

# Preventing Rebel Resurgence after Civil War: A Field Experiment in Security and Justice Provision in Rural Colombia

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## Two questions

How can states recovering from civil war **avoid an escalation of local disputes** during transitions to national peace?

How can states **prevent armed groups from exploiting local governance gaps** to seize territory abandoned by newly demobilized rivals?

## Projection of state power into areas previously governed by armed groups depends on dispute resolution

For weak states, most viable strategy for resolving disputes fairly and efficiently is to **partner with communal institutions** (Baldwin 2015)

- Localized mechanisms for sustaining order, typically through social sanctions rather than physical force
- Examples abound: *shuras* in Afghanistan; secret societies in Liberia; clan houses in East Timor; etc.

## Communal institutions have comparative advantages over states in post-conflict contexts ...

Communal institutions typically enjoy **local legitimacy** that states lack

They tend to be **socially embedded** and have **inside information** about the most important sources of disputes

...but they often suffer from biases and inefficiencies

Communal authorities' decisions may **contravene state laws** and due process protections (Hariri 2012; Blair 2019, 2021)

Their **decisions may be unenforceable** without the threat of coercion from a third party (e.g. an armed group or the state)

## We argue for an approach that exploits complementarities between state and communal authorities

**Communal authorities** adjudicate non-violent crimes and petty disputes, and inform state authorities about more serious conflicts

**State authorities** resolve more serious conflicts and provide coercive capacity to reinforce communal authorities' decisions

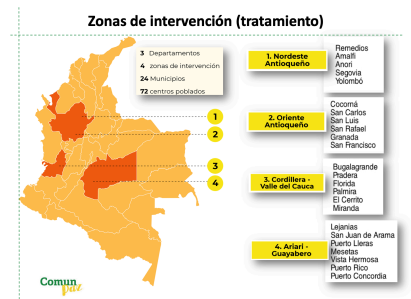
We argue this approach can help states avoid local conflict escalation and prevent new or existing armed groups from gaining a foothold

# We test this approach through an experimental evaluation of the *ComunPaz* program in rural Colombia

Designed to **exploit complementarities between state and communal authorities**

Sample of 149 communities, 72 randomly assigned to treatment

Ongoing armed group presence, but no consolidated control



4 regions where communal institutions adapted to FARC rule

## *ComunPaz* targeted three sets of actors . . .

**Police Commanders:** enforce legal code, especially for more serious crimes

**Police Inspectors:** resolve less serious conflicts

***Juntas de Acción Communal (JACs):*** maintain “harmony” (*convivencia*) locally

- In many places, FARC leveraged JACs to resolve disputes, control flow of goods and people, and gather intelligence



## ...to achieve three goals

**Provide information:** increase understanding of the comparative advantages and legal responsibilities of state and communal authorities

**Build trust:** create opportunities for citizens and state and communal authorities to interact in a structured, mutually respectful environment

**Improve coordination:** develop and disseminate conflict resolution “response routes” and encourage their use

## Concretely, the intervention consisted of lectures, workshops, and group activities over four modules

**Module 1:** Police Inspectors and Police Commanders, to establish roles and responsibilities and coordinate (October/November 2018)

**Module 2:** JACs, to accomplish the same (November/December 2018)

**Module 3:** All authorities, to agree on tailor-made response routes for each community (March 2019)

**Module 4:** All authorities *plus* community members, to disseminate response routes (April 2019)

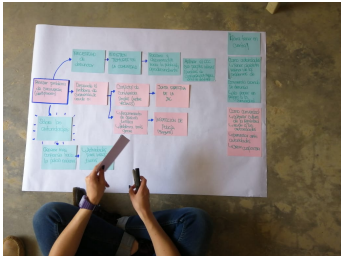
Implemented by UNDP and CERAC



Module 1



Module 2



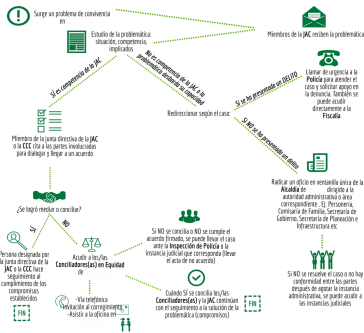
Module 3



Module 4

# Comun Paz

"Construyendo convivencia desde la Colombia rural"



