The Shadow of Social Desirability Bias:
Evidence from Reassessing the Sources of Political Trust in China

Supplementary Online Appendices

NOT FOR PUBLICATION

These appendices contain materials, results and robustness checks that supplement the main text.

A Empirical Strategies of Four Studies Reported in Table 1

Table A-1: Propensity toward Social Desirability Bias in Chinese Survey Data

	Item Nonresponse		**Preference Falsification**	
	Ratigan and Rabin (2020)	Shen and Truex (2021)	Jiang and Yang (2016)	Robinson and Tannenberg (2019)
Personal Characteristics	(1)	(2)	(3)	(4)
Data	2012 Village Survey; 2008 China Survey (Rural subset) 2011 Asianbarometer 1993 SSMSC(Rural subset)	World Value Survey (Wave 5-6) 2008 China Survey	2006 CGSS	Online Sample
Outcome Variable	Item Nonresponse	Index of Item Nonresponse	Falsification Index	Confidence in Gov.
Estimation Strategy	Conditional Logit	OLS	DID	List Experiment

B Item Nonersponse and Individual Characteristics in 2014 CFPS Data

Table A-2: Determinants of Item Nonersponses in 2014 CFPS Data

	CFPS 2014 Multi-Imputed	CFPS 2014 Listwise Deletion
	(1)	(2)
Rural	0.612***	0.722***
	(0.046)	(0.061)
Age	-0.018***	-0.025***
	(0.002)	(0.002)
CCP membership	-0.860***	-0.719***
	(0.125)	(0.159)
Year of Schooling	-0.003	-0.034***
	(0.006)	(0.007)
Local Hukou	-0.504***	-0.381***
	(0.097)	(0.132)
Household income (logged)	0.180***	0.114***
	(0.021)	(0.025)
Male	0.359***	0.381***
	(0.042)	(0.054)
N	19752	16127

Note: The outcome variable is coded one when the response is missing, zero otherwise. Coefficient estimates are based on a binary logistic model. Standard errors are reported in parentheses. Constants are not reported. $*$ p < 0.1; $**$ p< 0.05; $***$ p < 0.01.

C Validity of the List Experiment

Table A-3 reports the distribution of responses to the control and treatment groups in our list experiment with the overlapping sample. Overall, 29.91% respondents chose all four control items in the control group and 15.38% chose all five items in the treatment group. Meanwhile, only 8.25% and 9.33% respondents chose zero items in the control and treatment groups, respectively. Hence, we are less concerned about the floor and ceiling effects of the list experiment design. The nonresponse rates in both groups are around 1%, which are very low compared to direct questioning of trust in government in China.

For the restricted sample used in the main analysis, the mean response rates are 2.39 for the control group and 2.62 for the treatment group, respectively. Thus, the estimated proportion of respondents who trust county/district level officials is 23.37%.

Table A-3: List Experiment Survey Responses
(Restricted 2015 CHFS Sample)

Number of Groups Trusted	Control	Treatment
0	8.25%	9.33%
1	22.12%	18.83%
2	20.73%	19.95%
3	17.71%	19.23%
4	29.91%	15.38%
5		16.52%
Nonresponse	1.29%	1.16%
Mean	2.39	2.62
N	6,827	6,702

Note: This table reports the share of respondents in each answer category for both the control and treatment groups based on the 2015 CHFS list experiment data in the main analysis, which only include 74 cities also were sampled in the 2014 CFPS data. Nonresponse represents that respondents either chose the "don't know" category or refused to answer the question.

Although our list experiment data is based on a subsample of the 2015 CHFS, the properties of the list experiment data in Table A-3 is largely consistent with that in the full sample. As show in Table A-4 below, the distribution of responses are in line with those in Table A-3. For the full sample, the mean response rates are 2.36 for the control group and 2.60 for the treatment group, respectively. Thus, the estimated proportion of respondents who trust county/district level officials is 23.79%, which is similar to that in the sub-sample used in the main analysis of this paper.

Table A-4: List Experiment Survey Responses
(Full 2015 CHFS Sample)

Number of Groups Trusted	Control	Treatment
0	8.80%	9.39%
1	22.77%	19.86%
2	20.54%	19.56%
3	16.98%	18.54%
4	29.35%	15.02%
5		16.32%
Nonresponse	1.56%	1.31%
Mean	2.36	2.60
N	15,558	15,273

Note: This table reports the share of respondents in each answer category for both the control and treatment groups based on the full sample of the 2015 CHFS list experiment data. Nonresponse represents that respondents either chose the "don't know" category or refused to answer the question.

D The Distribution of Citizen Trust in County or District Officials in 2014 and 2016 CFPS Direct Question

Figure A-1: Trust in County or District Officials in 2014 CFPS Raw Data

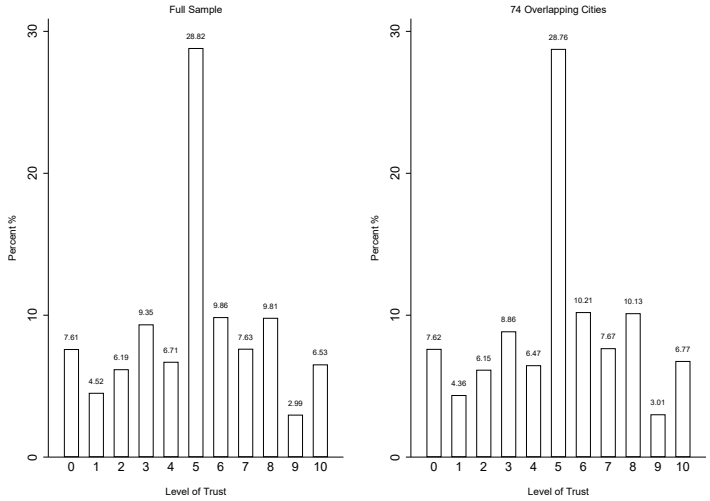
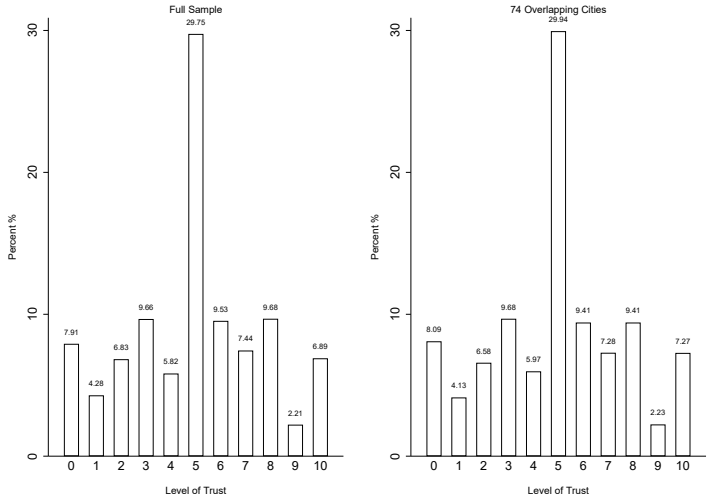


