ONLINE SUPPLEMENTARY MATERIAL APPENDIX
Hukou Status and Individual-Level Labor Market Discrimination: An Experiment in China

by Uwe Dulleck, Jonas Fooken, and Yumei He

Contents

1 Experimental instructions **2**

2 Recruitment of participants **6**

3 Comparisons between treatment conditions **8**
3.1 Structure of the analysis when comparing treatments 8
3.2 Results for employers 9
3.3 Results for workers 11
3.4 Focusing on mixed groups only 13

4 Robustness checks **13**
4.1 Using structural models instead of OLS 13
4.2 Demographic controls 15
4.3 Lags and game-inherent control variables 18
4.4 Game order effects 19
4.5 Day effects 20

1 Experimental instructions

The following is a translated version of the experimental instructions for the case in which the gift exchange game was paid first and in which locals were in the role of the employer and migrants in the role of the worker. The treatment is included in italics (here, but not on the original screen). Screens 1-3 always occurred in the order provided, while the game-specific screens were reversed between groups.

Screen 1

Please enter your participant number.

Screen 2

Instructions part 1:

This is an experiment of experimental economics. Please read the note below before everything starts.

The note is very important, because your understanding of it and the choice you make will affect the final result of the experiment.

All the information in this experiment will remain confidential.

During the experiment, you cannot talk to any other participants.

All the decisions and choices you make are made anonymously and no one will know about the choice maker's identity, be it other participants or the monitors of this experiment.

Whenever you have any question, please raise your hand and do not communicate with other participants.

Screen 3

Instructions part 2:

In the current experiment, you will play a role as either employer or worker and the role you play will stick to you throughout the whole experiment.

In todays game, the Nanjing locals will keep playing the role of employer, and non Nanjing local will keep playing the role of worker.

There are 16 rounds in this experiment and in each round you will be randomly regrouped with another participant.

More specifically, in each round, every worker will meet a new employer and vice versa.

The amount of money shown on the computer screen is called experimental dollars, your income and payment will be calculated by those experimental dollars.

Your actual final reward will be affected by: 1. your decision, 2. the exchange from experimental dollars into RMB, 3. your total income in the 4 round of experiment randomly chosen by the computer.

The exchange rate between experimental dollar and RMB is:

100 dollars = 5RMB

Screen: Gift exchange game

The structure of the game

As is mentioned before, the experiment consists of 16 rounds of game. And there are 3 stages in every round.

Stage 1:

The employer will raise a salary proposal to the worker. The salary should be between 5 to 100 dollars.

Stage 2:

The worker will decide whether to accept the proposal.

If the proposal is rejected by the worker, then the round ends. And both employer and worker get the same amount of income which is 60 experimental dollars.

If the proposal is accepted, then the worker gets the salary in the proposal and pays 6 dollars as a fixed cost of the work.

Stage 3:

In this stage, the worker will choose the level of effort they made in the work from level 1 to level 10. The higher the level, the more efforts the worker makes.

The level of efforts will affect the income of the employer.

With 1 level increase in effort, the worker will bring 20 dollars income to the employer while the worker himself needs to sacrifice 4 dollars for the effort he makes.

Generally, if the worker accepts the proposal of the employer, the income of both sides in this round should be:

For the employer:

50 - salary + 20 * the level of effort the worker chose to make in the work

For the worker:

50 + salary - 4 * the level of effort the worker chose to make in the work - 6

Screen: Description of the wage promising game

In the last 8 rounds of game, the game will be a little bit different from previous games. Each round of game will be divided into 4 stages.

Stage 1:

The employer will raise a salary proposal to the worker. The salary should be between 5 to 100 dollars.

Stage 2:

The worker will decide whether to accept the proposal.

If the proposal is rejected by the worker, then the round ends. And both employer and worker get the same amount of income which is 60 experimental dollars.

If the proposal is accepted, then the worker gets the salary in the proposal and pays 6 dollars as a fixed cost of the work.

Stage 3:

In this stage, the worker will choose the level of effort they made in the work from level 1 to level 10. The higher the level, the more efforts the worker makes.

The level of efforts will affect the income of the employer.

With 1 level increase in effort, the worker will bring 20 dollars income to the employer while the worker himself needs to sacrifice 4 dollars for the effort he makes.

Stage 4:

The employer will be informed about the level of effort that the worker chooses.