\*\*El Conciliador Convivencia es un facilitador

## Principales situaciones que afectan la convivencia

- Consumo de sustancias psicoactivas
- Ruido
- Alzago por alta tránsito vehicular
- Conflictos entre vecinos
- Occupación ilegal del espacio público
- Incumplimiento de las normas de tránsito
- Violencia familiar y de género

## A quién acudir:

Inspección de Policía	Indiviso
Comandante/Oficial de Policía	Indiviso
Contacto vecinal	Indiviso
Presidencia JAC	Indiviso
Conciliador(a) en Equidad	Indiviso

\*Con el apoyo del Fondo de Innovación del PROD y el Banco de Desarrollo



# We combine data from multiple sources to evaluate the program

## 1 Endline **surveys** of citizens and both state and communal authorities

- 18 randomly selected residents and 8 purposively selected leaders per community
- 1 Police Commander and 1 Police Inspector per municipality
- List experiment to measure reliance on armed groups
- Endorsement experiment to measure perceptions of armed groups, JACs, and police
- Conducted  $\approx$ 6 months after intervention

# We combine data from multiple sources to evaluate the program

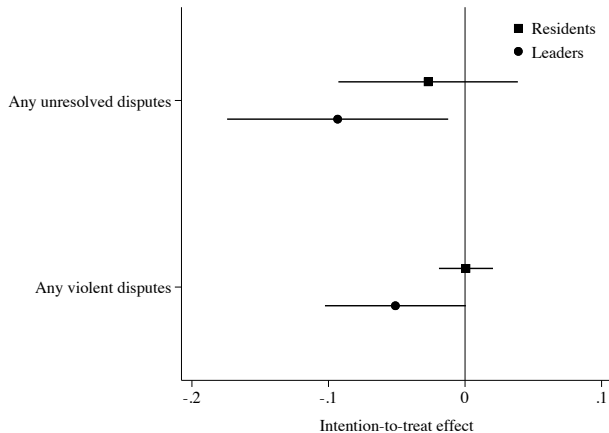
## 2 Costly **behavioral measures**

- Petition requesting more involvement of municipal authorities in local dispute resolution
- WhatsApp groups to facilitate coordination with municipal authorities

