GOVERNANCE, CRIME, AND CONFLICT INITIATIVE

Lessons from randomized evaluations on managing and preventing crime, violence, and conflict

July 2019

GOVERNANCE, CRIME AND CONFLICT INITIATIVE EVIDENCE REVIEW: JULY 2019

LESSONS FROM RANDOMIZED EVALUATIONS ON MANAGING AND PREVENTING CRIME, VIOLENCE, AND CONFLICT

INTRODUCTION

What are the most promising strategies for reducing crime, violence, and conflict? The past decade has seen a dramatic expansion in the experimental literature designed to help answer this question. Moving beyond evaluations of individual programs, these studies seek to advance our understanding of what drives individuals and groups towards violence and conflict and the levers at our disposal for their reduction.

This evidence review, prepared by staff at the Abdul Latif Jameel Poverty Action Lab (J-PAL) and Innovations for Poverty Action (IPA) for the Department for International Development (DFID), offers a broad review of the expansion of this literature and seeks to capture some of the emerging insights from across these studies. The review has been prepared as part of J-PAL and IPA's Governance, Crime and Conflict Initiative (GCCI), a £12-million investment by DFID launched in 2017 to produce new research on effective policies to promote peace and good governance, reduce crime, and support individuals and communities recovering from conflict.[1]

We reviewed the existing experimental and rigorous quasi-experimental literature for studies that help to answer six questions identified in conversation with DFID staff:

1. What does and does not work in policing, including community policing?
2. What does and does not work in terms of justice provision, including criminal justice and corrections/prisons?
3. What do RCTs tell us about how to reduce the violent behavior of individuals in high-crime or conflict settings?
4. What do RCTs tell us about how violent organizations/groups make strategic choices between violent and non-violent action?
5. What do RCTs tell us about what works in peacebuilding, reconciliation and community-based/alternative dispute resolution?
6. Does RCT evidence demonstrate that including women in interventions increases stability, conflict resolution, dispute resolution or violence reduction outcomes?

---

[1] The views expressed here are those of the authors and do not necessarily reflect those of the Department for International Development. For more information about the research funded through GCCI, see the Governance Initiative, Crime and Violence Initiative, and Peace & Recovery Program webpages.

Cover photo: travelview | Shutterstock.com

We focus primarily on the results of randomized evaluations (randomized controlled trials, or RCTs), but we also draw on rigorous quasi-experimental research in some areas, particularly where few randomized evaluations exist. This review does not aim to be exhaustive in scope, but we have sought to identify the most influential studies (including where these studies have found an intervention to have no impact at all), as well as to identify areas both where research is currently being undertaken to answer certain questions and where there are clear evidence gaps.

First, a caveat. Because our goal is to highlight RCT evidence, our review has little to say regarding the effectiveness of two large categories of programs: those that are either not well suited to experimental evaluation (perhaps because randomization is not feasible, or the number of participants is limited) or those that have not yet been evaluated. While the GCCI investment is intended to produce new evidence in areas that have not yet been a focus of rigorous impact evaluation (and we expect to update this note with a growing number of studies in coming years), some programs will remain best suited to other forms of evaluation.

With this caveat in mind, this review should not be read as a comprehensive list of programs in which DFID or others should be investing. Our hope is instead that it offers rigorously produced insights into the broader mechanisms driving *how* programs to reduce violence and conflict are working.

If you wish to consider whether a program or intervention may be suitable for a randomized evaluation, or whether the evidence reviewed below potentially offers relevant insights for new program design in a specific area, please get in touch. We also intend for this review to be a living document as the evidence base in this area expands; if you know of high-quality, randomized evaluations that have been completed on these themes that you think we should include, please let us know.[2]

EMERGING THEMES

The emerging insights drawn from randomized evaluations that we identify in this review include the following:

- Criminal behavior responds to the deterrent effect of policing in different ways, and some policing and other municipal interventions may be more appropriate for some types of crime than others;
- Civilians may be less inclined to engage in crime or violence when economic incentives create higher returns to peaceful activities, suggesting there is scope for further refinement of programs aimed at improving peaceful livelihoods and creating employment opportunities;
- Interventions that target the highest-risk individuals may be more effective than blanket approaches in reducing violent behavior in high-crime or conflict settings; and
- Reconciliation and dispute resolution programming can contribute to higher levels of social cohesion and can increase social capital in some contexts, but it is important to better understand and guard against potential unintended negative impacts.

In many cases, the most significant advance in our understanding from randomized evaluations has not been to reveal the effectiveness of a specific intervention, but rather to help us reframe how to understand the problem or to

identify potential new types of solutions. New research, including studies currently being funded through GCCI, is expected to shed further light on the following:

- What is the most effective use of interventions designed to promote "social contact" to reduce prejudice and potential for conflict between different groups?
- If women and men have very different experiences of policing in many communities, how can we better strengthen police efforts to respond to violence against women and girls?
- Are there strategies for drawing on the success of cognitive behavioral therapy-inspired interventions in reducing violence among young men to tackle crime and violence among more violent individuals or violent organizations?
- Can cash transfers be used to make shifts away from violence or illicit activities more sustainable (either as part of bundled interventions or standalone measures)?
- What do we know about how the incentives that drive either individuals or armed groups to engage in violence may fundamentally differ? What implications does this have for programs built around shifting these incentives?

1. WHAT DOES AND DOESN'T WORK IN POLICING, INCLUDING COMMUNITY POLICING?

In this section, we review the evidence on policing strategies and their effectiveness in reducing criminal and violent behavior. There is robust evidence that crime is generally deterred by increases in police manpower and redeployments, but what form and what kind of strategies that policing approaches employ remains a question for new research (Chalfin and McCrary, 2017). Because increases in police manpower and redeployments are generally expensive investments, another important question for research remains how best to target policing approaches.

This section examines early insights emerging from RCTs regarding strategies for effective and well-targeted policing interventions. It is organized around a distinction in the criminology literature between policing and violence reduction strategies that focus on either places, people, or behaviors, following Abt and Winship (2016) and others. It also includes a section reviewing studies on how to strengthen police institutions and capacities generally.

We know that crime and violence is highly concentrated: both geographically among a small number of areas (particularly in urban settings), and among a small population who are responsible for a large share of crime and violent activity. For example, Blattman et al. (2018) find in Bogotá, Colombia that two percent of the city's 137,000 streets accounted for all murders and a quarter of all crimes from 2012–15. This is one reason why more research in how to best identify and target the most problematic people, places, and behaviors, could be a promising avenue for establishing cost-effective and efficient policing and violence-reduction strategies.

While there is a relatively large experimental literature on policing in the US (and in the UK), some policing strategies that have shown promise in quasi-experimental research designs, such as problem-oriented policing and focused deterrence, have not yet been evaluated experimentally. Few RCTs have been conducted on policing interventions elsewhere, particularly in developing country settings, but this is now starting to change, with recent randomized evaluations of policing approaches in Bogotá, Colombia; rural Liberia; Bougainville, Papua New Guinea; and Brazil.

PLACE-BASED STRATEGIES

Place-based strategies target specific, high-risk areas. A first step towards launching successful place-based strategies is often increased investment in improving data analysis among police departments, and providing support for drawing on existing administrative data to identify high-risk areas.

Community policing

One of the challenges of evaluating the impact of community-oriented policing approaches is that the nature of this approach varies widely. It may range from initiatives to simply bring the police into closer contact with communities to more strategic efforts to create partnerships between communities and the police to reduce disorder and deter and solve crimes. A 2015 review of 25 studies on community-oriented policing (of which only one was an RCT) found no effects on crime and violence, but improved public perceptions regarding police legitimacy, performance and disorder (Gill et al. 2014). One area for further research highlighted by this review was the need to identify which policing strategies are most likely to benefit from community participation.

Two recently published RCTs of community-oriented policing evaluated impacts in communities traditionally governed by customary authorities, and show positive effects on crime reporting and demand for police services.

1. **Establishing the Rule of Law in Weak and War-torn States: Evidence from a Field Experiment with the Liberian National Police (2019),** Blair, Karim, and Morse, *American Political Science Review*
   Location: Liberia
   Method: RCT
   - Rural communities in three counties in Liberia were randomly selected to receive Confidence Patrols—recurring patrols by better-equipped members of the Liberian National Police who were also given a retraining course—over fourteen months beginning in mid-2014.
   - The program was found to increase knowledge of Liberian law and the police among communities, enhance the security of property rights, reduce the incidence of some types of crime (including simple assault and domestic violence), and increase the reporting of felony offenses to the police.
   - The program was not found to increase trust in the police, courts, or government more generally.
   - The increase in crime reporting came almost entirely from those generally found to be disadvantaged by customary forms of dispute resolution.
   - Although the authors suggest that police forces should anticipate some, especially initial, resistance to their presence in post-conflict settings, study findings suggest that better trained and equipped officers can be effective in deterring some types of crime and improving security of property rights.

