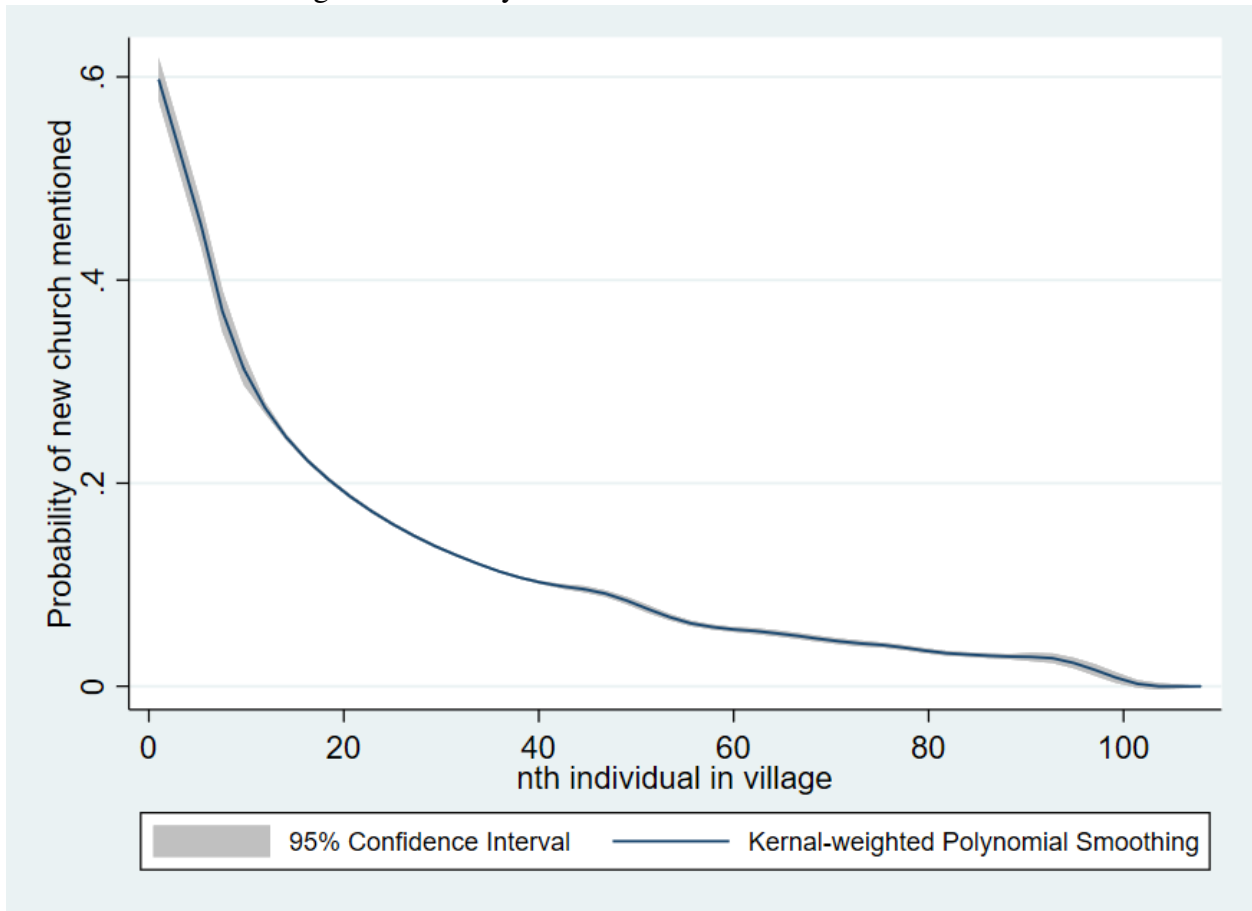**Online Appendix for "Chatting at Church: Information Diffusion through Religious Networks"**

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Date: August 14, 2020

Note: The material contained herein is supplementary to the article named in the title and published in the Review of Economics and Statistics (ReStat).

Figure A1: Decay Rate of Mentions of a New Church

Mean probability over 1000 seeds of randomly ordered individuals by village. Figure demonstrates that as more individuals in a village are sampled, the probability that the nth individual names a new church not already mentioned decreases significantly.

Figure A2: Project area (Western Kenya)

Location of Sampled Villages

Trans Nzoia

Bungoma

Uasin Gishu

Bungoma

Busia

Busia

Kakamega

Kakamega

Nandi

Siaya

Vihiga

Legend
- Cities
- Surveyed Villages
- Counties
- Lake Victoria

Kisumu

Kisumu

0   10   20 km

David Murphy
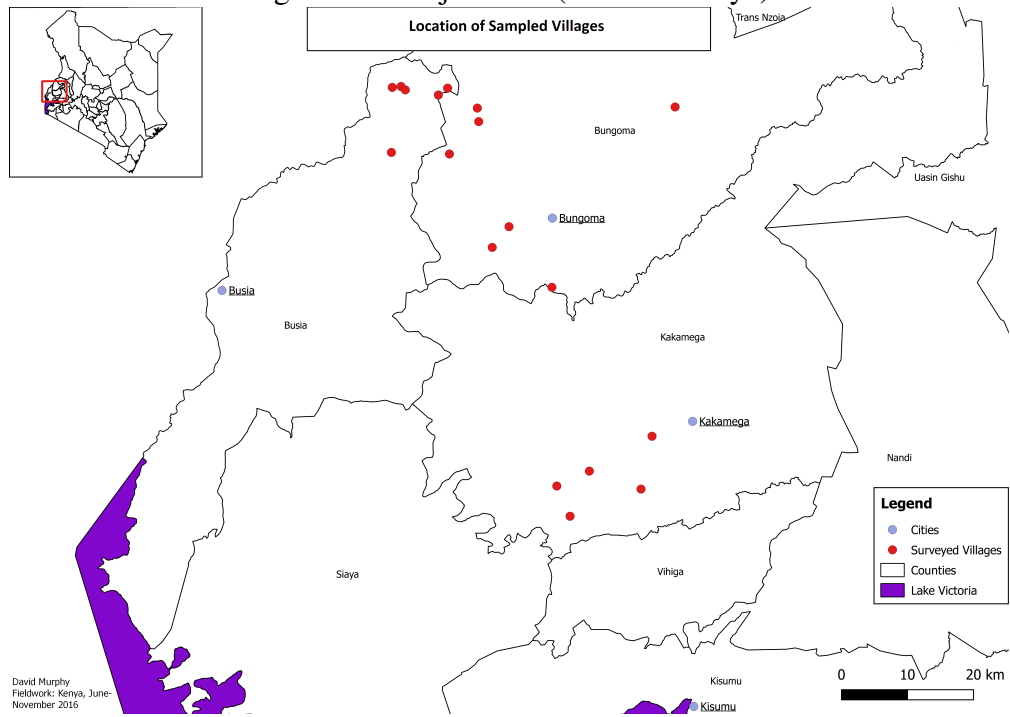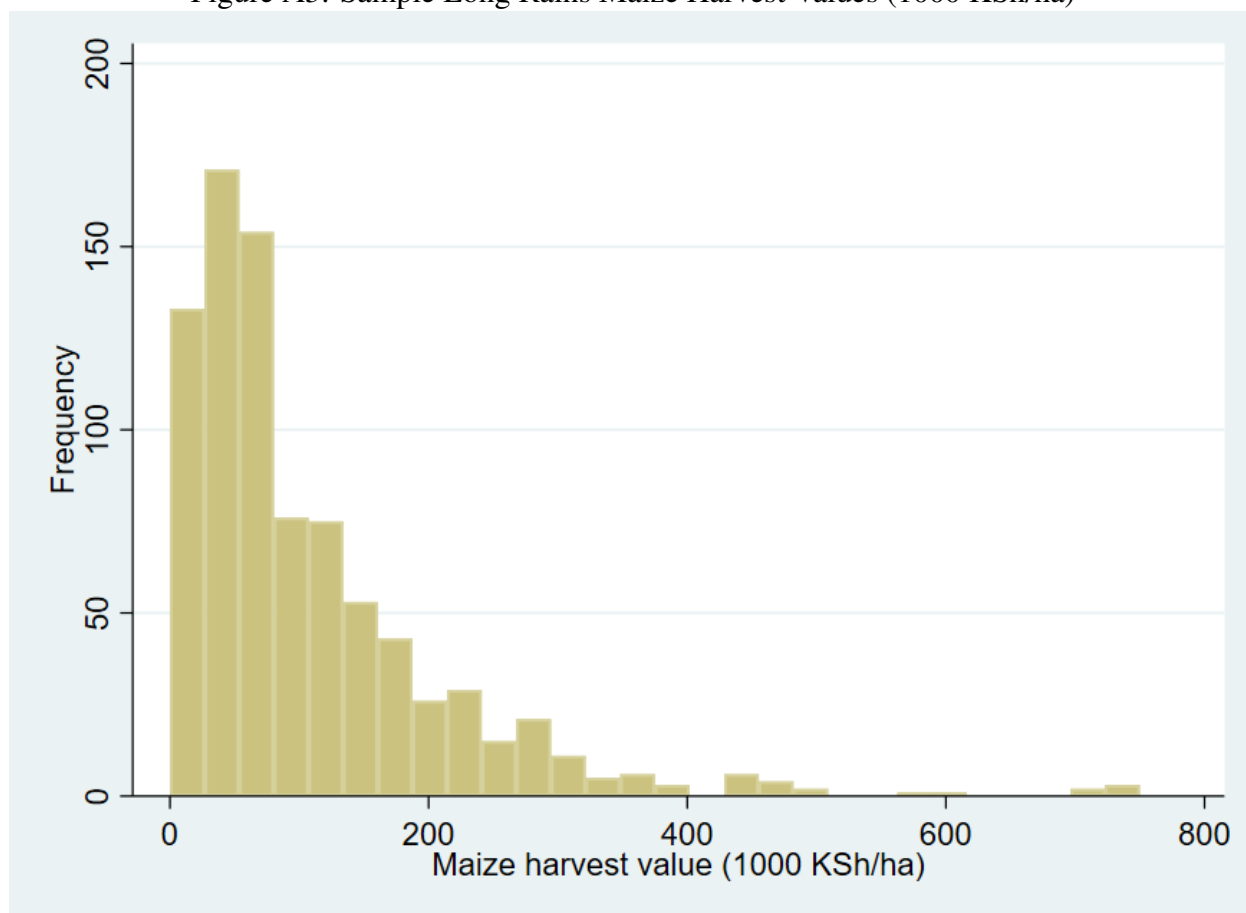Fieldwork: Kenya, June-
November 2016

Figure A3: Sample Long Rains Maize Harvest Values (1000 KSh/ha)

Sample of 518 households that reported planting maize in the long rains season. Values reported in Kenyan Shillings per hectare.