The employer can change the amount of salary in the proposal according to worker's level of effort.

In other word, the employer does not have to pay the salary in the proposal of stage one. He can readjust the amount of salary. The salary should be between 5 to 100 dollars

Screen: Practice questions

In the experiment, please use the calculator on the right of the screen. Here is a little practice which will help you understand the game and the calculator
Question 1
If the employer proposed a 50-dollar salary, and the worker chooses level 2 of effort, then the income of both sides are:
Question 2
If the worker rejects the proposal:
Question 3
If the employer proposed a 100-dollar salary, and the worker chooses level 10 of effort, then the income of both sides are:

2 Recruitment of participants

The subjects we recruited were housekeepers, or household helpers in Nanjing, the provincial capital of Jiangsu, China, which had a population of around 7.7 million in 2009.[1] Housekeeping services comprise activities like cleaning, cooking or caring for elderly, children and pets. The housekeepers were, besides their *hukou* status, deemed to be comparable, particularly with respect to the distribution of education, age and gender, making them suitable for an experimental study. As most migrant housekeepers in our study came from rural places within a distance of 5-6 hours of driving from Nanjing and only few came from the inner or western (hence further distant) regions, cultural differences between our groups were small. Focusing on this low-skill and low-income group also allowed us to mitigate the problem of wealth and education (through higher income) being the major channels to obtain local *hukou* status, resulting in a potentially causal relationship between *hukou* status and income or education. For our group of subjects changes in status due to income or education should be negligible.

[1]The housekeeping sector in Nanjing has a both local and migrant labor force. Historically, the housekeeping labor force was dominated by rural workers without local *hukou* status. Since the late 1980s, more and more local workers joined the housekeeping service industry as state-owned enterprises laid off low-skilled or abundant workers during institutional reform or privatization. Among these unemployed workers, the low-skilled or aged women had difficulties in getting hired again in privatized enterprise or other companies. As a result, many of these women stayed at home or worked as housekeepers.

We controlled for the *hukou* status of our participants throughout the recruitment process, although status was not by itself part of our recruitment advertisement. We recruited our participants on the regular labor market for housekeepers. Most housekeepers are self-employed and additionally represented by agencies. An estimated number of over 1000 such agencies cover six urban districts as well as the suburban area of Nanjing, each typically representing around 100 *ayis*. *Ayis* in turn often seek employment through more than one channel, being represented by more than one agent and searching for job opportunities privately in their local community.

Making use of this infrastructure, we recruited participants using several channels. We collected contact information online, used local newspapers and used contact information from blackboards on which housekeepers advertised their services.[2] Using these sources, we contacted agencies via phone and made an appointment with the agents if they agreed to. Some of the agencies doubted about the credibility and security of the experiment and refused to offer their help, probably afraid of leaking information on their *ayis*. To convince them we met with agents in person.

During the recruitment process, we also became aware of over 100 *ayis* taking training courses at a local trade college. *Ayis* at the trade school had to take a paper exam and a practical exam on housekeeping services before receiving their qualification certificate. This certificate is not a requirement for housekeepers, but can be of additional merit. We were able to gather information about the *hukou* status of those *ayis* and their educational background, which allowed us to assess if they had the required level of qualification. In order to recruit these participants, we organized permission of the college to arrange experiments in the time between two exams. Once an individual had finished the experiment, she could go ahead and take her practical exam on housekeeping. Furthermore, before the experiment, we conducted a short interview with candidates to eliminate unqualified *ayis*. In particular, participants were required to take a computer training test before beginning the experiment.

To avoid agencies with overlapping pools of housekeepers, we located agencies that were far away from each other. We particularly made use of two agencies from the *Qing Huai* and *Xuan Wu* districts. These districts are

[2]The websites we used for our online recruitment were http://nanjing.liebiao.com/jiazheng/ and http://www.zhongguoyuesao.com/. Helpful newspapers were Yangtze Evening Post and Modern Express; furthermore, some participants were recruited using university blackboards.

at a 20 minutes driving distance from each other. The agencies committed to the recruitment of migrant and local *ayis* for a commission fee of 10 Yuan for each qualified participant with literacy or 5-6 years schooling. This fee is comparable to what other market participants pay for commissions of these types of agents. We asked agents to inform the candidate *ayis* of our requirements (i.e. literacy and information on their *hukou* status; moreover, we excluded *ayis* who were younger than 18 years old) as well as about the payment opportunities. We guaranteed each participant a minimum payment for joining the experiment of 40 Yuan. Most of the *ayis* were motivated to join the experiment by a possible payoff of 100 Yuan or more based on their decisions.

