

B Supplementary analyses

In this appendix we provide additional analyses on selected issues discussed in the paper.

B.1 One-sided noncompliance

While invitations were distributed according to the randomization protocol, one-sided noncompliance regarding training participation was frequent. While none of the control RPOs participated in the training, some of the invited RPOs chose not to participate. From those RPOs that did participate, not always the exact farmers that had personally been invited to the training participated, sometimes others came to the training instead. In the empirical analysis, we deal with this by estimating intention-to-treat effects, i.e. the treatment effect of the invitation, and by estimating treatment effects of the training by instrumenting for the participation using the invitation as instrument. Tables B.1 and B.2 provide details on the one-sided noncompliance.

In Table B.1 we provide details based on the distribution of invitations while we consider actual participation in the training in Table B.2. In Table B.1 we report the intended distribution of 798 interviewed farmers from 73 RPOs on 50 invited and 23 non-invited RPOs, and the intended distribution of 597 interviewed farmers from 50 invited RPOs on 150 invitees and 447 non-invitees. Further, we report how the invitations were allocated to RPOs in which only leaders (OL), only members (OM), or both leaders and members (LM) were invited. We report both the number of farmers and the number of RPOs (in parentheses).

In Table B.2 we report the actual distribution of 798 interviewed farmers from 73 RPOs on 44 treated and 23 non-treated RPOs, and the distribution of 534 interviewed farmers from 44 treated RPOs on 142 trained and 392 non-trained farmers. Further, we report how the participation was allocated to RPOs in which only leaders (OL), only members (OM), or both leaders and members (LM) were trained. We report both the number of farmers and the number of RPOs (in parentheses).

Table B.1: Sample by intended treatment status

treatment				control	total
597				201	798
(50)				(23)	(73)
invitees				non-invitees	
150				447	
	OL	OM	LM	OL	OM
	22	29	99	115	131
	(12)	(15)	(23)		201

Notes: We report the intended distribution of 798 interviewed individuals from 73 RPOs on treatment and control group, and the intended distribution of 597 interviewed individuals from 50 treatment RPOs on invitees and non-invitees from different types of groups (OM—only members were invited, OL—only leaders were invited, LM—both members and leaders were invited). Values in parentheses are the number of RPOs.

Table B.2: Sample by actual treatment status

treatment				control	total
534				264	798
(44)				(29)	(73)
trainees				non-trainees	
142				392	
	OL	OM	LM	OL	OM
	20	16	106	95	211
	(10)	(9)	(25)		

Notes: We report the actual distribution of 798 interviewed individuals from 73 RPOs on treatment and control group, and the distribution of 534 interviewed individuals from 44 treatment RPOs on trainees and non-trainees from different types of groups (OM—only members were trained, OL—only leaders were trained, LM—both members and leaders were trained). Values in parentheses are the number of RPOs.

B.2 Descriptive statistics for ordinal measures of trust

Originally, responses to all trust survey questions were recorded on a four-point Likert-type scale. The items to choose from are (1) “Do not agree at all”, (2) “Do not really agree”, (3) “Agree”, and (4) “Fully agree”. However, given that the average trust levels at baseline are well above 3 for all measures of trust, we use binary variables as regressands in the empirical analysis which are equal to one if respondents fully agree with one of the asked statements. Here, we report additional descriptive statistics for trust measures using the original coding.

In Table B.3 we show that the assignment of the invitations is also independent of ordinal trust measures at baseline. The two-sample Wilcoxon rank-sum tests with the null of equal means in control and treatment groups at baseline reveal no significant differences.

Table B.3: **Balancing tests of ordinal trust measures at RPO level**

Variable	Mean (N=73)	Standard deviation	Mean in control group (N=23)	Mean in treatment group (N=50)	Difference
negotiation_ordinal	3.41	0.37	3.34	3.44	-0.10
integrity_ordinal	3.51	0.42	3.51	3.50	0.01
information_ordinal	3.54	0.34	3.60	3.51	0.09
efficiency_ordinal	3.50	0.42	3.48	3.51	-0.03
general_ordinal	3.48	0.35	3.48	3.48	-0.01
farming_ordinal	3.43	0.37	3.36	3.46	-0.09