2. **Does the State Crowd Out Non-State Institutions? A field experiment on community policing and gender inequality in Papua New Guinea (2018),** Cooper, Working Paper
   Location: Papua New Guinea
   Method: RCT
   - In late 2015, remote villages in Bougainville, Papua New Guinea—where there had previously been no state presence—were randomly selected to receive a uniformed community police officer (Community Auxiliary Police) permanently stationed in the village.
   - After eight months, the presence of a police officer had stimulated increased demand for both police presence and customary authorities, and widened an existing gap along gender lines in appraisals of the police, with men preferring to call on customary authorities and women the state.
   - The presence of community police officers (particularly female officers) increases the probability that incidents of violence against women are reported.
   - Community policing also reduces the perceived prevalence of violence against women, property crime, and alcoholism.
   - The study shows that expanding state dispute resolution services does not necessarily lead to a reduction in the role of customary actors in resolving disputes: in this study, the state expansion reinforced the role of customary authorities by increasing demand (among men) for the services they provide.

Hot Spots Policing

Incidents of crime in urban areas tend to be highly concentrated—a recent study by Blattman et al. (2018) in Bogotá found that just 2 percent of the city's 137,000 street segments accounted for all murders and a quarter of all other reported crimes. Previous studies have found similar concentrations in other contexts.

There is a relatively broad literature of experimental research on the efficacy of "hot spots policing"—focusing police resources on those urban areas where crime is most heavily concentrated—most of which has been conducted in the

US. While the balance of this evidence suggests that targeting hot spots with increased policing is effective in reducing crime in these areas, many of these studies have featured relatively small sample sizes and have not always rigorously examined displacement effects—whether intensified policing displaces crime elsewhere.

Productive avenues for further research include focusing on what kinds of policing activities undertaken in hot spots are most likely to deter crime, as well as whether different types of crimes are more likely to be deterred by hot spots policing than others.

3. **Hot Spots Interventions at Scale: The Direct and Spillover Effects of Policing and City Services on Crime (2018),** Blattman, Green, Ortega, and Tobón, NBER Working Paper
   Location: Colombia
   Method: RCT
   Link to evaluation summary
   - In 2016, the city identified 1,919 hot spots (each consisting of one city block segment) and randomly assigned them to either 8 months of roughly doubled police patrolling time, more intensive municipal services (cleanup and lighting), both interventions or neither. This was one of the first studies of hot spots policing to evaluate the approach at scale—previous studies had a median of fewer than 30 studies per treatment arm. No new police resources were added, the intensification of policing in certain areas came at the expense of police time elsewhere.
   - More intensive policing or municipal services alone had small direct effects on crime, but the combination of both together on the same blocks substantially reduced crime. An analysis of displacement effects nevertheless suggests that these interventions pushed crime onto neighboring streets. Property crime was more likely to be displaced than violent crime.
   - Because the broader literature has generally found that more police are associated with lower crime, testing whether increasing general police presence alongside more intensive policing in hot spots might be a promising next step.
   - If crime is easily displaced, as shown, then targeting, coordinating, and concentrating resources in high-crime places may not be the right approach after all. Rather, it might be wiser to target the specific people who commit crimes or particular behaviors. Displacement may be inherently less likely than in place-based approaches.

4. **The Efficient Deployment of Police Resources: Theory and New Evidence from a Randomized Drunk Driving Crackdown in India (2017),** Banerjee, Chattopadhyay, Duflo, Keniston, and Singh, Working Paper
   Location: India
   Method: RCT
   Link to evaluation summary
   - In 2010, researchers worked with the Rajasthan police to randomly assign 123 police stations across 10 districts to treatment and 60 police stations to the comparison group. Among treatment stations, researchers varied the frequency of the roadblocks (1-3 nights per week), their location (fixed at the most strategic point identified by the station chief or randomly rotating between 3 locations) and the implementing personnel (regular police or reserve force personnel provided with special incentives).
   - Researchers found that when police used rotating rather than fixed locations, they saw a reduction of between 17-23 per cent in deaths and nighttime accidents. The effectiveness of the rotating checks *increased*

as time went on, suggesting that drivers quickly learned the location of roadblocks and altered their routes accordingly.

- These results suggest that, when learning among perpetrators is quick, randomly implementing several roadblock checkpoints with high potential for violations may be a better use of scarce policing resources than regularly implementing a single roadblock at the "best" high-potential location.

A separate study of policing in Rio de Janeiro in 2008-15 using quasi-experimental methods examined the impact of a *favela* pacification strategy that combined elements of hot spots policing and **problem-oriented policing**, a strategy through which police engage with the community to understand the root causes of crime and design targeted solutions.

5. **Killing in the Slums: An Impact Evaluation of Police Reform in Rio de Janeiro (2015),** Magaloni, Franco, and Melo, Working Paper
   Location: Brazil
   Method: Difference-in-difference
   - Police Pacifiying Units (UPPs) were assigned to provide a permanent increased police presence in *favelas* of Rio de Janeiro and encouraged to develop more positive relations with residents. Around the same time, the city introduced a "pay-for-performance" incentive scheme that paid rewards to all units in the city that were able to keep homicides, car theft, and street robberies below neighborhood-specific thresholds.
   - Assignment of UPPs was not random, nor did it target the highest-crime areas of the city. Instead, a decision was made to target relatively peaceful neighborhoods (particularly as the Olympics and World Cup approached).
   - The study found that UPPs led to little impact on homicides *between inhabitants*, but decreased *police killings*, accounting for 29 fewer police killing incidents for every 100,000 people each year.

Disorder policing

Sometimes referred to as "broken windows policing", this approach focuses on trying to eliminate both physical and social disorder (including trying to prevent even recurrent nuisances like broken windows). A 2015 systematic review of 30 studies, which included 9 RCTs, found only modest impacts on crime control (Braga, Welsh, and Schnell, 2015). The strongest impacts were generated by "community and problem-solving interventions designed to change social and physical disorder conditions at particular places" (Braga, Welsh, and Schnell, 2015). This is consistent with the general theme that policing approaches that seek to target specific places and behaviors are more successful at reducing crime.

New GCCI research

Four new studies currently being funded through GCCI will contribute to our understanding of place-based policing in important ways.

- **Making Schools Safe for Learning: An Evaluation of "Escola Segura, Família Forte" in Campo Grande, Brazil** – Claudio Ferraz and Rodrigo Soares are conducting an RCT in Mato Grosso state in Brazil to evaluate the effectiveness of intensive patrols in and around schools in promoting security and schooling outcomes. (CVI)

- **Community Policing and Public Trust: A Field Experiment in Uganda** – Robert Blair, Guy Grossman, and Benjamin Kachero are conducting an RCT in Uganda evaluating the "Muyenga model" of community policing, which provides mechanisms for the public to report acts of corruption and abuse and encourages citizens to rely on state security and justice sector institutions when crimes are committed or violence occurs. (P&R)

- **Safe Cities: Improving the Citizen-Police Interface** – Asim I. Khwaja, Daron Acemoglu, James Robinson, and Ali Cheema are conducting an RCT in urban areas of Punjab province, Pakistan to better understand the citizen-police interface. Identifying a population that is currently experiencing a dispute, the researchers will experimentally introduce interventions that provide information on and/or direct exposure to enhanced services for citizens (an additional complaint hotline and basic advisory services) and measure these interventions' impact on dispute resolution, citizen satisfaction, and engagement with and perceptions of the police and state actors.

- **Street Police Patrols and Crime Against Women in Public Space: Experimental Evidence from Urban India** –Nathan Fiala, Sofia Amaral, Girija Borker, Nishith Prakash, Sutanuka Roy, and Maria Micaela Sviatschi are partnering with police in Hyderabad, India to evaluate a hotspots street police patrolling intervention targeting GBV in public spaces. The researchers and Hyderabad City Police have jointly developed research that aims to test the role of increased police presence through patrolling and policing visibility (i.e., uniformed vs. undercover officers) to better understand whether increased quantity and quality of police presence can help curb street harassment of women.

PEOPLE-BASED INTERVENTIONS

These strategies seek to identify the people who are most at risk of engaging in criminal and violent behavior and providing them with either skills or changed incentives to encourage them to cease such behaviors. These strategies generally extend beyond the remit of the police and as such we have considered them under Question 3.

One strategy that deserves mention here is **focused deterrence**. Often called "pulling levers policing", this approach involves identifying specific offenders or groups and working together with communities, law enforcement agencies, and social services to provide targeted sanctions and incentives to shift offender behavior.[3]

No randomized evaluations of focused deterrence strategies have been carried out to date, but a recent review of quasi-experimental studies of these approaches in the US found strong evidence of a decrease in serious violent crime (Brage, Weisburd, and Turchan, 2018).

---

[3] One clear definition: "In its simplest form, the approach consists of selecting a particular crime problem, such as gang homicide; convening an interagency working group of law enforcement, social-service, and community-based practitioners; conducting research to identify key offenders, groups and behavior patterns; framing a response to offenders and groups of offenders that uses a varied menu of sanctions ("pulling levers") to stop them from continuing their violent behavior; focusing social services and community resources on targeted offenders and groups to match law enforcement prevention efforts; and directly and repeatedly communicating with offenders to make them understand why they are receiving this special attention". Braga, Anthony A. and David L. Weisburd, "The Effects of "Pulling Levers" Focused Deterrence Strategies on Crime", Campbell Systematic Reviews 2012:6, April 2012, p. 5.