3 Comparisons between treatment conditions

3.1 Structure of the analysis when comparing treatments

To check for level differences in decisions (wage offers, final wages and effort) between locals and migrants, we compare decisions of groups consisting of only locals and groups of only migrants. Subsequently, to observe if decisions are affected when participants interacted with individuals who had a different *hukou* status than the decision maker, hence if participants discriminate against or in favor of an out-group, we compare decisions of groups with only locals to local-migrant mixed groups, indicating discrimination against migrants, as well as decisions of only migrant groups with migrant-local mixed groups, indicating discrimination against locals. The following regression framework describes this approach.

$$Y^A = \beta_0 + \beta_1 T_d^A + \beta_c X + \upsilon + \epsilon \tag{1}$$

$$Y^A = \beta_0 + \beta_1 T_l^A + \beta_c X + \upsilon + \epsilon \tag{2}$$

$$Y^A = \beta_0 + \beta_1 T_m^A + \beta_c X + \upsilon + \epsilon \tag{3}$$

whereas Y^A is the decision variable under investigation, hence wage offers (GEG, WPG) and final wages (WPG) for employers, and effort (GEG, WPG) for workers. $T_{d,l,m}^A$ are binary variables comparing an only migrant group

($T_d^A = 1$) to an only local group ($T_d^A = 0$); an only local group ($T_l^A = 0$) to a mixed group ($T_l^A = 1$); and an only migrant group ($T_m^A = 0$) to a mixed group ($T_m^A = 1$). T_l^A and T_m^A hence indicate discrimination by locals (l) and migrants (m) against the out-group, while T_d^A describes possible level differences between locals and migrants.

3.2 Results for employers

Table A1 shows the results for employer decisions based on the experimental treatments, indicated by $T_{d,l,m}^A$, which measure differences between the groups (T_d^A) and differential treatment of workers when local employers interact with migrant workers (T_l^A) or when migrant employers interact with local workers (T_m^A).

Specifications T_d^AE1-4 show that migrants make significantly lower wage offers and pay significantly lower wages in the WPG, while the effect of lower wage offers is smaller and insignificant in the GEG. Furthermore, the large and highly significant difference in WPG final wages becomes smaller and less significant when controlling for effort, which indicates that in migrant only groups effort is lower. Hence, migrants appear less cooperative overall.

Specifications T_l^AE1-4 show that locals make significantly lower binding wage offers to migrants in the GEG. In the WPG the difference becomes insignificant for non-binding wage offers, but greater and more significant for final wages. Furthermore, when controlling for effort and wage offers (wage offers to migrants are slightly lower, leading to lower effort and consequently lower final wages), the difference in final wages to migrants remains strong and significant.[3] Hence, local employers discriminate against migrants. Discrimination is stronger in binding decisions and when the worker cannot react to being discriminated against.

Specifications T_m^AE1-4 show no reverse effect – migrant employers do not pay workers with local *hukou* status significantly less. T_m^A is insignificant for GEG and WPG wage offers, and the coefficients are smaller than T_l^A. For Final wage decisions the coefficient of T_m^A is large and positive, but insignificant. However, the lack of significance, particularly for final wage decisions, may partly be due to the smaller sample size in this treatment comparison, which can be mediated when pooling the data.[4]

[3] Conclusions are the same when controlling only for effort in WPG final wage decisions.

[4] T_m^A does not become significant in either direction for T_m^AE1-4 when bootstrapping

