



Elections, Accountability,
and Farmers' Welfare
in Chinese Villages

Yang Yao

China Center for Economic
Research, Peking University

[Arrangement of the talk]

- Background
- Data
- Accountability of village officials
- Income transfers
- Income distribution
- Health shocks
- Consumption smoothing
- Conclusions

I. Background

- China began to experiment village elections in the mid-1980s as a way to enhance local governance after the fall of the commune system. Mr. Peng Zhen played a critical role.
- In 1987, the *Organizational Law of Village Committee* was put in experiment, and was finally formally launched in 1998.
- By now almost all the villages have held at least one election.

[The election]

- The election elects a village committee (VC) that is comprised of 3 to 7 members with the chairman being the critical figure.
- Two phases in an election
 - Primary phase: nomination of the candidates for the chairman and reducing the number of candidates to two.
 - Formal voting phase: determining the winner.
- Alternative voting scheme
 - The 3-7 people who have obtained the highest numbers of votes assume office.
- The term of an elected VC is 3 years; no limit is set for the number of reelections.

[Issues in elections]

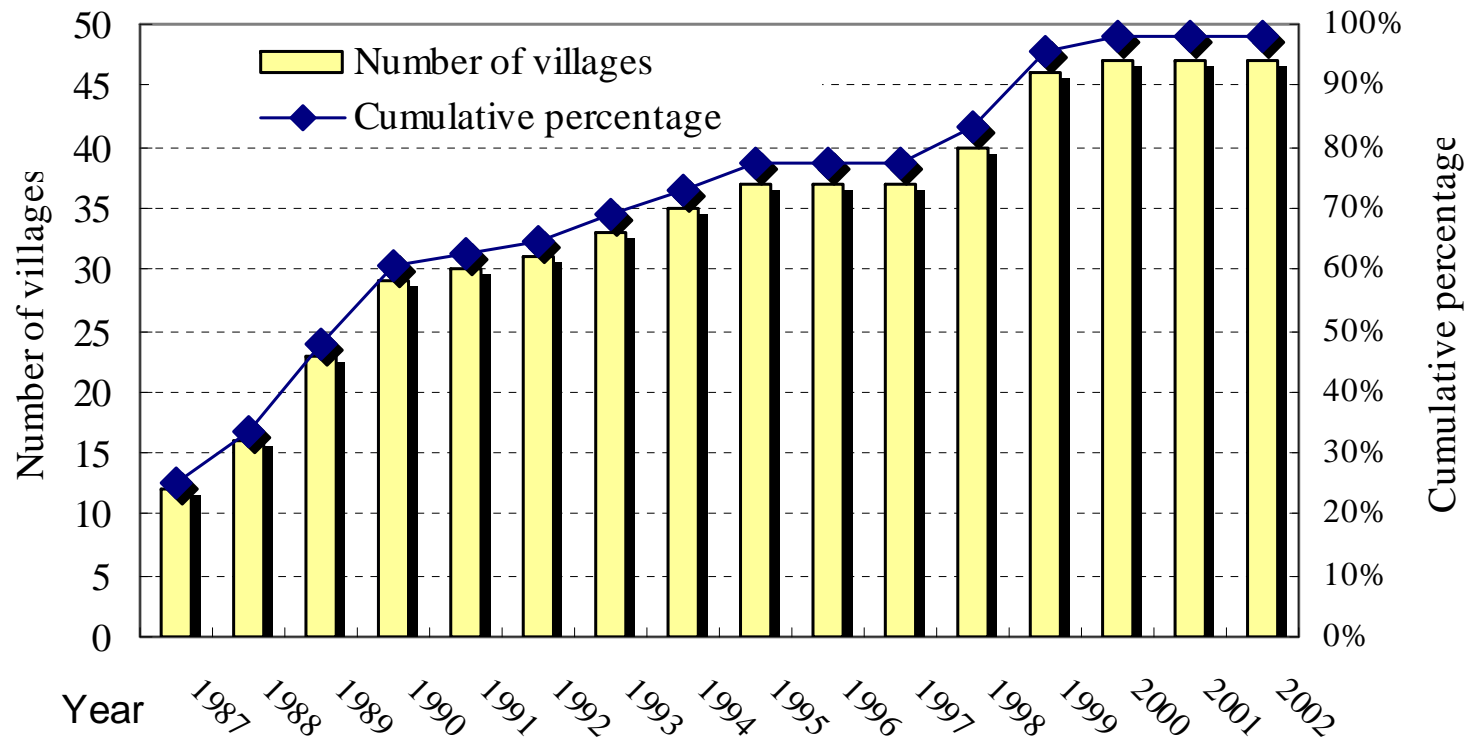
- Conflicts between the VC and the PC.
 - The PC is appointed or elected by party members, but by law it can overrule the decisions of the VC.
- Conflicts between the village and the higher-level authorities.
 - Family planning, taxation, other government duties.
- Elite captures.
- Bribery in elections.