Figure A-2: Trust in County or District Officials in 2016 CFPS Raw Data



E Level of Trust in Local Official by Individual Characteristics

Figure A-3: Trust in County or District Officials by Individual Characteristics

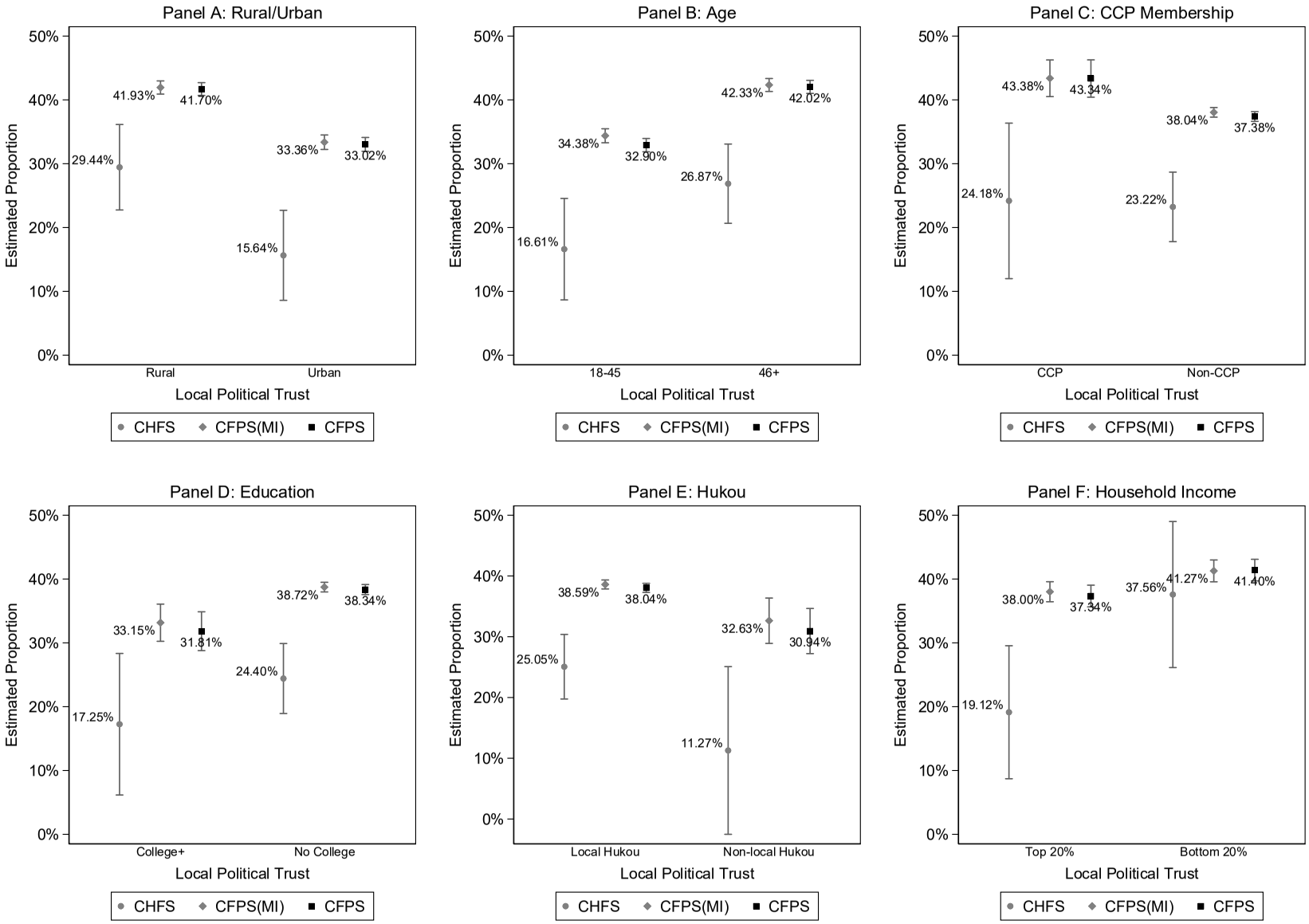
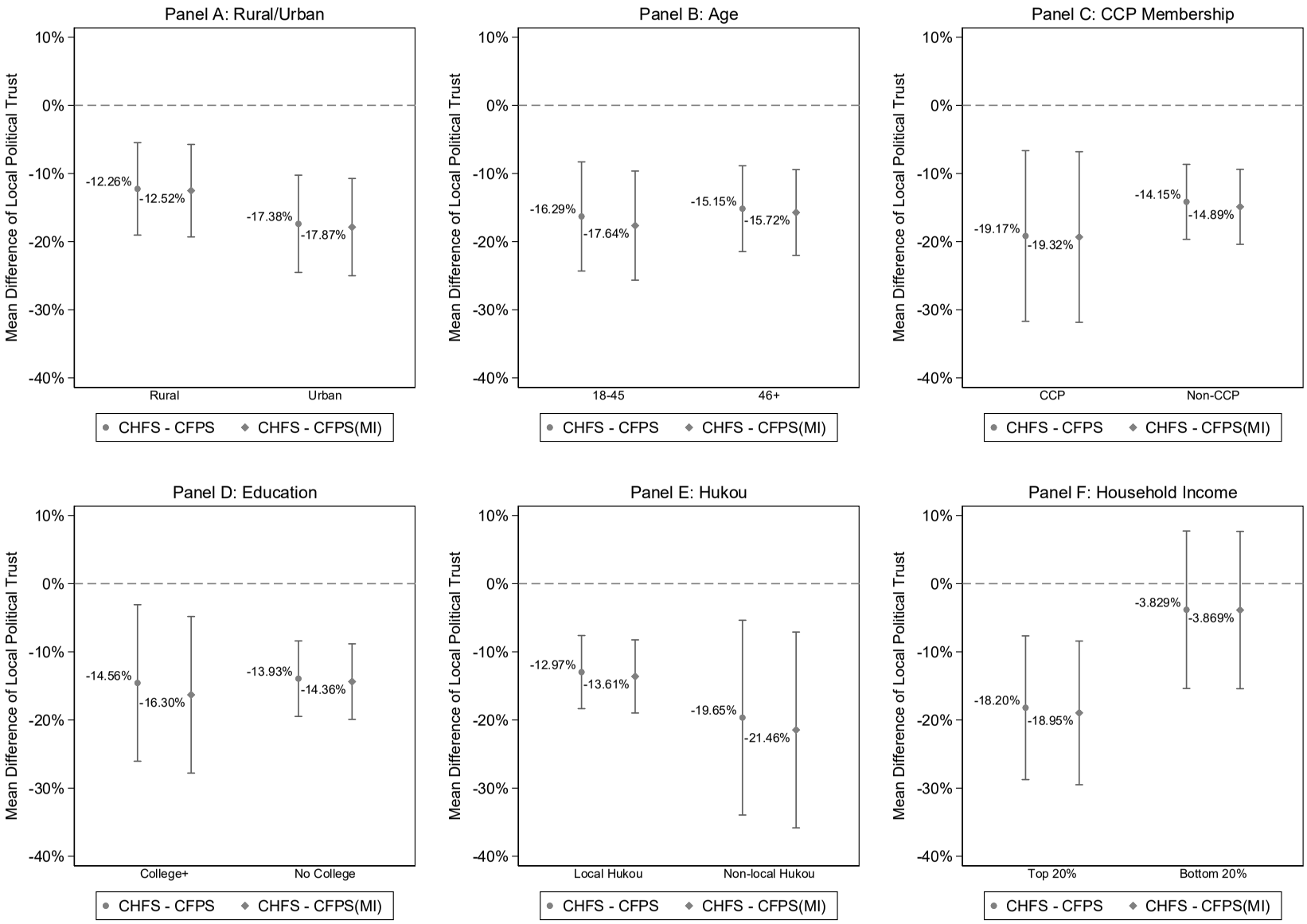


Figure A-4: List-Direct Difference of Level of Trust in Local Official by Individual Characteristics



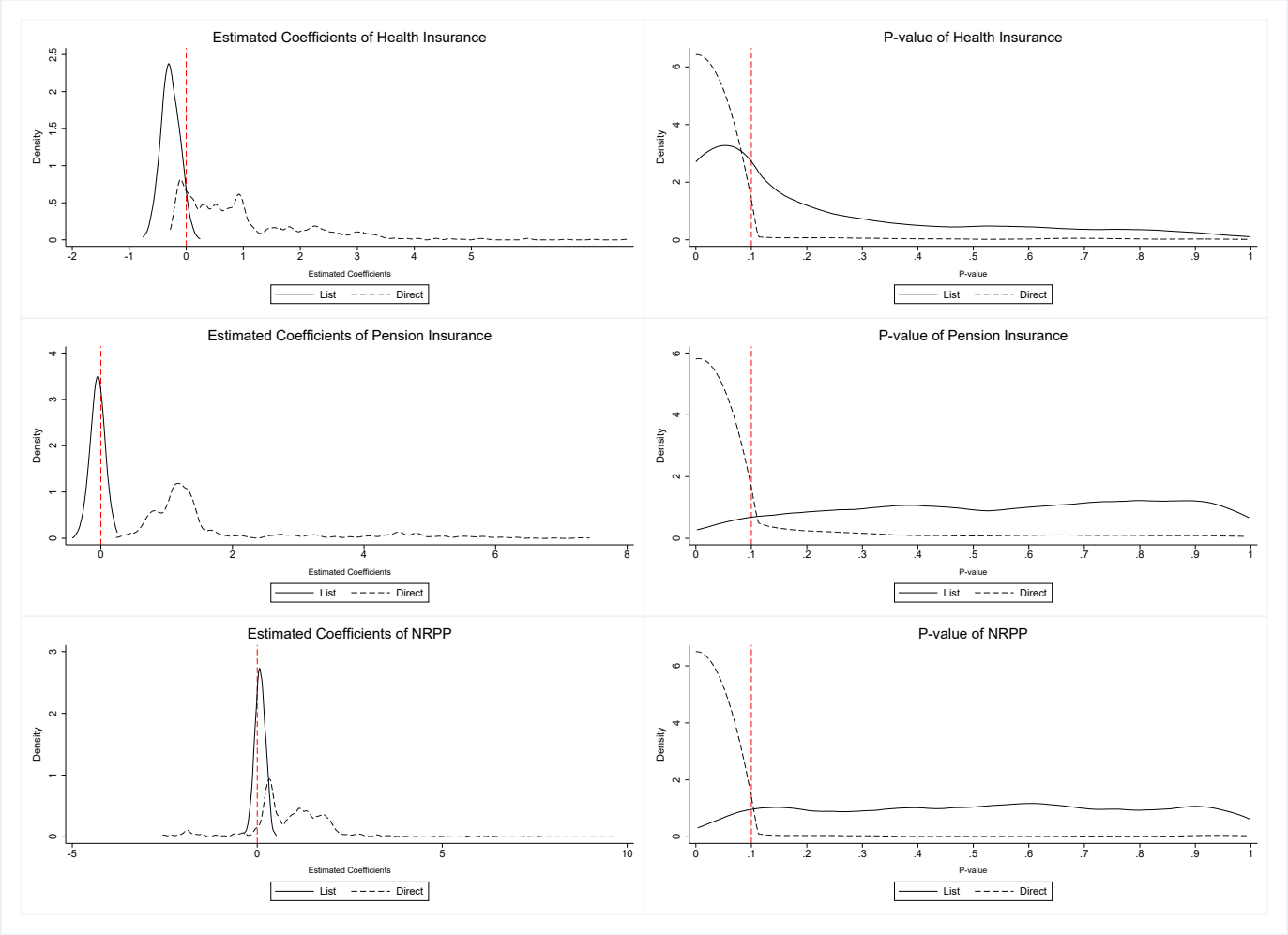
F The Effects of Social Insurance on Trust in Local Officials