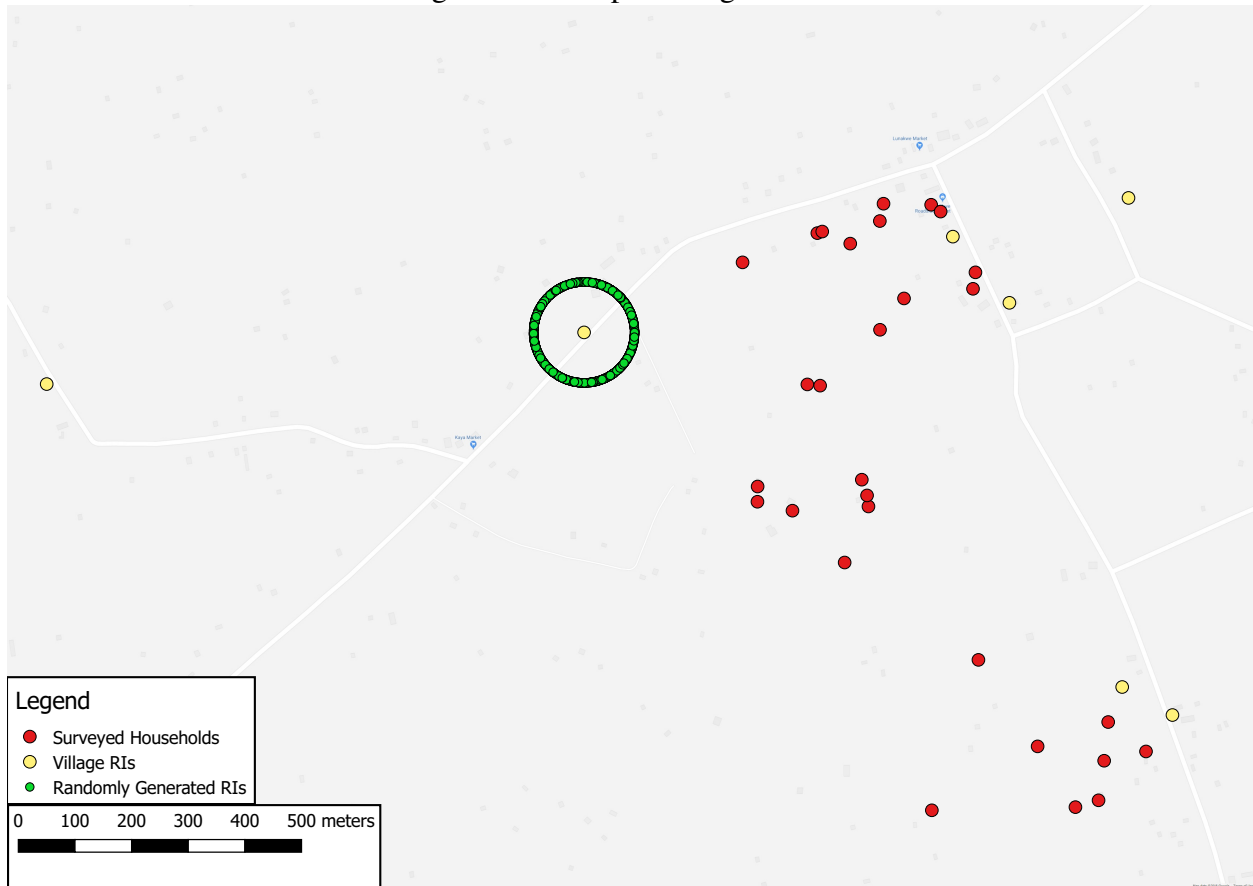Figure A4: Sample Village and RIs

Illustration of sample village with religious institutions (yellow) and randomly sampled households (red). Green dots around a religious institution illustrate the simulated "placebo" religious institutions included in our robustness check.

Figure A5: RI co-membership against Joint Probability IV
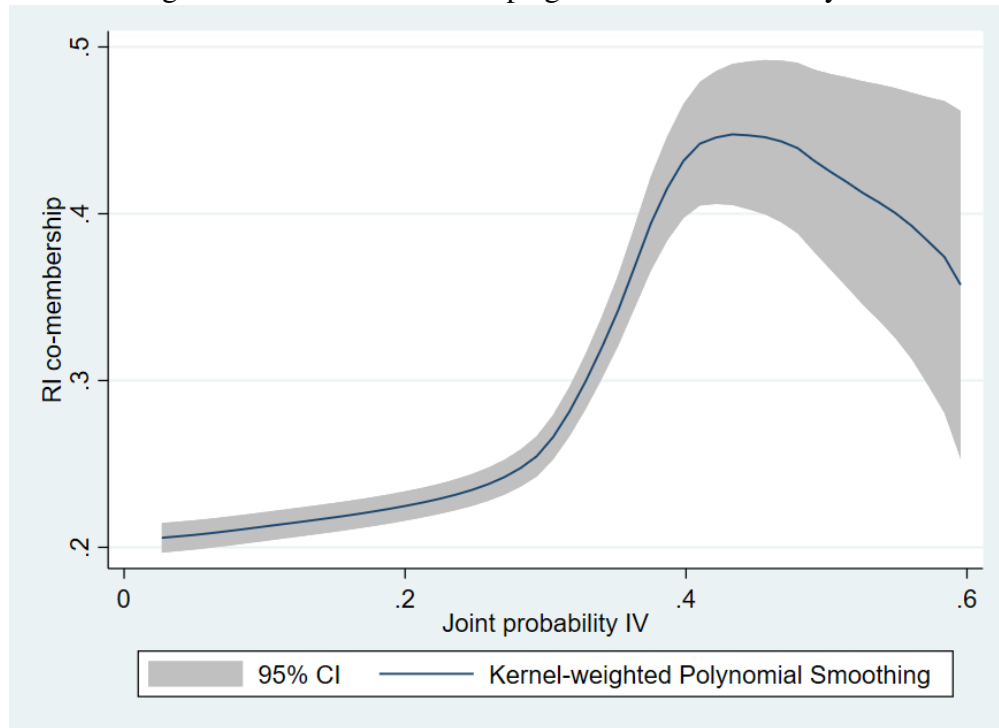
Figure shows the probability of RI co-membership of i and j plotted against our joint probability IV (joint probability of attendance at an RI). As the joint probability of attendance increases, the likelihood of attending the RI increases. However, after a certain point, when the joint probability is high (both individuals close to RIs), the likelihood of RI-co-membership decreases. This is likely due to the greater availability of RI choices for each individual. Kernel bandwidth in this graph is 0.1.

Table A1: Religion in Kenya

Religion	Population (thousands)	Population (percent)
Christian	**31,878**	**83**
Catholic	9,011	23
Anglican	5,000	13
Other Protestant (e.g., Pentecostal)†	13,307	35
Orthodox Christian	650	2
Other Christian	3,910	10
Muslim	**4,305**	**11**
Hindu	**53**	**<1**
Traditional	**635**	**2**
Other Religions	**557**	**1**
Bahá'í	423	1
Other	134	<1
No Religion	**922**	**2**
Unknown	**61**	**<1**

† The majority of the "Other Protestant" group are Pentecostal and Charismatic Churches.
Percentages may not add up to 100 due to rounding. Population total: 38,412,088 (2009). Data from Kenya Population and Housing Census as reported by the UN (2009), from the Association of Religion Data Archives (2010), the Pew Research Center (2011), and from the World Council of Churches (2013).