One of the best-known instances of this approach took place in Boston in 1996, known as Operation Ceasefire, targeted gun violence among youth and was followed by a large decrease in youth homicide. One quasi-experimental evaluation of the Boston approach found a 63 percent reduction in youth homicides associated with the approach; subsequent studies have pointed to effects of smaller magnitude (Braga et al. 2001).

A study currently under design in Mexico City by Rodrigo Canales and IPA proposes to study the effectiveness of focused deterrence strategies through a multi-year partnership with the city police and the National Security Commission. This would be the first randomized evaluation of a focused deterrence approach anywhere, and the first rigorous evaluation of such methods in Latin America.

BEHAVIOR-BASED STRATEGIES

Behavior-based approaches target behaviors associated with leading to violence, such as gang membership, drug sales or consumption, and carrying firearms. Fewer of these strategies have been experimentally evaluated; and many of the existing evaluations have only been conducted in the US. Among the more successful strategies (according to quasi-experimental studies) were drug courts and treatment, which reduce recidivism by connecting offenders to treatment for drug addiction (Abt and Winship, 2016). Gang prevention strategies have shown more mixed effects, and one challenge of evaluation has been the diversity of these interventions and their components, making it difficult to draw broader lessons. Among the less effective interventions evaluated has been some forms of drug enforcement, which may actually increase violence by destabilizing drug markets. (See Question 4 for more evidence on the question of disruptions to drug markets).

The same study on policing responses to drunk driving in Rajasthan mentioned above (evaluating the effectiveness of fixed vs. rotating checkpoints) presents different insights in the context of behavior-based approaches. In that study, drunk drivers quickly learned where checkpoints had been established and adapted their routes accordingly. As a result, increasing the frequency of checkpoints at stations where they were using fixed locations actually reduced the number of drivers caught as time went on. (See the full evaluation summary). These results reinforce the importance of taking a behavioral incentives-based approach to combating crime and violence; otherwise the risky behavior being targeted is likely to simply move elsewhere.

A new study by Chris Blattman, Gustavo Duncan, Ben Lessing, and Santiago Tobón is piloting a new intervention to address the pervasive and predatory role of urban gangs called "combos" in Medellín, Colombia. To avoid the pitfalls of militaristic strategies sometimes employed by security forces in tackling gangs, they are working with the city mayor's office and other government partners to design a randomized evaluation of efforts to encourage communities to play a greater role in self-government while coordinating delivery of existing city services where needed.

A separate question for police and social service agencies may be how to support exit from gangs by shifting the incentives tied to certain behaviors (see Question 3).

STRENGTHENING POLICE CAPACITIES AND INSTITUTIONS

A separate question is how to strengthen police capacity and institutions. The studies summarized below find positive effects of police training on public perceptions of police effectiveness, and varied effects of varying the gender and ethnic composition of police teams.

Police Skills Training

6. **Improving Policy Performance in Rajasthan, India: Experimental Evidence on Incentives, Managerial Autonomy, and Training (2014),** Banerjee, Chattopadhyay, Duflo, Keniston, and Singh, Working Paper
Location: India
Method: RCT
Link to evaluation summary
   − Together with researchers, the Rajasthan Police designed an intervention aimed to enhance police performance, improve public opinion, and gather objective information about crime rates and performance. The intervention was applied randomly in 150 police stations in 11 districts across Rajasthan.
   − Treatment stations were provided with a variable mix of in-service training at the police academy, engagement of volunteer community observers, a weekly "day off" for all station staff, and a rotation of work duties across all staff. Administrative transfers were also frozen in all treatment stations.
   − Only the in-service training and the freeze on transfers were found to improve public perceptions of police performance. Providing in-service training for all staff raised the probability that crime victims were satisfied with police investigation by 16-21 percentage points. These improvements represent about a twofold increase in victim satisfaction. Stations with a freeze on transfers increased the amount of crime victims who were satisfied with their investigation by 14-29 percentage points.
   − The introduction of a weekly day off and a rotation of duties both had some impact on police morale but did nothing to improve perceptions of police performance.
   − The results demonstrate that it is possible, using the correct methods, to affect the public image of the police in a relatively short period of time, using an affordable and easily implementable set of interventions, including training and a freeze on transfers.

Building Diverse Policing Teams

Two recent quasi-experiments consider the impact of ethnic balancing in police teams and suggest that changes in the ethnic make-up of police teams has effects on both how minorities perceive the role of the police (and expectations of repression) and how the police act towards minorities.

7. **Policing Ethnicity: Lab-in-the-Field Evidence on Discrimination, Cooperation, and Ethnic Balancing in the Liberian National Police (2019),** Blair, Karim, Gilligan and Beardsley, Working Paper
Location: Liberia
Method: Lab-in-field/survey experiment
   − Researchers conducted a lab-in-field experiment with 232 officers from the Liberian National Police to evaluate the effect of "ethnic balancing" within policing teams. Officers were randomly assigned into teams of four with one condition: no more than two ethnic Mandingo (the minority ethnic group in this setting) officers were assigned to any one team. Some teams had no Mandingo members.
   − A research team then had participants engage in simulated teamwork (including a mock crime scene investigation) and behavioral games to test cooperation.
   − They found that including Mandingo officers on teams led to no increase or decrease in cooperation among members, and that teams including Mandingo officers were, on average, *more* discriminatory towards Mandingo civilians than teams without Mandingo members.
   − The researchers suggest that whether these results will generalize to other settings remains a question for further research to explore.

8. **International Gender Balancing Reforms in Postconflict Countries: Lab-in-the-Field Evidence from the Liberian National Police (2018)**, Karim, Gilligan, Blair, and Beardsley, *International Studies Quarterly*
   Location: Liberia
   Method: Lab-in-field/survey experiment
   - To assess whether gender balancing may influence unit cohesion, effectiveness with respect to sexual and gender-based violence, and organizational gender norms, researchers randomly assigned the proportions of women and men in 102 groups of six Liberian National Police (LNP) officers and subsequently observed their deliberative processes and group choices.
   - They found that adding more women to the LNP groups increased unit cohesion, in terms of matching individual preferences to group decisions.
   - However, they found no evidence that adding more women improves group sensitivity to sexual or gender-based violence or shifts male officers' beliefs about women's roles in policing.
   - They find that overall *competence* was a main determinant of cohesion, participation, *and* sensitivity to sexual and gender-based violence, rather than individual-level gender or group-level composition. The researchers suggest that improving overall operational effectiveness must be at minimum a complement to gender balancing if the overall goal is improving police responsiveness to GBV.

9. **Police Integration and Support for Anti-Government Violence in Divided Societies: Evidence from Iraq (2018),** Nanes, Working Paper
   Location: Iraq
   Method: Survey experiment
   - In a survey of 800 Baghdad residents, participants were randomly provided with different information about the level of integration between Sunni (minority) and Shia in the police.
   - Providing Sunni respondents with information that the police are integrated reduced their support for anti-government violence (these sentiments were elicited indirectly through a list experiment).
   - Separately, respondents who said that police officers in their neighborhood were mixed Sunni-Shia, had lower expectations of repression; the same was not true for those who responded that police were exclusively from their own group.

New GCCI Research

Two new studies currently being funded through GCCI will contribute to our understanding of strengthening police capacities and institutions in important ways.

- **Building Effective, Resilient and Trusted Police Organizations in Mexico City** – Rodrigo Canales and Mushfiq Mobarak are working with the Ministry of Public Security of Mexico City and the National Security Commission of Mexico to evaluate the impact of a procedural justice approach on the effectiveness, resilience, and trust in Mexico City's police force. (P&R)
- **Engendering Policing: Evaluating Reforms to Increase Women's Access to Security and Justice** – Sandip Sukhtankar, Gabrielle Kruks-Wisner, and Akshay Mangal are conducting an RCT to evaluate whether the establishment of police station-level Women's Help Desks (WHDs), as well as the deployment of additional female personnel to these WHDs, improves the responsiveness of frontline officers to women, as well as levels of crime and crime reporting in Madhya Pradesh, India. (CVI)

PRIORITIES FOR FUTURE RESEARCH

As discussed above, there is robust evidence that crime is generally deterred by increases in police manpower and redeployments but an important question for further research is how these efforts can be best targeted and what forms of policing strategies work best for deterring different types of crime.

RCTs may be well placed to fill the following evidence gaps:

- While hot spots policing has, on balance, been shown to be effective at deterring crime in targeted areas, it may be displacing criminal activity to other areas. Policing strategies focused on targeting *individuals* at high risk of criminal behavior (rather than places) may be a more effective strategy in areas where crime is easily displaced. There is also more research to be conducted on what kinds of policing activities are the most effective crime deterrents, and which strategies are most impacted by community participation and collaboration.