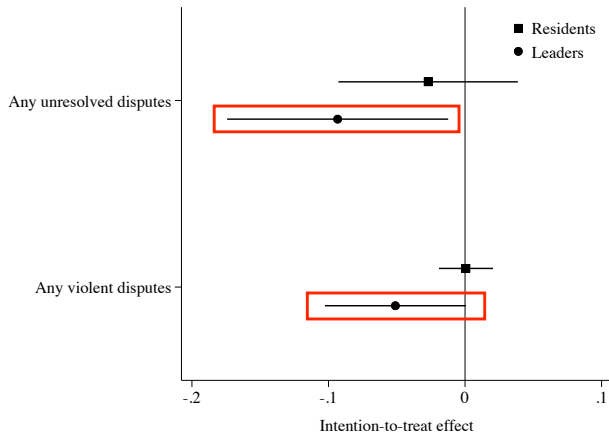
## 3 **Qualitative data**

- Detailed field reports from *ComunPaz* facilitators

# Fewer unresolved or violent disputes at community level

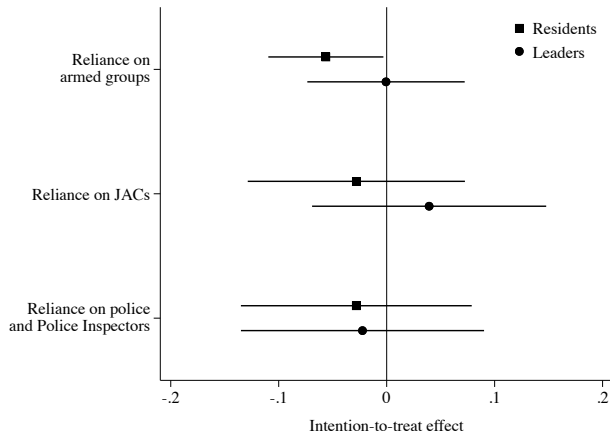


# Fewer unresolved or violent disputes at community level

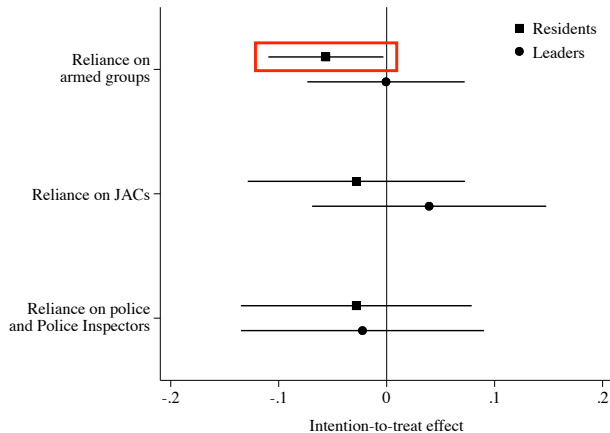




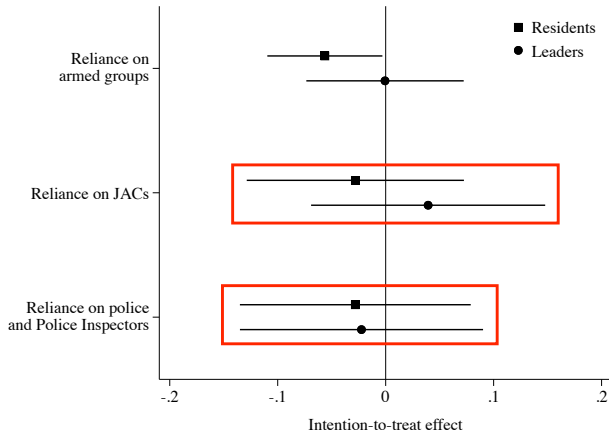
# Less reliance on armed groups among residents



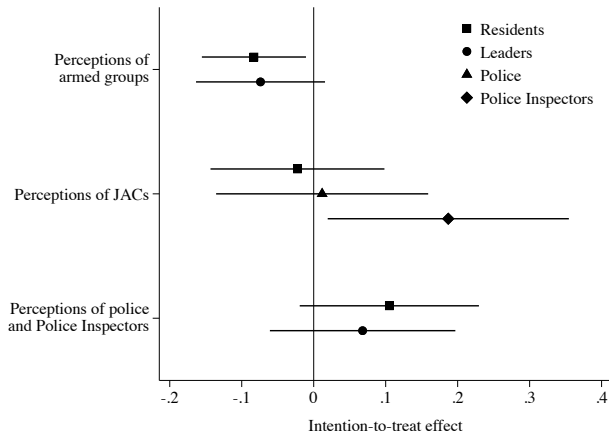
# Less reliance on armed groups among residents



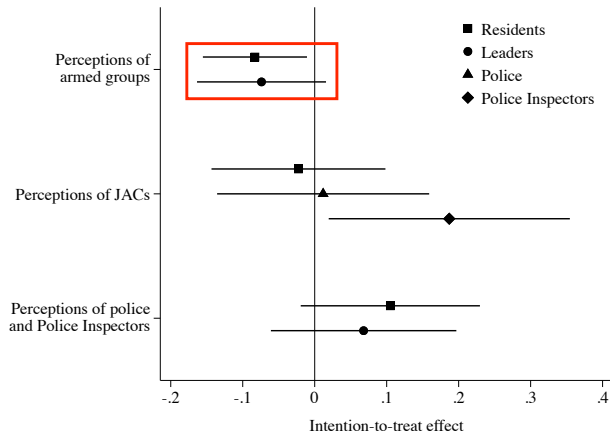
# Less reliance on armed groups among residents



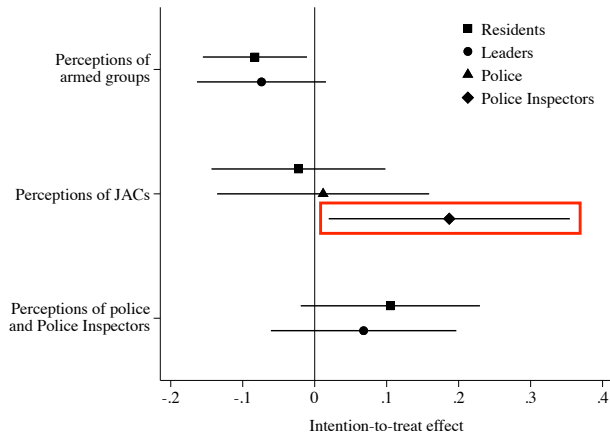
# Less favorable perceptions of armed groups, more favorable perceptions of JACs among Police Inspectors