Table A2: Religious Institution Summary Statistics from Sample

	Catholic		Pentecostal/Charistmatic		Anglican		Other Christian		Other Religion	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
RI Size	264.07	134.66	117.20	95.84	163.11	112.73	106.28	79.45	90.45	79.67
RI attendance (1=daily, 9=never)†	3.32	0.91	3.15	0.69	3.28	0.79	3.45	1.09	2.91	0.70
Bukusu	0.64	0.48	0.39	0.49	0.17	0.37	0.56	0.50	0.45	0.52
Other Luhya subtribe	0.21	0.41	0.43	0.50	0.20	0.40	0.14	0.35	0.45	0.52
Iteso	0.14	0.35	0.14	0.35	0.62	0.49	0.25	0.44	0.09	0.30
Other tribe	0.01	0.09	0.03	0.18	0.02	0.14	0.06	0.23	0.00	0.00
Observations	123		359		248		88		11	

For this table, the sample was trimmed and observations with stated RI size in the top or bottom 5%, and those who did not state an answer for attendance

frequency were dropped. †1=daily, 2=every few days, 3=weekly, 4=every few weeks, 5=monthly, 6=every few months, 7=twice a year, 8=yearly, 9=never

Table A3: Village Religious Institution Statistics

Village	N (RIs)	Dist HH Mean	Dist HH Median	Year Est Mean	Year Est Median
Village 1	5	2151.49	1656.00	1993.8	1998.0
Village 2	6	1461.73	692.04	2003.7	2008.0
Village 3	11	846.57	715.73	1998.2	2001.5
Village 4/5	17	1824.39	1071.53	1999.5	2005.0
Village 6	9	1306.77	1291.15	1983.1	1982.0
Village 7	9	1325.09	1259.54	1996.8	2008.0
Village 8	10	2854.84	1497.89	1986.9	1987.0
Village 9	17	2383.99	1951.93	2001.3	2002.0
Village 10	15	1883.73	1721.13	1996.3	1998.0
Village 11	13	2210.73	1690.05	2000.8	2000.0
Village 12	13	1492.08	1145.81	1999.2	2002.0
Village 13	10	1625.89	1460.47	1978.1	1978.0
Village 14	13	2273.09	1469.33	1980.9	1980.5
Village 15	11	1825.54	721.47	1994.9	1997.5
Village 16	14	1130.43	980.11	1997.7	2005.0
Village 17	13	2382.30	1140.96	1984.6	1993.0
Village 18	16	1125.07	682.54	1990.2	1996.0

Table presents mean and median statistics for religious institutions (RI) of each sampled village (villages 4 and 5 combined in our analysis due to proximity). These statistics include 1) the mean and median distance (in meters) of RIs that sampled individuals attend and homestead locations, and 2) the mean and median year of establishment of the RIs.

Table A4-1: County 1 Village-level means

Village	13	14	15	17	18
N	52.00	42.00	45.00	51.00	49.00
Age[a]	49.63	56.71	49.96	50.29	51.65
Years of education[b]	8.69	8.36	9.00	7.59	8.59
Mathematics ability[c]	0.60	0.48	0.62	0.51	0.51
Farmer	0.92	0.90	0.82	0.69	0.82
Inherited land	1.00	1.00	0.93	0.90	1.00
Ag. wage labor (last 30 days)	0.04	0.14	0.04	0.24	0.06
Female	0.58	0.64	0.58	0.57	0.55
Widow	0.17	0.24	0.18	0.16	0.16
Anglican	0.65	0.31	0.00	0.02	0.00
Catholic	0.00	0.02	0.24	0.31	0.00
Pentecostal/Charismatic	0.31	0.55	0.67	0.65	0.96
Other Christian	0.02	0.10	0.02	0.00	0.04
Other Religion	0.02	0.02	0.07	0.02	0.00
Bukusu	0.00	0.00	0.00	0.00	0.04
Other Luhya subtribe	0.92	0.93	1.00	0.98	0.92
Iteso	0.00	0.00	0.00	0.00	0.00
Other tribe	0.08	0.07	0.00	0.02	0.04
Household size[d]	5.25	5.76	5.04	3.84	4.35
Asset index[e]	0.15	-0.02	0.49	0.28	0.33
Total farm area (acres)	0.61	1.08	1.22	0.38	0.41
Used compost	0.38	0.55	0.42	0.41	0.49
Used fresh manure	0.00	0.14	0.04	0.10	0.02
Used urea	0.37	0.21	0.27	0.16	0.22
Used DAP	0.94	0.88	0.82	0.76	0.69
Used NPK	0.02	0.07	0.04	0.00	0.06
Used CAN	0.79	0.60	0.56	0.61	0.63
Grew maize	1.00	0.98	0.93	1.00	1.00
Grew beans	0.62	0.79	0.40	0.80	0.76
Grew cassava	0.08	0.10	0.00	0.02	0.06
Grew millet	0.00	0.00	0.00	0.04	0.04
Grew sugarcane	0.08	0.00	0.02	0.00	0.06
Grew tobacco	0.00	0.00	0.00	0.00	0.00
Contact with NGO	0.10	0.29	0.22	0.06	0.18
Water from river	0.44	0.36	0.38	0.57	0.41
Electrical grid connection	0.21	0.14	0.53	0.10	0.22
Solar panels	0.31	0.33	0.56	0.22	0.20
Metal roof	0.92	1.00	0.96	0.96	0.88
Mud floor	0.65	0.81	0.53	0.69	0.78
Polygamous household	0.08	0.31	0.13	0.10	0.00
Yield value (1000 KSh/ha)	71.81	45.48	92.67	168.88	165.41
Monocrop	0.62	0.40	0.69	0.09	0.21
Purchased seed	0.88	0.67	0.84	0.65	0.61
Hired labor	0.42	0.45	0.38	0.54	0.32

[a]There was one woman who claimed she was 109 years old. [b]The sample included a couple of individuals who were university professors and had PhDs. [c]Was able to do a basic multiplication problem. [d]Defined as the number of individuals who spent the night at that dwelling last night.

[e]Asset index compiled through factor analysis after Sahn and Stifel (2003).

Table A4-2: County 2 Village-level means

Village	6	7	8	9	10	11	12
N	41.00	38.00	64.00	66.00	46.00	46.00	47.00
Age[a]	46.49	51.34	49.42	44.06	48.35	42.70	44.30
Years of education[b]	7.66	6.79	8.25	8.03	7.26	8.72	7.83
Mathematics ability[c]	0.59	0.55	0.55	0.55	0.48	0.65	0.57
Farmer	0.90	0.95	0.84	0.91	0.93	0.80	0.98
Inherited land	0.73	0.89	0.78	0.83	0.76	0.98	0.85
Ag. wage labor (last 30 days)	0.22	0.08	0.09	0.08	0.02	0.07	0.09
Female	0.51	0.63	0.58	0.58	0.54	0.59	0.60
Widow	0.02	0.21	0.14	0.15	0.07	0.13	0.13
Anglican	0.49	0.05	0.00	0.14	0.00	0.07	0.04
Catholic	0.05	0.32	0.28	0.30	0.26	0.24	0.43
Pentecostal/Charismatic	0.46	0.63	0.33	0.42	0.48	0.65	0.28
Other Christian	0.00	0.00	0.39	0.08	0.20	0.04	0.23
Other Religion	0.00	0.00	0.00	0.06	0.07	0.00	0.02
Bukusu	0.88	0.87	0.94	0.89	0.83	0.76	0.81
Other Luhya subtribe	0.05	0.08	0.06	0.08	0.15	0.15	0.19
Iteso	0.07	0.00	0.00	0.02	0.02	0.02	0.00
Other tribe	0.00	0.05	0.00	0.02	0.00	0.07	0.00
Household size[d]	5.56	5.89	5.61	5.53	7.07	5.76	7.17
Asset index[e]	-0.23	-0.35	-0.21	-0.19	-0.36	-0.11	-0.13
Total farm area (acres)	1.34	1.33	1.02	0.90	1.01	1.06	0.80
Used compost	0.29	0.50	0.38	0.32	0.57	0.24	0.30
Used fresh manure	0.24	0.00	0.06	0.00	0.00	0.00	0.04
Used urea	0.05	0.05	0.36	0.14	0.39	0.67	0.47
Used DAP	0.73	0.87	0.83	0.73	0.83	0.96	0.85
Used NPK	0.20	0.16	0.03	0.12	0.04	0.07	0.00
Used CAN	0.63	0.84	0.81	0.80	0.39	0.93	0.64
Grew maize	1.00	1.00	0.97	1.00	0.96	1.00	1.00
Grew beans	0.95	0.95	0.78	0.89	0.70	0.65	0.57
Grew cassava	0.32	0.16	0.09	0.12	0.07	0.02	0.02
Grew millet	0.02	0.00	0.00	0.00	0.02	0.00	0.00
Grew sugarcane	0.10	0.00	0.08	0.03	0.24	0.26	0.32
Grew tobacco	0.15	0.05	0.00	0.20	0.00	0.00	0.00
Contact with NGO	0.15	0.21	0.03	0.06	0.04	0.09	0.02
Water from river	0.24	0.50	0.52	0.03	0.41	0.09	0.28
Electrical grid connection	0.05	0.08	0.09	0.06	0.04	0.00	0.06
Solar panels	0.37	0.39	0.20	0.29	0.20	0.24	0.19
Metal roof	0.90	0.92	0.97	0.76	0.96	0.96	0.91
Mud floor	0.76	0.87	0.91	0.80	1.00	0.76	0.77
Polygamous household	0.05	0.05	0.11	0.12	0.09	0.17	0.13
Yield value (1000 KSh/ha)	103.75	96.00	149.45	83.64	109.97	108.38	130.94
Monocrop	0.34	0.16	0.27	0.44	0.43	0.48	0.61
Purchased seed	0.85	0.87	0.84	0.86	0.83	0.89	0.94
Hired labor	0.39	0.43	0.16	0.23	0.12	0.36	0.07

[a]There was one woman who claimed she was 109 years old. [b]The sample included a couple of individuals who were university professors and had PhDs. [c]Was able to do a basic multiplication problem. [d]Defined as the number of individuals who spent the night at that dwelling last night.

[e]Asset index compiled through factor analysis after Sahn and Stifel (2003).