- A rich quasi-experimental literature explores the effectiveness of focused deterrence strategies (often called "pulling levers policing"), and finds that they are associated with a moderate crime reduction effect.[4] But none of these studies have taken place in developing countries, where the required infrastructure in terms of effective social services and intra-agency coordination may be weaker. This is one area for both further evaluation and greater innovation, in an effort to disentangle which elements of the strategy adopted in different instances may have been most important for success.

- While new research is examining how policing strategies that target specific kinds of populations may be more effective at building trust and increasing reporting of crimes such as gender-based violence, more efforts to tease out what may make some community-oriented policing strategies more effective than others are necessary.
    - For example, two studies by J-PAL affiliated researchers currently under design in India, and being developed in partnership with the state police of Madhya Pradesh and Telangana states, will examine whether better integration of female police officers into the police force, including through women's help desks in police stations, may encourage more reporting by victims and better law enforcement tackling violence against women.
    - Ongoing research is additionally exploring how to build trust and cooperation between police and civilians. One study funded through GCCI and implemented by IPA in Uganda examines how one model of community policing creates opportunities for more positive and respectful interactions between police and civilians through "meet and greet" foot patrols, town hall meetings, and community watch teams.

---

[4] For a recent review of this literature, see Anthony A. Braga, David Weisburd, and Brandon Turchan, "Focused Deterrence Strategies and Crime Control", *Criminology & Public Policy*, Vol.17, Issue 1, 2018.

CHAPTER 1 REFERENCES

Abt, Thomas, and Christopher Winship. *What works in Reducing Community Violence: A Meta-Review and Field Study for the Northern Triangle.* Bethesda: USAID, 2016. Retrieved from https://www.usaid.gov/sites/default/files/USAID-2016-What-Works-in-Reducing-Community-Violence-Final-Report.pdf.

Banerjee, Abhijit, Raghabendra Chattopadhyay, Esther Duflo, Daniel Kensington, and Nina Singh. 2017. "The Efficient Deployment of Police Resources: Theory and New Evidence from a Randomized Drunk Driving Crackdown in India." Working Paper. Retrieved from: https://economics.mit.edu/files/13236.

Banerjee, Abhijit, Raghabendra Chattopadhyay, Esther Duflo, Daniel Kensington, and Nina Singh. 2014. "Improving Police Performance in Rajasthan, India: Experimental Evidence on Incentives, Managerial Autonomy and Training." Working Paper. Retrieved from: https://www.povertyactionlab.org/sites/default/files/publications/81_136_Improving-Police-Performance-in-Rajastan_Oct2014.pdf.

Blair, Robert, Sabrina Karim, and Benjamin, Morse. 2019. "Establishing the Rule of Law in Weak and War-torn States: Evidence from a Field Experiment with the Liberian National Police." *American Political Science Review* 113(3): 641-657. https://doi.org/10.1017/S0003055419000121.

Blair, Robert, Sabrina Karim, Michael J. Gilligan, and Kyle C. Breadsley. 2019. "Policing Ethnicity: Lab-in-the-Field Evidence on Discrimination, Cooperation, and Ethnic Balancing in the Liberian National Police." Working Paper. Retrieved from: https://www.povertyactionlab.org/sites/default/files/publications/81_136_Improving-Police-Performance-in-Rajastan_Oct2014.pdf.

Blattman, Christopher, Donald Green, Daniel Ortega, and Santiago Tobón. 2018. "Place-Based Interventions at Scale: The Direct and Spillover Effects of Policing and City Services on Crime." NBER Working Paper. https://doi.org/10.3386/w23941.

Braga, Anthony A., Brandon C. Welsh, and Cory Schnell. 2015. "Can Policing Disorder Reduce Crime? A Systematic Review and Meta-analysis." *Journal of Research in Crime and Delinquency* 52(4). https://doi.org/10.1177/0022427815576576.

Braga, Anthony A., David Weisburd, and Brandon Turchan. "Focused Deterrence Strategies and Crime Control: An Updated Systematic Review and Meta-Analysis of the Empirical Evidence." *Criminology and Public Policy.* https://doi.org/10.1111/1745-9133.12353.

Braga, Anthony, David Kennedy, Elin Waring, and Anne Morrison Piehl. 2001. "Problem-oriented policing, deterrence, and youth violence: An evaluation of Boston's Operation Ceasefire." *Journal of Research in Crime and Delinquency* 38: 195-225. https://doi.org/10.1177/0022427801038003001.

Chalfin, Aaron, and Justin McCrary. 2017. "Criminal Deterrence: A Review of the Literature." *Journal of Economic Literature*, Vol. 4. https://doi.org/10.1257/jel.20141147.

Cooper, Jasper. 2018. "State Capacity and Gender Inequality: Experimental Evidence from Papua New Guinea." Working Paper. Retrieved from: http://jasper-cooper.com/papers/Cooper_CAP.pdf.

Gill, Charlotte, David Weisburd, Cody W. Telep, Zoe Vitter, and Trevor Bennett. 2014. "Community-oriented policing to reduce crime, disorder and fear and increase satisfaction and legitimacy among citizens: a systematic review." *Journal of Experimental Criminology* 10(4): 399-428. https://doi.org/10.1007/s11292-014-9210-y.

Karim, Sabrina, Michael J. Gilligan, Robert Blair, and Kyle Breadsley. 2018. "International Gender Balancing Reforms in Postconflict Countries: Lab-in-the-Field Evidence from the Liberian National Police." *International Studies Quarterly* 62(3): 618-631. https://doi.org/10.1093/isq/sqy009.

Magaloni, Beatriz, Edgar Franco, and Vanessa Melo. 2015. "Killing in the Slums: An Impact Evaluation of Police Reform in Rio de Janeiro." CDDRL Working Paper No. 556. Retrieved from:
http://kingcenter.stanford.edu/sites/default/files/publications/556wp.pdf.

Nanes, Matthew J. 2018. "Police Integration and Support for Anti-Government Violence in Divided Societies: Evidence from Iraq." Retrieved from: https://mnanes.files.wordpress.com/2018/01/paper-iraq-police-integration-and-violence.pdf.

2. WHAT WORKS AND DOES NOT WORK IN TERMS OF JUSTICE PROVISION, INCLUDING CRIMINAL JUSTICE AND CORRECTIONS/PRISONS?

Few randomized evaluations have examined the efficacy of justice provision in the formal sector. This is in part a product of the difficulties of designing randomized studies in court and prison environments, given these institutions' responsibilities to ensuring equal access to justice. Much of the evidence that does exist is from the US, where researchers have begun to forge long-term partnerships with the court system.[5]

New research in the US has used behavioral nudges to help improve criminal justice outcomes by reducing negative consequences for both citizens and the criminal justice system. An evaluation in 2016-17 of an intervention that used re-designed summons letters and text message reminders for offenders in the New York City court system found that, when paired together, these simple innovations could reduce the rate at which offenders fail to appear by 36 percent (Cooke et al. 2018).

Informal and hybrid justice mechanisms, often embedded either in customary institutions or in village-level state or hybrid institutions, have nevertheless provided fertile ground for new research and innovative approaches to improving access to justice and dispute resolution services.

As noted above, much of the existing policing research is also concerned with identifying effective ways of improving justice provision. The study by Cooper in Bougainville, Papua New Guinea discussed above presents particularly compelling evidence of how customary dispute resolution mechanisms and state forces may appeal to men and women in very different ways, particularly when it comes to addressing gender-based violence.

10. **Using Behavioral Science to Improve Criminal Justice Outcomes: Preventing Failures to Appear in Court (2018),** Cooke, Diop, Fishbane, Hayes, Ouss, and Shah
    Location: New York City, USA
    Method: RCT
    Link to evaluation summary
    – Twenty thousand residents of New York City who received a court summons between March and June 2016 and had provided a mobile phone number were included in this randomized evaluation to test the effect of text message reminders in helping residents appear in court as required. Drawing on behavioral science insights, researchers also helped redesign the summons letter to make clearer the required information and the consequences of a failure to appear in court.
    – Researchers tested different types of reminder text messages. The most effective messages provided a prompt to recipients on how to make a plan to attend and the consequences of not attending. This form of message reduced recipients' failure to appear by 26 percent compared to the comparison group, or the equivalent of 3,800 fewer arrest warrants per year in New York City.

11. **Strengthening Village Courts in Rural Bangladesh** (ongoing), Mattson and Mobarak
    Location: Bangladesh
    Method: RCT
    Link to evaluation summary

---

[5] A small body of experimental literature also exists exploiting the quasi-random assignment of judges. We do not include these studies here because the lack of documentation regarding randomization in these studies makes their quality difficult to assess.

- A 2006 law gave village courts in Bangladesh the power to resolve small disputes, aiming to increase access to justice at low cost, but few villages formed such courts and their use was limited. Researchers partnered with IPA and the government to randomly roll-out access to a pilot program that provides increased human and physical resources to establish such courts and provide related information to citizens. Awareness campaigns will focus in particular on improving the ability of women and the poor to access the courts.
- Using surveys and administrative data over two years (2017-2019) from the start of the data, the researchers will measure the impact of the program on access to justice, the number of disputes resolved, as well as other crimes reported.