Notes: We report averages and standard deviations for the full sample of 73 RPOs, averages in the subsamples of RPOs in treatment and control group and results of two-sample Wilcoxon rank-sum tests with the null of equal means in control and treatment groups at baseline.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Descriptive statistics reveal a positive impact of the intervention on ordinal measures of trust. In Table B.4 we report results of two-sample Wilcoxon rank-sum tests with the null of equal means in ordinal trust in baseline and endline for invitees, non-invitees in invited RPOs and for non-invitees in non-invited RPOs. Moreover, we report two-sample Wilcoxon rank-sum tests with the null of equal means in ordinal trust for invitees and non-invitees in invited RPOs in both baseline and endline and for non-invitees in invited and non-invited RPOs in both baseline and endline. Results are similar to those when using binary trust measures (see Table 5). Invitees report higher levels of trust at endline compared to baseline for all ordinal measures for trust. Further indication of a positive di-

rect treatment effect comes from the comparison of invitees with non-invitees from invited RPOs. While we observe no significant difference at baseline, we observe significant differences for all ordinal measures of trust in leaders but *negotiation_ordinal* at endline. We also find descriptive evidence for a positive spill-over effect within invited RPOs. Comparing non-invitees from invited and non-invited RPOs, we find no significant differences at baseline. At endline, however, non-invitees in invited RPOs report significantly higher trust levels for all ordinal trust measures but *efficiency_ordinal* compared to non-invitees from non-invited RPOs.

Table B.4: Changes in ordinal trust by intended treatment status at RPO level

Ordinal Trust Outcomes	Sample	N	Baseline (BL)	Endline(EL)	Diff. BL EL P-value
negotiation_ordinal	A. Invitees	150	3.49	3.53	0.1960
	B. Non-Invitees in T	447	3.43	3.50	0.0029
	C. Non-Invitees in C	201	3.35	3.24	0.6423
	Diff. A B P-value		0.3362	0.7642	
	Diff. B C P-value		0.4157	0.0008	
integrity_ordinal	A. Invitees	150	3.59	3.59	0.4830
	B. Non-Invitees in T	447	3.47	3.39	0.5975
	C. Non-Invitees in C	201	3.49	3.21	0.0059
	Diff. A B P-value		0.1939	0.0236	
	Diff. B C P-value		0.7073	0.0168	
information_ordinal	A. Invitees	150	3.57	3.71	0.0310
	B. Non-Invitees in T	447	3.49	3.57	0.0499
	C. Non-Invitees in C	201	3.59	3.43	0.1928
	Diff. A B P-value		0.3902	0.0531	
	Diff. B C P-value		0.2187	0.0661	
efficiency_ordinal	A. Invitees	150	3.56	3.71	0.0698
	B. Non-Invitees in T	447	3.49	3.48	0.8127
	C. Non-Invitees in C	201	3.48	3.36	0.2672
	Diff. A B P-value		0.1990	0.0016	
	Diff. B C P-value		0.9008	0.1114	
general_ordinal	A. Invitees	150	3.51	3.69	0.0123
	B. Non-Invitees in T	447	3.46	3.52	0.2967
	C. Non-Invitees in C	201	3.46	3.31	0.1068
	Diff. A B P-value		0.5608	0.0053	
	Diff. B C P-value		0.8025	0.0029	
farming_ordinal	A. Invitees	150	3.47	3.63	0.0372
	B. Non-Invitees in T	447	3.45	3.45	0.5494
	C. Non-Invitees in C	201	3.36	3.22	0.1758
	Diff. AB P-value		0.6632	0.0166	
	Diff. BC P-value		0.3500	0.0036	

Notes: We report averages of different ordinal trust measures in subsamples of invitees, non-invitees in the treatment group (T—treatment group), non-invitees in the control group (C—control group) at baseline (BL—baseline) and endline (EL—endline) as well as p-values of two-sample Wilcoxon rank-sum tests with the null of equal means.

B.3 Robustness checks for treatment effects on RPO level

We run several robustness checks to confirm our main findings reported in Section 5.

First, we enlarge the model in first differences (see equations (1) and (4)) by allowing for onion-specific and rice-specific time trends (see Table B.5) and by controlling for the number of invited/trained persons per RPO (see Table B.6).³⁵ Table B.5 shows results for regressing changes in trust on a binary treatment indicator, a binary indicator for rice cultivation, a binary indicator for onion cultivation and a constant. We report both intention-to-treat effects as well as results from two-stage regressions using invitation status as an instrument for training participation. We use *RPO_invitation* as instrument for *RPO_training* in Table B.5. The highly significant correlation coefficient between these two variables amounts to 0.8354. Qualitatively, results remain unchanged compared to the model in first differences without covariates. We find a significantly positive treatment effect of the training of 12 to 13 percentage points on trust in leaders' integrity and their informational advantage. For the reduced form regressions, we provide conventional inference and randomization inference. We find a similar pattern as we did in our main analysis, p-values for the randomization inference are smaller than those for the conventional inference for all regressions. Hence, for reasons of clarity, we refrain from presenting randomization inference in the following.