Table A1: Comparisons of employer decisions by treatment

Variable	(GEG) wage offer	(WPG) wage offer	(WPG) final wage	(WPG) final wage
Local only and migrant only				
	(T_d^AE1)	(T_d^AE2)	(T_d^AE3)	(T_d^AE4)
T_d^A	-3.12	-7.62*	-13.88***	-6.34*
	(4.16)	(4.30)	(4.20)	(3.67)
Effort				3.79***
				(0.61)
Wage offer				0.25***
				(0.08)
Day effects	Yes	Yes	Yes	Yes
Game order effects	Yes	Yes	Yes	Yes
n (observations)	640	640	544	544
Local only and local employer, migrant worker				
	(T_l^AE1)	(T_l^AE2)	(T_l^AE3)	(T_l^AE4)
T_l^A	-10.68*	-6.24	-16.61***	-10.14**
	(5.75)	(5.28)	(5.57)	(4.89)
Effort				4.20***
				(0.63)
Wage offer				0.20***
				(0.07)
Day effects	Yes	Yes	Yes	Yes
Game order effects	Yes	Yes	Yes	Yes
n (observations)	704	704	610	610
Migrant only and migrant employer, local worker				
	(T_m^AE1)	(T_m^AE2)	(T_m^AE3)	(T_m^AE4)
T_m^A	-6.08	-2.95	14.07	12.14
	(9.65)	(10.68)	(10.69)	(9.41)
Effort				2.81***
				(0.65)
Wage offer				0.34***
				(0.12)
Day effects	Yes	Yes	Yes	Yes
Game order effects	Yes	Yes	Yes	Yes
n (observations)	416	416	330	330

β coefficients in random-effects models. Standard errors (in brackets) clustered at the level of the individual; * statistically significant at the .10 level; ** at the .05 level; *** at the .01 level.

3.3 Results for workers

Table A2 shows the results for worker decisions based on our treatments, as indicated by $T^A_{d,l,m}$. The results generally confirm findings for employers.

Specifications T^A_dW1-4 show that effort is significantly lower in groups of only migrants compared to groups of only locals. Some of this difference may be driven by lower wage offers of migrant employers, as it becomes smaller when controlling for wage offers. However, T^A_d remains significantly negative, indicating that migrant workers are less cooperative than local workers.

Specifications T^A_lW1-4 indicate if local workers provide lower effort when knowing they interact with a migrant employer. T^A_l is negative throughout, but the effect is only significant in the GEG and when controlling for wage offers (T^A_lW2). Although this initially appears not to fully match findings of employer decisions, it is similar: Effort to migrant employers is only significantly lower if the employer cannot adjust the wage as a response to effort anymore (hence, in the GEG). By contrast, when lower effort is costly to workers because employers can reduce the final wage, effort to migrants is not significantly lower. This is similar to decisions of local employers, who do not make significantly lower wage offers in the WPG when knowing the worker is a migrant, but pay much lower final wages when the worker cannot respond anymore. Furthermore, significance levels of T^A_l may be affected by low power, as treatments with migrant employers and local workers have the lowest sample size, which can be mediated when pooling the data.[5]

Specifications T^A_mW1-4 show that migrants workers provide higher effort to employers when they know employers are locals. T^A_m is significantly positive except when not controlling for wage offers in the GEG. Hence, migrant workers potentially provide more effort to employers when employers are locals.

standard errors.

[5]When bootstrapping standard errors for T^A_mW1-4, T^A_mW4 becomes significant, confirming that locals appear to be less kind when knowing to interact with migrants.

Table A2: Comparisons of Workers decisions by treatment

Variable	(GEG) Effort	(GEG) Effort	(WPG) Effort	(WPG) Effort
Local only and migrant				
	(T_d^AW1)	(T_d^AW2)	(T_d^AW3)	(T_d^AW4)
T_d^A	-1.47**	-1.30**	-2.38***	-1.95***
	(0.70)	(0.66)	(0.57)	(0.57)
Wage offer		0.06***		0.06***
		(0.01)		(0.01)
Day effects	Yes	Yes	Yes	Yes
Game order effects	Yes	Yes	Yes	Yes
n (observations)	640	640	640	640
Local only and migrant employer, local worker				
	(T_l^AW1)	(T_l^AW2)	(T_l^AW3)	(T_l^AW4)
T_l^A	-1.36	-2.30*	-0.96	-2.17
	(1.25)	(1.27)	(1.13)	(1.33)
Wage offer		0.06***		0.07***
		(0.01)		(0.01)
Day effects	Yes	Yes	Yes	Yes
Game order effects	Yes	Yes	Yes	Yes
n (observations)	416	416	416	416
Migrant only and local employer, migrant worker				
	(T_m^AW1)	(T_m^AW2)	(T_m^AW3)	(T_m^AW4)
T_m^A	1.03	1.42**	1.17*	1.18**
	(0.70)	(0.64)	(0.62)	(0.58)
Wage offer		0.05***		0.06***
		(0.01)		(0.01)
Day effects	Yes	Yes	Yes	Yes
Game order effects	Yes	Yes	Yes	Yes
n (observations)	704	704	704	704

β coefficients in random-effects models. Standard errors (in brackets) clustered at the level of the individual; * statistically significant at the .10 level; ** at the .05 level; *** at the .01 level.