Table A4-3: County 3 Village-level means

Village	1	2	3	4	5	16
N	44.00	52.00	45.00	57.00	40.00	59.00
Age[a]	48.11	53.65	42.56	49.18	45.83	46.14
Years of education[b]	8.48	7.23	8.58	7.63	7.75	6.81
Mathematics ability[c]	0.55	0.63	0.62	0.51	0.63	0.53
Farmer	0.86	0.92	0.89	0.93	0.85	0.90
Inherited land	0.86	0.87	0.84	0.89	0.77	0.86
Ag. wage labor (last 30 days)	0.07	0.00	0.04	0.05	0.08	0.17
Female	0.59	0.54	0.60	0.54	0.55	0.64
Widow	0.07	0.12	0.02	0.11	0.10	0.29
Anglican	0.80	0.85	0.44	0.63	0.82	0.05
Catholic	0.05	0.06	0.20	0.07	0.05	0.05
Pentecostal/Charismatic	0.16	0.04	0.36	0.28	0.10	0.39
Other Christian	0.00	0.06	0.00	0.00	0.03	0.51
Other Religion	0.00	0.00	0.00	0.02	0.00	0.00
Bukusu	0.02	0.08	0.22	0.07	0.08	0.10
Other Luhya subtribe	0.02	0.02	0.04	0.05	0.05	0.02
Iteso	0.93	0.88	0.71	0.88	0.88	0.76
Other tribe	0.02	0.02	0.02	0.00	0.00	0.12
Household size[d]	5.86	4.52	4.96	5.35	5.72	4.88
Asset index[e]	0.57	-0.02	0.31	-0.41	-0.05	0.43
Total farm area (acres)	1.78	1.80	1.70	1.33	1.60	0.93
Used compost	0.23	0.31	0.29	0.16	0.43	0.44
Used fresh manure	0.39	0.10	0.27	0.12	0.08	0.10
Used urea	0.00	0.00	0.04	0.04	0.05	0.00
Used DAP	0.75	0.79	0.87	0.65	0.80	0.85
Used NPK	0.09	0.62	0.40	0.21	0.30	0.20
Used CAN	0.66	0.90	0.91	0.72	0.85	0.86
Grew maize	0.93	0.98	1.00	0.98	1.00	1.00
Grew beans	0.61	0.58	0.84	0.86	0.85	0.88
Grew cassava	0.57	0.58	0.29	0.25	0.17	0.15
Grew millet	0.32	0.15	0.00	0.05	0.03	0.03
Grew sugarcane	0.00	0.00	0.02	0.07	0.00	0.00
Grew tobacco	0.16	0.67	0.51	0.26	0.30	0.07
Contact with NGO	0.39	0.21	0.18	0.02	0.15	0.19
Water from river	0.68	0.65	0.47	0.56	0.68	0.51
Electrical grid connection	0.25	0.06	0.09	0.02	0.15	0.05
Solar panels	0.45	0.29	0.40	0.30	0.25	0.31
Metal roof	0.75	0.75	0.73	0.67	0.80	0.80
Mud floor	0.48	0.67	0.53	0.81	0.63	0.59
Polygamous household	0.00	0.27	0.13	0.14	0.05	0.03
Yield value (1000 KSh/ha)	70.51	99.03	129.50	82.59	87.45	135.04
Monocrop	0.67	0.49	0.20	0.41	0.20	0.12
Purchased seed	0.82	0.90	0.98	0.98	0.95	0.92
Hired labor	0.53	0.63	0.71	0.52	0.75	0.41

[a]There was one woman who claimed she was 109 years old. [b]The sample included a couple of individuals who were university professors and had PhDs. [c]Was able to do a basic multiplication problem. [d]Defined as the number of individuals who spent the night at that dwelling last night.

[e]Asset index compiled through factor analysis after Sahn and Stifel (2003).

Table A5: First Stage - Individual IVs

	Attend Same RI as j (ζ_{ij})								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Minimum ij RI distance (kilometers)	0.20***	0.19***	0.17***	0.18***	0.17***	0.15***			
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)			
Nearest ij RI matches	0.15***	0.15***	0.14***				0.12***	0.12***	0.12***
	(0.04)	(0.04)	(0.04)				(0.04)	(0.04)	(0.04)
Known $j \geq 10$ years	0.23***	0.22***	0.23***	0.23***	0.22***	0.23***	0.23***	0.22***	0.23***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Immediate family of j	0.19***	0.20***	0.19***	0.19***	0.19***	0.19***	0.19***	0.20***	0.20***
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Extended family of j	0.08***	0.08***	0.08***	0.08***	0.08***	0.08***	0.08***	0.08***	0.08***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Distance to j (kilometers)	-0.13**	-0.14***	-0.14***	-0.18***	-0.19***	-0.19***	-0.13**	-0.14***	-0.14***
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
Squared distance to j (kilometers)	0.09***	0.09***	0.09***	0.09***	0.09***	0.09***	0.08**	0.09***	0.09***
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Male$_i$ - Male$_j$		-0.03	-0.03		-0.03	-0.03		-0.03	-0.03
		(0.02)	(0.02)		(0.02)	(0.02)		(0.02)	(0.02)
Male$_i$ - Female$_j$		-0.00	0.00		-0.00	0.00		-0.00	0.00
		(0.02)	(0.02)		(0.02)	(0.02)		(0.02)	(0.02)
Female$_i$ - Female$_j$		-0.01	-0.00		-0.01	-0.00		-0.01	-0.00
		(0.01)	(0.01)		(0.01)	(0.01)		(0.01)	(0.01)
Constant	-0.08	0.01	0.05	0.08***	0.17***	0.20**	0.01	0.11	0.13
	(0.05)	(0.08)	(0.10)	(0.02)	(0.06)	(0.09)	(0.05)	(0.07)	(0.10)
Number of clusters	883/883	883/883	883/883	883/883	883/883	883/883	883/883	883/883	883/883
Village/Enumerator/Svy. Month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
HH/Demographic Vars.	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Quadratic Vars.	No	No	Yes	No	No	Yes	No	No	Yes
F-test of instrument(s)	14.37	15.73	13.66	19.62	19.35	16.22	10.13	10.27	9.46
prob> 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Observations	8705	8705	8705	8705	8705	8705	8705	8705	8705

Columns 1, 2, and 3 on this table correspond to columns 4, 5, and 6 on table 4. Two-way clustered standard errors in parentheses. ***p<0.01, **p<0.05, *p<0.1

Table A6: First Stage - Individual IVs including Joint Probability Instrument

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
				Attend Same RI as j (ζ_{ij})					
Minimum ij RI distance (kilometers)	0.19***	0.18***	0.18***	0.16***		0.15***			
	(0.05)	(0.04)	(0.04)	(0.04)		(0.04)			
Joint ij probability RI attendance	0.16	0.13	0.13	-0.18	-0.31	0.12	-0.53*	-0.27	-0.20
	(0.37)	(0.37)	(0.37)	(0.28)	(0.45)	(0.37)	(0.27)	(0.43)	(0.40)
Joint ij sq probability RI attendance	-0.15	-0.12	-0.12		-0.11	-0.13		-0.11	-0.13
	(0.11)	(0.12)	(0.12)		(0.13)	(0.12)		(0.13)	(0.12)
Nearest ij RI matches	0.15***	0.15***	0.15***	0.14***	0.12***				
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)				
Known $j \geq 10$ years	0.23***	0.22***	0.22***	0.23***	0.22***	0.22***	0.22***	0.22***	0.23***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Immediate family of j	0.19***	0.20***	0.20***	0.20***	0.20***	0.19***	0.20***	0.20***	0.20***
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Extended family of j	0.08***	0.08***	0.08***	0.08***	0.08***	0.08***	0.08***	0.08***	0.08***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Distance to j (kilometers)	-0.17***	-0.17***	-0.17***	-0.16***	-0.21***	-0.22***	-0.23***	-0.25***	-0.25***
	(0.06)	(0.06)	(0.06)	(0.05)	(0.06)	(0.05)	(0.05)	(0.05)	(0.05)
Squared distance to j (kilometers)	0.10***	0.10***	0.10***	0.10***	0.11***	0.10***	0.10***	0.11***	0.11***
	(0.04)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Male$_i$ - Male$_j$		-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03
		(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Male$_i$ - Female$_j$		-0.00	-0.00	0.00	-0.00	-0.00	-0.00	-0.00	0.00
		(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Female$_i$ - Female$_j$		-0.01	-0.01	-0.00	-0.01	-0.01	-0.01	-0.01	-0.00
		(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Constant	-0.06	0.03	0.03	0.09	0.19**	0.20**	0.32***	0.31***	0.32***
	(0.07)	(0.09)	(0.09)	(0.11)	(0.08)	(0.08)	(0.07)	(0.08)	(0.10)
Number of clusters	883/883	883/883	883/883	883/883	883/883	883/883	883/883	883/883	883/883
Village/Enumerator/Svy. Month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
HH/Demographic Vars.	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Quadratic Vars.	No	No	No	Yes	No	No	No	No	Yes
F-test of instrument(s)	8.07	8.74	8.74	9.09	5.56	7.24	3.83	3.09	3.20
prob> 0	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.04
Observations	8705	8705	8705	8705	8705	8705	8705	8705	8705

These combinations of instruments include the joint probability IVs, which are not used in main results due to weakness. Two-way clustered standard errors in parentheses. ***p<0.01, **p<0.05, *p<0.1

First-stage Discussion

Table A6 presents results from our first-stage estimations, which include the joint probability instruments. These first stage results show weak correlation in the joint probability IVs. To determine why this is the case, we first provide a proof of concept. Columns 1 and 2 of table A10 show, respectively, the correlation of distance and its log and attendance at a religious institution (RI). As we would expect, the results are strongly negative suggesting that villagers are much more likely to attend RIs that are proximate to them within a village. Column 3 shows the correlation of our measure of probability of RI membership and attendance at an RI, which is strongly positive, which is expected given that it is negatively correlated with regressors in columns 1 and 2.