Table B.6 shows results for regressing changes in trust on a binary treatment indicator, the number of invited farmers and a constant. We also run a specification where we consider the number of invited members and the number of invited leaders. Again, we report both intention-to-treat effects as well as results from two-stage regressions using invitation status as an instrument for training participation. We use *RPO_invitation* and *number_invited* as instruments for *RPO_trained* and *number_trained* (highly significant correlation coefficients range between 0.6467 and 0.9054) as well as *RPO_invitation*, *number_invited_members* and *number_invited_leaders* as instruments for *RPO_trained*, *number_trained_members* and *number_trained_leaders* in Table B.6 (highly significant correlation coefficients between 0.2458 and 0.9045). Qualitatively, results remain unchanged compared to our main results. The number of in-

³⁵Note that when including covariates to the model in first differences, it is no longer equivalent to a fixed effects model.

vited/trained persons has no additional effect on trust outcomes on top of the effect of the binary treatment measure. We find a significantly positive intention-to-treat effect of 14 to 16 percentage points on trust in leaders' integrity and their informational advantage.

Table B.5: Treatment effects at RPO level controlling for crop type

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	$\Delta_{\text{negotiation}}$	$\Delta_{\text{integrity}}$	$\Delta_{\text{information}}$	$\Delta_{\text{efficiency}}$	Δ_{general}	Δ_{farming}	$\Delta_{\text{trust_sum}}$	$\Delta_{\text{trust_factor}}$
<i>Reduced form regressions (conventional and randomization inference)</i>								
RPO_invitation	0.0921 \times (0.0623) [0.1440] {0.0947}	0.1109*, $\times \times$ (0.0615) [0.0756] {0.0360}	0.1019 \times (0.0619) [0.1043] {0.0664}	0.0329 (0.0688) [0.6340] {0.5499}	0.0819 (0.0586) [0.1668] {0.1213}	0.0775 (0.0632) [0.2239] {0.1438}	0.4972 \times (0.3217) [0.1266] {0.0742}	0.2105 \times (0.1372) [0.1294] {0.0767}
[p-value conventional inference]								
{p-value randomization inference}								
<i>Instrumental variable regressions (conventional inference)</i>								
RPO_training	0.1082 (0.0725) [0.1355]	0.1303* (0.0716) [0.0687]	0.1197* (0.0719) [0.0959]	0.0386 (0.0789) [0.6242]	0.0962 (0.0670) [0.1512]	0.0911 (0.0726) [0.2098]	0.5841 (0.3725) [0.1169]	0.2473 (0.1589) [0.1196]
N	73	73	73	73	73	73	73	73

Notes: We report coefficients from regressions using both baseline and endline data regressing changes in trust on a constant, a binary treatment indicator and binary indicators for onion and rice cultivation. For instrumental variable regressions we report coefficients from two-stage estimations using *RPO_invitation* as instrument for *RPO_training*. Standard errors are reported in parentheses (clustered at RPO level), p-values for conventional inference are reported in brackets, p-values for randomization inference with 9000 random permutations are reported in curly brackets.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$, for conventional inference

\times $p < 0.10$, $\times \times$ $p < 0.05$, $\times \times \times$ $p < 0.01$, for randomization inference

Table B.6: Treatment effects at RPO level controlling for treatment intensity

	(1)	$\Delta_{\text{negotiation}}$	(2)	(3)	$\Delta_{\text{integrity}}$	(4)	(5)	$\Delta_{\text{information}}$	(6)	(7)	$\Delta_{\text{efficiency}}$	(8)
<i>Reduced form regressions</i>												
RPO_invitation	0.1182 (0.0767)	0.1185 (0.0768)		0.1560 ** (0.0757)		0.1560 ** (0.0763)		0.1428 * (0.0826)		0.1431 * (0.0827)		0.0387 (0.0840)
number_invited	-0.0022 (0.0062)			-0.0051 (0.0052)		-0.0051 (0.0069)		-0.0037 (0.0069)		-0.0037 (0.0051)		0.0036 (0.0051)
number_invited_members		0.0020 (0.0074)				-0.0058 (0.0069)			0.0017 (0.0083)		0.0017 (0.0083)	0.0074 (0.0055)
number_invited_leaders		-0.0072 (0.0090)				-0.0042 (0.0080)			-0.0100 (0.0100)		-0.0100 (0.0089)	-0.0100 (0.0089)
<i>Instrumental variable regressions</i>												
RPO_training	0.1713 (0.1153)	0.1765 (0.1152)		0.2274 ** (0.1145)		0.2274 ** (0.1150)		0.2075 (0.1267)		0.2140 * (0.1267)		0.0532 (0.1214)
number_trained	-0.0080 (0.0102)			-0.0131 (0.0095)				-0.0109 (0.0120)				0.0023 (0.0085)
number_trained_members		-0.0025 (0.0107)				-0.0131 (0.0111)			-0.0040 (0.0123)			0.0072 (0.0079)
number_trained_leaders		-0.0160 (0.0139)				-0.0131 (0.0123)			-0.0208 (0.0158)			-0.0046 (0.0132)
	(9)	Δ_{general}	(10)	(11)	Δ_{farming}	(12)	(13)	$\Delta_{\text{trust_sum}}$	(14)	(15)	$\Delta_{\text{trust_factor}}$	(16)
<i>Reduced form regressions</i>												
RPO_invitation	0.0740 (0.0766)	0.0739 (0.0772)		0.1225 (0.0790)		0.1224 (0.0795)		0.6523 (0.4069)		0.6527 (0.4096)		0.2769 (0.1737)
number_invited	0.0051 (0.0075)			-0.0035 (0.0060)				-0.0057 (0.0283)				-0.0024 (0.0121)
number_invited_members		0.0023 (0.0090)				-0.0062 (0.0071)			0.0014 (0.0330)			0.0007 (0.0141)
number_invited_leaders		0.0085 (0.0112)				-0.0002 (0.0093)			-0.0141 (0.0448)			-0.0062 (0.0191)
<i>Instrumental variable regressions</i>												
RPO_training	0.1030 (0.1117)	0.1007 (0.1125)		0.1783 (0.1117)		0.1760 (0.1159)		0.9407 (0.6046)		0.9525 (0.6092)		0.3994 (0.2581)
number_trained	0.0025 (0.0114)			-0.0097 (0.0095)				-0.0369 (0.0492)				-0.0157 (0.0210)
number_trained_members		0.0001 (0.0120)				-0.0122 (0.0097)			-0.0244 (0.0503)			-0.0102 (0.0214)
number_trained_leaders		0.0059 (0.0155)				-0.0062 (0.0135)			-0.0547 (0.0685)			-0.0235 (0.0292)
N	73	73	73	73		73		73		73		73