3.4 Focusing on mixed groups only

The above treatment comparisons show that there are level differences between the groups and that local employers treat migrant workers less kind, while the reverse (migrant employers treating local workers less kind) does not become visible in the pairwise comparisons between treatments. To provide a complete picture, treatment effects can also be estimated using only mixed groups (and excluding groups in which the status of the counterpart was not communicated), although this analysis is confounded by the level differences between locals and migrants. The corresponding result (coefficients corresponding to the coefficient of M_{other} in the main text) for employer decisions are -22.45 (p=0.043) for GEG wage offers, -8.31 (p=0.351) for WPG wage offers and -20.10 (p=0.130) for WPG final wages. These values correspond to -8.93 (p=0.091) [GEG wage offers, column (2)], -4.87 (p=0.323) [WPG wage offers, column (4)] and -10.89 (p=0.015) [WPG final wages, column (6)] in Table 4 of the main text. Hence, both coefficients and standard errors become larger (larger standard errors are the consequence of dropping half of the sample compared to the pooled data). Hence, the findings may be stronger in size, confirming the qualitative findings of the main text, but not consistently statistically significant. The corresponding numbers for worker decisions are 0.58 (p=0.603) for GEG effort and 0.20 (p=0.866) for WPG effort, values which correspond to -1.34 (p=0.171) [GEG effort, column (8)] and -1.49 (p=0.131) [WPG effort, column (10)] in Table 5 in the main paper. This provides further indication that there is no clear effect, in terms of statistical significance, of discrimination against migrants from participants in the worker role.

4 Robustness checks

The following sections provide further information on our robustness checks, as well as on game order and day controls.

4.1 Using structural models instead of OLS

In the analysis presented in the main text, we use linear random effects regressions. However, the structure of the experimental data is influenced by the decision space of the participants: Wage offers and final wages have to

be between 5 and 100. Efforts are coded as 0 if the wage offer is rejected and between 1 and 10 if the wage offer is accepted. For this reason we scrutinized our results for censoring effects using Tobit models. Table A3 for employers and Table A4 for workers report the results corresponding to Tables 4 and 5 in the main text. The results confirm results as described in the main text.

Table A3: Tobit models for employers

Variable	(GEG) Wage offer		(WPG) Wage offer		(WPG) Final wage	
	(1T)	(2T)	(3T)	(4T)	(5T)	(6T)
M_{other}	-9.57**	-8.93*	-6.42	-4.87	-10.44***	-10.91**
	(4.24)	(4.91)	(4.14)	(4.79)	(3.95)	(4.54)
M_{self}	7.38*	9.25	0.77	5.29	5.84	4.37
	(3.94)	(8.24)	(3.85)	(8.05)	(3.70)	(7.93)
$M_{other} \times M_{self}$		-2.51		-6.06		1.94
		(9.71)		(9.48)		(9.27)
Effort					3.58***	3.58***
					(0.24)	(0.24)
Wage offer					0.25***	0.25***
					(0.04)	(0.04)
Day effects	Yes	Yes	Yes	Yes	Yes	Yes
Game order effects	Yes	Yes	Yes	Yes	Yes	Yes
n (observations)	1120	1120	1120	1120	940	940
N (individuals)	140	140	140	140	140	140

β coefficients in random-effects models. Data left-censored at 5 and right-censored at 100; * statistically significant at the .10 level; ** at the .05 level; *** at the .01 level.

Table A4: Tobit models for workers

Variable	(GEG) Effort		(WPG) Effort	
	(7T)	(8T)	(9T)	(10T)
M_{other}	-2.21**	-2.62	-2.05***	-2.91*
	(0.90)	(1.88)	(0.76)	(1.60)
M_{self}	-0.01	-0.15	-1.22	-1.52
	(0.96)	(1.12)	(0.82)	(0.95)
$M_{other} \times M_{self}$		0.56		1.16
		(2.21)		(1.88)
Wage offer	0.10***	0.10***	0.10***	0.10***
	(0.01)	(0.01)	(0.01)	(0.01)
Day effects	Yes	Yes	Yes	Yes
Game order effects	Yes	Yes	Yes	Yes
n (observations)	1120	1120	1120	1120
N (individuals)	140	140	140	140

β coefficients in random-effects models. Data left-censored at 0 and right-censored at 10; * statistically significant at the .10 level; ** at the .05 level; *** at the .01 level.