II. Data

- Two sources of data
 - RCRE's Fixed-Point Survey (FPS)
 - A 2003 retrospective survey
- Time span: 1986-2002
- Number of villages: 48, each has 50-100 households
- Both village and household data were gathered.

Trend of the election

Figure 1. Elections in the sample

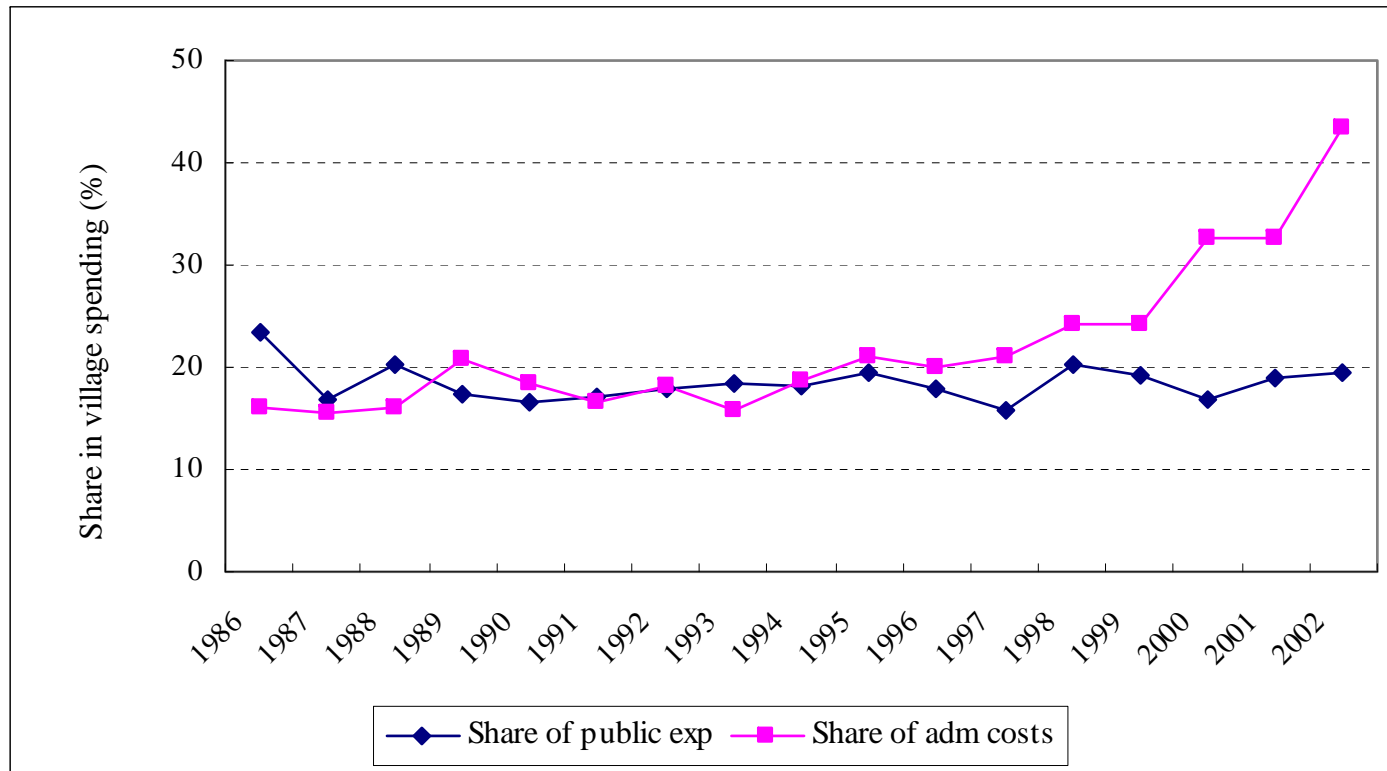


III. Accountability

- Before elections
 - Village cadres were responsible to upper level government officials; their accountability to the villagers was weak.
- Measuring accountability: Administrative versus public expenditures
 - Administrative expenditures: spending on wages, travels, banquets, and other things.
 - Public expenditures: income transfers and investment in public facilities.