12. **Colombia Mobile Victims' Units** (unpublished), Vargas, Mendez, and Rounseville
    Location: Colombia
    Method: RCT

- A 2011 law in Colombia guarantees all victims of the country's internal armed conflict access to truth, justice and reparation. The government has established Mobile Victims Units to visit marginalized communities across the country (where access to state services is limited), providing information on rights, legal aid for filing claims, and follow-up services to help victims track their claims.
- Because randomizing at the individual level would have been difficult and entailed ethical and legal concerns regarding access to justice, researchers worked with the government and the World Bank to pair 80 different municipalities on observable characteristics and then randomly assign one of each to receive services immediately and the other to receive the services six months later.
- Researchers are evaluating the impacts of these mobile units on victims' access to reparations, awareness of their rights, economic and social, and perceptions of justice and trust in the State.

13. **Trust in State Authorities and Non-State Actors in Pakistan (2018),** Acemoglu, Cheema, Khwaja, and Robinson, NBER Working Paper
    Location: Punjab, Pakistan
    Method: RCT / lab-in-field
    Link to evaluation summary

- Researchers are interested in exploring how information about and experience with both formal state institutions and local village (*panchayat*) councils as dispute resolution systems may affect citizens' engagement with these institutions
- 2,100 individuals who have either experienced a dispute or are likely to experience one in the future will be randomly assigned to receive a range of informational or experiential primes, including positive information about the effectiveness of either state or non-state actors in resolving disputes, details of state dispute resolution and judicial services, and trainings and consultations on state-endorsed services on offer for dispute resolution.
- The goal is to understand how these various forms of information and experience may shift attitudes and preferences towards both state and non-state actors, and how they might affect trust in the state.
- The researchers find in early non-experimental results that providing information about reduced delays in state courts leads to citizens reporting higher willingness to use state courts and to suggest greater trust in the state. They suggest the results indicate that "the feedback loop between state legitimacy and the legitimacy of non-state actors may be reversible", an important finding for efforts to improve the efficacy of state justice provision efforts.

14. **Information and Bargaining through Agents: Experimental Evidence from Mexico's Labor Courts (2018)**, Sadka, Seira, and Woodruff, NBER Working Paper
    Location: Mexico City, Mexico
    Method: RCT

    - In partnership with the Mexico City Labor Court, researchers examined whether trial delays, low settlement rates, misinformation and overconfidence of plaintiffs, and lawsuit inflation could be ameliorated by encouraging potential plaintiffs to consult with a public lawyer and/or by providing personalized statistical predictions of expected case outcomes and legally-mandated entitlements.

    - In the statistical prediction treatment, researchers leveraged data on 5,000 concluded cases filed in 2011 and used machine learning techniques to estimate predictive models on the outcomes of each individual case.

    - They found that both treatments (the consultation and statistical prediction) nearly doubled the rate of settlement on the day the treatment was provided, but only when the plaintiff herself was present to receive the information. Post-treatment results indicated that lawyers do not convey the information provided through the intervention to their clients.

15. **Human Decisions and Machine Predictions (2017),** Kleinberg, Lakkaraju, Leskovec, Ludwig, and Mullhainathan, *The Quarterly Journal of Economics*
    Location: New York City, USA
    Method: Quasi-experimental

    - Researchers evaluated whether they could use statistically driven predictions on whether arrested defendants are likely to flee or commit new crimes to improve judges' decision-making processes related to bail. These predictions were generated through a machine-learning algorithm trained on information related to offenses and criminal histories from a large dataset of cases heard in New York City from 2008-13. They exploit as-good-as-random assignment of judges to different defendants' cases.

    - They find that algorithmic predictions can improve judges' bail decisions. They find that many judges were releasing defendants that the algorithm deemed to be very high risk (i.e. least likely to appear for court), and that judges tend not to jail the riskiest defendants first.

    - The researchers suggest that a properly built algorithm could reduce crime and jail populations, by 25 to 42 percent respectively, while simultaneously reducing racial disparities. In addition, this algorithm could also be used as a behavioral diagnostic to assess why some judges mispredict.

CHAPTER 2 REFERENCES

Acemoglu, Daron, Ali Cheema, Asim I. Khwaja, and James A. Robinson. 2018. "Trust in State Authorities and Non-State Actors in Pakistan." NBER Working Paper. Retrieved from https://economics.mit.edu/files/15044.

Cooke, Brice, Binta Zahra Diop, Alissa Fishbane, Jonathan Hayes, Aurelie Ouss, and Anuj Shah. 2018. "Using Behavioral Science to Improve Criminal Justice Outcomes: Preventing Failures to Appear in Court." University of Chicago Urban Crime Labs. Retrieved from
https://urbanlabs.uchicago.edu/attachments/3b31252760b28d3b44ad1a8d964d0f1e9128af34/store/9c86b123e3b00a5da5831
8f438a6e787dd01d66d0efad54d66aa232a6473/I42-954_NYCSummonsPaper_Final_Mar2018.pdf.

Kleinberg, Jon, Himabindu Lakkaraju, Jure Leskovec, Jens Ludwig, and Sendhil Mullainathan. 2017. "Human Decisions and Machine Predictions." *The Quarterly Journal of Economics* 133(1): 237-293. https://doi.org/10.1093/qje/qjx032.

Sadka, Joyce, Enrique Seira, and Christopher Woodruff. 2018. "Information and Bargaining through Agents: Experimental Evidence from Mexico's Labor Courts." NBER Working Paper. Retrieved from: https://www.nber.org/papers/w25137.pdf.

3. WHAT DO RCTS TELL US ABOUT HOW TO REDUCE THE VIOLENT BEHAVIOR OF INDIVIDUALS IN HIGH-CRIME OR CONFLICT SETTINGS?

In this section, we review the evidence on interventions aimed at reducing or preventing the violent behavior of individuals in high-crime or conflict settings. There are a growing number of experimental and quasi-experimental studies exploring this topic, including in fragile settings. While the existing experimental literature largely focuses on issues of criminality rather than insurgency or rebellion, theory suggests there is much in common between the factors that drive individuals to engage in both criminal and violent activities. For this reason, our response to this question draws on a broad evidence base that encompasses questions ranging from the nature of criminal motivations to why individuals rebel.

In particular, we examine emerging insights from evaluations of the following categories of interventions:

- **Cognitive behavioral therapy (CBT)-inspired interventions** that focus on developing non-cognitive skills and correcting maladaptive mental processes by teaching people to evaluate and modify the way they think and make decisions.
- **Employment and vocational skills training programs** that seek either to reduce the barriers to lawful employment by matching individuals to new jobs or providing them the skills to obtain better paying jobs, thus increasing the returns to peaceful activities.
- **Informational campaigns** that emphasize the costs of engaging in crime or violence.
- **Early childhood interventions** that offer families access to early childhood stimulation resources, including nutritional supplements, nurse visits, and learning strategies.

As highlighted in Question 1, one emerging research question is whether targeted approaches that focus on individuals at highest risk for committing crimes or engaging in violent behaviors, may be a particularly effective means for reducing violent behavior in high-crime and conflict settings. Furthermore, if crime is potentially easily displaced by place-based strategies, strategies that focus on individuals, rather than places, may be more effective.

The following are among some of the key emerging findings from recent randomized evaluations, and other high-quality quasi-experimental studies:

- Even interventions targeted at older, at-risk or criminally engaged youth can reduce criminal or antisocial behaviors, at least in the short term. Evidence from CBT-inspired programs in the US and Liberia suggest that this may be a cost-effective approach to reducing youth engagement in criminal activities.
- Multi-pronged approaches to violence reduction that pair pro-social and behavioral support with family-based interventions and monitoring have been found to be effective in reducing criminal activity.
- Vocational training and employment may reduce involvement in criminal and violent activities, particularly when combined with soft skills training or when paired with economic (cash or in-kind) inputs. Additional research is necessary to unpack the mechanisms driving these changes, but existing evidence suggests that reductions in criminality appear to be less a result of improved labor market opportunities and more the result of the new skills that participants acquire (through both employment and training).
- Strategies focused on deterring crime and violence through informational campaigns—that emphasize the costs of engaging in these activities without other methods of supporting behavior change—tend to be ineffective and may even increase involvement in criminal activities. Programs in the US focused on drug resistance education (such as D.A.R.E. and Scared Straight) have shown disappointing results.

Across developed and developing countries, violence and crime are concentrated disproportionately among poor young men, with detrimental effects on these men and their victims. For these men, the challenge of developing skills to slow down automatic reactions in high-stakes situations or plan ahead is particularly important. Cognitive behavioral therapy (CBT), which teaches people to evaluate and modify the way they think and make decisions, may help reduce self-destructive behaviors. CBT is designed to help participants improve their self-image, relate and adapt to their environment, slow down their decision-making processes, and plan ahead.

In three randomized evaluations of CBT-based programs in Liberia and the US, therapy reduced criminal behavior and increased graduation rates when delivered in school. There is still an ongoing debate over the precise mechanisms through which CBT-inspired interventions effect change in different contexts, as well as how paired interventions (such as cash transfers) may reinforce recipients' changed behavior. While facilitators varied in their education levels and the amount of program training received, CBT may offer potential as a cost-effective approach, since all programs relied on non-expert facilitators to deliver standardized curricula.