Notes: We report coefficients from regressions using both baseline and endline data regressing changes in trust on a constant, a binary treatment indicator and controls for the number of farmers (members and leaders) invited. For instrumental variable regressions we report coefficients from two-stage estimations using *RPO_invitation* and *number_invited* as instruments for *RPO_trained* and *number_trained* in odd-numbered columns. In even-numbered columns we report coefficients from two-stage estimations using *RPO_invitation*, *number_invited*, *number_trained_members* and *number_trained_leaders* as instruments for *RPO_trained*, *number_trained_members* and *number_trained_leaders*. Standard errors are reported in parentheses (clustered at RPO level).

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Second, we follow McKenzie (2012) who argues that large improvements in power can arise when estimating treatment effects via an Analysis of Covariance (ANCOVA) estimation compared to using the difference-in-differences specification. While difference-in-differences fully corrects for potential baseline imbalances between treatment and control groups, which may be inefficient if baseline data have little predictive power for future outcomes, ANCOVA reduces the variance of the treatment effect estimator by conditioning on a variable that is correlated with the outcome of interest. ANCOVA includes the mean value of the outcome over all available pre-treatment rounds as a covariate when estimating the treatment effect. In our case of one pre-treatment and one post-treatment survey, it includes the baseline value of the outcome as a covariate.

Thus, we regress trust at endline on a constant, a binary treatment indicator and on trust at baseline. We estimate these regressions without covariates, with controls for onion and rice cultivation (see Table B.7) and with control for the number of invited/trained persons per RPO (see Table B.8).

We use *RPO_invitation* as instrument for *RPO_training* in Table B.7 and *RPO_invitation* and *number_invited* as instruments for *RPO_trained* and *number_trained* in Table B.8. Results are similar to those from the difference-in-differences estimations. Without covariates, we find a significantly positive intention-to-treat effect of 10 to 12 percentage points for trust in leaders' negotiation skills, their integrity, and their informational advantage. We find a (significantly) positive intention-to-treat effect of 11 percentage points on both measures of trust in members. The treatment effect of the training itself is again slightly larger. These results are robust to controlling for onion and rice cultivation and to controlling for the number of invitees/participants.

