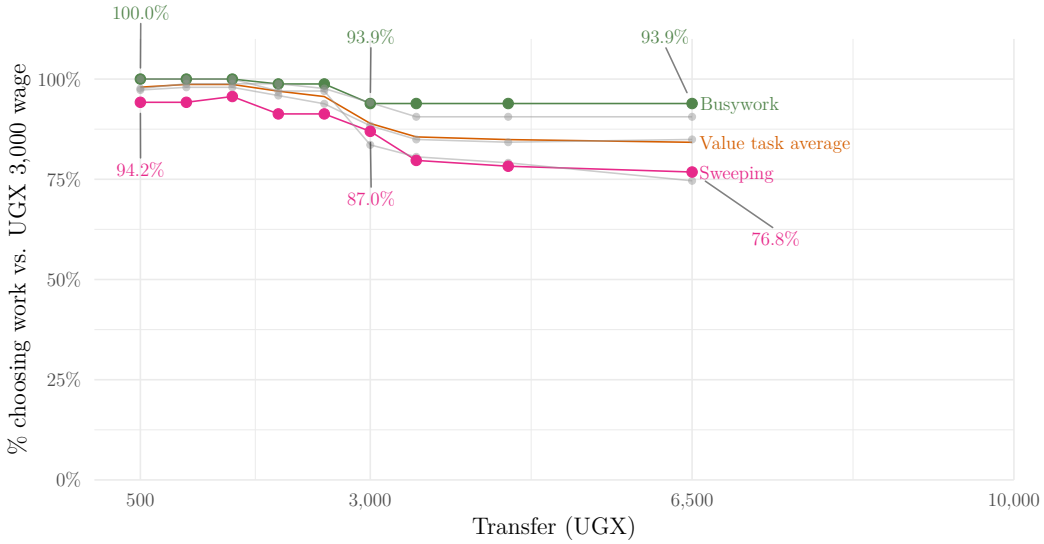


Figure B.6: "How problematic is the following issue when thinking about increasing the productivity of this business?"

Note: This figure summarizes the challenges respondents encounter in relation to their business' productivity. We aggregate responses that categorize the challenge as "a problem," "a serious problem," or "a very serious problem." Data are from the employers' survey (N = 399). We ask them to rank the magnitude of the problem on a scale from 1 ("not at all a problem") to 5 ("a very serious problem").