Inspired, in part, by these randomized evaluations, there has been growing interest in adapting CBT as an approach for deterring criminal and violent behavior amongst a variety of populations and in a range of contexts. Recently launched and planned randomized evaluations will explore the effects of CBT in different contexts in Sierra Leone and Honduras.

16. **Reducing Crime and Violence: Experimental Evidence from Cognitive Behavioral Therapy in Liberia (2017),** Blattman, Jamison, and Sheridan, *American Economic Review*
    Location: Liberia
    Method: RCT
    Link to evaluation summary

    – High-risk young men (18-35 years old) in Monrovia, Liberia were recruited and randomly selected to participate in an eight-week long CBT-inspired program that combined group therapy with one-on-one counseling aimed at improving participants' self-image and self-control. Half of participants also received a one-time unconditional cash grant of US$200.

    – Receiving therapy with or without the cash reduced the likelihood of aggressive and criminal behavior among participants and improved some measures of self-control and self-image (including reductions in impulsivity and improvements in self-esteem). These results were more pronounced for participants who received *both* therapy and cash.

    – The cash grants increased recipients' short-term incomes and business investments, relative to those who did not receive cash grants, but these effects did not persist into the long run.

    – These results demonstrate that CBT, combined with unconditional cash transfers, can be an effective method of reducing criminality, violence, and drug use, at fairly low cost.

    – Providing young men with opportunities to continue practicing CBT techniques could be an effective way to reinforce recipients' changed skills and behaviors. Programs that provide additional reinforcement, such as periodic "booster" therapy sessions, could be important to sustaining effects.

17. **Thinking, Fast and Slow? Some Field Experiments to Reduce Crime and Dropout in Chicago (2016),** Heller, Shah, Guryan, Ludwig, Mullainathan, and Pollack, *The Quarterly Journal of Economics*
    Location: Chicago, USA
    Method: RCT

- Researchers conducted three randomized evaluations of CBT-inspired programs delivered to at-risk individuals in Chicago. In two of the RCTs, local NGO Youth Guidance delivered weekly hour-long group sessions to at-risk male youth in low-income Chicago public schools for one to two school years. In the third RCT, researchers partnered with the Cook County Juvenile Temporary Detention Center (JTDC) to deliver twice daily group sessions for male juvenile detainees over a period of three to four weeks.
- In the school-based studies, arrests per student decreased by 12 percent by the end of the program, and recipients were 9 percent more likely to graduate high school on time. Therapy helped students learn strategies to relate to their environment, slow down their decision-making processes, and plan ahead.
- In the JTDC-based study, detainees who received CBT were 39 percent less likely to be readmitted within two months of release, a reduction that persisted eighteen months later.
- CBT can be a cost-effective approach to reduce criminal behavior among high-risk young men in cities across diverse contexts. These CBT programs were short-term and relatively easy to implement, with standardized curricula delivered by minimally trained facilitators. Researchers estimate the program's overall societal benefits were anywhere from five to thirty times greater than the program's cost.

New GCCI Research

One new study currently being funded through GCCI will contribute to our understanding of CBT-inspired programing:

- **Integrating Cognitive Behavioral Therapy-based Interventions and Employment Programs for Youth in Sierra Leone** – Theresa Betancourt, Agha Ali Akram, and Osman Siddiqi are evaluating the effects of a group mental health intervention on social functioning, emotion regulation, and economic stability. The Youth Readiness Intervention (YRI), is a group-based intervention designed to be delivered by lay workers (such as community health workers and youth employment workers), that draws on elements of cognitive behavioral therapy. (P&R) (link to evaluation summary)

VOCATIONAL TRAINING AND EMPLOYMENT PROGRAMS

Poor and unemployed young men, particularly in fragile contexts, are often viewed to be at highest risk of engaging in criminal activities, joining extremist groups, or otherwise participating in violence (World Bank 2012). Is this choice a rational deliberation between the associated benefits and potential costs (through sanctions such as fines or imprisonment)?

According to Gary Becker's economic model of crime, criminals are calculating and, thus, criminality and violence increase when the benefits of illicit activities are greater than their costs (Becker 1968). Reducing crime should thus require either decreasing its associated benefits or increasing its associated costs. While economists generally acknowledge that such a model does not wholly explain individual participation in crime and violence, it continues to inform, at least in part, the design of many people-based crime and violence prevention strategies, including many vocational training and employment programs (Bazzi and Blattman, 2014). If we succeed in increasing the returns to non-criminal activity, including by increasing availability and access to jobs, can we reduce crime and violence?

Theory also suggests that labor market programs—ranging from direct employment to vocational and livelihood training—may drive reductions in criminal and violent activities in different ways. These include by increasing economic returns to non-criminal and non-violent activity, thereby raising the opportunity costs of engaging in crime

and violence; "incapacitating" youth by occupying their time that could otherwise be used to engage in illicit activities; or improving youths' cognitive and socio-emotional skills, through training, on-the-job learning, and mentoring.[6]

However, there is mixed evidence regarding the potential effectiveness of employment and vocational training programs in reducing crime, recidivism, and violence. RCT evidence from the US examining the effects of summer employment programs on crime and recidivism suggests that providing at-risk youth with employment—and adequate skills and opportunities to secure it—may be an effective way to reduce their opportunities to be involved in illegal criminal activities. However, the mechanisms driving these reductions in criminality appear to be less a result of improved labor market opportunities and more the result of new skills that participants acquire.

There is relatively little experimental research on the violence-reducing effects of job skills training programs in fragile or conflict-affected settings. Existing evidence suggests that, similar to the findings from behavioral interventions, to improve social stability, employment programs should be targeted at the highest-risk individuals. Studies from Liberia (Blattman and Annan, 2016) and Afghanistan (Lyall, Zhou, and Imai, 2018) find that pairing skills development with economic incentives, such as capital inputs or cash transfers, may be more effective than vocational training alone. These findings are consistent with the broader literature on "capital-centric" employment programs, which suggest that even small capital injections can empower, rather than create dependency (Blattman and Ralston, 2015).

Furthermore, it is often the case that choosing between crime and licit employment is not strictly an either/or decision, particularly in fragile, resource-scarce settings where individuals often engage in "portfolios" of work in order to mitigate risk (Blattman and Ralston, 2015). While vocational training and employment programs may *reduce* involvement in criminal or violent activities, it may be difficult to get people to exit these activities entirely, as illustrated by the RCT in Liberia described below (Blattman and Annan, 2016).

In reality, low-ranking criminals and rebels often have little to gain from participating in these activities as crime tends to provide significant material rewards to only a select few. Blattman and Ralston (2015) suggest that policymakers "should not expect dramatic effects of employment on crime and violence, in part because some forms of violence do not respond to incomes or employment." As such, more research is needed to better understand the non-material drivers of participation and violence and what types of interventions hold promise for addressing these drivers.

18. **Can employment reduce lawlessness and rebellion? A field experiment with high-risk men in a fragile state (2016),** Blattman and Annan, *American Political Science Review*
    Location: Liberia
    Method: RCT
    Link to evaluation summary

---

[6] See for instance: Cohen, Lawrence E., and Marcus Felson. 1979. "Social Change and Crime Rate Trends: A Routine Activity Approach." *American Sociological Review* 44(4): 588-608. https://doi.org/10.2307/2094589.; Wilson, W. J. *When Work Disappears: The World of the Urban Poor.* New York: Alfred Knopf, 1996.; Blattman, Christopher and Laura Ralston. 2015. "Generating employment in poor and fragile states: Evidence from labor market and entrepreneurship programs." White Paper.

- In Liberia, researchers tested the effect of an intensive agricultural training program—which provided both human and physical capital and integrated economic and psychosocial assistance—on employment activities, income, and socio-political integration.

- The program increased participants' employment in agriculture and average wealth and decreased the amount of time they spent in illicit activities. Decreases in illicit activities were largest among men with economic incentives not to leave the village. However, while treated men spent fewer hours engaged in illicit activities, many did not exit these activities entirely.

- The program had no effect on attitudes towards violence and democracy, and little effect on anti-social behaviors, community engagement, or peer groups.

- The returns to future cash incentives suggest that one-time transfers of skills and capital may have limited deterrent effects on future violence. This implies that capital transfers or cash-for-work programs may be more effective if they condition payment on men's location—e.g. out of hot spots and not in mercenary work.

19. **Reducing Insurgent Support among At-Risk Populations: Experimental Evidence from Cash Transfers and Livelihood Training in Afghanistan (2019),** Lyall, Zhou, and Imai, Working Paper
Location: Afghanistan
Method: RCT

- Researchers randomly evaluated a livelihood training program— "Introducing New Vocational Education and Skills Training" (INVEST)—and one-time unconditional cash transfer (US$75) on combatant support among 2,579 at-risk youth in Kandahar, Afghanistan.

- The livelihood training alone had little effect on participants' attitudes towards combatants and, while cash initially increased pro-government sentiments, these effects dissipated after seven months and attitudes eventually reversed to increased support for the Taliban.