III. Accountability

Figure 2. Administrative and public expenditures



Econometric results

Table 1. Elections and accountability

Variables	Share of public exp.		Share of adm. costs	
	R1	R2	R3	R4
Constant	15.67 ^{***} (1.52)	-11.77 (52.76)	24.75 ^{***} (1.31)	-14.71 (45.49)
Election dummy	4.21 ^{**} (2.13)	4.87 ^{**} (2.14)	-3.96 ^{**} (1.83)	-2.79 (1.84)
Ln(population)		3.58 (7.48)		5.73 (6.44)
Ln(per-capita income) (1000 yuan)		-1.65 (1.62)		2.14 (1.40)
Share of collective income in total income (%)		-0.14 ^{***} (0.05)		-0.14 ^{***} (0.04)
Per-capita land territory (mu)		0.55 ^{***} (0.15)		-0.43 ^{***} (0.13)
Gini coefficient		0.27 (11.52)		0.74 (9.93)
Unemployment rate (%)		-0.46 (0.98)		-0.38 (0.85)
Share of migrant workers (%)		0.03 (0.05)		-0.02 (0.05)
Adjusted R ²	0.26	0.28	0.44	0.45

Standard two-way fixed effect model is estimated for each regression.

[Key results]

- Elections reduce the share of administrative expenditure by 4 percentage points, or 18.2% of the average share in the sample.
- Elections increase the share of public expenditures by 4.2 percentage points, or 22.8% of the average share in the sample.

IV. Income redistribution

- Do elections lead to populist politics demanding for more redistribution of income?
- We have household level data on
 - Fees paid by households to the village finance;
 - Transfer income received by households from the village.
- So we can study the net and total income transfers.

Econometric results

Table 2. Elections and income transfer

Variable	R1		R2		R3		R4	
	Estimate	St. Err.	Estimate	St. Err.	Estimate	St. Err.	Estimate	St. Err.
VOTE	1.88	12.73	-50.59***	15.73	8.22	12.36	-58.40***	15.26
RELINC	-64.40***	6.54	-129.24***	13.17	-38.46***	6.34	-120.79***	12.78
RELINC×VOTE			81.16***	14.32			103.04***	13.89
AVLAND	-10.94***	3.64	-10.95***	3.64	0.49	3.53	0.48	3.53
ASSET	-0.87***	0.18	-0.84***	0.18	-0.89***	0.18	-0.86***	0.18
AGE	-0.74	2.12	-0.81	2.12	-0.42	2.06	-0.51	2.06
EDU	-5.44	5.27	-5.06	5.26	-7.27	5.12	-6.78	5.11
MRATIO	-19.72	21.83	-20.68	21.80	-14.97	21.19	-16.19	21.14
GOVN	-8.91	15.13	-5.02	15.13	-4.35	14.69	0.59	14.67
CADRE	-116.54***	18.15	-115.24***	18.13	-126.98***	17.62	-125.33***	17.58
PARTY	0.84	12.35	2.67	12.33	5.59	11.98	7.92	11.96
WORKER	-7.88***	1.44	-7.97***	1.44	0.03	1.40	-0.08	1.39
WUBAOHU	86.13***	33.17	81.11**	33.14	69.98**	32.20	63.60**	32.14
ARMY	43.66*	25.07	46.80*	25.04	37.77	24.33	41.75*	24.29
Constant	211.80***	69.10	245.15	69.26	241.99***	67.07	284.34***	67.17
Adjusted R ²	0.36		0.37		0.36		0.36	

Notes: R1 and R2 are for per-capita net income transfer (in 2002 yuan), and R3 and R4 are for per-capita total income transfer (in 2002 yuan).