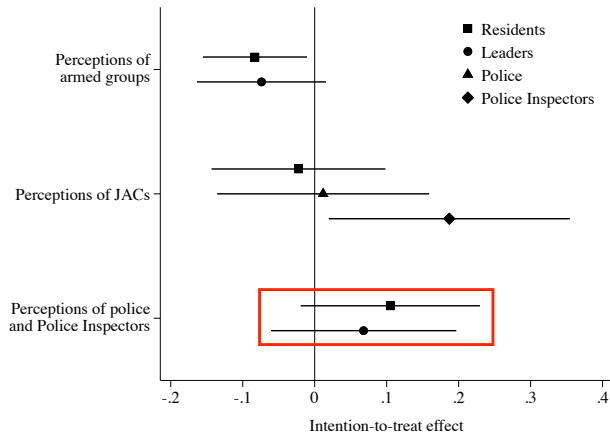
# Less favorable perceptions of armed groups, more favorable perceptions of JACs among Police Inspectors



# Less favorable perceptions of armed groups, more favorable perceptions of JACs among Police Inspectors



# Less favorable perceptions of armed groups, more favorable perceptions of JACs among Police Inspectors



## A puzzle

*ComunPaz* **reduced the prevalence of unresolved and violent disputes** at the community level

It also **decreased reliance on armed groups** to nearly zero

But it **did not increase reliance on state or communal authorities**

If disputes are being resolved, and neither armed groups nor the state nor communal institutions are resolving them, then who is?



## A potential solution

*ComunPaz* appears to have enabled **better coexistence and cohabitation**, resulting in **fewer disputes to resolve in the first place**

- Facilitators encouraged participants to identify the most important sources of disputes and avoid behaviors that provoke conflict
- Facilitators sometimes helped participants resolve disputes on the spot
- Residents of treatment communities were 50% more likely to say there are no serious sources of disputes in their communities . . .
- . . . and leaders were 100% more likely to say the same

# Conclusion

In post-conflict settings, **states struggle to consolidate territorial control** in areas formerly governed by rebel groups

We argue that one way to facilitate state consolidation is to exploit **promising but underutilized complementarities** between state and communal authorities

# Conclusion

We illustrate one way to exploit these complementarities ...

... and show how doing so helps **mitigate local conflicts** and **prevent armed groups from regaining citizens' loyalties** at the local level during national peace processes

Thank you



## No change in understanding of JACs' authority or most important disputes

	Understanding of JACs' authority		Understanding of most important disputes		
	(1) Residents	(2) Leaders	(3) Leaders	(4) Police	(5) PIs
Assigned to treatment	0.015 [0.034]	0.014 [0.031]	-0.026 [0.039]	0.007 [0.041]	0.040 [0.041]
Observations	2620	1171	1182	149	149
Individual controls	Yes	Yes	Yes	No	No
Community controls	Yes	Yes	Yes	Yes	Yes
Block FE	Yes	Yes	Yes	Yes	Yes
Weights	Yes	Yes	Yes	Yes	Yes
Estimator	AES	AES	OLS	OLS	OLS

*Notes:* Specifications in columns 1-3 include individual- and community-level controls, block fixed effects, and inverse probability weights to account for the differential probability of assignment to treatment across blocks. Columns 4 and 5 exclude individual-level controls. Standard errors are in brackets, and are clustered by community in columns 1-3. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

# Increased support for policies associated with police and (weakly) JACs

	Index of approval
Assigned to treatment	-0.136 [0.085]
JAC endorsement	-0.090 [0.061]
Police endorsement	-0.094 [0.061]
Armed group endorsement	-0.965*** [0.133]
Assigned to treatment $\times$ JAC endorsement	0.166* [0.087]
Assigned to treatment $\times$ police endorsement	0.212*** [0.080]
Assigned to treatment $\times$ armed group endorsement	0.057 [0.183]
Observations	2673
Individual controls	Yes
Community controls	Yes
Block FE	Yes
Weights	Yes
Estimator	OLS