- When combined with livelihood training, cash increased support for the Afghan government while marginally decreasing pro-Taliban sentiment, even in historically pro-Taliban areas.

- These results suggest that the combination of training and cash provided a sufficient signal of government competency for recipients to revise their existing beliefs about government performance and responsiveness.

20. **Generating Skilled Self-Employment in Developing Countries: Experimental Evidence from Uganda (2014),** Blattman, Fiala, and Martinez, *The Quarterly Journal of Economics*
Location: Uganda
Method: RCT
Link to evaluation summary

- Beginning in 2006, researchers evaluated the impact of Uganda's Youth Opportunities Program—a program that invited young adults, aged 16 to 35, to organize into groups and submit a proposal for a cash transfer to pay for: (i) fees at a local technical or vocational training institute of their choosing, and (ii) tools and materials for practicing a craft.

- While results demonstrated that cash significantly increased participants' income (even four years later), the program had no measurable effects on cohesion, aggression, or community and political participation, though results were self-reported.

21. **Summer jobs reduce violence among disadvantaged youth (2014),** Heller, *Science*
Location: Chicago, USA

Method: RCT

Link to evaluation summary

- Researchers tested whether an eight-week summer jobs program for disadvantaged youth still in high school, which was designed to focus on preventing involvement in crime rather than remediation, could impact rates of violent-crime arrests in poor neighborhoods of Chicago.

- Youth who received an offer of summer employment and mentorship had lower rates of violent-crime arrests throughout the following year—they were 43 percent less likely to be arrested for violent crimes. However, the program had no effect on other types of arrests.

- Results indicate that the decrease in violent-crime arrests is not simply an "incapacitation" effect of youth having less free time to engage in crime over the summer: Most of the reduction in violent-crime arrests occurred after the end of the program. The decline persisted 13 months later, suggesting that youths' summer experiences impacted their behavior after the program.

- Results suggest that a well-targeted, low-cost summer job program can impact youth violence, and that such programs may be more effective by focusing on prevention rather than remediation.

22. **The Effects of Youth Employment: Evidence from New York City Summer Youth Employment Program Lotteries (2014),** Gelber, Isen, and Kessler, *The Quarterly Journal of Economics*
    Location: New York City, USA
    Method: RCT

    Link to evaluation summary

- Researchers studied the impact of the New York City Summer Youth Employment Program (SYEP)—which placed youth (aged 14-21) in paid, entry-level, minimum-wage jobs for up to 25 hours per week for seven weeks—on youth earnings, employment, college enrollment, incarceration, and mortality.

- SYEP increased earnings during the year of the program and led to a meaningful reduction in participant incarceration and mortality.

- The results suggest that the reduction in deaths may be substantially attributable to a decline in death from homicide. The high cost of preventable death and incarceration suggest that a reduction in these outcomes may substantially affect cost-benefit assessments of summer youth employment programs.

- SYEP had little impact on employment after the program year, suggesting the program may have changed participants' behavior, rather than merely prevented youth from engaging in violence by keeping them busy on the job.

23. **How Do Summer Youth Employment Programs Improve Criminal Justice Outcomes, and for Whom? (2019),** Modestino, *Journal of Policy Analysis and Management*
    Location: Boston, USA
    Method: RCT

- The research team partnered with Action for Boston Community Development (ABCD) to study the effects of Boston's Summer Youth Employment Program (SYEP)—which placed youth (aged 14-24) in subsidized, minimum-wage positions for a maximum of 25 hours per week over a period of six weeks, from early July to mid-August.

- Using administrative data, they found that the program reduced violent crime arraignments by 35 percent and property crime arraignments by 29 percent seventeen months after program participation. However, while the total number of arraignments decreased, the program did not affect whether participants were likely to have *ever* committed a crime in the months following employment.

- In the medium-term, reductions in criminal justice outcomes are greatest for male youth. The author suggests these reductions are driven by improvements in conflict resolution skills, rather than through employment, based on findings from pre-/post-surveys with program participants.

Forthcoming:

- **Labor Market Opportunities and Violent Crime among Muslim Youth: Experimental Evidence from Northern Nigeria (Ongoing),** Researchers Oeindrila Dube, Ben Crost, Marcus Holmlund, Eric Mvukiyehe, and Caio Piza are evaluating the DFID-funded program, Mafita, to assess whether equipping marginalized youth in northern Nigeria with foundational skills, through both an apprenticeship intervention and vocational training program, can help break the poverty-conflict cycle by improving youths' labor market opportunities and reducing their participation in violent activities.

INFORMATION CAMPAIGNS

Information campaigns typically seek to deter youth from participating in crime and violence by sharing information on the costs of engaging in these activities. Consistent with evidence across other sectors, evaluations of these programs have shown that information alone is not enough to deter these behaviors—merely exhorting youth not to engage in crime is not effective.

To illustrate this finding, a meta-analysis of more than 20 RCTs shows that D.A.R.E.—Drug Abuse Resistance Education, which has been implemented widely throughout the US—has no long-term impacts on drug use (Pan, Wei, and Bai, 2009). In a similar vein, "Scared Straight" programs—which operate on the theory that bringing at-risk youth or juvenile offenders on organized visits to prison facilities will deter them from engaging in future criminal activities—have been found to be ineffective in reducing future criminal behavior. In some cases, researchers even find that these programs increased crime and delinquency among participants (Klenowski, Keith, and Dodson, 2010).

It is possible that more comprehensive, integrated approaches to prevention that combine information campaigns with other proven strategies, like CBT, may offer more promise. In addition, the format in which information is delivered may play a key role. For example, education entertainment—or "edutainment," which dramatizes a situation with the aim of spreading information and changing attitudes and behaviors—may be a more effective approach. Read more under the media interventions section of Question 5.

EARLY CHILDHOOD INTERVENTIONS

Meaningful efforts at preventing crime and violence may begin at birth. Evidence from several randomized evaluations suggests that high-quality early childhood interventions can lead to lasting reductions in crime in conjunction with holistic life course improvements.

A long-term randomized evaluation of the Nurse Family Partnership program—which provides regular home visits by nurses to first-time, low-income mothers—found that by age 19, first-born children of mothers visited under the program were less likely to have ever been arrested and less likely to ever been convicted, relative to their peers who did not benefit from the program during their youth (Eckenrode, Campa, and Luckey, 2010). These results are complemented by long-term follow-up studies of similar early childhood interventions in Jamaica and Michigan, which showed reductions in violent behavior and reductions in arrests, respectively, for adults who had benefited from these interventions as children.

24. **Crime Prevention by the High/Scope Perry Preschool Program (2007),** Schweinhart, *Victims & Offenders*

    Location: USA

    Method: RCT

    – In 1962, three- and four-year old black children from poor households in Michigan were provided with preschool programming, weekly home visits, and parent group meetings. Researchers followed participants from childhood through age 40 to study the program's effects of IQ, education achievement, earnings, and criminal activity.

    – Adults who were offered to participate in the program as children had much less involvement with the criminal justice systems later in life—including fewer lifetime arrests, fewer arrests for violent crimes, and reduced likelihood in being sentenced to prison. These results were in addition to improved educational and labor market outcomes.

25. **Long-term Effects of Prenatal and Infancy Nurse Home Visitation on the Life Course of Youths (2010),** Eckenrode, Campa, and Luckey, *Archives of Pediatrics and Adolescent Medicine*

    Location: USA

    Method: RCT

    – Researchers conducted a long-term follow-up of the Elmira Nurse Family Partnership program—a prenatal and infancy home visitation program—to assess the program's impact on 19-year-olds whose mothers had participated in the program.

    – Relative to 19-year-old youth who did not benefit from the program, girls whose mothers were program participants recorded fewer lifetime arrests and convictions and were generally less likely to be engaged in the criminal justice system. Notably, however, the same impacts were not observed for boys.

26. **Early Childhood Stimulation Benefits Adult Competence and Reduces Violent Behavior (2011),** Walker, Chang, Vera-Hernández, and Grantham-McGregor, *Pediatrics*

    Location: Jamaica

    Method: RCT

    – In the mid-late 1980s, researchers identified 129 stunted children aged 9-24 months from low-income, disadvantaged Kingstown neighborhoods and provided their mothers with weekly visits from health aides for two years to teach appropriate play and learning activities. They simultaneously provided micronutrient supplements to a random subset of participants.

    – At the end of the intervention period, weekly home visits changed the way parents interacted with their children and shaped their home environments.

    – At 22-years-old, adults who had participated in the stimulation program reported less depression and social inhibition. Stimulation group participants were also less likely to be involved in fights or other serious violent behavior, although there were no differences in arrest or conviction rates.

PRIORITIES FOR FUTURE RESEARCH

The experimental literature exploring the strategies for reducing violent behavior of individuals in high-crime and fragile settings remains nascent. Priority areas for further research through randomized evaluations include the following:

- More research is needed to understand the channels through which CBT-inspired programs lead to behavior change. Existing research suggests CBT programming may have been effective in part because it slowed down participants' decision-making processes, encouraged more planning, enabled more patient behavior, and/or shifted self-identity and values. Additional research to better understand the mechanisms driving these effects, as well as testing how to deliver this change most cost-effectively, will be important to inform future interventions.