Table A-5: The Effects of Social Insurance on Trust in Local Officials

	(1)	(2)	(3)	(4)	(5)	(6)
	CHFS 2015		CFPS 2014		CFPS 2016	
	List Experiment		Listwise Deletion		Listwise Deletion	
Health Insurance = 1	-0.150	-0.255	0.250***	0.241***	0.275***	0.273***
	(0.160)	(0.167)	(0.069)	(0.069)	(0.073)	(0.073)
P-value	0.349	0.127	0.000	0.000	0.000	0.000
Personal Characteristics	Y	Y	Y	Y	Y	Y
City Characteristics		Y		Y		Y
N	12353	11732	14481	14481	13477	13477
Pension Insurance = 1	-0.034	-0.029	0.156***	0.153***	0.162***	0.163***
	(0.121)	(0.125)	(0.055)	(0.055)	(0.056)	(0.056)
P-value	0.779	0.817	0.004	0.005	0.004	0.004
Personal Characteristics	Y	Y	Y	Y	Y	Y
City Characteristics		Y		Y		Y
N	12888	12252	14481	14481	13500	13500
New Rural Pension Scheme (NRPS) = 1	0.061	0.008	0.178**	0.169**	0.195**	0.199**
	(0.171)	(0.179)	(0.077)	(0.077)	(0.085)	(0.085)
P-value	0.721	0.964	0.020	0.028	0.021	0.019
Personal Characteristics	Y	Y	Y	Y	Y	Y
City Characteristics		Y		Y		Y
N	7041	6612	8152	8152	7426	7426

Note: In Columns 1–2, estimated coefficients are based on the MLE estimator where the outcome variable is the respondent's answer to the question that includes the sensitive item. In Columns 3–6, estimated coefficients are based on binary logistical regression. Household income is the logarithmic value. Personal characteristics include age, gender, years of schooling, CCP membership, local hukou status, rural resident. City characteristics include city-level GDP per capita (logged), population (logged), and proportion of rural population. Standard errors are reported in parentheses. $*$ p $<$ 0.1; $**$ p$<$ 0.05; $***$ p $<$ 0.01.

Figure A-5: Comparison of Estimation Results from Indirect and Direct Questions on Social Insurance



Note: We use the bootstrap method to resample the CHFS 2015 and CFPS 2014 data 1,000 times with replacement to estimate the coefficients. The coefficients for list experiment questions are estimated using the MLE estimator, where the outcome variable is the respondent's answer to the question containing the sensitive item. For the direct questions, coefficients are estimated using binary logistic regression. In both analyses, we control personal and city characteristics including age, gender, years of schooling, CCP membership, local hukou status, rural resident, and city-level GDP per capita (logged), population (logged), and proportion of rural population. The figure displays the kernel density distribution of the 1,000 estimated coefficients and their corresponding p-values.The solid line indicates the distribution of coefficients or p-values based on the list experiment questions, and the dotted line represents those based on the direct questions.

Table A-6: Comparison of direct and indirect measures using bootstrap method

Variable	(1) Direct	(2) List	(3) Direct-List	(4) t-statistics	(5) p-value
Health Insurance	0.992	-0.278	1.270	34.803	0.000
	(0.036)	(0.005)			
Pension Insurance	1.783	-0.049	1.183	41.45	0.000
	(0.044)	(0.003)			
NRPS	0.883	0.078	0.805	21.123	0.000
	(0.038)	(0.004)			
Income	-0.127	-0.030	-0.097	-21.177	0.000
	(0.005)	(0.005)			
Corruption Investigation	1.379	-0.016	1.395	47.825	0.000
	(0.029)	(0.002)			

Note: We apply the bootstrap method to resample the CHFS 2015 and CFPS 2014 datasets 1,000 times with replacement to estimate the coefficients. Column (1) presents the mean estimated coefficients for key variables using direct questions (CFPS 2014) as outcome variables. Column (2) reports the mean estimated coefficients for key variables using list experiment questions (CHFS 2015) as outcome variables. Column (3) shows the mean difference in estimated coefficients between direct and list experiment questions. Column (4) reports the t-statistics for testing the mean difference between direct and list experiment questions. Standard errors are reported in parentheses.

G Reanalysis of 2014 and 2016 CFPS Data with Different Cutoff Point

Table A-7: Different cut point of the coding of the trust in local officials

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Trust in Local Officials 7 and above as 1, 0 to 6 as 0			Trust in Local Officials 5 and above as 1, 0 to 4 as 0			Trust in Local Officials 0-10		
Health Insurance	0.181**			0.218***			0.321***		
	(0.077)			(0.065)			(0.081)		
Pension Insurance		0.136**			0.195***			0.242***	
		(0.058)			(0.061)			(0.069)	
New Rural Pension Scheme			0.129			0.248***			0.247**
(NRPS)			(0.079)			(0.093)			(0.099)
Personal Characteristics	Y	Y	Y	Y	Y	Y	Y	Y	Y
City Characteristics	Y	Y	Y	Y	Y	Y	Y	Y	Y
N	14481	14481	8152	14481	14481	8152	14481	14481	8152

Note: Estimated coefficients in columns (1)-(6) are based on binary logistical regression,estimated coefficients in columns (7)-(9) are based on ordinary least squares (OLS). Household income is logarithmic value. Personal characteristics include age, gender, years of schooling, CCP membership, local hukou status, rural resident. City characteristics include city-level GDP per capita (logged), population (logged), and proportion of rural population. Standard errors are reported in parentheses. $*$ p $<$ 0.1; $**$ p$<$ 0.05; $***$ p $<$ 0.01.

H Reanalysis with Multiple-imputed 2014 and 2016 CFPS Data

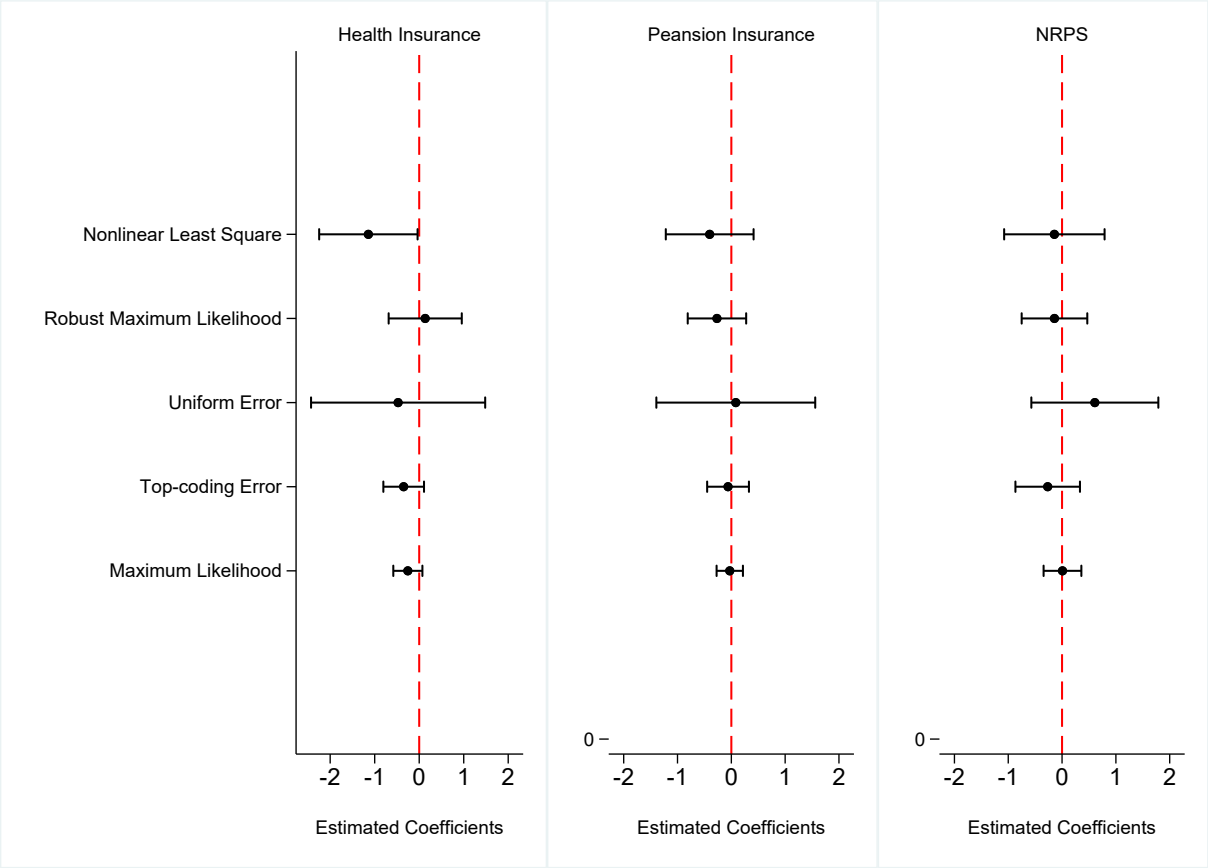
Table A-8: Multiple Imputed Results, CFPS 2014 and 2016