4.2 Demographic controls

We also tested the robustness of our results when including demographic control variables. To do so, we included all possible demographic control variables in our regressions and subsequently eliminated those variables which were statistically insignificant. This allowed us to increase the sample of our estimation (because some participants did not answer all questions). Tables A5 and A6 show the outcome of our iterative procedure. For employers, only being a certificate holder had a statistically significant coefficient in the final regression, showing that holding a certificate was positively related to higher final wages. No other demographic controls were statistically significant for employer decisions. For workers, age, marital status and party membership were significantly related to effort in the GEG and age was significantly related to effort in the WPG. As can be seen in Tables A5 and A6, results of M_{other}, M_{self} and $M_{other} \times M_{self}$ are qualitatively the same as results reported in the main text.

Table A5: Employer decisions with significant demographic controls

Variable	(GEG) Wage offer		(WPG) Wage offer		(WPG) Final wage	
	(1D)	(2D)	(3D)	(4D)	(5D)	(6D)
M_{other}	-9.57**	-8.93*	-6.42*	-4.87	-8.93*	-10.89**
	(4.08)	(5.29)	(3.63)	(4.93)	(4.56)	(4.48)
M_{self}	7.38*	9.25	0.77	5.29	5.55	4.17
	(4.03)	(10.16)	(3.87)	(10.97)	(8.65)	(9.11)
$M_{other} \times M_{self}$		-2.51		-6.06	-0.41	2.12
		(11.59)		(12.30)	(9.20)	(9.67)
Effort					3.55***	3.57***
					(0.45)	(0.46)
Wage offer					0.26***	0.26***
					(0.06)	(0.06)
Certificate					8.89***	
					(3.36)	
Day effects	Yes	Yes	Yes	Yes	Yes	Yes
Game order effects	Yes	Yes	Yes	Yes	Yes	Yes
n (observations)	1120	1120	1120	1120	940	940
N (individuals)	140	140	140	140	139	139

β coefficients in random-effects models. Standard errors (in brackets) clustered at the level of the individual; * statistically significant at the .10 level; ** at the .05 level; *** at the .01 level.

Table A6: Worker decisions with significant demographic controls

Variable	(GEG) Effort		(WPG) Effort	
	(7D)	(8D)	(9D)	(10D)
M_{other}	-1.16**	-1.55	-1.29***	-1.59
	(0.58)	(1.07)	(0.47)	(0.98)
M_{self}	-0.50	-0.64	-0.64	-0.74
	(0.61)	(0.70)	(0.51)	(0.59)
$M_{other} \times M_{self}$		0.53		0.41
		(1.25)		(1.18)
Wage offer	0.06***	0.06***	0.06***	0.06***
	(0.01)	(0.01)	(0.01)	(0.01)
Age	0.09**	0.09**	0.05*	0.05*
	(0.04)	(0.04)	(0.03)	(0.03)
Party member	-2.01***	-1.98***		
	(0.75)	(0.76)		
Married	1.14**	1.09*		
	(0.56)	(0.57)		
Day effects	Yes	Yes	Yes	Yes
Game order effects	Yes	Yes	Yes	Yes
n (observations)	928	928	1088	1088
N (individuals)	116	116	136	136

β coefficients in random-effects models. Standard errors (in brackets) clustered at the level of the individual; * statistically significant at the .10 level; ** at the .05 level; *** at the .01 level.

4.3 Lags and game-inherent control variables

We also tested for game-inherent factors, including lagged variables, controls for decisions of the first period as an indicator of individual type, and effort or wages received in previous periods. These variables can provide information on whether learning about the decisions of experimental counterparts is important. Tables A7 and A8 show the corresponding results of including these additional controls. As before, our main findings do not change.