[Key results]

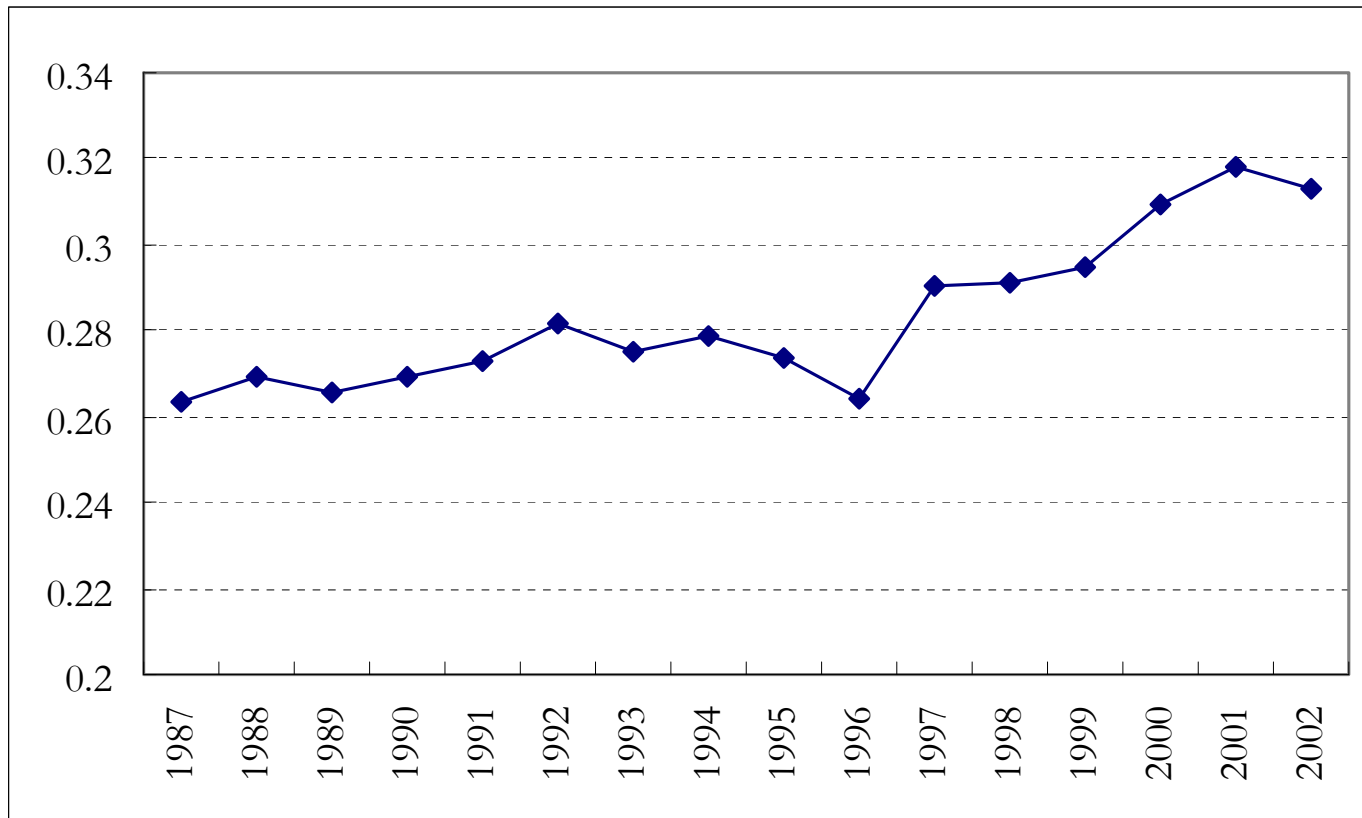
- Income redistribution is progressive in the villages.
- Elections do not have a significant impact on either the total or net transfer income.
- Elections reduce the progressiveness of income redistribution.

[V. Income inequality]

- Gini coefficients are calculated for each village in each year using household per-capita income, adjusted by household size.