	(1)	(2)	(3)	(4)	(5)	(6)
	CFPS 2014			CFPS 2016		
	Trust in Local Officials					
Health Insurance	0.242***			0.241***		
	(0.060)			(0.064)		
Pension Insurance		0.187***			0.218***	
		(0.050)			(0.053)	
New Rural Pension Scheme			0.204***			0.216***
(NRPS)			(0.069)			(0.078)
Personal Characteristics	Y	Y	Y	Y	Y	Y
City Characteristics	Y	Y	Y	Y	Y	Y
N	19752	19752	11509	15968	15968	8638

Note: Estimated coefficients are based on binary logistical regression. Household income is logarithmic value. Personal characteristics include age, gender, years of schooling, CCP membership, local hukou status, rural resident. City characteristics include city-level GDP per capita (logged), population (logged), and proportion of rural population. Standard errors are reported in parentheses. $*$ p < 0.1; $**$ p< 0.05; $***$ p < 0.01.

I Robustness of List Experiment Analysis

Figure A-6: Robustness of List Experiment Analysis



Notes: The figure shows estimated coefficients of social insurance with different list experiment data analysis. We control personal and city characteristics in all specifications. Personal characteristics include household income (logged), age, gender, years of schooling, CCP membership, local hukou status, rural resident. City characteristics include city-level GDP per capita (logged), population (logged), and proportion of rural population.

J Extended Analysis on Household Income and the Anti-corruption Campaign

Table A-9: The Effects of Corruption Investigation on Trust in Local Officials

	(1)	(2)	(3)	(4)	(5)	(6)
	CHFS 2015		CFPS 2014		CFPS 2016	
	List Experiment		Listwise Deletion		Listwise Deletion	
Number of Downfallen	-0.167***	-0.129	-0.020	0.066**	0.050**	0.083***
of Officials (logged)	(0.053)	(0.079)	(0.023)	(0.030)	(0.023)	(0.028)
Personal Characteristics	Y	Y	Y	Y	Y	Y
City Characteristics		Y		Y		Y
N	12888	12252	14481	14481	13500	13500

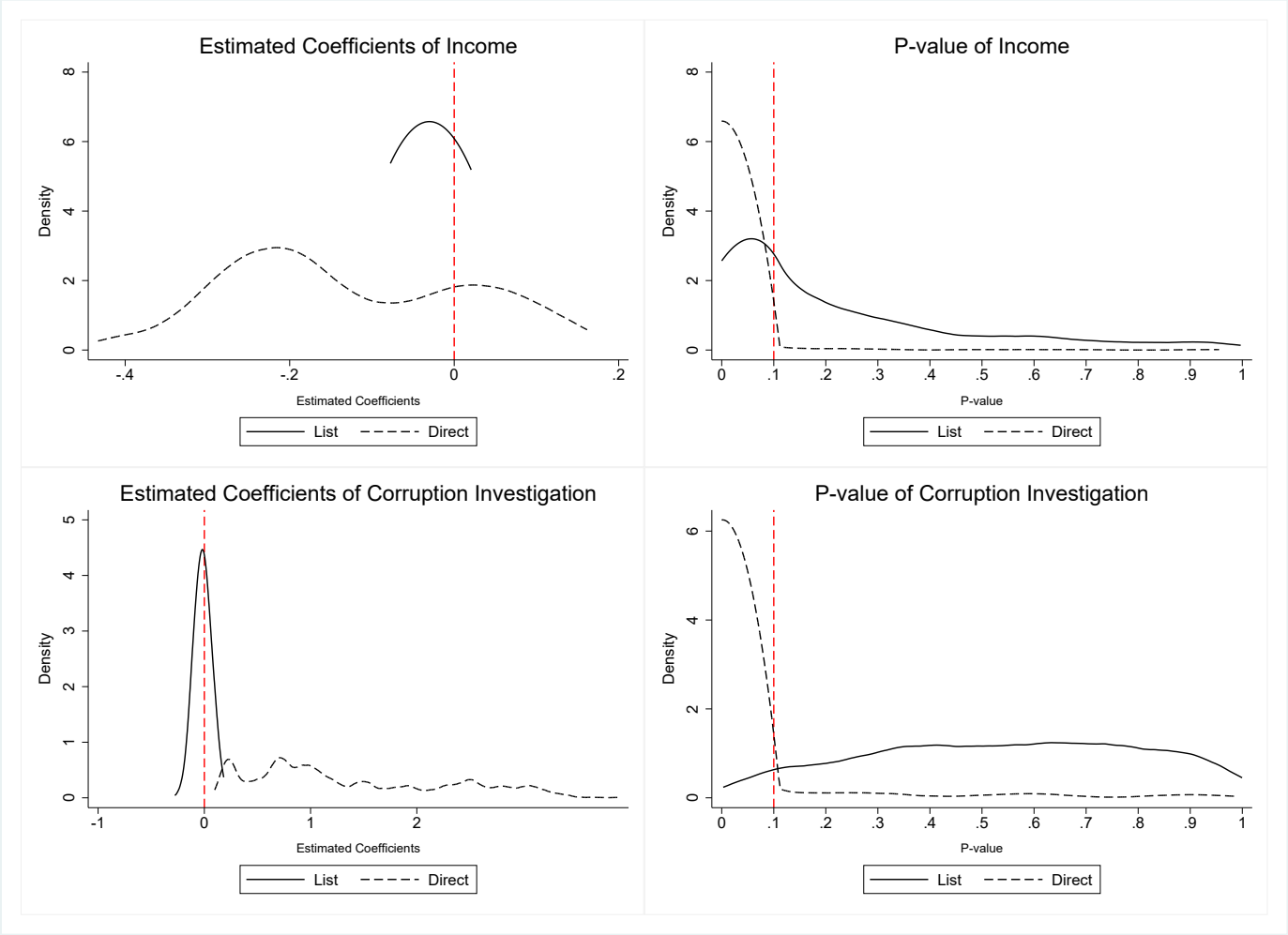
Note: In Columns 1–2, estimated coefficients are based on the MLE estimator where the outcome variable is the respondent's answer to the question that includes the sensitive item. In Columns 3–6, estimated coefficients are based on binary logistical regression. Personal characteristics include age, gender, years of schooling, CCP membership, local hukou status, rural resident. City characteristics include city-level GDP per capita (logged), population (logged), and proportion of rural population. Standard errors are reported in parentheses. $*$ p < 0.1; $**$ p< 0.05; $***$ p < 0.01.

Table A-10: The Effects of Economic Well-Being on Trust in Local Officials

	(1)	(2)	(3)	(4)	(5)	(6)
	CHFS 2015		CFPS 2014		CFPS 2016	
	List Experiment		Listwise Deletion		Listwise Deletion	
Household Income (Log)	-0.037**	-0.030*	-0.020	-0.006	-0.005	-0.004
	(0.018)	(0.018)	(0.015)	(0.015)	(0.019)	(0.019)
Personal Characteristics	Y	Y	Y	Y	Y	Y
City Characteristics		Y		Y		Y
N	12888	12252	14481	14481	13500	13500