Table A7: Employer decisions with game-inherent controls

Variable	(GEG) Wage offer		(WPG) Wage offer		(WPG) Final wage	
	(1L)	(2L)	(3L)	(4L)	(5L)	(6L)
M_{other}	-3.65**	-3.00	-2.42	-1.72	-8.08*	-8.08*
	(1.58)	(1.96)	(1.77)	(2.15)	(4.48)	(4.48)
M_{self}	1.25	3.17	-2.30	-0.26	1.26	1.26
	(1.45)	(3.15)	(1.67)	(3.52)	(10.88)	(10.88)
$M_{other} \times M_{self}$		-2.58		-2.74	7.28	7.28
		(3.62)		(4.02)	(11.56)	(11.56)
Wage offer in t=1	0.19***	0.19***	0.10**	0.10**		
	(0.04)	(0.04)	(0.04)	(0.04)		
Wage offer$_{lag}$	0.59***	0.59***	0.61***	0.61***		
	(0.05)	(0.05)	(0.06)	(0.06)		
Effort$_{lag}$	0.15	0.15	0.20	0.21		
	(0.19)	(0.19)	(0.22)	(0.22)		
Effort					3.94***	3.94***
					(0.57)	(0.57)
Wage offer					0.24***	0.24***
					(0.09)	(0.09)
Final Wage in t=1					0.24***	0.24***
					(0.08)	(0.08)
Day effects	Yes	Yes	Yes	Yes	Yes	Yes
Game order effects	Yes	Yes	Yes	Yes	Yes	Yes
n (observations)	980	980	980	980	669	669
N (individuals)	140	140	140	140	109	109

β coefficients in random-effects models. Standard errors (in brackets) clustered at the level of the individual; * statistically significant at the .10 level; ** at the .05 level; *** at the .01 level.

Table A8: Worker decisions with game-inherent controls

Variable	(GEG) Effort		(WPG) Effort	
	(7L)	(8L)	(9L)	(10L)
M_{other}	-0.84***	-0.79	-0.97***	-1.21
	(0.30)	(0.49)	(0.34)	(0.77)
M_{self}	0.41	0.43	-0.19	-0.26
	(0.27)	(0.35)	(0.35)	(0.38)
$M_{other} \times M_{self}$		-0.07		0.32
		(0.61)		(0.87)
Wage offer	0.05***	0.05***	0.06***	0.06***
	(0.01)	(0.01)	(0.01)	(0.01)
Effort in t=1	0.23***	0.23***	0.27***	0.27***
	(0.04)	(0.04)	(0.05)	(0.05)
Effort_{lag}	0.39***	0.39***	0.29***	0.29***
	(0.05)	(0.05)	(0.05)	(0.05)
Final wage_{lag}			-0.00	-0.00
			(0.00)	(0.00)
Day effects	Yes	Yes	Yes	Yes
Game order effects	Yes	Yes	Yes	Yes
n (observations)	980	980	818	818
N (individuals)	140	140	139	139

β coefficients in random-effects models. Standard errors (in brackets) clustered at the level of the individual; * statistically significant at the .10 level; ** at the .05 level; *** at the .01 level.

4.4 Game order effects

We randomly reversed the order of our games to be able to control for ordering effects. Table A9 provides with an overview of decisions depending on the order of the games and separated by treatment. Average levels of all variables were higher when the wage promising game was played first. In this case, wage offers, effort and final wages were all about 10% higher. Wilcoxon rank sum tests of differences depending on the order of the games report significant differences ($p \leq 0.01$) for all variables. We therefore control for game order throughout our analysis.

The game order effect also entails that for cases in which the wage promising game was played first, employers made higher wage offers, enabling em-

ployers and workers to embark on a more reciprocal and cooperative path. This effect persists when moving to the gift exchange game.

Table A9: Summary statistics looking on the importance of the game order and the status of experimental counterparts

		GEG first				**WPG first**			
		Local counterpart		*Migrant counterpart*		*Local counterpart*		*Migrant counterpart*	
	Variable	**Mean**	*s.d.*	**Mean**	*s.d.*	**Mean**	*s.d.*	**Mean**	*s.d.*
GEG	wage offer	68	*31*	72	*26*	79	*27*	74	*26*
	effort	5.3	*4.1*	4.6	*4.1*	5.9	*3.9*	5.0	*3.8*
WPG	wage offer	70	*31*	72	*25*	83	*25*	76	*24*
	final wage	71	*33*	63	*33*	76	*31*	72	*29*
	effort	5.9	*4.0*	4.8	*3.8*	6.6	*3.6*	5.4	*3.8*

4.5 Day effects

In our analysis we made use of controls for experimental date effects. Table A10 show the size of the game order and day effects for employers and Table A11 shows the effect for workers. Variables that controlled for experimental dates had a large effect on the level of wage offers, effort and final wages. While we have no apparent explanation for the direction and size of this effect, it may be due to the fact that our experiments were not all conducted at the same location; for example, on one day sessions were conducted at a trading school. Another reason may be that the number of participants that participated on a given day varied from 8 to 88. Sessions on day 4 and 5, which show the largest deviation from baseline day 1, had lower numbers of participants. Dropping these sessions from the estimation does not impact the main results of showing discrimination of migrant workers.