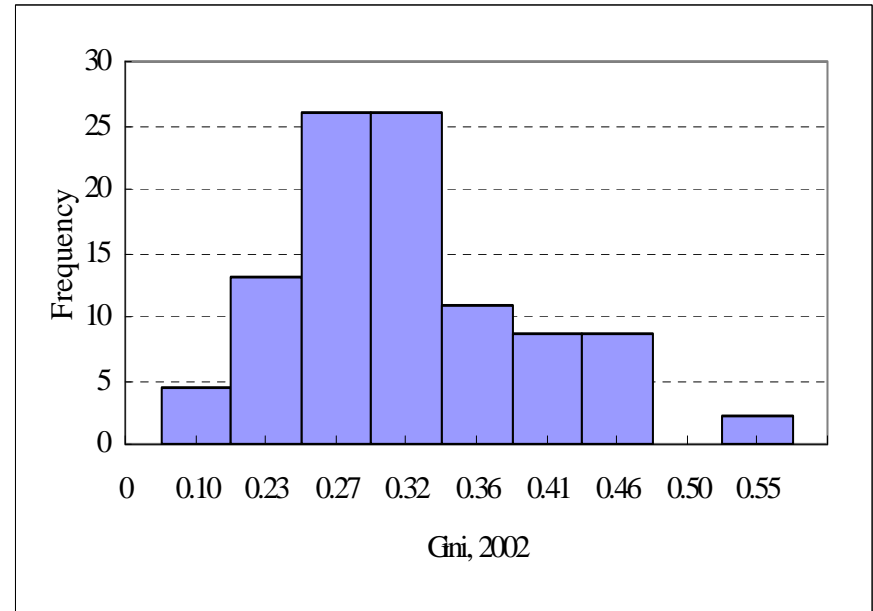
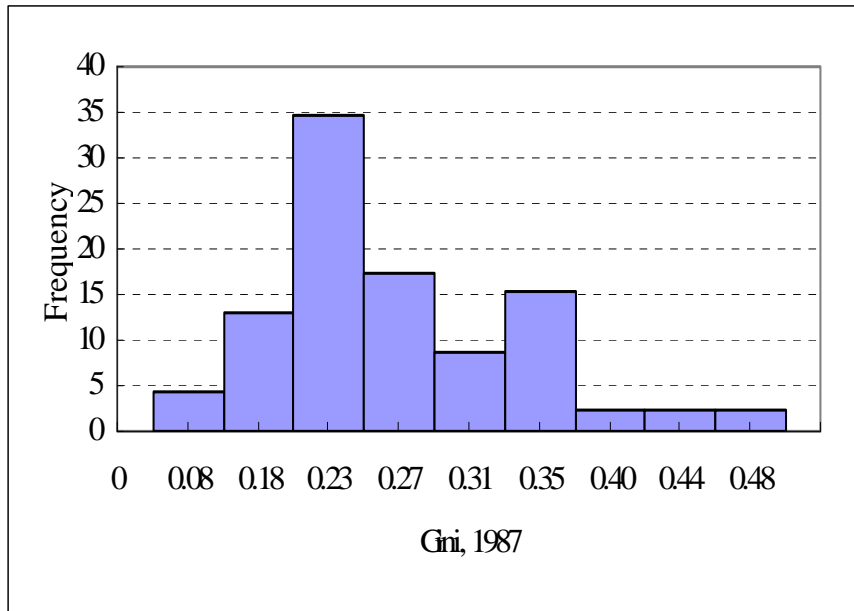
[Income inequality]

Figure 3. Gini coefficient in the sample villages: 1987 – 2002



[Income inequality]

Figure 4. Histograms of the Gini in 1987 and 2002



[Income inequality]