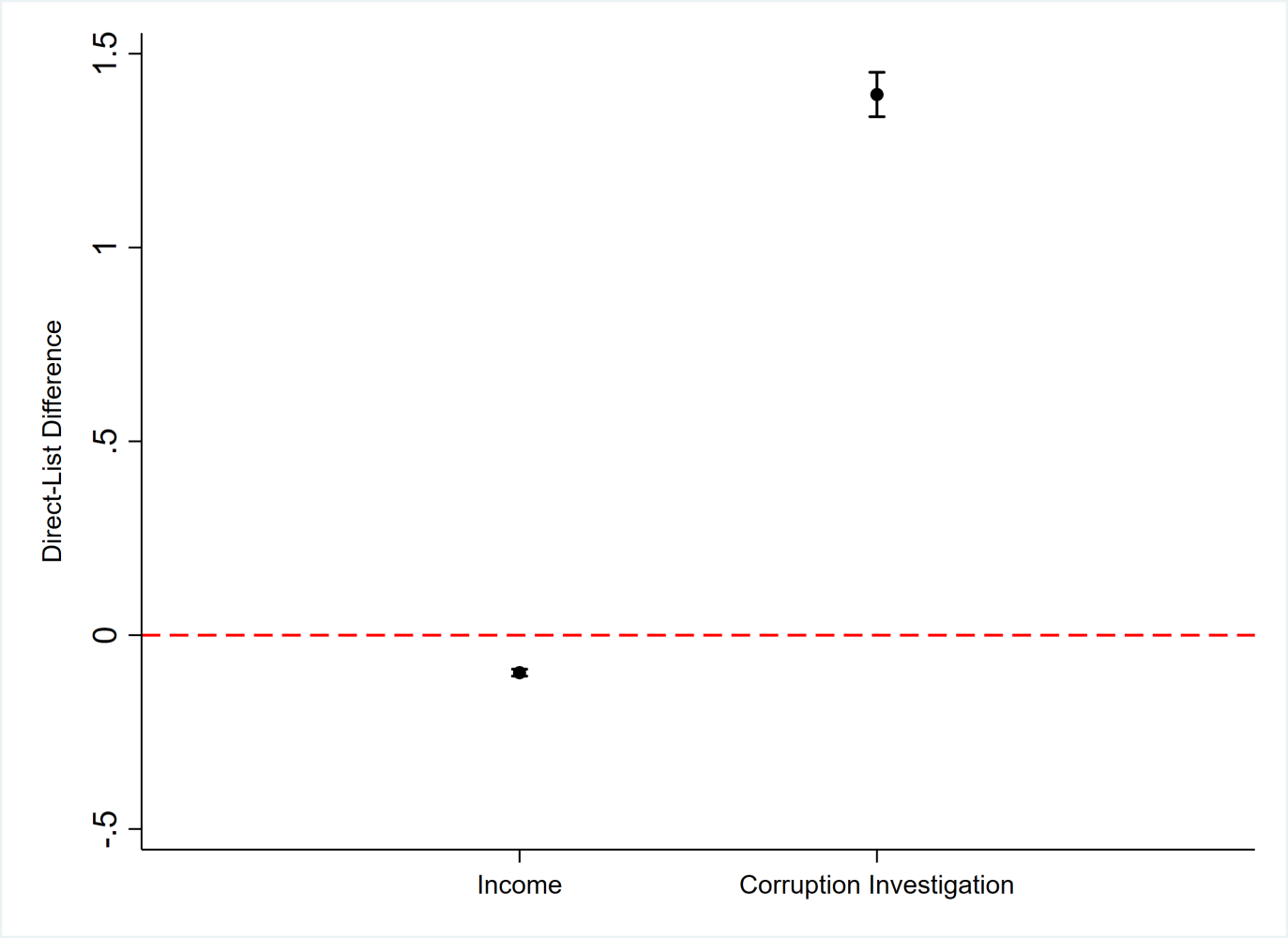
Note: In Columns 1–2, estimated coefficients are based on the MLE estimator where the outcome variable is the respondent's answer to the question that includes the sensitive item. In Columns 3–6, estimated coefficients are based on binary logistical regression. Household income is the logarithmic value. Personal characteristics include age, gender, years of schooling, CCP membership, local hukou status, rural resident. City characteristics include city-level GDP per capita (logged), population (logged), and proportion of rural population. Standard errors are reported in parentheses. $*$ p < 0.1; $**$ p< 0.05; $***$ p < 0.01.

Figure A-7: Comparison of Estimation Results from Indirect and Direct Questions on Income and Corruption Investigation



Note: We use the bootstrap method to resample the CHFS 2015 and CFPS 2014 data 1,000 times with replacement to estimate the coefficients. The coefficients for list experiment questions are estimated using the MLE estimator, where the outcome variable is the respondent's answer to the question containing the sensitive item. For the direct questions, coefficients are estimated using binary logistic regression. In both analyses, we control personal and city characteristics including age, gender, years of schooling, CCP membership, local hukou status, rural resident, and city-level GDP per capita (logged), population (logged), and proportion of rural population. The figure displays the kernel density distribution of the 1,000 estimated coefficients and their corresponding p-values.The solid line indicates the distribution of coefficients or p-values based on the list experiment questions, and the dotted line represents those based on the direct questions.

Figure A-8: Comparison of direct and indirect measures using bootstrap method for Income and Corruption Investigation



Note: We use the bootstrap-generated sample to calculate the mean difference between the estimated coefficients of direct questions (CFPS 2014) and indirect questions (CHFS 2015). The dot represents the mean difference between the list experiment questions (indirect) and direct questions. Table A-6 shows the mean difference between the estimated coefficients and t-statistics.

K Replication of Other Studies Using List Experiment

1) **Trust in Central Government in China**

Nicholson and Huang (2023) investigate whether Chinese citizens overreport their political trust in government officials. The study employs both a direct question—"To what extent do you trust the central government to do what is right?"—and a list experiment to indirectly gauge trust in the central government. The results indicate a slight tendency for Chinese citizens to overreport their trust in the central government.

We obtained the original data from the study and conducted analyses using both direct and indirect measures of political trust. Table A-11 presents the reestimated results. Column (1) reports findings using the list experiment question as the outcome variable, revealing that only satisfaction with the current situation in China has a positive and statistically significant association with trust in the central government at the .01% level. In contrast, Column (2) presents results based on the direct question, indicating that education, income level, satisfaction with China's situation, and Confucian values are all significantly and positively correlated with trust in the central government, while self-monitoring exhibits a negative association.

Table A-11: Replication of Nicholson and Huang (2023) on Trust in Central Government

	(1) List Experiment	(2) Direct Question
Female	0.789	-0.007
	(0.747)	(0.011)
Education	-0.293	0.014**
	(0.374)	(0.006)
Age group	-0.228	-0.003
	(0.388)	(0.003)
CCP member	-0.191	0.004
	(1.172)	(0.014)
Income level	-0.084	0.012***
	(0.266)	(0.004)
Political interest	0.902*	-0.008
	(0.526)	(0.008)
Life Satisfaction	-0.414	-0.011
	(0.513)	(0.008)
Self-Monitoring	-0.976	-0.028***
	(0.698)	(0.008)
China situation	1.375***	0.124***
	(0.522)	(0.008)
Confucian value	0.828	0.028**
	(0.773)	(0.011)

Note: Constants are not reported. Standard errors are reported in parentheses. $*$ p $<$ 0.1; $**$ p$<$ 0.05; $***$ p $<$ 0.01.

2) **Victims of Sexual Violence in Sri Lanka**

Traunmüller, Kijewski and Freitag (2019) employ a list experiment to assess whether victims of sexual violence underreport their experiences. The primary outcome variable in their study is victimization from sexual violence, measured through both direct and indirect questioning techniques. Specifically, the survey includes two direct questions: (1) whether respondents themselves were sexually assaulted during the war between 1983 and 2009 (Question D4h), and (2) whether respondents personally witnessed or heard of others being sexually assaulted within their family or community (Question D4i).

The central argument is that Tamils who either assisted rebel groups or had family members who did were more likely to experience sexual violence during the war. To test this, the study employs a maximum likelihood estimation (MLE) analysis, as reported in Column (2) of Table 2 in the original draft, confirming this argument. We replicate their results and additionally conduct an ordinary least squares (OLS) regression using the two direct questions as key independent variables.

Table A-12 presents the estimation results. Column (1) reports results using sexual violence identified through the list experiment as the outcome variable. The interaction term between *Tamil* and *Assisted military group* is positive and statistically significant at the 10% level, supporting the main argument. Columns (2) and (3) present results using direct questions as the outcome variable. In these models, the estimated coefficients for the interaction term are much smaller and statistically insignificant.

Table A-12: Replication of Traunmüller, Kijewski and Freitag (2019)

	(1) Sexual Violence List	(2) Sexual Violence Direct (Q D4h)	(3) Sexual Violence Direct (Q D4i)
Tamil × Assisted military group	2.184*	-0.001	0.012
	(1.263)	(0.028)	(0.068)
Tamil	-0.333	0.025**	0.148***
	(0.545)	(0.011)	(0.027)
Assisted military group	0.261	0.003	0.095*
	(0.976)	(0.021)	(0.051)
Controls	Y	Y	Y

Note: Controls include female, age, education, eastern province, and displaced. Standard errors are reported in parentheses. $*$ p < 0.1; $**$ p< 0.05; $***$ p < 0.01.

3) Vote-buying and Voter Intimidation in Guatemala

Vote-buying and intimidation are inherently sensitive topics, leading voters to underreport their experiences. Gonzalez-Ocantos et al. (2020) employ a list experiment to detect instances of vote-buying and intimidation in Guatemala and to identify targeted individuals. The study includes both direct and indirect questions, with the direct questions explicitly asking whether respondents have experienced vote-buying or intimidation. The findings reveal systematic underreporting of these experiences, likely driven by fear and social desirability bias.

Table A-13 presents the estimation results. Column (1) reports results using the list experiment and shows that older, more educated, wealthier, and urban residents, as well as non-indigenous individuals, are more likely to be targeted for vote-buying. We then use the direct question as the outcome variable in Column (2) and find that these individual attributes have no significant impact on vote-buying.

Then we check whether individuals' attributes shape voter intimidation. Column (3) presents results from the list experiment on voter intimidation, indicating that older, more educated, lower-income, and rural residents, as well as those who place less value on reciprocity, are more likely to be targets of intimidation. Column (4) reports results using direct questions, showing that reciprocity has a positive effect while age has a negative effect—both of which contrast with the results obtained using the list experiment. Other variables have no significant impact on voter intimidation.