To better understand the day effects, we also looked at decision patterns within each date. While not all treatments were investigated on every date,

we always had several treatments for each date (except for day 4, on which we only had one group; eliminating this group does not lead to qualitative changes in the results). For each date, our main result of wage discrimination against migrant workers is qualitatively confirmed. Between dates there are level differences, which we account for with our date control.

Table A10: Game order and day effects for employers

Variable	(GEG) Wage offer		(WPG) Wage offer		(WPG) Final wage	
	(1A)	(2A)	(3A)	(4A)	(5A)	(6A)
M_{other}	-9.57**	-8.93*	-6.42*	-4.87	-10.38**	-10.89**
	(4.08)	(5.29)	(3.63)	(4.93)	(4.26)	(4.48)
M_{self}	7.38*	9.25	0.77	5.29	5.77	4.17
	(4.03)	(10.16)	(3.87)	(10.97)	(3.93)	(9.11)
$M_{other} \times M_{self}$		-2.51		-6.06		2.12
		(11.59)		(12.30)		(9.67)
GEG first	-9.26**	-9.03*	-9.33*	-8.75*	-13.33**	-13.55***
	(4.59)	(4.75)	(4.77)	(4.96)	(5.34)	(5.25)
Day 2	-8.06*	-7.71	-7.05	-6.19	-13.16**	-13.47***
	(4.57)	(4.83)	(4.92)	(5.11)	(5.19)	(5.18)
Day 3	-6.45	-6.02	0.30	1.33	-17.73**	-18.09**
	(6.60)	(6.94)	(6.43)	(6.77)	(7.42)	(7.43)
Day 4	-42.36**	-41.72**	-18.25*	-16.70	-24.02	-24.56
	(16.54)	(16.89)	(10.33)	(10.93)	(15.61)	(15.58)
Day 5	-21.73***	-22.07***	-12.99**	-13.81*	-31.38***	-31.12***
	(7.10)	(7.73)	(6.53)	(7.22)	(6.72)	(6.94)
Effort					3.57***	3.57***
					(0.46)	(0.46)
Wage offer					0.26***	0.26***
					(0.06)	(0.06)
n (observations)	1120	1120	1120	1120	940	940
N(individuals)	140	140	140	140	140	140

β coefficients in random-effects models. Standard errors (in brackets) clustered at the level of the individual; * statistically significant at the .10 level; ** at the .05 level; *** at the .01 level.

Table A11: Game order and day effects for workers

Variable	(GEG) Effort		(WPG) Effort	
	(7A)	(8A)	(9A)	(10A)
M_{other}	-1.23**	-1.34	-1.11**	-1.49
	(0.53)	(0.98)	(0.48)	(0.99)
M_{self}	-0.26	-0.29	-0.89*	-1.02*
	(0.53)	(0.64)	(0.50)	(0.59)
$M_{other} \times M_{self}$		0.14		0.51
		(1.17)		(1.17)
GEG first	-0.39	-0.38	-0.06	-0.03
	(0.60)	(0.60)	(0.55)	(0.56)
Day 2	0.90	0.91	0.73	0.77
	(0.70)	(0.70)	(0.66)	(0.67)
Day 3	0.21	0.22	1.07	1.10
	(0.95)	(0.95)	(0.81)	(0.81)
Day 4	-3.69***	-3.68***	-4.87***	-4.85***
	(0.91)	(0.91)	(0.79)	(0.79)
Day 5	0.16	0.11	0.63	0.49
	(0.70)	(0.88)	(0.73)	(0.86)
Wage offer	0.06***	0.06***	0.06***	0.06***
	(0.01)	(0.01)	(0.01)	(0.01)
n (observations)	1120	1120	1120	1120
N (individuals)	140	140	140	140

β coefficients in random-effects models. Standard errors (in brackets) clustered at the level of the individual; * statistically significant at the .10 level; ** at the .05 level; *** at the .01 level.