*Notes:* Specification includes individual- and community-level controls, block fixed effects, and inverse probability weights to account for the differential probability of assignment to treatment across blocks. Standard errors, clustered by community, are in brackets. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

# Increased coordination within JACs, and between JACs and Police Inspectors ...

	Consensus around dispute resolution		Coordination between JACs, police, and PIs			Coordination within JACs
	(1) Residents	(2) Leaders	(3) Leaders	(4) Police	(5) PIs	(6) Leaders
Assigned to treatment	-0.049 [0.035]	-0.040 [0.030]	0.093* [0.056]	0.028 [0.129]	0.249** [0.114]	0.153** [0.062]
Observations	2673	1182	1168	149	149	1135
Individual controls	Yes	Yes	Yes	No	No	Yes
Community controls	Yes	Yes	Yes	Yes	Yes	Yes
Block FE	Yes	Yes	Yes	Yes	Yes	Yes
Weights	Yes	Yes	Yes	Yes	Yes	Yes
Estimator	AES	AES	AES	AES	AES	AES

*Notes:* Specifications in columns 1-3 and 6 include individual- and community-level controls, block fixed effects, and inverse probability weights to account for the differential probability of assignment to treatment across blocks. Columns 4 and 5 exclude individual-level controls. Standard errors are in brackets, and are clustered by community in columns 1-3 and 6. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

...but reduced demand for additional coordination among residents

	Any petitions	# of petitions	WhatsApp group
	(1)	(2)	(3)
Assigned to treatment	-0.178** [0.089]	-1.139 [0.725]	-0.038 [0.074]
Observations	117	117	117
Individual controls	No	No	No
Community controls	Yes	Yes	Yes
Block FE	Yes	Yes	Yes
Weights	Yes	Yes	Yes
Estimator	OLS	OLS	OLS

*Notes:* All specifications include community-level controls, block fixed effects, and inverse probability weights to account for the differential probability of assignment to treatment across blocks. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .



# Balance

	Assigned to treatment
Population	0.000 [0.000]
Distance to nearest arterial road (km)	0.003 [0.004]
Distance to municipal capital (km)	-0.003 [0.005]
Distance to municipal capital (min.)	-0.001 [0.002]
Coca cultivation within 15km	-0.000 [0.001]
Coca substitution program	-0.012 [0.130]
Observations	149
Individual controls	No
Community controls	Yes
Block FE	Yes
Weights	No
Estimator	OLS
F	.208
p(F)	.974

Notes: Balance test for the *ComunPaz* program including block fixed effects. Standard errors are in brackets. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

## Resident and leader characteristics

	Residents			Leaders		
	Mean	S.D.	N	Mean	S.D.	N
Age	46.08	16.13	2673	47.36	13.04	1182
Male	0.35	0.48	2673	0.51	0.50	1182
Quality of walls	0.93	0.25	2673	0.94	0.23	1182
Quality of floors	0.91	0.29	2673	0.92	0.28	1182
Household size	3.29	1.68	2673	3.52	1.59	1182
Preschool	0.04	0.19	2673	0.01	0.12	1182
Primary school	0.70	0.46	2673	0.58	0.49	1182
Middle school	0.20	0.40	2673	0.28	0.45	1182
Employed	0.55	0.50	2673	0.75	0.44	1182

*Notes:* Individual-level descriptive statistics from resident and leader surveys.

# Community characteristics

	Mean	S.D.	N
Population	764.33	757.19	149
Distance to nearest arterial road (km)	21.16	21.17	149
Distance to municipal capital (km)	20.22	14.66	149
Distance to municipal capital (min.)	58.01	47.23	149
Coca cultivation within 15km	49.92	134.33	149
Coca substitution program	0.38	0.49	149

*Notes:* Community-level descriptive statistics from municipal planning offices, the Instituto Agustín Codazzi, and the United Nations Office on Drugs and Crime (UNODC).

## Item counts in list experiment

	<b>Control</b>		<b>Treatment</b>	
	Frequency	Percentage	Frequency	Percentage
0	24	1.83	19	1.40
1	573	43.61	604	44.44
2	577	43.91	580	42.68
3	131	9.97	141	10.38
4	9	0.68	13	0.96
5			2	0.15

*Notes:* Item counts from the list experiment.