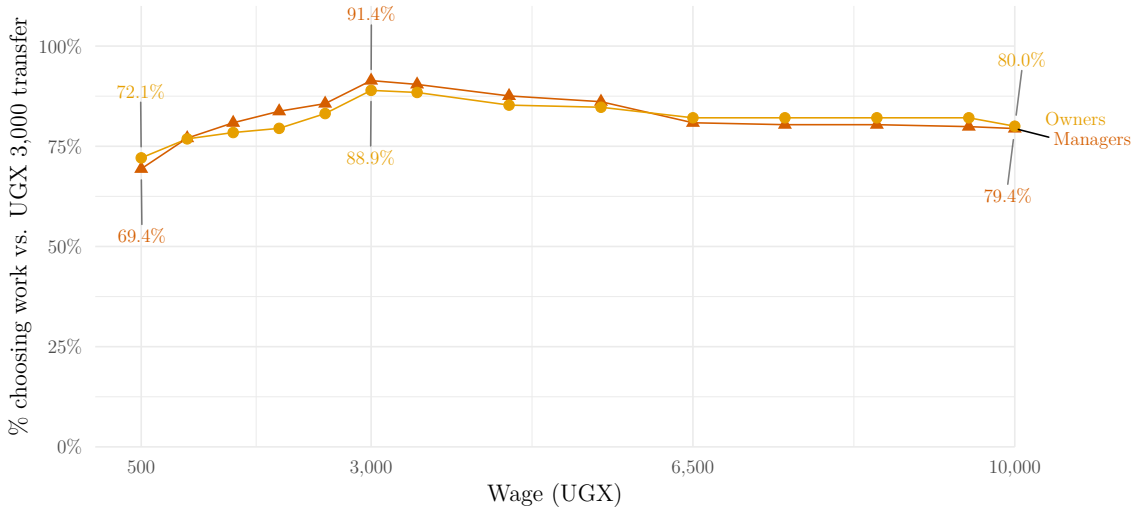
(a) Employers



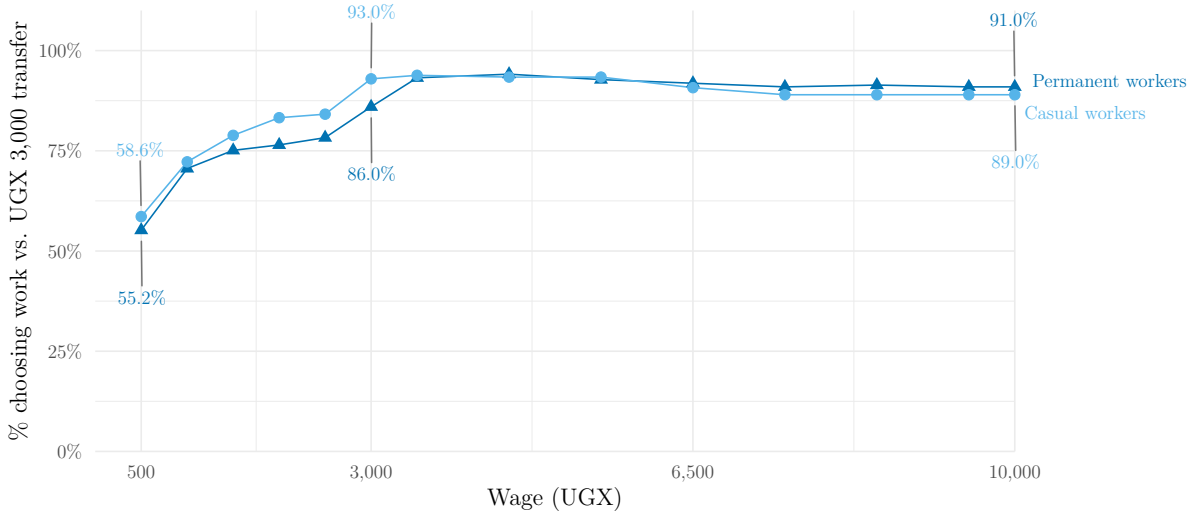
(b) Workers

Figure B.7: Main Game: Work redistribution choices by transfer and by task

Note: Both panels plot the share of work choices by transfer amount when the alternative is hiring at a UGX 3,000 wage. The workers' data are split by task. The busywork task entails loading and immediately offloading three sacks from a truck. Value task average summarizes all tasks except the busywork and sweeping tasks. The gray lines depict sealing, offloading, and weighing. Panel B depicts the overall maximum willingness to pay for work for the value task average, sweeping, and busywork.