Returning to the joint-probability, figure A5 plots RI co-membership against the joint probability of attendance. As we would expect, as joint probability increases, so does the likelihood of RI co-membership, but only to a point. Eventually, we see the relationship turn negative. When the joint probability is high (both individuals close to the same RIs), the likelihood of RI-co-membership decreases.

Because of this non-linearity, we include the squared version of the IV in our estimations as well. A6), the signs of both variables are negative, likely due to correlation with the distance between peers variables. When we include the additional IVs, the signs turn to what we would expect (positive and negative for the linear and squared versions, respectively).

However, because of the potential issues with this IV, we include estimations of our primary results with only two IVs: the triangular distance and percentage of nearest RIs IVs. These results are in columns 4 through 6 of table 4.

Table A7: Reduced Form - Individual IVs

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
				Attend Same RI as j (ζ_{ij})					
Minimum ij RI distance (kilometers)	0.05	0.05*	0.05	0.04	0.05	0.04			
	(0.04)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)			
Nearest ij RI matches	0.05	0.05*	0.05*				0.04	0.04	0.04
	(0.03)	(0.03)	(0.03)				(0.03)	(0.03)	(0.03)
Known $j \geq 10$ years	0.15***	0.15***	0.15***	0.15***	0.15***	0.15***	0.15***	0.15***	0.15***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Immediate family of j	0.26***	0.26***	0.26***	0.26***	0.26***	0.26***	0.26***	0.26***	0.26***
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Extended family of j	0.09***	0.08***	0.08***	0.09***	0.08***	0.08***	0.09***	0.08***	0.08***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Distance to j (kilometers)	-0.23***	-0.25***	-0.25***	-0.24***	-0.27***	-0.27***	-0.23***	-0.25***	-0.25***
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Squared distance to j (kilometers)	0.12***	0.13***	0.13***	0.12***	0.13***	0.13***	0.12***	0.13***	0.13***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Male$_i$ - Male$_j$		-0.01	-0.01		-0.01	-0.01		-0.01	-0.01
		(0.01)	(0.01)		(0.01)	(0.01)		(0.01)	(0.01)
Male$_i$ - Female$_j$		-0.00	-0.01		-0.00	-0.01		-0.00	-0.01
		(0.02)	(0.02)		(0.02)	(0.02)		(0.02)	(0.02)
Female$_i$ - Female$_j$		0.00	0.00		0.00	0.00		0.00	0.00
		(0.01)	(0.01)		(0.01)	(0.01)		(0.01)	(0.01)
Constant	0.06*	0.07	-0.03	0.11***	0.12***	0.02	0.08***	0.10*	-0.01
	(0.04)	(0.05)	(0.08)	(0.02)	(0.04)	(0.07)	(0.03)	(0.05)	(0.08)
Number of clusters	883/883	883/883	883/883	883/883	883/883	883/883	883/883	883/883	883/883
Village/Enumerator/Svy. Month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
HH/Demographic Vars.	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Quadratic Vars.	No	No	Yes	No	No	Yes	No	No	Yes
F-test of instrument(s)	1.94	2.42	2.29	1.64	2.12	1.73	2.04	2.44	2.34
prob> 0	0.14	0.09	0.10	0.20	0.15	0.19	0.15	0.12	0.13
Observations	8705	8705	8705	8705	8705	8705	8705	8705	8705

Dep. Variable: Received agricultural advice from j. Two-way clustered standard errors in parentheses. ***p<0.01, **p<0.05, *p<0.1

Table A8: Reduced Form - Individual IVs including Joint Probability Instruments

	Attend Same RI as j (ζ_{ij})								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Minimum ij RI distance (kilometers)	0.07*	0.07*	0.07*	0.06*		0.06*			
	(0.04)	(0.04)	(0.04)	(0.04)		(0.04)			
Joint ij probability RI attendance	0.66*	0.59*	0.59*	0.13	0.41	0.58*	-0.01	0.43	0.45
	(0.34)	(0.35)	(0.35)	(0.25)	(0.37)	(0.35)	(0.24)	(0.37)	(0.36)
Joint ij sq probability RI attendance	-0.23**	-0.19**	-0.19**		-0.19*	-0.19**		-0.19*	-0.19*
	(0.09)	(0.09)	(0.09)		(0.10)	(0.09)		(0.10)	(0.10)
Nearest ij RI matches	0.05	0.05*	0.05*	0.05*	0.04				
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)				
Known $j \geq 10$ years	0.15***	0.15***	0.15***	0.15***	0.15***	0.15***	0.15***	0.15***	0.15***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Immediate family of j	0.26***	0.26***	0.26***	0.26***	0.26***	0.26***	0.26***	0.26***	0.26***
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Extended family of j	0.09***	0.08***	0.08***	0.08***	0.09***	0.08***	0.08***	0.09***	0.08***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Distance to j (kilometers)	-0.25***	-0.26***	-0.26***	-0.24***	-0.27***	-0.28***	-0.26***	-0.29***	-0.29***
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Squared distance to j (kilometers)	0.13***	0.14***	0.14***	0.13***	0.14***	0.14***	0.13***	0.14***	0.14***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Male$_i$ - Male$_j$		-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
		(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Male$_i$ - Female$_j$		-0.00	-0.00	-0.01	-0.00	-0.00	-0.00	-0.00	-0.01
		(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Female$_i$ - Female$_j$		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Constant	0.02	0.02	0.02	-0.05	0.08	0.08	0.14**	0.12**	0.02
	(0.06)	(0.07)	(0.07)	(0.09)	(0.07)	(0.06)	(0.06)	(0.06)	(0.09)
Number of clusters	883/883	883/883	883/883	883/883	883/883	883/883	883/883	883/883	883/883
Village/Enumerator/Svy. Month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
HH/Demographic Vars.	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Quadratic Vars.	No	No	No	Yes	No	No	No	No	Yes
F-test of instrument(s)	2.72	2.53	2.53	1.70	2.30	2.36	0.00	2.11	2.23
prob> 0	0.03	0.04	0.04	0.17	0.08	0.07	0.98	0.12	0.11
Observations	8705	8705	8705	8705	8705	8705	8705	8705	8705

Dep. Variable: Received agricultural advice from j. Two-way clustered standard errors in parentheses. ***p<0.01, **p<0.05, *p<0.1

Table A9: Primary Results Including Joint Probability Instruments

	Received advice from j		
	(1)	(2)	(3)
Religious institution co-membership (ζ_{ij})	0.30**	0.32**	0.33**
	(0.13)	(0.14)	(0.14)
Known $j \geq 10$ years	0.08**	0.08**	0.07**
	(0.03)	(0.03)	(0.03)
Immediate family of j	0.20***	0.19***	0.19***
	(0.04)	(0.04)	(0.04)
Extended family of j	0.06***	0.06***	0.06***
	(0.02)	(0.02)	(0.02)
Distance to j (kilometers)	-0.19***	-0.20***	-0.20***
	(0.04)	(0.04)	(0.05)
Squared distance to j (kilometers)	0.10***	0.10***	0.10***
	(0.03)	(0.03)	(0.03)
Male$_i$ - Male$_j$		-0.00	0.00
		(0.02)	(0.02)
Male$_i$ - Female$_j$		-0.00	-0.01
		(0.02)	(0.02)
Female$_i$ - Female$_j$		0.00	0.00
		(0.01)	(0.01)
Estimation	2SLS	2SLS	2SLS
Number of clusters	883/883	883/883	883/883
Village/Enumerator/Svy. Month FE	Yes	Yes	Yes
HH/Demographic Vars.	No	Yes	Yes
Quadratic Vars.	No	No	Yes
Number of Instruments	4	4	4
Kleibergen-Paap rk LM P-values	0.00	0.00	0.00
Kleibergen-Paap rk Wald F-stat	8.07	8.74	7.81
Hansen J Statistics P-value	0.45	0.60	0.62
Observations	8705	8705	8705

Dep. Variable: Received Agricultural advice from j. Instruments include "Minimum ij RI distance", "Nearest ij RI matches", and "Joint ij probability RI membership" and its square as instruments. 2SLS constants are lost when applying the within transformation using reghdfe (Correia, 2014). Two-way clustered standard errors in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Table A10: Joint Probability IV Test

VARIABLES	(1)	(2)	(3)
Distance (km)	-0.015***		
	(0.001)		
Distance (log)		-0.038***	
		(0.003)	
Probability of RI Attendance			0.507***
			(0.047)
Constant	0.232***	0.211***	0.099***
	(0.003)	(0.001)	(0.009)
Observations	10,882	10,882	10,882
R-squared	0.019	0.026	0.033
Number of clusters	884	884	884
Village FE	Yes	Yes	Yes

Dep. Variable: Attend RI (binary). Individual level estimations, with observations for each individual and each RI in his/her village. Clustered standard errors in parentheses (individual level). ***$p<0.01$, **$p<0.05$, *$p<0.1$

Table A11: Coefficient Estimates for X_{ij} and A_{ij} (Sums)