# Manipulation check

	Heard of dispute resolution program		Heard of <i>ComunPaz</i> program	
	(1) Residents	(2) Leaders	(3) Residents	(4) Leaders
Assigned to treatment	0.041*** [0.014]	0.095*** [0.028]	0.029** [0.013]	0.119*** [0.027]
Observations	2673	1182	2673	1182
Individual controls	Yes	Yes	Yes	Yes
Community controls	Yes	Yes	Yes	Yes
Block FE	Yes	Yes	Yes	Yes
Weights	Yes	Yes	Yes	Yes
Estimator	OLS	OLS	OLS	OLS

*Notes:* All specifications include individual- and community-level controls, block fixed effects, and inverse probability weights to account for the differential probability of assignment to treatment across blocks. Standard errors, clustered by community, are in brackets. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

## Prevalence of unresolved and violent disputes, heterogeneity by connectedness

	Any unresolved disputes		Any violent disputes	
	(1) Residents	(2) Leaders	(3) Residents	(4) Leaders
Assigned to treatment	-0.079 [0.056]	-0.131** [0.053]	-0.004 [0.015]	-0.054* [0.030]
Connected	-0.035 [0.039]	0.017 [0.047]	0.032** [0.014]	0.013 [0.027]
Assigned to treatment × connected	0.079 [0.056]	0.077 [0.062]	0.005 [0.022]	0.009 [0.039]
Observations	2673	1182	2673	1182
Individual controls	Yes	Yes	Yes	Yes
Community controls	Yes	Yes	Yes	Yes
Block FE	Yes	Yes	Yes	Yes
Weights	Yes	Yes	Yes	Yes
Estimator	OLS	OLS	OLS	OLS

*Notes:* Heterogeneous treatment effects (HTEs) of the *ComunPaz* program by connectedness to local and municipal power. All specifications include individual- and community-level controls, block fixed effects, and inverse probability weights to account for the differential probability of assignment to treatment across blocks. Standard errors, clustered by community, are in brackets. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

# Prevalence of unresolved and violent disputes, heterogeneity by armed group governance

	Any unresolved disputes		Any violent disputes	
	(1) Residents	(2) Leaders	(3) Residents	(4) Leaders
Assigned to treatment	0.074 [0.080]	-0.014 [0.103]	0.006 [0.020]	-0.017 [0.040]
Rebel governance	0.062 [0.099]	0.101 [0.121]	-0.035 [0.032]	0.017 [0.080]
Paramilitary governance	-0.028 [0.112]	0.118 [0.118]	0.024 [0.030]	0.175** [0.071]
Assigned to treatment × rebel governance	-0.261** [0.120]	-0.124 [0.147]	0.004 [0.038]	0.018 [0.091]
Assigned to treatment × paramilitary governance	0.119 [0.122]	0.003 [0.153]	-0.016 [0.038]	-0.082 [0.099]
Observations	2673	1182	2673	1182
Individual controls	Yes	Yes	Yes	Yes
Community controls	Yes	Yes	Yes	Yes
Block FE	Yes	Yes	Yes	Yes
Weights	Yes	Yes	Yes	Yes
Estimator	OLS	OLS	OLS	OLS

*Notes:* Heterogeneous treatment effects (HTEs) of the *ComunPaz* program by armed group governance. All specifications include individual- and community-level controls, block fixed effects, and inverse probability weights to account for the differential probability of assignment to treatment across blocks. Standard errors, clustered by community, are in brackets. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

# Prevalence of unresolved and violent disputes, heterogeneity by exposure to violence

	Any unresolved disputes		Any violent disputes	
	(1)	(2)	(3)	(4)
	Residents	Leaders	Residents	Leaders
Assigned to treatment	-0.026 [0.034]	-0.077* [0.042]	0.001 [0.010]	-0.045* [0.027]
Rebel violence	0.039* [0.021]	0.033* [0.020]	0.018* [0.010]	0.020 [0.015]
Paramilitary violence	0.037** [0.017]	0.025 [0.019]	0.014 [0.011]	0.046*** [0.015]
Government violence	-0.020* [0.011]	-0.072* [0.039]	0.022 [0.013]	-0.007 [0.040]
Assigned to treatment × rebel violence	-0.025 [0.030]	0.026 [0.031]	0.009 [0.014]	0.025 [0.022]
Assigned to treatment × paramilitary violence	-0.041* [0.022]	-0.009 [0.029]	-0.008 [0.013]	-0.023 [0.019]
Assigned to treatment × government violence	0.030** [0.014]	0.040 [0.040]	-0.017 [0.015]	-0.000 [0.041]
Observations	2631	1160	2631	1160
Individual controls	Yes	Yes	Yes	Yes
Community controls	Yes	Yes	Yes	Yes
Block FE	Yes	Yes	Yes	Yes
Weights	Yes	Yes	Yes	Yes
Estimator	OLS	OLS	OLS	OLS