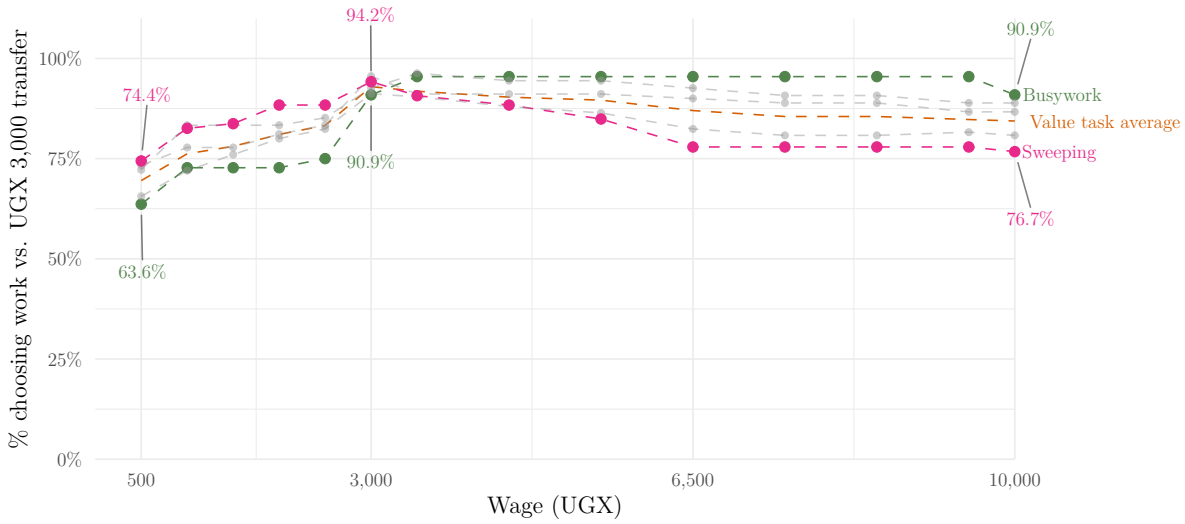
(a) Owners versus managers



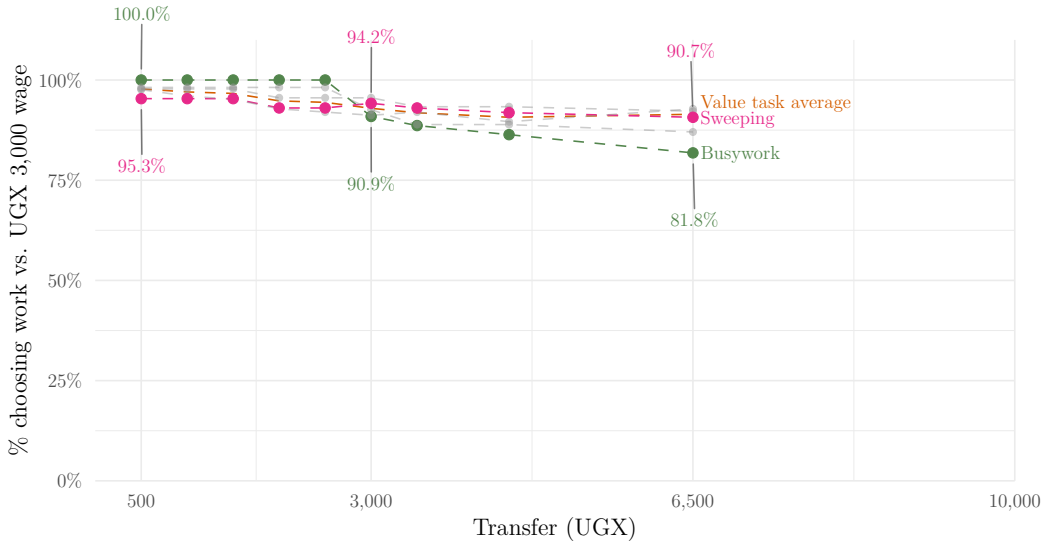
(b) Permanent versus casual workers

Figure B.8: Heterogeneity in work redistribution by role (Main Game)

Note: Both panels plot the share of work choices by wage when the alternative is a UGX 3,000 unconditional cash transfer. Data are from the Main Game, and workers self-report their role in the firm.