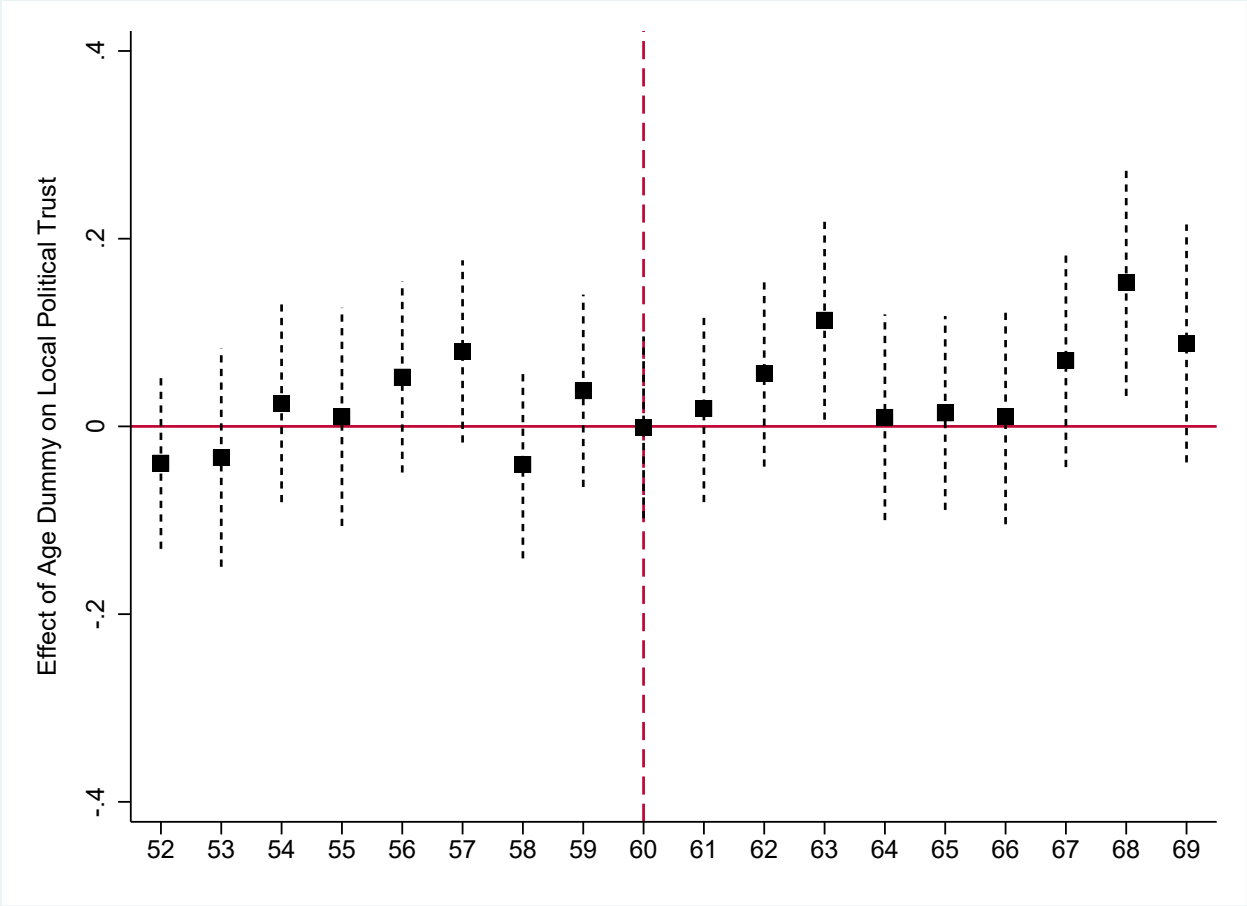
Table A-13: Replication of Gonzalez-Ocantos et al. (2020)

	(1)	(2)	(3)	(4)
	Vote Buying		Intimidation	
	List	Direct	List	Direct
Voted 2007	-2.097	-0.005	1.215	-0.001
	(1.276)	(0.020)	(1.294)	(0.016)
Pro-Gov't	0.329	-0.001	-1.148**	-0.007
	(0.526)	(0.008)	(0.508)	(0.006)
Reciprocity	0.989*	0.023***	-1.378***	0.012*
	(0.499)	(0.008)	(0.477)	(0.006)
Ballot not Secret	2.840	-0.015	-2.607	-0.003
	(1.751)	(0.026)	(1.789)	(0.022)
Female	0.749	0.020	0.796	-0.004
	(1.432)	(0.017)	(1.099)	(0.014)
Age	1.714*	-0.011	2.042**	-0.020*
	(1.284)	(0.014)	(0.924)	(0.011)
Education	2.173*	-0.006	1.729**	-0.009
	(1.279)	(0.013)	(0.807)	(0.011)
Income	3.260**	0.001	-1.967*	0.007
	(1.333)	(0.013)	(1.018)	(0.011)
Rural	-4.218**	0.008	2.359*	0.007
	(1.786)	(0.018)	(1.208)	(0.015)
Indigenous	-3.819*	-0.003	0.007	0.007
	(2.128)	(0.019)	(0.985)	(0.015)

Note: Constants are not reported. Standard errors are reported in parentheses. $*$ p < 0.1; $**$ p< 0.05; $***$ p < 0.01.

L The Link between Age and Local Political Trust

Figure A-9: The Effects of Age Dummies on the Trust in Local Officials



Note: The analysis is based on the restricted sample of the 2014 CFPS data. The figure plots the estimated coefficients of age dummies on local political trust, as shown in Column (3) in Table A-14. We restrict our sample to rural residents aged between 50 and 70. We investigate whether age dummies have heterogeneous effects on political trust as individuals approach the age of 60.

Table A-14: The Effects of Age Dummies on the Trust in Local Officials

	(1)	(2)	(3)
	Outcome Variable: Trust in Local Officials		
52	-0.033	-0.035	-0.039
	(0.044)	(0.047)	(0.047)
53	-0.025	-0.037	-0.033
	(0.056)	(0.059)	(0.059)
54	0.010	0.021	0.025
	(0.051)	(0.054)	(0.054)
55	0.009	-0.002	0.010
	(0.057)	(0.059)	(0.059)
56	0.061	0.048	0.053
	(0.049)	(0.052)	(0.052)
57	0.069	0.077	0.080
	(0.047)	(0.050)	(0.050)
58	-0.018	-0.041	-0.040
	(0.049)	(0.051)	(0.051)
59	0.052	0.033	0.038
	(0.049)	(0.052)	(0.052)
60	0.018	-0.003	-0.001
	(0.046)	(0.050)	(0.049)
61	0.023	0.021	0.019
	(0.048)	(0.051)	(0.051)
62	0.069	0.048	0.056
	(0.048)	(0.051)	(0.051)
63	0.125**	0.110**	0.113**
	(0.051)	(0.054)	(0.054)
64	0.018	0.004	0.010
	(0.053)	(0.056)	(0.056)
65	0.004	0.005	0.014
	(0.050)	(0.053)	(0.053)
66	0.025	0.008	0.010
	(0.055)	(0.059)	(0.058)
67	0.083	0.066	0.070
	(0.055)	(0.058)	(0.058)
68	0.141**	0.151**	0.154**
	(0.059)	(0.062)	(0.062)
69	0.116*	0.091	0.088
	(0.061)	(0.065)	(0.065)
Individual Controls		Y	Y
City Controls			Y
N	3103	2854	2854

Note: The analysis is based on the restricted sample of the 2014 CFPS data. We restrict the sample to rural residents aged between 50 and 70. Standard errors are reported in parentheses. Individual controls include gender, year of schooling, CCP membership, local hukou status, household income; city-level controls include GDP per capita (logged), population (logged), and proportion of rural population. $*$ p $<$ 0.1; $**$ p$<$ 0.05; $***$ p $<$ 0.01.

M Fixed Effect Models

Because the CFPS is a household panel survey conducted biennially since 2010, we are able to combine the 2014 and 2016 CFPS panel data and conduct an analysis with individual fixed effects. In our analysis we employ an individual FE linear model, and we estimate the following model specification:

$$Y_{it} = \beta NRPS_{it} + \gamma X_{it} + \alpha_i + year_t + \epsilon_{it} \tag{1}$$

$NRPS_{it}$ is a binary indicator for receiving NRPS by the respondent i at year t. Hence β is the key estimate of interest. X_{it} is a vector of personal characteristics (age, gender, years of schooling, CCP membership, hukou status and logged household income) and city characteristics (city-level GDP per capita (logged), population (logged), and proportion of rural population). We include individual fixed effect α_i and year fixed effects $year_t$ in the model.

Table A-15: The Effects of New Rural Pension Scheme on trust in local officials (2014 and 2016 CFPS Surveys) with FE Models

	(1)	(2)	(3)	(4)
	Fixed-effect logit model		Fixed effect linear model	
New Rural Pension Scheme	0.040	0.003	0.004	-0.003
(NRPS)	(0.124)	(0.125)	(0.024)	(0.024)
Personal Characteristics	Y	Y	Y	Y
City Characteristics		Y		Y
Individual FE	Y	Y	Y	Y
Year FE	Y	Y	Y	Y
N	4278	4278	15663	15663

Note: Personal characteristics include age, gender, year of schooling, CCP membership, local hukou status, rural resident, household income. City characteristics include city-level GDP per capita (logged), population (logged), and proportion of rural population. Standard errors are reported in parentheses. $*$ p < 0.1; $**$ p< 0.05; $***$ p < 0.01.