			Received advice from j			
	(1)	(2)	(3)	(4)	(5)	(6)
Polygamous household		0.01	0.01		0.01	0.01
		(0.01)	(0.01)		(0.01)	(0.01)
Repeated Survey†		-0.02	-0.02		-0.02	-0.02
		(0.01)	(0.01)		(0.02)	(0.02)
Household head		0.00	0.00		0.01	0.00
		(0.01)	(0.01)		(0.01)	(0.01)
Age		-0.00*	0.00*		-0.00	0.00*
		(0.00)	(0.00)		(0.00)	(0.00)
Years of education		0.00	0.00		0.00*	0.00
		(0.00)	(0.00)		(0.00)	(0.00)
Household size		-0.00	-0.00		-0.00	-0.00
		(0.00)	(0.00)		(0.00)	(0.00)
Math ability‡		0.02**	0.02*		0.01	0.01
		(0.01)	(0.01)		(0.01)	(0.01)
Asset index††		-0.00	-0.00		-0.01	-0.01
		(0.00)	(0.00)		(0.01)	(0.01)
TLU‡‡		-0.00	-0.00		-0.00	-0.00
		(0.00)	(0.00)		(0.00)	(0.00)
Widow		0.01	0.01		-0.00	0.00
		(0.01)	(0.01)		(0.01)	(0.01)
Total farm area (acres)		0.01***	0.00		0.01***	0.01
		(0.00)	(0.01)		(0.00)	(0.01)
Bukusu subtribe		-0.02	-0.02		-0.01	-0.01
		(0.02)	(0.02)		(0.02)	(0.02)
Other Luhya tribe		-0.03	-0.03		-0.02	-0.02
		(0.02)	(0.02)		(0.02)	(0.02)
Other tribe		-0.04	-0.04		-0.03	-0.03
		(0.02)	(0.02)		(0.03)	(0.02)
Age squared			-0.00**			-0.00**
			(0.00)			(0.00)
Years of education squared			-0.00			-0.00
			(0.00)			(0.00)
Total farm area squared (acres)			0.00			0.00
			(0.00)			(0.00)
Estimation	OLS	OLS	OLS	2SLS	2SLS	2SLS
Number of clusters	883/883	883/883	883/883	883/883	883/883	883/883
Village/Enumerator/Svy. Month FE	Yes	Yes	Yes	Yes	Yes	Yes
HH/Demographic Vars.	No	Yes	Yes	No	Yes	Yes
Quadratic Vars.	No	No	Yes	No	No	Yes
Number of Instruments				2	2	2
Kleibergen-Paap rk LM P-values				0.00	0.00	0.00
Kleibergen-Paap rk Wald F-stat				14.37	15.73	13.66
Hansen J Statistics P-value				0.81	0.86	0.83
Observations	8705	8705	8705	8705	8705	8705

Dep. Variable: Received agricultural advice from j. Estimations correspond to table 4. † Controls for the few surveys that needed to be redone. ‡ Participant can do simple multiplication problem. †† Asset index compiled through factor analysis after Sahn and Stifel (2003). ‡‡ Tropical Livestock Units. Two-way clustered standard errors in parentheses. ***p<0.01, **p<0.05, *p<0.1

Table A12: Coefficient Estimates for X_{ij} and A_{ij} (Differences)

			Received advice from j			
	(1)	(2)	(3)	(4)	(5)	(6)
Polygamous household		0.01	0.01		0.01	0.01
		(0.01)	(0.01)		(0.01)	(0.01)
Repeated Survey†		0.01	0.01		0.01	0.01
		(0.02)	(0.02)		(0.02)	(0.02)
Household head		0.00	0.00		0.00	0.00
		(0.01)	(0.01)		(0.01)	(0.01)
Age		-0.00***	-0.00		-0.00**	0.00
		(0.00)	(0.00)		(0.00)	(0.00)
Years of education		-0.00	-0.00*		-0.00	-0.00
		(0.00)	(0.00)		(0.00)	(0.00)
Household size		0.00	0.00		0.00	0.00
		(0.00)	(0.00)		(0.00)	(0.00)
Math ability‡		0.01	0.01		0.00	0.01
		(0.01)	(0.01)		(0.01)	(0.01)
Asset index††		-0.01**	-0.01**		-0.01*	-0.01**
		(0.00)	(0.00)		(0.00)	(0.00)
TLU‡‡		0.00	0.00		0.00	0.00
		(0.00)	(0.00)		(0.00)	(0.00)
Widow		0.00	0.00		0.01	0.01
		(0.01)	(0.01)		(0.01)	(0.01)
Total farm area (acres)		0.00	-0.01		0.00	-0.02
		(0.01)	(0.01)		(0.01)	(0.01)
Bukusu subtribe		0.01	0.01		0.02	0.02
		(0.02)	(0.02)		(0.02)	(0.02)
Other Luhya tribe		0.01	0.01		0.02	0.02
		(0.02)	(0.02)		(0.02)	(0.02)
Other tribe		0.02	0.02		0.03	0.03
		(0.02)	(0.02)		(0.02)	(0.02)
Age squared			-0.00			-0.00
			(0.00)			(0.00)
Years of education squared			0.00*			0.00
			(0.00)			(0.00)
Total farm area squared (acres)			0.00*			0.00*
			(0.00)			(0.00)
Estimation	OLS	OLS	OLS	2SLS	2SLS	2SLS
Number of clusters	883/883	883/883	883/883	883/883	883/883	883/883
Village/Enumerator/Svy. Month FE	Yes	Yes	Yes	Yes	Yes	Yes
HH/Demographic Vars.	No	Yes	Yes	No	Yes	Yes
Quadratic Vars.	No	No	Yes	No	No	Yes
Number of Instruments				2	2	2
Kleibergen-Paap rk LM P-values				0.00	0.00	0.00
Kleibergen-Paap rk Wald F-stat				14.37	15.73	13.66
Hansen J Statistics P-value				0.81	0.86	0.83
Observations	8705	8705	8705	8705	8705	8705

Dep. Variable: Received agricultural advice from j. Estimations correspond to table 4. † Controls for the few surveys that needed to be redone. ‡ Participant can do simple multiplication problem. †† Asset index compiled through factor analysis after Sahn and Stifel (2003). ‡‡ Tropical Livestock Units. Two-way clustered standard errors in parentheses. ***p<0.01, **p<0.05, *p<0.1

Table A13: Alternative Specifications

			Received advice from j					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Religious institution co-membership (ζ_{ij})	0.32**	0.32**	0.38***	0.37***	0.27*	0.26*	0.10	0.10
	(0.14)	(0.14)	(0.14)	(0.14)	(0.14)	(0.15)	(0.44)	(0.47)
Small RI (RI_{sml})	0.03**	0.03**	0.07**	0.07**				
	(0.01)	(0.01)	(0.03)	(0.03)				
RI co-membership × small RI ($\zeta_{ij} \times RI_{sml}$)			-0.24	-0.22				
			(0.19)	(0.18)				
Avg. distance neighbours (τ_{ij})					0.04	0.04	0.01	0.02
					(0.04)	(0.04)	(0.08)	(0.08)
RI co-membership × avg. dist. nbrs. ($\zeta_{ij} \times \tau_{ij}$)							0.08	0.08
							(0.26)	(0.27)
Known $j \geq 10$ years	0.08**	0.08**	0.08***	0.08**	0.09***	0.09**	0.10***	0.10**
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)	(0.04)
Immediate family of j	0.19***	0.19***	0.21***	0.21***	0.20***	0.21***	0.22***	0.22***
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.05)	(0.06)
Extended family of j	0.06***	0.06***	0.06***	0.06***	0.06***	0.06***	0.07***	0.07***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Distance to j (kilometers)	-0.21***	-0.21***	-0.22***	-0.22***	-0.22***	-0.22***	-0.23***	-0.23***
	(0.05)	(0.05)	(0.04)	(0.04)	(0.05)	(0.05)	(0.05)	(0.05)
Squared distance to j (kilometers)	0.11***	0.11***	0.11***	0.11***	0.10***	0.10***	0.11***	0.11***
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Estimation	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS
Number of clusters	883/883	883/883	883/883	883/883	883/883	883/883	883/883	883/883
Village/Enumerator/Svy. Month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
HH/Demographic Vars.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Quadratic Vars.	No	Yes	No	Yes	No	Yes	No	Yes
Number of Instruments	2	2	4	4	2	2	4	4
Kleibergen-Paap rk LM P-values	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Kleibergen-Paap rk Wald F-stat	16.00	14.03	9.01	8.52	15.99	13.93	3.61	2.81
Hansen J Statistics P-value	0.76	0.75	0.85	0.88	0.82	0.79	0.83	0.85
Observations	8705	8705	8705	8705	8705	8705	8705	8705

Dep. Variable: Received advice from j. 2SLS estimations. 2SLS constants are lost when applying the within transformation using reghdfe (Correia, 2014).

Two-way clustered standard errors in parentheses. ***p<0.01, **p<0.05, *p<0.1

Table A14: Multinomial Logit: Communication Frequency

VARIABLES	(1) Never	(2) Less_than_weekly	(3) Weekly	(4) More_than_weekly
Religious institution co-membership (ζ_{ij})	-21.737***	-0.829***		-0.325***
	(0.138)	(0.114)		(0.098)
Known $j \geq 10$ years	-22.995***	-0.532***		0.061
	(0.113)	(0.113)		(0.112)
Immediate family of j	1.450***	0.140		0.826***
	(0.429)	(0.306)		(0.249)
Extended family of j	-21.160***	0.215*		0.597***
	(0.164)	(0.116)		(0.097)
Distance to j (kilometers)	0.981*	0.891**		-2.800***
	(0.560)	(0.435)		(0.325)
Squared distance to j (kilometers)	-0.366	-0.325		1.347***
	(0.363)	(0.291)		(0.215)
Constant	2.545***	-0.097		1.421***
	(0.201)	(0.170)		(0.143)
Observations	8,705	8,705	8,705	8,705
Number of clusters	883	883	883	883
HH/Demographic Vars.	Yes	Yes	Yes	Yes

Less than weekly is the excluded category. Standard errors clustered at individual level in parenthesis. ***p<0.01, **p<0.05, *p<0.1.