Table B.7: Treatment effects at RPO level—ANCOVA

	(1) negotiation	(2) integrity	(3) information	(4) efficiency	(5) general	(6) farming	(7) trust_sum	(8) trust_factor
Panel A: no covariates								
<i>Reduced form regressions</i>								
RPO_invitation	0.1210** (0.0549)	0.1228** (0.0599)	0.1034* (0.0558)	0.0666 (0.0659)	0.1096* (0.0592)	0.1074 (0.0658)	0.6281* (0.3318)	0.2660* (0.1415)
trust outcome at baseline	0.4369*** (0.1161)	0.7222*** (0.1099)	0.6014*** (0.1299)	0.6380*** (0.1266)	0.7705*** (0.0926)	0.8141*** (0.1419)	0.7736*** (0.1150)	0.7735*** (0.1153)
<i>Instrumental variable regressions</i>								
RPO_training	0.1392** (0.0616)	0.1390** (0.0658)	0.1152* (0.0601)	0.0762 (0.0731)	0.1257* (0.0656)	0.1239* (0.0736)	0.7165* (0.3664)	0.3033* (0.1562)
trust outcome at baseline	0.3815*** (0.1315)	0.6721*** (0.1127)	0.5558*** (0.1330)	0.6113*** (0.1308)	0.7254*** (0.0972)	0.7599*** (0.1481)	0.7178*** (0.1241)	0.7183*** (0.1242)
Panel B: controls for crop type								
<i>Reduced form regressions</i>								
RPO_invitation	0.0940* (0.0494)	0.0840* (0.0488)	0.0490 (0.0450)	0.0234 (0.0485)	0.0681 (0.0498)	0.0690 (0.0530)	0.3966 (0.2540)	0.1665 (0.1080)
trust outcome at baseline	0.2826** (0.1098)	0.4694*** (0.1250)	0.3130** (0.1313)	0.3327** (0.1326)	0.4148*** (0.0998)	0.3609** (0.1658)	0.4283*** (0.1308)	0.4278*** (0.1310)
<i>Instrumental variable regressions</i>								
RPO_training	0.1106* (0.0567)	0.0973* (0.0546)	0.0562 (0.0497)	0.0274 (0.0547)	0.0795 (0.0555)	0.0807 (0.0595)	0.4602 (0.2834)	0.1931 (0.1205)
trust outcome at baseline	0.2493** (0.1142)	0.4452*** (0.1234)	0.2974* (0.1267)	0.3255** (0.1304)	0.3944*** (0.0967)	0.3339** (0.1595)	0.4004*** (0.1302)	0.4005*** (0.1301)
N	73	73	73	73	73	73	73	73

Notes: We report coefficients from regressing trust at endline on a constant and a binary treatment indicator including the trust level at baseline as covariate. In panel B we report coefficients from regressions additionally including binary indicators for onion and rice cultivation. For instrumental variable regressions we report coefficients from two-stage estimations using *RPO_invitation* as instrument for *RPO_training*. Standard errors are reported in parentheses (clustered at RPO level).

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B.8: Treatment effects at RPO level controlling for treatment intensity—ANCOVA

Panel A	(1) negotiation	(2) integrity	(3) information	(4) efficiency	(5) general	(6) farming	(7) trust_sum	(8) trust_factor
<i>Reduced form regressions</i>								
RPO_invitation	0.1385** (0.0656)	0.1435** (0.0733)	0.1188 (0.0726)	0.0398 (0.0766)	0.0833 (0.0714)	0.1216 (0.0746)	0.6362 (0.3864)	0.2693 (0.1649)
number_invited	-0.0033 (0.0070)	-0.0039 (0.0061)	-0.0029 (0.0076)	0.0051 (0.0064)	0.0050 (0.0075)	-0.0027 (0.0063)	-0.0015 (0.0325)	-0.0006 (0.0139)
trust outcome at baseline	0.4342*** (0.1152)	0.7235*** (0.1095)	0.6008*** (0.1304)	0.6359*** (0.1284)	0.7712*** (0.0945)	0.8159*** (0.1425)	0.7736*** (0.1157)	0.7735*** (0.1160)
<i>Instrumental variable regressions</i>								
RPO_training	0.1998** (0.0956)	0.2007** (0.0994)	0.1643 (0.1026)	0.0514 (0.1052)	0.1135 (0.0986)	0.1720* (0.1022)	0.8876 (0.5405)	0.3754 (0.2306)
number_trained	-0.0105 (0.0108)	-0.0108 (0.0100)	-0.0087 (0.0118)	0.0043 (0.0093)	0.0021 (0.0107)	-0.0084 (0.0093)	-0.0298 (0.0514)	-0.0126 (0.0219)
trust outcome at baseline	0.3669*** (0.1318)	0.6677*** (0.1119)	0.5449*** (0.1364)	0.6118*** (0.1326)	0.7270*** (0.0976)	0.7577*** (0.1446)	0.7137*** (0.1243)	0.7143*** (0.1243)
N	73	73	73	73	73	73	73	73

Notes: We report coefficients from regressing trust at endline on a constant and a binary treatment indicator including the trust level at baseline and the number of invited persons per RPO as covariates. For instrumental variable regressions we report coefficients from two-stage estimations using *RPO_invitation* and *number_invited* as instrument for *RPO_training* and *number_trained*. Standard errors are reported in parentheses (clustered at RPO level).

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

B.4 Robustness checks for treatment effects on individual level

To confirm our main findings on treatment effects on individual level presented in Section 6, we run similar robustness checks as we did for the treatment effects on RPO level.

First, using the full sample of 798 farmers, we enlarge the model in first differences (see equations (5) and (6)) by allowing for onion-specific and rice-specific time trends (see Table B.9) and by controlling for the number of invited/trained persons per RPO (see Table B.10).³⁶ Table B.9 shows results for regressing changes in trust on a binary treatment indicator for personal treatment, a binary indicator for treatment of others, a binary indicator for rice cultivation, a binary indicator for onion cultivation and a constant. We report both intention-to-treat effects as well as results from two-stage regressions using invitation status as an instrument for training participation. We instrument for *spillover_training* and *personal_training* using *RPO_invitation* and *personal_invitation* as instruments.³⁷ Qualitatively, results remain unchanged compared to the model in first differences without covariates. We find a significantly positive effect of having personally been invited of 13 to 18 percentage points on trust in leaders' integrity and their informational advantages as well as on both measures of trust in members. The direct treatment effect of the training is again slightly larger.