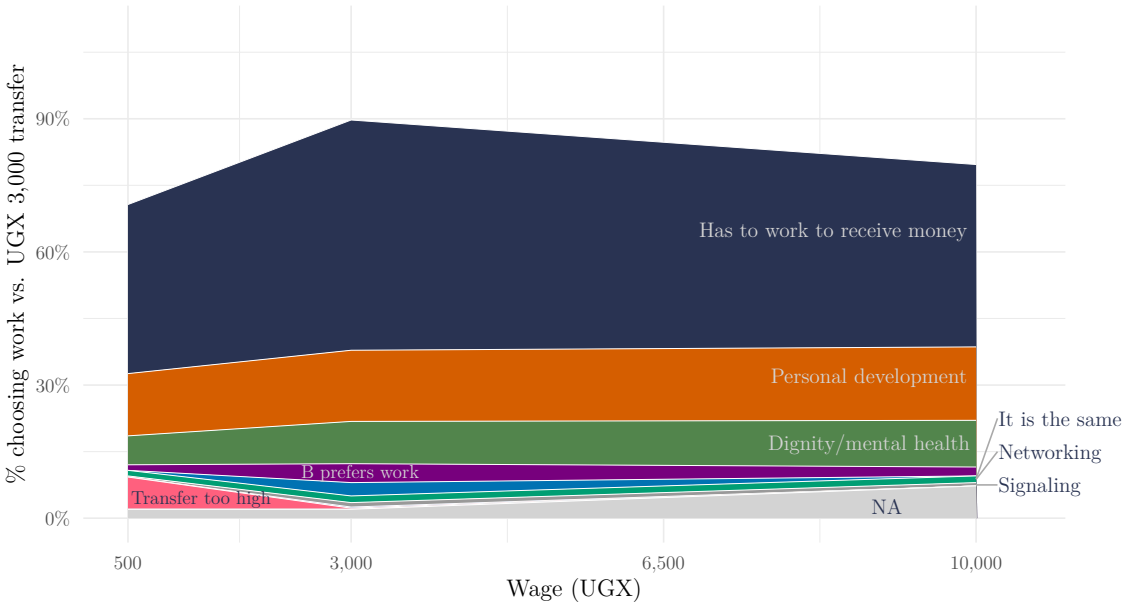
(a) Wage varying



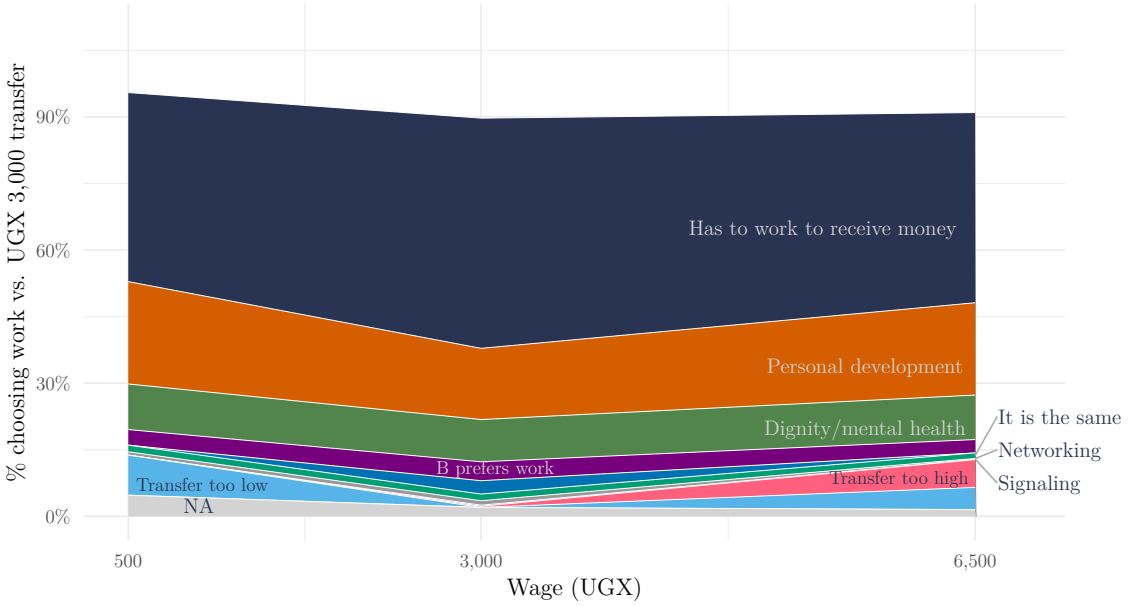
(b) Transfer varying

Figure B.9: Spectator Game: Work redistribution choices by transfer and by task

Note: Panel A plots the share of work choices by wage when the alternative is a UGX 3,000 unconditional cash transfer. Panel B plots the share of work choices by transfer amount when the alternative is hiring at a UGX 3,000 wage. Both panels depict the Spectator Game, and the data are split by task. The busywork task entails loading and immediately offloading three sacks from a truck. Value task average summarizes all tasks except the busywork and sweeping tasks. The gray lines depict sealing, offloading, and weighing.



(a) Wage varying



(b) Transfer varying

Figure B.10: Self-reported reasons for hiring choices by task

Note: The figure details employers the motivation for hiring choices at the different wages and transfers.