Table A15: Predicted Friendship - Split Sample

	Pr. Friend$_{ij}$ < Median	Pr. Friend$_{ij}$ ≥ Median
	(1)	(2)
Religious institution co-membership (ζ_{ij})	0.38	0.13
	(0.24)	(0.24)
Known j ≥ 10 years	-0.01	0.05
	(0.09)	(0.08)
Immediate family of j	0.17***	0.22*
	(0.06)	(0.13)
Extended family of j	0.02	0.16**
	(0.02)	(0.07)
Distance to j (kilometers)	-0.25**	-0.12***
	(0.10)	(0.04)
Squared distance to j (kilometers)	0.11*	0.06**
	(0.06)	(0.03)
Male$_i$ - Male$_j$	-0.01	0.01
	(0.03)	(0.02)
Male$_i$ - Female$_j$	-0.01	-0.00
	(0.03)	(0.01)
Female$_i$ - Female$_j$	-0.00	0.01
	(0.02)	(0.01)
Estimation	2SLS	2SLS
Number of clusters	784/832	834/853
Village/Enumerator/Svy. Month FE	Yes	Yes
HH/Demographic Vars.	Yes	Yes
Quadratic Vars.	Yes	Yes
Number of Instruments	2	2
Kleibergen-Paap rk LM P-values	0.01	0.00
Kleibergen-Paap rk Wald F-stat	5.54	5.50
Hansen J Statistics P-value	0.63	0.16
Observations	4352	4353

Dep. Variable: Received Agricultural Advice from j. 2SLS estimations. Two-way clustered standard errors (at individual level) in parenthesis. 2SLS constants are lost when applying the within transformation using reghdfe (Correia, 2014). ***p<0.01, **p<0.05, *p<0.1.

Table A16: Similar awareness of technology

	Gr. Manure	Vermi	Biochar	Napier	Desmodium	Compost	NPK	Urea	Aggregate Awareness
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Religious institution co-membership (ζ_{ij})	0.17	0.07	0.28	0.12	0.19	0.61***	0.06	0.25	0.22**
	(0.23)	(0.30)	(0.29)	(0.23)	(0.19)	(0.20)	(0.28)	(0.17)	(0.10)
$Male_i$ - $Male_j$	-0.03	0.03*	0.05***	-0.02	-0.01	0.01	-0.01	0.02	0.01
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.01)
$Male_i$ - $Female_j$	-0.04	0.02	0.03	0.01	0.02	0.01	-0.01	-0.01	0.00
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.01)
$Female_i$ - $Female_j$	0.01	-0.03	-0.01	0.07***	0.05*	0.01	-0.03	-0.01	0.01
	(0.03)	(0.03)	(0.03)	(0.02)	(0.03)	(0.02)	(0.02)	(0.01)	(0.01)
Known $j \geq 10$ years	-0.07	-0.11*	-0.17**	-0.05	-0.07	-0.13***	0.02	-0.04	-0.08***
	(0.05)	(0.07)	(0.07)	(0.05)	(0.05)	(0.05)	(0.06)	(0.04)	(0.02)
Immediate family of j	0.02	0.06	-0.03	0.08	-0.02	-0.05	0.18***	0.00	0.03
	(0.06)	(0.07)	(0.07)	(0.05)	(0.04)	(0.05)	(0.06)	(0.04)	(0.02)
Extended family of j	-0.01	-0.05*	-0.04	-0.04	-0.03	-0.04	-0.03	-0.03	-0.03***
	(0.02)	(0.03)	(0.03)	(0.02)	(0.02)	(0.02)	(0.03)	(0.02)	(0.01)
Distance to j (kilometers)	0.06	-0.14*	-0.16*	0.06	0.08	0.18***	0.00	0.11**	0.02
	(0.06)	(0.09)	(0.09)	(0.07)	(0.06)	(0.06)	(0.07)	(0.05)	(0.03)
Squared distance to j (kilometers)	-0.04	-0.00	0.01	-0.03	-0.05	-0.14***	-0.02	-0.06*	-0.04**
	(0.04)	(0.05)	(0.05)	(0.04)	(0.03)	(0.04)	(0.04)	(0.03)	(0.02)
Estimation	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS
Village/Enumerator/Svy. Month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
HH/Demographic Vars.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Quadratic Vars.	No	No	No	No	No	No	No	No	No
Number of Instruments	2	2	2	2	2	2	2	2	2
Kleibergen-Paap rk LM P-values	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Kleibergen-Paap rk Wald F-stat	15.73	15.73	15.73	15.73	15.73	15.73	15.73	15.73	15.73
Hansen J Statistics P-value	0.01	0.60	0.85	0.78	0.39	0.10	0.43	0.88	0.44
Dep. variable mean	0.60	0.67	0.63	0.76	0.88	0.82	0.63	0.90	0.74
Mean for indv. i	0.25	0.15	0.19	0.14	0.05	0.88	0.72	0.94	1.00
Observations	8705	8705	8705	8705	8705	8705	8705	8705	8705

Estimations correspond to primary IV estimations in table 4 Column 5, with dependent variable substitute with those in first column above. Technologies include green manure, vermicompost, biochar, napier, desmodium, compost, NPK fertilizer, and urea fertilizer. Interpretation is that attendance of both i and j at the same religious institution increases (decreases) the probability that i and j have similar awareness of the following technology by x percentage points. Aggregate awareness is the average of similar awareness across all technologies.

Table A17: Same level of knowledge

	Biochar	Vermicompost	Average	Attended Field Day
	(1)	(2)	(3)	(4)
Religious institution co-membership (ζ_{ij})	0.23	0.39	0.31	0.13
	(0.31)	(0.33)	(0.31)	(0.27)
$Male_i$ - $Male_j$	0.04**	0.01	0.03*	0.05***
	(0.02)	(0.02)	(0.02)	(0.02)
$Male_i$ - $Female_j$	0.02	-0.00	0.01	0.03
	(0.03)	(0.04)	(0.03)	(0.03)
$Female_i$ - $Female_j$	-0.02	-0.03	-0.02	-0.00
	(0.03)	(0.03)	(0.03)	(0.03)
Known $j \geq 10$ years	-0.17**	-0.20***	-0.18***	-0.11*
	(0.07)	(0.07)	(0.07)	(0.06)
Immediate family of j	-0.02	-0.05	-0.03	-0.04
	(0.07)	(0.08)	(0.07)	(0.06)
Extended family of j	-0.05*	-0.07**	-0.06**	-0.02
	(0.03)	(0.03)	(0.03)	(0.02)
Distance to j (kilometers)	-0.10	0.02	-0.04	-0.24***
	(0.09)	(0.09)	(0.08)	(0.09)
Squared distance to j (kilometers)	-0.03	-0.08	-0.05	0.04
	(0.05)	(0.05)	(0.05)	(0.05)
Estimation	2SLS	2SLS	2SLS	2SLS
Village/Enumerator/Svy. Month FE	Yes	Yes	Yes	Yes
HH/Demographic Vars.	Yes	Yes	Yes	Yes
Quadratic Vars.	No	No	No	No
Number of Instruments	2	2	2	2
Kleibergen-Paap rk LM P-values	0.00	0.00	0.00	0.00
Kleibergen-Paap rk Wald F-stat	15.73	15.73	15.73	15.73
Hansen J Statistics P-value	0.77	0.81	0.99	0.98
Dep. variable mean	0.69	0.74	0.72	0.61
Mean for indv. i	0.13	0.09	1.00	0.24
Observations	8705	8705	8705	8705

Estimations correspond to primary IV estimations in table 4 Column 5, with dependent variable substitute with those in first column above. Biochar and vermicompost refer to organic inputs that were taught at local field days in the same time period as this study. Enumerators tested respondents, and dependent variables represent similar knowledge of the technologies by the respondents. Interpretation is that attendance of both i and j at the same religious institution increases (decreases) the probability that i and j have similar levels of knowledge following by x percentage points. Attended field day represents whether both i and j both did or both did not attended field days for biochar and vermicompost.

Table A18: IV Robustness Check

1/6 SD Village-level RI				Percent of iterations		
	Original	Sim. Mean	Std. Dev.	> 0.10	> 0.05	> 0.01
P-value (2 IVs)	0.03	0.25	0.23	0.66	0.82	0.98

				Percentile		
	Original	Sim. Mean	Std. Dev.	5th	50th	95th
F-stat (2 IVs)	15.73	7.37	4.11	1.85	6.72	14.69

1/9 SD Village-level RI				Percent of iterations		
	Original	Sim. Mean	Std. Dev.	> 0.10	> 0.05	> 0.01
P-value (2 IVs)	0.03	0.12	0.14	0.38	0.60	0.94

				Percentile		
	Original	Sim. Mean	Std. Dev.	5th	50th	95th
F-stat (2 IVs)	15.73	10.71	4.07	4.92	10.25	18.15

For each religious institution (RI), we randomly generated 1000 RIs surrounding the original RI in a circle with a radius equal to a fraction of the standard deviation of the village-level RI distances to represent a reasonable "neighborhood" around the RI. With these randomly generated RIs, we ran 1000 estimations of both the first and second stages of the 2SLS regressions. This table presents the statistics for the p-value of the joint attendance variable and the f-statistic of the instruments in the first round. If the precise location of the RI matters more than its neighborhood, then the influence of simulated RIs should weaken. As expected, when the neighborhood is defined by 1/9 (1/6) Standard Deviation of the distance, the mean value of the simulated second stage P-value increases to 0.12 (0.25). This compares to an actual p-value of .03. Similarly, the F-statistic weakens as the neighborhood expands (simulated F-statistic of 7.37, compared to 15.73 in the actual first stage). Therefore, we can assert that the precise location of the RI is crucial in the construction of the instrument and that the influence of neighborhood-specific confounds are likely to be negligible.