*Notes:* Heterogeneous treatment effects (HTEs) of the *ComunPaz* program by exposure to violence. All specifications include individual- and community-level controls, block fixed effects, and inverse probability weights to account for the differential probability of assignment to treatment across blocks. Standard errors, clustered by community, are in brackets. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .



# Reliance on armed groups and state and communal authorities to resolve disputes, heterogeneity by connectedness

	Reliance on armed groups		Reliance on JACs		Reliance on police and PIs	
	(1)	(2)	(3)	(4)	(5)	(6)
	Residents	Leaders	Residents	Leaders	Residents	Leaders
Assigned to treatment	-0.027 [0.032]	0.009 [0.035]	-0.027 [0.078]	0.015 [0.067]	-0.055 [0.070]	-0.054 [0.057]
Connected	0.046 [0.054]	0.072 [0.050]	0.029 [0.055]	-0.001 [0.050]	0.073 [0.054]	0.101* [0.054]
Assigned to treatment × connected	-0.046 [0.061]	-0.018 [0.064]	-0.008 [0.080]	0.044 [0.071]	0.046 [0.069]	0.082 [0.075]
Observations	2673	1182	2673	1182	2673	1182
Individual controls	Yes	Yes	Yes	Yes	Yes	Yes
Community controls	Yes	Yes	Yes	Yes	Yes	Yes
Block FE	Yes	Yes	Yes	Yes	Yes	Yes
Weights	Yes	Yes	Yes	Yes	Yes	Yes
Estimator	AES	AES	AES	AES	AES	AES

*Notes:* Heterogeneous treatment effects (HTEs) of the *ComunPaz* program by connectedness to local and municipal power. All specifications include individual- and community-level controls, block fixed effects, and inverse probability weights to account for the differential probability of assignment to treatment across blocks. Standard errors, clustered by community, are in brackets. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

# Reliance on armed groups and state and communal authorities to resolve disputes, heterogeneity by armed group governance

	Reliance on armed groups		Reliance on JACs		Reliance on police and PIs	
	(1)	(2)	(3)	(4)	(5)	(6)
	Residents	Leaders	Residents	Leaders	Residents	Leaders
Assigned to treatment	-0.054 [0.045]	-0.095 [0.064]	0.014 [0.125]	0.093 [0.145]	-0.072 [0.146]	0.006 [0.131]
Rebel governance	0.127 [0.086]	0.057 [0.110]	0.452*** [0.148]	0.403*** [0.153]	-0.424*** [0.148]	-0.413** [0.173]
Paramilitary governance	-0.161* [0.087]	-0.185 [0.127]	-0.129 [0.141]	-0.091 [0.129]	0.318** [0.148]	0.332** [0.161]
Assigned to treatment × rebel governance	-0.119 [0.081]	0.016 [0.111]	-0.120 [0.163]	-0.103 [0.176]	0.171 [0.189]	0.121 [0.193]
Assigned to treatment × paramilitary governance	0.132 [0.094]	0.158 [0.138]	0.042 [0.191]	0.007 [0.183]	-0.085 [0.186]	-0.175 [0.207]
Observations	2673	1182	2673	1182	2673	1182
Individual controls	Yes	Yes	Yes	Yes	Yes	Yes
Community controls	Yes	Yes	Yes	Yes	Yes	Yes
Block FE	Yes	Yes	Yes	Yes	Yes	Yes
Weights	Yes	Yes	Yes	Yes	Yes	Yes
Estimator	AES	AES	AES	AES	AES	AES

*Notes:* Heterogeneous treatment effects (HTEs) of the *ComunPaz* program by armed group governance. All specifications include individual- and community-level controls, block fixed effects, and inverse probability weights to account for the differential probability of assignment to treatment across blocks. Standard errors, clustered by community, are in brackets. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