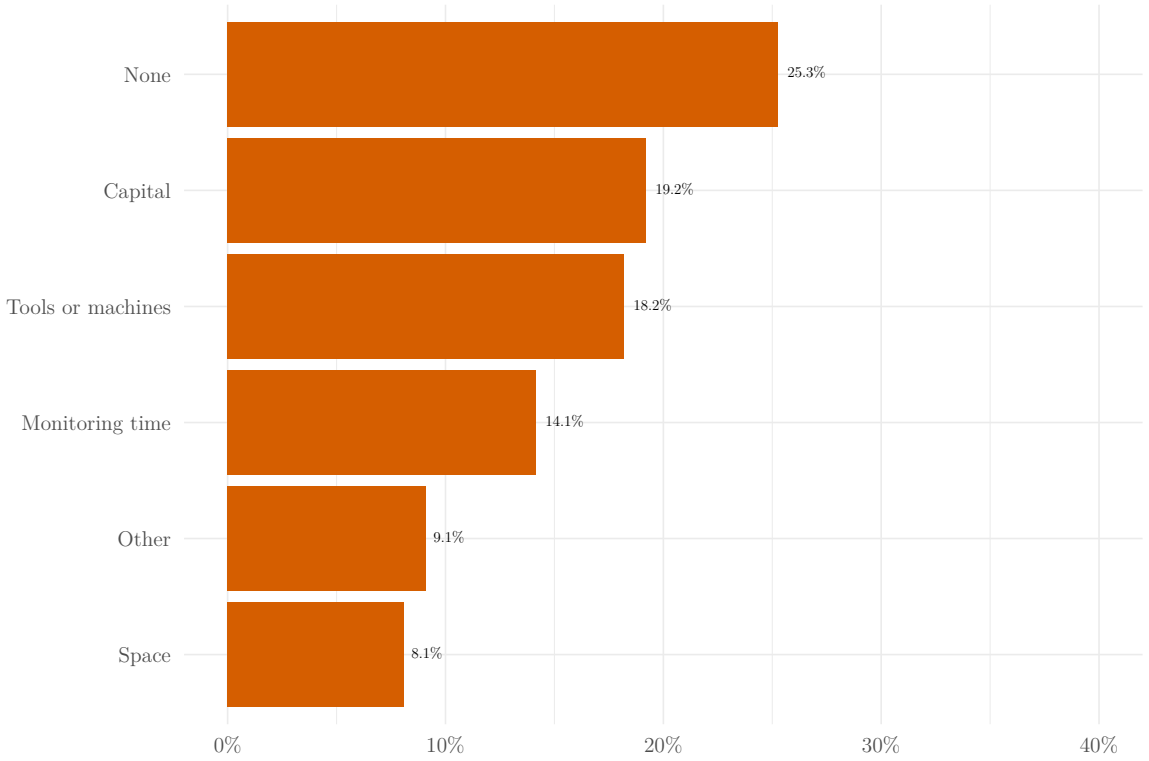


Figure B.11: "If you hire an extra worker to perform a task, what other inputs do you need to change or add?"

Note: The figure shows responses from our follow-up phone survey of employers (N=99). In "other", respondents mentioned the need for additional products and monitoring technologies, such as cameras.

C Tables

Table C.1: Grain-processing activities: Tenure day requirements, piece rate, and effort

	Tenure (days)		Effort (1-4)		Piece rate (USD)					
	Employers		Employers		Employers		Workers		Piece rate comparison	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Difference	p-values
Dehulling	29.58	24.39	NA	NA	0.20	0.12	0.22	0.15	-0.02	0.495
Milling	25.80	32.95	2.45	0.78	0.34	0.20	0.37	0.22	-0.03	0.176
Conditioning	20.76	26.34	1.83	1.15	0.12	0.11	0.13	0.07	-0.01	0.805
Mixing	11.77	19.46	2.96	0.75	0.34	0.14	0.40	0.18	-0.06	0.000
Loading	10.03	15.22	3.78	0.51	0.21	0.08	0.22	0.08	-0.01	0.004
Sealing	5.44	11.35	2.08	0.75	0.11	0.10	0.12	0.12	-0.01	0.177
Weighing	4.69	8.10	2.52	0.90	0.04	0.07	0.06	0.09	-0.02	0.018
Destoning	4.15	8.52	NA	NA	0.32	0.23	0.24	0.12	0.08	0.001
Shelling	3.29	4.89	NA	NA	0.13	0.13	0.26	0.00	-0.13	0.036
Drying	2.83	5.10	2.17	1.17	0.26	0.21	0.22	0.06	0.04	0.288
Sweeping	0.95	0.75	1.18	0.50	0.18	0.25	0.17	0.19	0.01	0.644

Note: The table summarizes the activities of grain-processing firms. For each activity, the table shows the average tenure requirements (tenure days required by the employer to the task with minimal supervision), as reported by the employers; the average piece rate in US dollars, as reported by employers and workers, respectively; and the required effort. Effort levels range from 1 (not effortful at all) to 4 (very effortful). This information was obtained from a follow-up survey with a size of 99 (random subsample of the main survey), which resulted in some tasks having NAs for the effort level. To limit the influence of outliers, tenure and prices are trimmed (top and bottom 1%). Employers are only asked about the tasks that are normally performed at their firm. Similarly, workers are only asked about tasks they can perform.