Table B.10 shows results for regressing changes in trust on a binary treatment indicator for personal treatment, a binary indicator for treatment of others, the number of invited farmers and a constant. We report both intention-to-treat effects as well as results from two-stage regressions using invitation status as an instrument for training participation. We use *RPO_invitation*, *number_invited* and *personal_invitation* as instruments for *spillover_training*, *number_trained* and *personal_training*. The highly significant correlation coefficients range between 0.2700 and 0.9004. Qualitatively, results remain unchanged compared to the model in first differences without covariates. We find a significantly positive effect of having personally been invited of 19 to 22 percentage points on trust in leaders' integrity and their informational advantages as well as on both measures

³⁶Note that when including covariates to the model in first differences, it is no longer equivalent to a fixed effects model.

³⁷The highly significant correlation coefficients are 0.5702 for *spillover_training* and *RPO_invitation*, 0.2700 for *personal_training* and *RPO_invitation*, -0.3509 for *personal_invitation* and *spillover_training* and 0.7993 for *personal_invitation* and *personal_training*.

of trust in members. The direct treatment effect of the training is again slightly larger.

Second, we estimate ANCOVA specifications. We regress trust at endline on a constant, a binary treatment indicator for personal treatment, a binary indicator for treatment of others, and on trust at baseline. We estimate these regressions without covariates, with controls for onion and rice cultivation (see Table B.11) and with controlling for the number of invited/trained persons per RPO (see Table B.12). In the regressions reported in Table B.11 we use *RPO_invitation* and *personal_invitation* as instruments for *spillover_training* and *personal_training*. For table B.12 we use *RPO_invitation*, *number_invited* and *personal_invitation* as instruments for *spillover_training*, *number_trained* and *personal_training*. Results are similar to those from the difference-in-differences estimations. Without covariates, we find a significantly positive treatment effect of having personally been invited of 13 to 23 percentage points for all measures of trust and indication for a spillover effect of 11 to 13 percentage points for trust in leaders' negotiation skills and their integrity. The treatment effect of the training itself is again slightly larger. Results are again robust to controlling for onion and rice cultivation and to controlling for the number of invitees/participants.

Table B.9: Treatment effects on individual level controlling for crop type

	(1) $\Delta_{\text{negotiation}}$	(2) $\Delta_{\text{integrity}}$	(3) $\Delta_{\text{information}}$	(4) $\Delta_{\text{efficiency}}$	(5) Δ_{general}	(6) Δ_{farming}	(7) $\Delta_{\text{trust_sum}}$	(8) $\Delta_{\text{trust_factor}}$
<i>Reduced form regressions</i>								
spillover_invitation	0.0930 (0.0657)	0.1045 (0.0657)	0.0842 (0.0662)	0.0324 (0.0727)	0.0662 (0.0618)	0.0565 (0.0673)	0.4368 (0.3496)	0.1849 (0.1492)
personal_invitation	0.0617 (0.0716)	0.1535** (0.0679)	0.1323* (0.0703)	0.1050 (0.0759)	0.1794** (0.0747)	0.1427* (0.0765)	0.7746** (0.3611)	0.3306** (0.1539)
<i>Instrumental variable regressions</i>								
spillover_training	0.1124 (0.0796)	0.1210 (0.0793)	0.0715 (0.0798)	0.0338 (0.0864)	0.0970 (0.0727)	0.0616 (0.0796)	0.4973 (0.4184)	0.2103 (0.1785)
personal_training	0.0623 (0.0821)	0.1748** (0.0761)	0.1515* (0.0798)	0.1256 (0.0827)	0.2129** (0.0862)	0.1668* (0.0865)	0.8959** (0.4025)	0.3826** (0.1715)
N	798	798	798	798	798	798	798	798

Notes: The number of invited/trained persons in treated RPOs ranges from 2 to 16. Hence, it is impossible to be the only invited/treated person in a treated RPO. We report coefficients from regressions using both baseline and endline data regressing changes in trust on a constant, a binary treatment indicator for personal treatment and for treatment of others and binary indicators for onion and rice cultivation. For instrumental variable regressions we report coefficients from two-stage estimations using *RPO_invitation* and *personal_invitation* as instruments for *spillover_training* and *personal_training*. Standard errors are reported in parentheses (clustered at RPO level).