N DID Model

The NRPS was first implemented in 12 percent of counties in 2009, and by 2012, it achieved universal coverage of all counties in China (Huang and Zhang, 2021). We conducted the DID analysis by exploiting the timing of NRPS implementation at the county level as the treatment. To facilitate DID analysis, we use 2010 and 2012 CFPS data because all counties are treated with the policy intervention after 2012. We followed the model specification below:

$$Y_{ict} = \beta NRPS_{ict} * 2012_t + NRPS_{ict} + 2012_t + \gamma X_{it} + County_c + \epsilon_{it} \quad (2)$$

In this model, $NRPS_{ict}$ is a binary indicator of NRPS program implementation in county c for respondent i at year t. β is estimate of the NRPS treatment that we are primarily interested in assessing. X_{it} is a vector of personal characteristics (age, gender, years of schooling, CCP membership, hukou status and logged household income) and city characteristics (city-level GDP per capita (logged), population (logged), and proportion of rural population). We also use clustered standard errors at the county level for both models.

Table A-16: The Effects of New Rural Pension Scheme on Trust in Local Government (2010 and 2012 CFPS Surveys) with DID Models

	(1)	(2)	(3)	(4)
	DV: Support of Local Government Dummy			
	Unbalanced Panel		Balanced Panel	
New Rural Pension Scheme (NRPS)	0.006	0.007	0.009	0.005
	(0.025)	(0.025)	(0.025)	(0.025)
Controls		Y		Y
County FE	Y	Y	Y	Y
Year FE	Y	Y	Y	Y
N	8535	7767	7127	6498

Note: The sample uses data CFPS survey data in 2010 and 2012. We restricted the sample to rural residents aged 60 and above. New Rural Pension Scheme (NRPS) $_{ct}$ refers to a county-level dummy and captures whether a county adopted the NRPS in year t. It is equal to 1 if a county adopted NRPS in year t and after, otherwise is 0. Standard errors clustered at county-level are reported in parentheses. Controls include age, gender, year of schooling, CCP membership, family income per capita (logged). $*$ p < 0.1; $**$ p< 0.05; $***$ p < 0.01.

O IV Model

The NRPS program stipulates an important eligibility criterion: only rural residents who reached the age of 60 and above. Hence, we use the age eligibility as the instrument for our IV analysis for the 2014 CFPS data. We have the following two-stage regression model specification:

$$NRPS_i = \delta AgeEligible_i + e_i \tag{3}$$

$$Y_i = \beta NRPS_i + \gamma X_i + \epsilon_i \tag{4}$$

In this model $NRPS_i$ is a binary indicator for respondent i receiving NRPS, and $AgeEligible_i$ is coded 1 if respondent i is aged 60 or above, and zero otherwise. X_i is a vector of personal characteristics (age, gender, years of schooling, CCP membership, hukou status and logged household income) and city characteristics (city-level GDP per capita (logged), population (logged), and proportion of rural population).

Table A-17: The Effects of New Rural Pension Scheme on Trust in Local Officials with IV Models

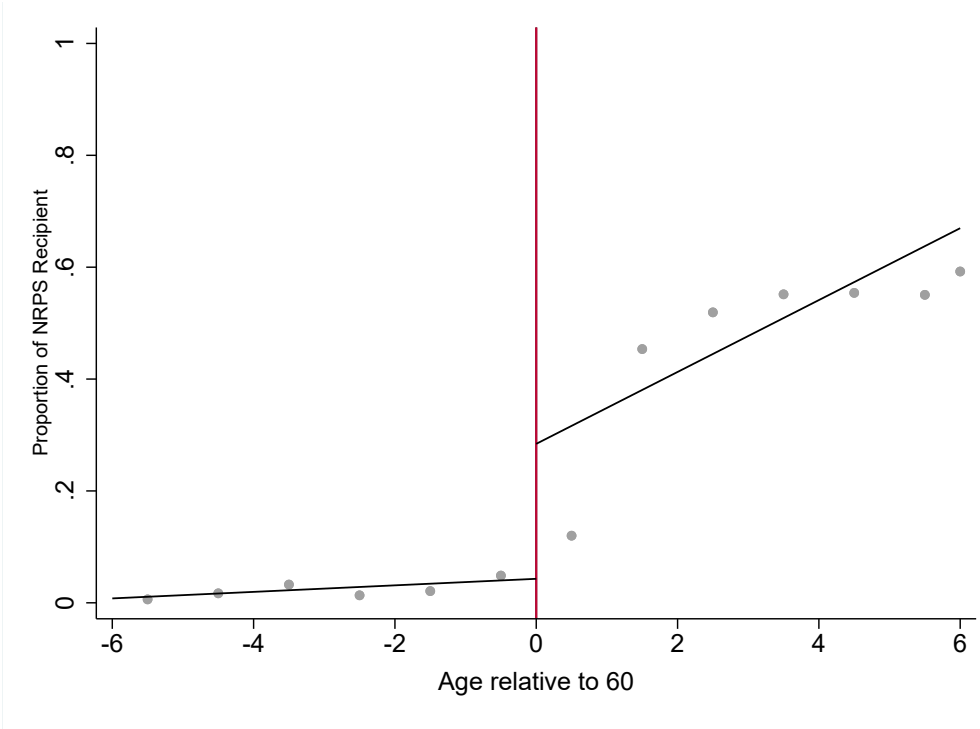
	(1)	(2)	(3)	(4)	(5)	(6)
	Outcome variable: Trust in Local Officials					
	Full sample		50-70		55-65	
	Panel A: Second Stage					
New Rural Pension Scheme (NRPS)	0.038	0.041	-0.101	-0.107	-0.078	-0.116
	(0.041)	(0.040)	(0.118)	(0.118)	(0.508)	(0.514)
	Panel B: First stage results					
Age≥60	0.459***	0.459***	0.303***	0.303***	0.102***	0.100***
	(0.010)	(0.010)	(0.026)	(0.026)	(0.038)	(0.038)
Personal characteristics	Y	Y	Y	Y	Y	Y
City characteristics		Y		Y		Y
N	8152	8152	2854	2854	1488	1488

Note: The sample uses CFPS survey data in 2014. We restricted the sample to rural residents. Personal characteristics include age, gender, years of schooling, CCP membership, hukou status and logged household income. City characteristics include GDP per capita (logged), population (logged), and proportion of rural population. Constants are not reported. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

P RDD Analysis

In the policy design of China's New Rural Pension Scheme (NRPS), age (60 and older) is the most important eligibility criterion for rural residents to receive NRPS benefits. The age discontinuity of receiving benefits enables us to employ the regression discontinuity (RD) design to evaluate the consequence of NRPS on trust in local officials. Nevertheless, the difficulties in policy implementation resulted in noncompliance in treatment assignment. Specifically, the policy was postponed or partially implemented in some localities due to local governments' financial restrains when the central government first announced the policy. Hence, age is not the solo factor shaping the allocation of NRPS benefits. Figure A-10 demonstrated the discontinuity in NRPS benefits around age of 60.

Figure A-10: NRPS Recipients in 2014 CFPS data



We thus employ the two-stage least-squares (2SLS) model in the fuzzy RD design. Age above 60 is the instrument variable for receiving NRPS benefits. High-order polynomials are sensitive to the degree of the polynomial and could lead to problematic estimates, thus local linear approach is more appropriate in RD analysis (Gelman and Imbens, 2019). All results are estimated using the local linear approach in our analysis.

We use the same restricted 2014 CFPS data with the same cities with CHFS 2015. Figure A-11 presents the basic illustration of RD treatment effects. The lines depict the local linear fit with a triangular kernel. It shows that there is no evident discontinuity in the trust in local

officials across bandwidths between 3 and 10. RD figures only show graphically the sharp RD estimate. To further estimate the causal effect of the NRPS, we use 2SLS model in the fuzzy RD design. Table A-18 presents the second-stage results and demonstrates that the NRPS has no significant impact on trust in local officials across different bandwidths. The NRPS even has negative but insignificant effect on trust in local officials in some specifications. Both Figure A-11 and Table A-18 confirm that receiving benefits of NRPS has no salient impact on trust in local officials among rural residents.