Figure 5. Lorenze curves for 1987, 1999, and 2002

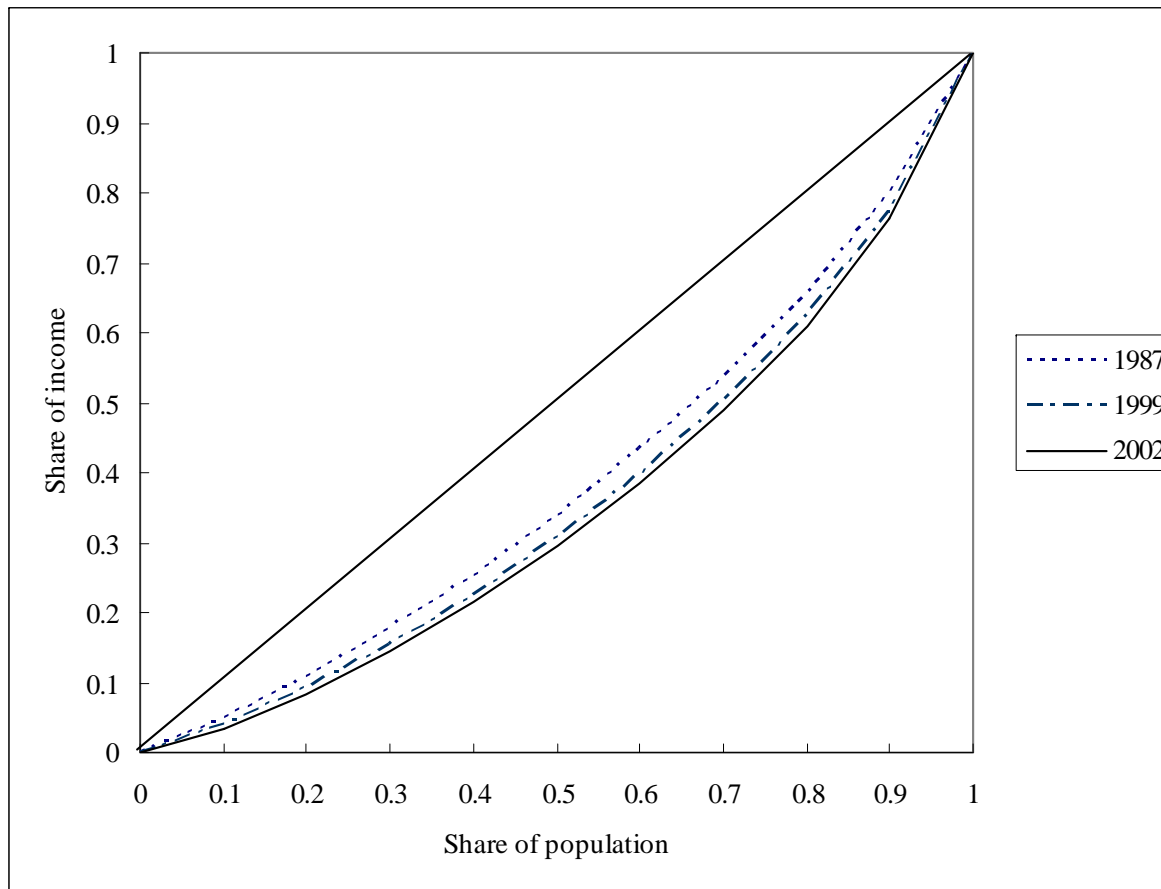


Table 3. Elections' impacts on income inequality: static models ^a

	Elections exogenous		Elections endogenous ^b	
	(1)	(2)	(3)	(4)
Election dummy	-0.016*** (0.006)	0.001 (0.006)	-0.088*** (0.018)	-0.077*** (0.024)
Per-capita net income (1,000 yuan)		0.002*** (0.001)		0.002*** (0.001)
Per-capita net income squared		-0.00004*** (6.43e-06)		-0.00004*** (7.21e-06)
Log village population		0.051 (0.033)		0.056** (0.023)
Unemployment rate		7.85e-06 (0.001)		-0.002 (0.003)
Share of emigrant workers		0.00002 (0.0001)		-0.00007 (0.0001)
CV of household size		0.174*** (0.042)		0.152*** (0.036)
CV of average edu. of household adults		-0.001 (0.030)		-0.043 (0.042)
CV of per-capita household landholding		0.002 (0.006)		0.006 (0.006)
CV of number of household wage earners		0.014*** (0.002)		0.009*** (0.003)
Constant	0.266*** (0.007)	-0.184 (0.230)	0.283*** (0.009)	-0.177 (0.162)
Year Dummies	Yes	Yes	Yes	Yes
Adjusted R ²	0.724	0.713	0.610	0.642
Hausman t statistics for endogeneity of elections			-4.084***	-3.56***

Table 4. Elections' impacts on income inequality: dynamic models

	(1)	(2)
Lagged Gini	0.403*** (0.129)	0.332** (0.155)
Election dummy	-0.027** (0.013)	-0.051** (0.021)
Per-capita net income (1,000 yuan)		0.002** (0.001)
Per-capita net income squared		-0.00002** (0.00001)