Table C.2: Main Game: Work redistribution choices and respondent characteristics

	(1)	(2)	(3)	(4)
	Employers		Workers	
	Work	WTP	Work	WTP
Owner	-0.036	-0.295		
	(0.047)	(0.403)		
Gender	-0.011	0.283	0.003	-0.224
	(0.038)	(0.341)	(0.051)	(0.297)
Age (years)	0.004	0.035	0.000	-0.012
	(0.002)	(0.019)	(0.002)	(0.011)
Education (years)	-0.002	0.007	-0.001	0.002
	(0.004)	(0.030)	(0.002)	(0.012)
Income (monthly, thousand UGX)	0.000	0.001	0.000	0.001
	(0.000)	(0.001)	(0.000)	(0.000)
Casual worker			0.001	0.160
			(0.021)	(0.134)
Tenure firm (years)			-0.003	-0.023
			(0.007)	(0.030)
Skill (1-8)			0.004	0.025
			(0.006)	(0.041)
Hours worked (on typical day)			-0.001	0.000
			(0.003)	(0.023)
Days worked (in typical week)			0.000	0.035
			(0.010)	(0.055)
Fixed effects				
Firm location	Y	Y	Y	Y
Main activity	Y	Y	Y	Y
Choice type	Y	Y	N	N
Obs.	3,982	3,982	9,504	9,504
R2	0.092	0.100	0.024	0.177

Note: The table summarizes the relationship between work redistribution preferences and respondent characteristics. The data are from the Main Game. The reference category for the employer respondent role *Owner* is manager. For the workers, the respondent reference category for *Casual worker* is permanent worker. *Skill (1–8)* refers to the number of different tasks a worker can perform. *WTP* is in a thousand Ugandan shillings. *Income (monthly, thousand UGX)* is the self-reported income of managers and owners in the survey. To estimate managers' pay, we asked about the pay of a person in their position at a nearby firm for approximately 30% of the sample. Additionally, we directly elicited the employers' earnings in the follow-up survey (N=99). Some employers refused to answer this sensitive question. Standard errors are clustered at the respondent level.

Table C.3: Spectator Game and Main Game: Comparison of Work Redistribution Patterns

	(1)	(2)	(3)	(4)
	Employers		Workers	
	Value tasks	Sweeping or busywork	Value tasks	Sweeping or busywork
	Work	Work	Work	Work
Spectator Game	0.010	0.022	-0.003	-0.015
	(0.009)	(0.016)	(0.007)	(0.010)
W = 3,000; T = 3,000	0.031	0.040	-0.007	0.031
	(0.014)	(0.021)	(0.013)	(0.020)
W = 10,000; T = 3,000	-0.065	-0.083	0.023	-0.015
	(0.016)	(0.025)	(0.014)	(0.023)
W = 500; T = 3,000	-0.180	-0.122	-0.326	-0.307
	(0.022)	(0.030)	(0.024)	(0.035)
W = 3,000; T = 6,500	0.050	0.032	-0.054	-0.015
	(0.017)	(0.023)	(0.016)	(0.022)
W = 3,000; T = 500	0.091	0.101	0.084	0.097
	(0.013)	(0.023)	(0.011)	(0.017)
Spectator Game * (W = 3,000; T = 3,000)	0.016	0.009	0.026	0.042
	(0.013)	(0.022)	(0.013)	(0.017)
Spectator Game * (W = 10,000; T = 3,000)	0.028	0.017	-0.008	0.002
	(0.014)	(0.021)	(0.009)	(0.020)
Spectator Game * (W = 500; T = 3,000)	-0.006	-0.052	0.013	0.002
	(0.014)	(0.024)	(0.018)	(0.021)
Spectator Game * (W = 3,000; T = 6,500)	-0.017	-0.037	0.009	0.009
	(0.013)	(0.021)	(0.012)	(0.013)
Spectator Game * (W = 3,000; T = 500)	0.005	-0.014	0.013	0.009
	(0.012)	(0.022)	(0.011)	(0.015)
Controls				
Tenure firm (years)	N	N	Y	Y
Fixed effects				
Firm location	Y	Y	Y	Y
Main activity	Y	Y	Y	Y
Mean (Main Game)	0.869	0.859	0.883	0.867
Obs.	11,836	5,720	13,112	6,644
R2	0.067	0.045	0.087	0.067

Note: The table summarizes the differences of work redistribution choices in the Main and the Spectator Game at different prices and by value of the task. *Spectator Game* is to a dummy variable taking value one if the decision is from the Spectator Game, with the Main Game being its reference category. All instances of $W = X$; $T = X$ represent dummy variables that indicate the decision corresponding to wage/transfer combination, with W indicating the wage and T the transfer value. Standard errors are clustered at the respondent level.