Figure A-11: Effects of receiving benefits from the NRPS on Trust in Local Officials

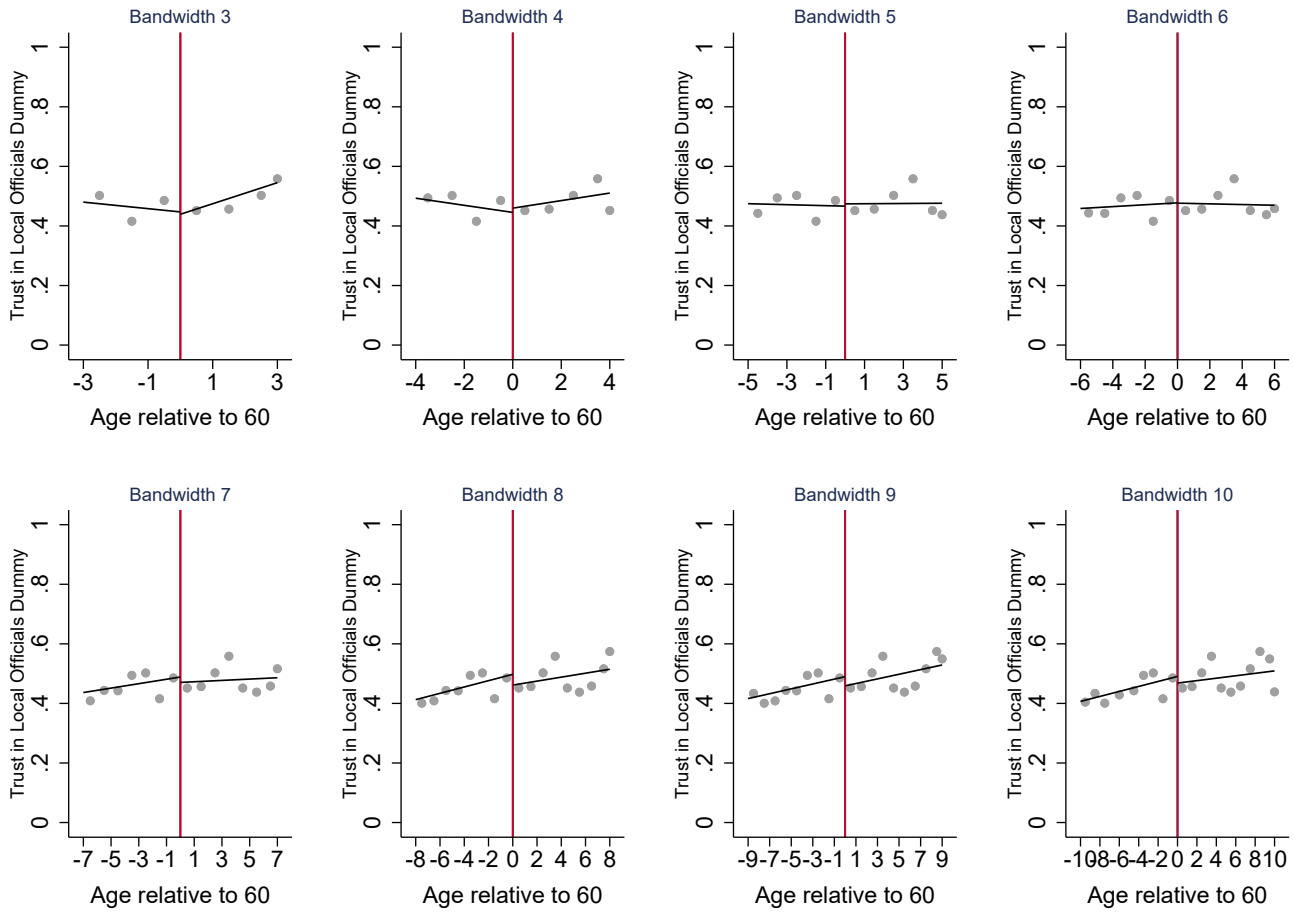


Table A-18: Fuzzy RDD on effect of receiving benefits from the NRPS across bandwidths

	BW 3	BW 4	BW 5	BW 6	BW 7	BW 8	BW 9	BW 10
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
NRPS	-9.379	-0.124	-0.007	-0.003	-0.066	-0.137	-0.097	-0.060
	(59.877)	(0.510)	(0.296)	(0.223)	(0.178)	(0.138)	(0.114)	(0.102)
Personal Characteristics	Y	Y	Y	Y	Y	Y	Y	Y
City Characteristics	Y	Y	Y	Y	Y	Y	Y	Y
N	1278	1576	1847	2108	2339	2685	3012	3324

Note: The analysis is based on the restricted sample of the 2014 CFPS data. Estimates are based on 2SLS model in the fuzzy RD design. Older than 60 is employed as the instrument variable of NRPS. Poly 1 and age differences (age-60) are controlled in all models. Personal characteristics include age, gender, year of schooling, CCP membership, local hukou status,rural resident. City characteristic include city-level GDP per capita (logged), population (logged), and proportion of rural population. Standard errors are reported in parentheses. $*$ p $<$ 0.1; $**$ p$<$ 0.05; $***$ p $<$ 0.01.

Q Propensity Score Matching Analysis

We employ standard matching technique to estimate the 2014 CFPS data. Specifically, we employed three calipers to ensure the robustness of the estimated results: 0.001, 0.01, and 0.05. The estimated coefficients are the average treated effects on the treated (ATT).

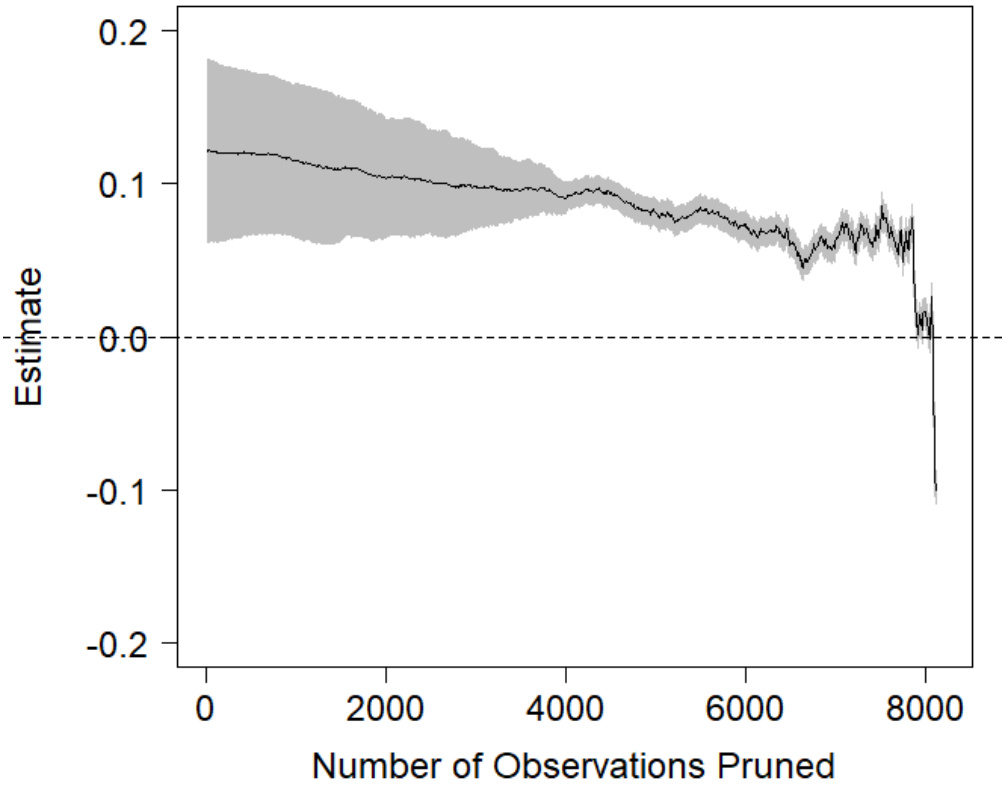
Table A-19: The Effects of New Rural Pension Scheme on Trust in Local officials (Propensity Score Matching)

	Caliper=0.001	Caliper=0.01	Caliper=0.05
	(1)	(2)	(3)
New Rural Pension Scheme (NRPS)	0.046*	0.053**	0.053**
	(0.027)	(0.025)	(0.025)
N	8152	8152	8152

Note: The analysis is based on the restricted sample of the 2014 CFPS data. The estimated coefficient shows the average treated effects on the treated (ATT), standard errors are reported in parentheses. The matching results are based on controls including age, gender, year of schooling, CCP membership, local hukou status, rural resident and city-level GDP per capita (logged), population (logged), and proportion of rural population. $*$ p < 0.1; $**$ p< 0.05; $***$ p < 0.01.

The estimate of the PSM analysis, by contrast, is 0.053 and statistically significant (p-value: 0.002) despite a much smaller size compared to the OLS results (point estimate of 0.169 with a p-value of 0.077) reported in Table A-19. PSM selectively trims observations to curtail imbalance. A trade-off exists between optimizing sample size and balance. King, Lucas, and Nielsen (2017) propose an alternative matching technique to address this issue—simultaneously optimizing balance and matched sample size by maximizing possible balance for each sample size. As a robustness check we employed the matching frontier to reanalyze our data. Figure A-12 presents the estimated effects of NRPS on trust in local officials along the frontier and shows that the NRPS significantly increases trust in local officials across most of it. The largest change in estimates occurs near the end of the frontier, predicted by King, Lucas, and Nielsen (2017). Consequently, employing the most up-to-date matching methods is still inadequate to address the problem stemming from social desirability bias.

Figure A-12: Matching Frontier: The Effects of New Rural Pension Scheme on Trust in Local Officials



Notes: The analysis is based on the restricted sample of the 2014 CFPS data.

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