# Reliance on armed groups and state and communal authorities to resolve disputes, heterogeneity by exposure to violence

	Reliance on armed groups		Reliance on JACs		Reliance on police and PIs	
	(1)	(2)	(3)	(4)	(5)	(6)
	Residents	Leaders	Residents	Leaders	Residents	Leaders
Assigned to treatment	-0.051* [0.029]	-0.011 [0.041]	-0.033 [0.050]	0.050 [0.057]	-0.018 [0.054]	-0.000 [0.060]
Rebel violence	-0.006 [0.019]	0.003 [0.015]	0.066*** [0.022]	0.040* [0.021]	0.067*** [0.026]	0.052** [0.025]
Paramilitary violence	-0.003 [0.019]	0.005 [0.020]	-0.020 [0.034]	-0.023 [0.030]	0.017 [0.026]	-0.005 [0.030]
Government violence	0.011 [0.020]	0.056 [0.073]	-0.021 [0.027]	0.093** [0.040]	-0.007 [0.019]	-0.046 [0.058]
Assigned to treatment × rebel violence	0.068** [0.032]	0.022 [0.033]	-0.006 [0.036]	-0.040 [0.036]	0.014 [0.038]	-0.007 [0.035]
Assigned to treatment × paramilitary violence	0.005 [0.030]	0.019 [0.037]	-0.020 [0.045]	0.003 [0.041]	-0.008 [0.034]	-0.023 [0.041]
Assigned to treatment × government violence	-0.009 [0.021]	-0.063 [0.071]	0.016 [0.029]	-0.056 [0.042]	0.024 [0.022]	0.040 [0.059]
Observations	2631	1160	2631	1160	2631	1160
Individual controls	Yes	Yes	Yes	Yes	Yes	Yes
Community controls	Yes	Yes	Yes	Yes	Yes	Yes
Block FE	Yes	Yes	Yes	Yes	Yes	Yes
Weights	Yes	Yes	Yes	Yes	Yes	Yes
Estimator	AES	AES	AES	AES	AES	AES

Notes: Heterogeneous treatment effects (HTEs) of the *ComunPaz* program by exposure to violence. All specifications include individual- and community-level controls, block fixed effects, and inverse probability weights to account for the differential probability of assignment to treatment across blocks. Standard errors, clustered by community, are in brackets. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

# Correlates of missingness in behavioral dependent variables

	Missing petitions data	Missing WhatsApp group data
	(1)	(2)
Assigned to treatment	-0.018 [0.068]	-0.017 [0.066]
Population	0.000 [0.000]	0.000 [0.000]
Distance to nearest arterial road (km)	0.001 [0.003]	0.001 [0.003]
Distance to municipal capital (km)	0.004 [0.003]	0.004 [0.003]
Observations	149	149
Individual controls	No	No
Community controls	Yes	Yes
Block FE	Yes	Yes
Weights	Yes	Yes
Estimator	OLS	OLS

*Notes:* Correlates of missingness in costly behavioral measures. All specifications include block fixed effects and inverse probability weights to account for the differential probability of assignment to treatment across blocks. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

# Spillover

Given long distances between treatment and control communities in rural regions, risk of spillover is low

- Average distance to municipal capital: 20 km ( $\approx$ 1 hour)
- Average distance between treatment and nearest control community: 8 km

# Spillover

- Word of mouth transfer of knowledge
  - Should bias towards null
- Jurisdictions of Police Inspectors and Police Commanders encompass both treatment and control communities
  - Should bias towards null
- Police Inspectors and Police Commanders redirect efforts from control communities to treatment communities
  - Could bias away from null
  - But unlikely, since state authorities have limited physical presence or “surplus” effort to redeploy

# Non-compliance

Participation was voluntary

To mitigate one-sided non-compliance:

- We sent letters from national government to all local and municipal authorities explaining program
- We visited municipal capitals and treatment communities beforehand to coordinate logistics
- Colombian National Police sent letters to Police Commanders authorizing their participation

# Non-compliance

In 3 treatment communities, JACs did not participate at all

In 17 treatment communities, Police Inspectors did not participate in Module 1

In 8 treatment communities, Police Commanders did not participate in Module 1

*Either* Police Inspectors *or* Police Commanders participated in Module 1 in *all* municipalities