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B.10: Treatment effects on individual level controlling for treatment intensity

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	$\Delta_{\text{negotiation}}$	$\Delta_{\text{integrity}}$	$\Delta_{\text{information}}$	$\Delta_{\text{efficiency}}$	Δ_{general}	Δ_{farming}	$\Delta_{\text{trust_sum}}$	$\Delta_{\text{trust_factor}}$
<i>Reduced form regressions</i>								
spillover_invitation	0.1132 (0.0761)	0.1647** (0.0774)	0.1369 (0.0836)	0.0549 (0.0866)	0.0787 (0.0817)	0.1164 (0.0825)	0.0647 (0.4254)	0.2828 (0.1817)
personal_invitation	0.0795 (0.0886)	0.2224*** (0.0807)	0.1910** (0.0858)	0.1247 (0.0847)	0.1892** (0.0842)	0.2097** (0.0903)	1.0166** (0.4273)	0.4348** (0.1821)
number_invited	-0.0004 (0.0059)	-0.0072 (0.0050)	-0.0046 (0.0064)	0.0009 (0.0048)	0.0022 (0.0077)	-0.0056 (0.0060)	-0.0148 (0.0264)	-0.0064 (0.0113)
<i>Instrumental variable regressions</i>								
spillover_training	0.1613 (0.1136)	0.2364** (0.1163)	0.1949 (0.1270)	0.0731 (0.1242)	0.1035 (0.1204)	0.1651 (0.1191)	0.9344 (0.6259)	0.3976 (0.2673)
personal_training	0.1118 (0.1216)	0.3048*** (0.1137)	0.2596** (0.1221)	0.1618 (0.1173)	0.2441** (0.1174)	0.2823** (0.1241)	1.3644** (0.5393)	0.5835** (0.2555)
number_trained	-0.0052 (0.0095)	-0.0159* (0.0090)	-0.0116 (0.0111)	-0.0014 (0.0082)	-0.0010 (0.0120)	-0.0120 (0.0096)	-0.0471 (0.0467)	-0.0202 (0.0200)
N	798	798	798	798	798	798	798	798

Notes: The number of invited/trained persons in treated RPOs ranges from 2 to 16. Hence, it is impossible to be the only invited/treated person in a treated RPO. We report coefficients from regressions using both baseline and endline data regressing changes in trust on a constant, a binary treatment indicator for personal treatment and for treatment of others and on the number of invited/trained persons. For instrumental variable regressions we report coefficients from two-stage estimations using *RPO_invitation*, *number_invited* and *personal_invitation* as instruments for *spillover_training*, *number_trained* and *personal_training*. Standard errors are reported in parentheses (clustered at RPO level).

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B.11: Treatment effects on individual level—ANCOVA

Panel A: no covariates	(1) negotiation	(2) integrity	(3) information	(4) efficiency	(5) general	(6) farming	(7) trust_sum	(8) trust_factor
<i>Reduced form regressions</i>								
spillover_invitation	0.1280** (0.0539)	0.1107* (0.0611)	0.0787 (0.0594)	0.0609 (0.0651)	0.1029 (0.0625)	0.1007 (0.0662)	0.5812* (0.3389)	0.2450* (0.1446)
personal_invitation	0.1319** (0.0637)	0.1893*** (0.0680)	0.1476** (0.0644)	0.1763*** (0.0663)	0.2265*** (0.0711)	0.1998*** (0.0716)	1.0487*** (0.3645)	0.4464*** (0.1552)
trust outcome at baseline	0.1897*** (0.0375)	0.3599*** (0.0397)	0.2893*** (0.0406)	0.3111*** (0.0489)	0.3380*** (0.0436)	0.3744*** (0.0417)	0.3997*** (0.0430)	0.4008*** (0.0431)
<i>Instrumental variable regressions</i>								
spillover_training	0.1461** (0.0613)	0.1209* (0.0594)	0.0848 (0.0675)	0.0619 (0.0740)	0.1096 (0.0704)	0.1088 (0.0747)	0.6326* (0.3832)	0.2663 (0.1635)
personal_training	0.1402** (0.0712)	0.2144*** (0.0744)	0.1681** (0.0703)	0.2079*** (0.0709)	0.2620*** (0.0777)	0.2294*** (0.0773)	1.1950*** (0.3944)	0.5091*** (0.1679)
trust outcome at baseline	0.1801*** (0.0380)	0.3476*** (0.0411)	0.2798*** (0.0421)	0.3011*** (0.0503)	0.3241*** (0.0455)	0.3627*** (0.0429)	0.3846*** (0.0452)	0.3857*** (0.0453)
Panel B: controls for crop type								
<i>Reduced form regressions</i>								
spillover_invitation	0.0844* (0.0502)	0.0553 (0.0527)	0.0201 (0.0496)	-0.0005 (0.0515)	0.0350 (0.0520)	0.0362 (0.0542)	0.2460 (0.2752)	0.1020 (0.1173)
personal_invitation	0.0923* (0.0549)	0.1380** (0.0563)	0.0909* (0.0512)	0.1202** (0.0516)	0.1613*** (0.0576)	0.1380** (0.0580)	0.7401** (0.2816)	0.3148** (0.1199)
trust outcome at baseline	0.1564*** (0.0386)	0.2255*** (0.0396)	0.2282*** (0.0398)	0.2297*** (0.0449)	0.2403*** (0.0360)	0.2821*** (0.0390)	0.3035*** (0.0421)	0.3043*** (0.0422)
<i>Instrumental variable regressions</i>								
spillover_training	0.0996* (0.0600)	0.0600 (0.0625)	0.0190 (0.0590)	-0.0085 (0.0611)	0.0332 (0.0609)	0.0363 (0.0637)	0.2582 (0.3250)	0.1067 (0.1385)
personal_training	0.1019 (0.0630)	0.1631** (0.0630)	0.1098* (0.0574)	0.1497*** (0.0571)	0.1661** (0.0644)	0.1661** (0.0646)	0.8825*** (0.3125)	0.3757*** (0.1330)
trust outcome at baseline	0.1520*** (0.0379)	0.2776*** (0.0396)	0.2239*** (0.0397)	0.2249*** (0.0447)	0.2334*** (0.0363)	0.2775*** (0.0386)	0.2969*** (0.0419)	0.2977*** (0.0420)
N	798	798	798	798	798	798	798	798