Table A19: Spatial Autocorrelation P-values by Village

Village	Assets	Education	Anglican	Catholic	Pentecostal	Christian (Other)	Religion (Other)
Village 1	0.000***	0.115	0.483	0.259	0.491		
Village 2	0.304	0.365	0.391	0.254	0.200	0.311	
Village 3	0.107	0.177	0.056*	0.228	0.172		
Village 4/5	0.366	0.378	0.039**	0.108	0.137		0.130
Village 6	0.496	0.480	0.001***	0.372	0.029**		
Village 7	0.098*	0.114	0.268	0.389	0.073*		
Village 8	0.154	0.197		0.128	0.105	0.013**	
Village 9	0.141	0.097*	0.053*	0.258	0.045**	0.022**	0.013**
Village 10	0.104	0.200		0.450	0.452	0.036**	0.463
Village 11	0.146	0.496	0.407	0.121	0.286	0.376	
Village 12	0.041**	0.382	0.491	0.026**	0.324	0.347	0.206
Village 13	0.223	0.202	0.283		0.428	0.146	0.056*
Village 14	0.183	0.441	0.172	0.121	0.248	0.232	
Village 15	0.246	0.313		0.008***	0.041**	0.238	0.125
Village 16	0.105	0.057*	0.185	0.493	0.205	0.284	
Village 17	0.335	0.223	0.104	0.353	0.412		
Village 18	0.425	0.425			0.000***	0.000***	

Empty cells indicate that no members of that religion were sampled in that particular village. ***p<0.01, **p<0.05, *p<0.1.

Table A20: Autocorrelation Robustness Check

	Asset autocorr. excluded		Religion autocorr. excluded	
	(1)	(2)	(3)	(4)
Religious institution co-membership (ζ_{ij})	0.26*	0.26*	0.29*	0.28*
	(0.15)	(0.15)	(0.16)	(0.16)
Known $j \geq 10$ years	0.10***	0.10***	0.08*	0.08*
	(0.03)	(0.04)	(0.04)	(0.04)
Immediate family of j	0.22***	0.22***	0.18***	0.19***
	(0.05)	(0.05)	(0.04)	(0.04)
Extended family of j	0.06***	0.06***	0.07***	0.07***
	(0.02)	(0.02)	(0.02)	(0.02)
Distance to j (kilometers)	-0.23***	-0.23***	-0.20***	-0.20***
	(0.04)	(0.05)	(0.05)	(0.05)
Squared distance to j (kilometers)	0.11***	0.12***	0.10***	0.10***
	(0.03)	(0.03)	(0.03)	(0.03)
Male$_i$ - Male$_j$	-0.01	-0.01	0.00	0.00
	(0.02)	(0.02)	(0.02)	(0.02)
Male$_i$ - Female$_j$	-0.01	-0.01	-0.00	0.00
	(0.02)	(0.02)	(0.02)	(0.02)
Female$_i$ - Female$_j$	0.00	0.00	0.01	0.01
	(0.01)	(0.01)	(0.01)	(0.01)
Estimation	2SLS	2SLS	2SLS	2SLS
Number of clusters	792/792	792/792	727/727	727/727
Village/Enumerator/Svy. Month FE	Yes	Yes	Yes	Yes
Number of villages excluded	2	2	3	3
HH/Demographic Vars.	Yes	Yes	Yes	Yes
Quadratic Vars.	No	Yes	No	Yes
Number of Instruments	2	2	2	2
Kleibergen-Paap rk LM P-values	0.00	0.00	0.00	0.00
Kleibergen-Paap rk Wald F-stat	14.87	13.06	12.14	10.81
Hansen J Statistics P-value	0.84	0.81	0.39	0.30
Observations	7874	7874	7168	7168

2SLS estimations. Dep. Variable: Received Agricultural Advice from j. Villages with potential autocorrelation omitted. Estimation 1 omits villages with potential asset spatial autocorrelation (villages 1 and 12), and Estimation 2 omits villages with potential religious denomination spatial autocorrelation (villages 6, 9, and 18). Two-way clustered standard errors in parentheses. ***p<0.01, **p<0.05, *p<0.1

Table A21: Family Relationships

	Immediate family of j			Extended family of j		
	(1)	(2)	(3)	(4)	(5)	(6)
Religious institution co-membership (ζ_{ij})	0.05***	0.01	0.01	0.10***	0.06	0.01
	(0.01)	(0.06)	(0.06)	(0.02)	(0.17)	(0.18)
Known $j \geq 10$ years	0.03***	0.04**	0.04**	0.25***	0.27***	0.28***
	(0.00)	(0.01)	(0.02)	(0.02)	(0.05)	(0.05)
Distance to j (kilometers)	-0.39***	-0.41***	-0.41***	-0.47***	-0.48***	-0.49***
	(0.03)	(0.03)	(0.03)	(0.05)	(0.07)	(0.07)
Squared distance to j (kilometers)	0.20***	0.21***	0.21***	0.20***	0.21***	0.22***
	(0.02)	(0.02)	(0.02)	(0.03)	(0.04)	(0.04)
Male$_i$ - Male$_j$	0.00	0.00	0.00	-0.01	-0.01	-0.02
	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)
Male$_i$ - Female$_j$	0.00	0.00	0.00	-0.02	-0.02	-0.02
	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)
Female$_i$ - Female$_j$	-0.02***	-0.02***	-0.02***	-0.03**	-0.03**	-0.03**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Constant	0.16***			0.20***		
	(0.02)			(0.06)		
Estimation	OLS	2SLS	2SLS	OLS	2SLS	2SLS
Number of clusters	883/883	883/883	883/883	883/883	883/883	883/883
Village/Enumerator/Svy. Month FE	Yes	Yes	Yes	Yes	Yes	Yes
HH/Demographic Vars.	Yes	Yes	Yes	Yes	Yes	Yes
Quadratic Vars.	No	No	Yes	No	No	Yes
Number of Instruments		2	2		2	2
Kleibergen-Paap rk LM P-values		0.00	0.00		0.00	0.00
Kleibergen-Paap rk Wald F-stat		15.83	13.76		15.83	13.76
Observations	8705	8705	8705	8705	8705	8705

Two-way clustered standard errors in parentheses (individual level). ***p<0.01, **p<0.05, *p<0.1

Table A22: Estimations using "Plausible Exogeneity" correction after Conley et al. 2012

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				Received advice from j				
Religious institution co-membership (ζ_{ij})	0.37***	0.37**	0.37***	0.37**	0.22**	0.24**	0.22**	0.24**
	(0.13)	(0.14)	(0.14)	(0.15)	(0.10)	(0.11)	(0.10)	(0.11)
Known $j \geq 10$ years	0.07**	0.07**	0.07**	0.07*	0.10***	0.10***	0.10***	0.10***
	(0.03)	(0.03)	(0.03)	(0.04)	(0.02)	(0.02)	(0.02)	(0.03)
Immediate family of j	0.19***	0.18***	0.19***	0.18***	0.22***	0.21***	0.22***	0.21***
	(0.03)	(0.03)	(0.03)	(0.04)	(0.03)	(0.03)	(0.03)	(0.03)
Extended family of j	0.06***	0.05***	0.06***	0.05***	0.07***	0.07***	0.07***	0.07***
	(0.01)	(0.02)	(0.02)	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)
Distance to j (kilometers)	-0.18***	-0.19***	-0.18***	-0.19***	-0.19***	-0.20***	-0.19***	-0.20***
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Squared distance to j (kilometers)	0.09***	0.10***	0.09***	0.10***	0.10***	0.11***	0.10***	0.11***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Male$_i$ - Male$_j$		0.00		0.00		-0.00		-0.00
		(0.01)		(0.01)		(0.01)		(0.01)
Male$_i$ - Female$_j$		-0.00		-0.00		-0.00		-0.00
		(0.01)		(0.01)		(0.01)		(0.01)
Female$_i$ - Female$_j$		0.01		0.01		0.00		0.00
		(0.01)		(0.01)		(0.01)		(0.01)
Constant	0.03	-0.01	0.03	-0.01	0.02	-0.03	0.02	-0.03
	(0.04)	(0.05)	(0.04)	(0.06)	(0.03)	(0.05)	(0.03)	(0.05)
Estimation with uncertainty	No	No	Yes	Yes	No	No	Yes	Yes
Number of Instruments	1	1	1	1	2	2	2	2
Village/Enumerator/Svy. Month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
HH/Demographic Vars.	No	Yes	No	Yes	No	Yes	No	Yes

Estimations corrected for potential violations of exclusion restriction after Conley, Hansen and Rossi (2012). Parameters calculated following van Kippersluis and

Rietveld (2018). Clustered standard errors in parentheses (individual level). ***p<0.01, **p<0.05, *p<0.1

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