Table 5. Elections' impacts on the income shares of the lower tenth and twentieth percentiles of population

	Tenth percentile		Twentieth percentile	
	(1)	(2)	(3)	(4)
Lagged income share	0.222** (0.107)	0.026 (0.233)	0.364*** (0.100)	0.138 (0.132)
Election dummy	0.008*** (0.003)	0.002 (0.007)	0.011* (0.006)	0.004 (0.010)
Per-capita net income (1,000 yuan)		0.000* (0.000)		0.000 (0.001)
Per-capita net income squared		-0.000* (0.000)		-0.000 (0.000)

[Key results]

- Elections reduce the Gini coefficient by 0.027, or about 10% of the sample average, and increase the shares of the lower tenth and twentieth percentiles of population by 20% and 11% of the respective sample averages.
- These positive effects on income distribution are channeled through not by more redistribution of income, but rather by things like
 - More public investment;
 - Land redistribution;
 - Creation of jobs.

VI. Elections and health shocks

- Health shocks are the most devastating shocks on farm households in developing economies.
 - Loss of labor time.
 - Indebtness.
 - Reduced rate of asset accumulation including reduced investment in children's education.



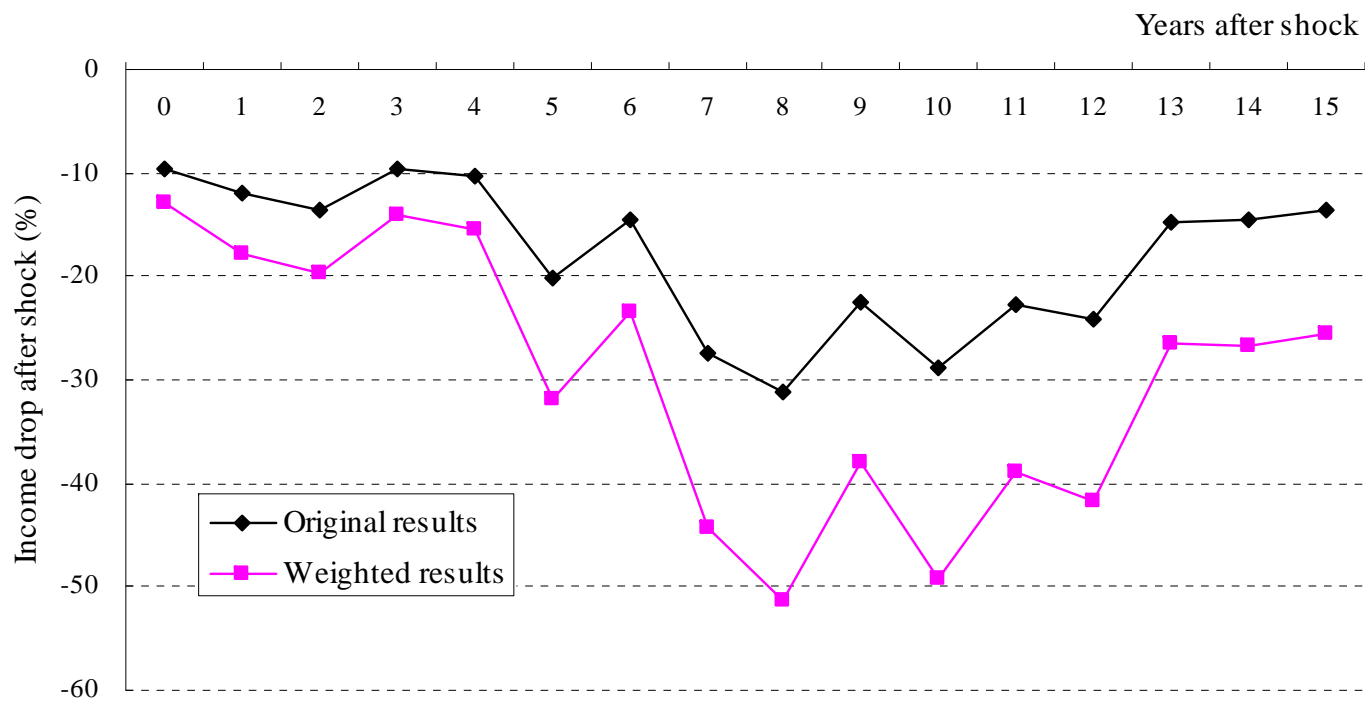
- Definition of health shocks

- An illness requiring a spending of more than 5000 yuan or hospitalization, or of chronicle nature.