Note: The number of invited/trained persons in treated RPOs ranges from 2 to 16. Hence, it is impossible to be the only invited/treated person in a treated RPO. We report coefficients from regressions regressing trust at endline on a constant, a binary treatment indicator for personal treatment and for treatment of others including the trust level at baseline as covariate. In panel B we report coefficients from regressions additionally including binary indicators for onion and rice cultivation. For instrumental variable regressions we report coefficients from two-stage estimations using *RPO_invitation* and *personal_invitation* as instruments for *spillover_training* and *personal_training*. Standard errors are reported in parentheses (clustered at RPO level).

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B.12: Treatment effects on individual level controlling for treatment intensity—ANCOVA

	(1) negotiation	(2) integrity	(3) information	(4) efficiency	(5) general	(6) farming	(7) trust_sum	(8) trust_factor
<i>Reduced form regressions</i>								
spillover_invitation	0.1656** (0.0675)	0.1550* (0.0780)	0.1198 (0.0806)	0.0546 (0.0818)	0.1038 (0.0817)	0.1307 (0.0800)	0.7163* (0.4234)	0.3024* (0.1808)
personal_invitation	0.1773** (0.0714)	0.2429*** (0.0719)	0.1973*** (0.0742)	0.1686** (0.0740)	0.2277*** (0.0749)	0.2359*** (0.0803)	1.2119*** (0.3885)	0.5157*** (0.1656)
number_invited	-0.0064 (0.0078)	-0.0075 (0.0080)	-0.0070 (0.0084)	0.0011 (0.0081)	-0.0002 (0.0092)	-0.0051 (0.0084)	-0.0230 (0.0428)	-0.0097 (0.0182)
trust outcome at baseline	0.1877*** (0.0377)	0.3597*** (0.0382)	0.2882*** (0.0401)	0.3111*** (0.0491)	0.3380*** (0.0433)	0.3746*** (0.0415)	0.3991*** (0.0424)	0.4002*** (0.0426)
<i>Instrumental variable regressions</i>								
spillover_training	0.2403** (0.1013)	0.2213* (0.1157)	0.1716 (0.1203)	0.0705 (0.1176)	0.1415 (0.1162)	0.1846 (0.1138)	1.0108 (0.6158)	0.4265 (0.2630)
personal_training	0.2493** (0.1001)	0.3307*** (0.1021)	0.2687*** (0.1059)	0.2179* (0.1038)	0.2990*** (0.1022)	0.3170*** (0.1109)	1.633*** (0.5460)	0.6947*** (0.2329)
number_trained	-0.0149 (0.0118)	-0.0160 (0.0125)	-0.0138 (0.0132)	-0.0014 (0.0118)	-0.0051 (0.0130)	-0.0120 (0.0122)	-0.0600 (0.0646)	-0.0254 (0.0275)
trust outcome at baseline	0.1741*** (0.0382)	0.3436*** (0.0383)	0.2798*** (0.0421)	0.3008*** (0.0499)	0.3222*** (0.0455)	0.3604*** (0.0419)	0.3803*** (0.0436)	0.3815*** (0.0437)
N	798	798	798	798	798	798	798	798

Note: The number of invited/trained persons in treated RPOs ranges from 2 to 16. Hence, it is impossible to be the only invited/treated person in a treated RPO. We report coefficients from regressions regressing trust at endline on a constant, a binary treatment indicator for personal treatment and for treatment of others including the trust level at baseline and the number of invited/trained persons as covariate. For instrumental variable regressions we report coefficients from two-stage estimations using *RPO_invitation*, *number_invited* and *personal_invitation* as instruments for *spillover_training*, *number_trained* and *personal_training*. Standard errors are reported in parentheses (clustered at RPO level).

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$