- The composition effect:

- Early shocks are more severe than later shocks.

Figure 6. Negative effects of health shocks



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- Elections' role in mitigating the negative impacts of health shocks

$$\ln y_{it} = X_{it}\beta + \alpha_s S_{it} + \alpha_E E_{it} + \alpha_{ES} S_{it} \times E_{it} + \alpha_i + \alpha_t + e_{it},$$

Table 6. The roles of health care plans and elections

Variables	Baseline regression	Treating village-specific time trends	Weighted regression
Health shock dummy	-0.202 ^{***} (0.049)	-0.199 ^{***} (0.050)	-0.216 ^{***} (0.048)
Shock dummy [×]	0.101 ^{***} (0.049)	0.083 [*] (0.050)	0.183 ^{**} (0.074)
Election dummy	0.314 ^{***} (0.024)	0.400 ^{***} (0.036)	0.310 ^{***} (0.024)
Per-capita land (<i>mu</i>)	0.047 ^{***} (0.006)	0.055 ^{***} (0.006)	0.047 ^{***} (0.006)
Age of household head	0.024 (0.022)	0.023 ^{***} (0.008)	0.024 (0.022)
Age of household head squared	-0.297E-3 ^{***} (0.567E-4)	-0.252E-3 ^{***} (0.608E-4)	-0.297E-3 ^{***} (0.567E-4)
Village dummies [×] (year – 1986)	No	Yes	No
Village dummies [×] (year – 1986) ²		Yes	
Adjusted R ²	0.388	0.409	0.396

[Key results]

- Elections reduce the negative impact of a health shock on farmers' income about 50%.
- By way of
 - Better healthcare facilities and insurance plans.
 - Enhancing farmers' income capabilities.

Table 7. Elections and health care plans

Variables	Baseline regression	Three-year lags
Constant	-0.172 (0.813)	0.767 (0.850)
Per-capita income (1000 yuan)	0.050 ^{***} (0.018)	0.025 (0.021)
Ln(population)	0.015 (0.116)	-0.118 (0.122)
Gini coefficient	0.158 (0.199)	0.127 (0.222)
Ratio of shock-hit families	0.440 ^{***} (0.133)	0.359 ^{***} (0.146)
Introduction of elections	0.070 ^{**} (0.035)	0.121 ^{***} (0.043)
Adjusted R ²	0.531	0.590
Number of observations	759	527

[VII. Consumption smoothing]

- Both permanent income hypothesis and the life cycle hypothesis predict that a person (household) should smooth his consumption over time.

$$\Delta c_{ivt} = b\Delta y_{ivt} + \beta\Delta y_{ivt} \times E_{vt} + \sum_{j=1}^V \gamma_j \delta_{jvt} + \alpha' X_{ivt} + \varepsilon_{ivt}$$

Table 8. Elections and consumption smoothing

	(1)	(2)	(3) no
	pooled	pooled	outliers
	$\Delta \ln c$	$\Delta \ln c$	$\Delta \ln c$
$\Delta \ln n$	-0.251 (0.029)***	-0.241 (0.022)***	-0.236 (0.021)***
$\ln N_{kid}$	0.003 (0.011)	-0.004 (0.011)	0.001 (0.011)
$\ln N_{old}$	-0.035 (0.013)***	-0.034 (0.014)**	-0.027 (0.013)**
E_{head}	0.001 (0.002)	0.002 (0.002)	0.003 (0.002)
E_{spouse}	0.002 (0.002)	0.003 (0.002)	0.002 (0.002)
$\Delta \ln y$	0.382 (0.025)***	0.361 (0.019)***	0.334 (0.018)***
election * $\Delta \ln y$	-0.052 (0.029)*	-0.031 (0.022)	-0.040 (0.021)*
election	-0.017 (0.012)		

VIII. Conclusions

- The village election enhances the accountability of the village government, does not cause more income redistribution, improves income equality, mitigates the negative effects of health shocks, and helps smoothing household consumption.
- Grassroots democracy works even in a weakly institutionalized polity.
- Anecdotal stories versus systematic statistical studies.