- To date, there have been no RCTs of multidimensional juvenile therapy programs outside of the US or UK. While this type of intervention offers great promise for crime reduction, it is necessary to adapt these strategies to high-crime and fragile environments in order to test whether or not these results hold.

- Given the mixed evidence on vocational training and employment interventions, additional research is necessary to unpack the mechanisms that may be driving positive reductions in criminality and violence. This includes better understanding the non-material drivers of criminal activities and combatant support during wartime (i.e. as an alternative to the opportunity costs model). In addition, further research is needed to assess the long-term impacts of these programs on violence.

- As illustrated by the discussion of early childhood interventions above, many programs may have downstream impacts on crime and violence. More effort should be placed on identifying potential opportunities to incorporate outcomes measures on these themes into research on program models in fragile and high-crime settings.

CHAPTER 3 REFERENCES

Bazzi, Samuel, and Christopher Blattman. 2014. "Economic Shocks and Conflict: Evidence from Commodity Prices." *American Economic Journal: Macroeconomics* 6(4): 1-38. https://doi.org/10.1257/mac.6.4.1.

Becker, Gary S. 1968. "Crime and Punishment: An Economic Approach." *Journal of Political Economy* 76(2): 169-217. https://www.jstor.org/stable/1830482.

Betancourt, Theresa, Agha Ali Akram, and Osman Siddiqi. "Integrating Cognitive Behavioral Therapy-based Interventions and Employment Programs for Youth in Sierra Leone." Innovations for Poverty Action. April 01, 2019. Accessed July 03, 2019. https://www.poverty-action.org/study/integrating-cognitive-behavioral-therapy-based-interventions-and-employment-programs-youth.

Blattman, Christopher, and Laura Ralston. 2015. "Generating employment in poor and fragile states: Evidence from labor market and entrepreneurship programs." White Paper. http://dx.doi.org/10.2139/ssrn.2622220.

Blattman, Christopher, and Jeannie Annan. 2016. "Can Employment Reduce Lawlessness and Rebellion? A Field Experiment with High-Risk Men in a Fragile State." *American Political Science Review* 110(1). https://doi.org/10.1017/S0003055415000520.

Blattman, Christopher, Julian Jamison, and Margaret Sheridan. 2017. "Reducing Crime and Violence: Experimental Evidence from Cognitive Behavioral Therapy in Liberia." *American Economic Review* 107(4): 1165-1206. https://doi.org/10.1257/aer.20150503.

Blattman, Christopher, Nathan Fiala, and Sebastian Martinez. 2014. "Generating Skilled Self-Employment in Developing Countries: Experimental Evidence from Uganda." *The Quarterly Journal of Economics* 129(2): 697-752. https://doi.org/10.1093/qje/qjt057.

Borduin, Charles M., Cindy M. Schaeffer, and Naamith Heiblum. 2009. "A randomized clinical trial of multisystemic therapy with juvenile sexual offenders: Effects of youth social ecology and criminal activity." *Journal of Consulting and Clinical Psychology* 77(1): 26-37. https://doi.org/10.1037/a0013035.

Borduin, Charles. 1999. "Multisystemic treatment of criminality and violence in adolescents." *Journal of the American Academy of Child & Adolescent Psychiatry* 38(3): 242-249. https://doi.org/10.1097/00004583-199903000-00009.

Chamberlain, Patricia, and John B. Reid. 1998. "Comparison of Two Community Alternatives to Incarceration for Chronic Juvenile Offenders." *Journal of Consulting and Clinical Psychology* 66(4): 624-633. https://doi.org/10.1037/0022-006X.66.4.624.

Cohen, Lawrence E., and Marcus Felson. 1979. "Social Change and Crime Rate Trends: A Routine Activity Approach." *American Sociological Review* 44(4): 588-608. https://doi.org/10.2307/2094589.

Curtis, Nicola M., Kevin R. Ronan, and Charles M. Bourdin. 2004. "Multisystemic Treatment: A Meta-Analysis of Outcome Studies." *Journal of Family Psychology* 18(3): 411-419. https://doi.org/10.1037/0893-3200.18.3.411.

Eckenrode, John, Marry Campa, Dennis Luckey, et al. 2010. "Long-term Effects of Prenatal and Infancy Nurse Home Visitation on the Life Course of Youths: 19-Year Follow-up of a Randomized Trial." *Archives of Pediatrics and Adolescent Medicine* 164(1): 9–15. https://doi.org/10.1001/archpediatrics.2009.240.

Fagan, Abigail A., Richard F. Catalano. 2012. "What Works in Youth Violence Prevention: A Review of the Literature." *Research on Social Work Practice*. https://doi.org/10.1177/1049731512465899.

Gelber, Alexander, Adam Isenn, and Judd Kessler. 2015. "Evidence from New York City Summer Youth Employment Program Lotteries." NBER Working Paper. *The Quarterly Journal of Economics* 131(1): 423-460. https://doi.org/10.1093/qje/qjv034.

Heller, Sara B. 2014. "Summer jobs reduce violence among disadvantaged youth." *Science* 346 (6214): 1219-1223. https://doi.org/10.1126/science.1257809.

Heller, Sara, Anuj Shah, Jonathan Guryan, Jens Ludwig, Sendhil Mullainathan, and Harold Pollak. 2017. "Thinking, Fast and Slow? Some Field Experiments to Reduce Crime and Dropout in Chicago." *The Quarterly Journal of Economics* 132(1):1-54. https://doi.org/10.1093/qje/qjw033.

Henggeler, Scott W., W. Glenn Clingempeel, Michael J. Brondino, and Susan G. Pickrel. 2002. "Four-year follow-up of multisystemic therapy with substance-abusing and substance-dependent juvenile offenders." *Journal of the American Academy of Child and Adolescent Psychiatry* 41(7): 868-874. https://doi.org/10.1097/00004583-200207000-00021.

Klenowski, Paul M, Keith J. Bell, and Kimberly B. Dodson. 2010. "An Empirical Evaluation of Juvenile Awareness Programs in the United States: Can Juveniles be "Scared Straight?". *Journal of Offender Rehabilitation*, 49(4): 254-272. https://doi.org/10.1080/10509671003716068.

Lyall, Jason, Yang-Yang Zhou, and Kosuke Imai. 2019. "Reducing Insurgent Support among at-risk Populations: experimental Evidence from Cash Transfer Training in Afghanistan." Working Paper. http://dx.doi.org/10.2139/ssrn.3026531.

Modestino, Alicia Sasser. 2014. "How Do Summer Youth Employment Programs Improve Criminal Justice Outcomes, and for Whom?" *Journal of Policy Analysis and Management*. https://doi.org/10.1002/pam.22138.

Pan, Wei, Haiyan Bai. 2009. "A Multivariate Approach to a Meta-Analytic Review of the Effectiveness of the D.A.R.E. Program." *International Journal of Environmental Research and Public Health* 6: 267-277. https://doi.org/10.3390/ijerph6010267.

Schaeffer, Cindy M., and Charles M. Borduin. 2005. "Long-term follow-up to a randomized clinical trial of multisystemic therapy with serious and violent juvenile offenders." *Journal of Consulting and Clinical Psychology* 73(3): 445-453. https://doi.org/10.1037/0022-006X.73.3.445.

Schweinhart, Lawrence. 2007. "Crime Prevention by the High/Scope Perry Preschool Program." *Victims & Offenders:* 141-160. https://doi.org/10.1080/15564880701263064.

Walker, Chang, Marcos Vera-Hernández, and Sally Grantham-McGregor. 2011. "Early Childhood Stimulation Benefits Adult Competence and Reduces Violent Behavior" *Pediatrics* 127 (5). https://doi.org/10.1542/peds.2010-2231.

Wilson, W. J. *When Work Disappears: The World of the Urban Poor.* New York: Alfred Knopf, 1996.

World Bank. 2012. *World Development Report 2013: Jobs.* Washington: World Bank. https://openknowledge.worldbank.org/handle/10986/11843.

4. WHAT DO RCTS TELL US ABOUT HOW VIOLENT ORGANIZATIONS AND REBEL GROUPS MAKE STRATEGIC CHOICES BETWEEN VIOLENT AND NON-VIOLENT ACTION?

Here we review the evidence on how criminal organizations, rebel groups, and other (non-state) armed organizations make strategic decisions between violent and non-violent actions in order to recruit supporters and carry out their operations. Theories of industrial organization would lead us to believe that these groups, and their leaders, are rational actors who are calculating, self-interested, and maximizing, making strategic choices between using violent force or taking other approaches to achieve their objectives. For example, an insurgency group must strategically navigate when to use force versus when to prioritize non-violent action in order to recruit and motivate its soldiers. Similarly, a drug cartel's success depends on its ability to recruit individuals to all parts of the drug supply chain and incentivize them to participate in illicit activities.

The existing evidence base on this topic is fairly limited; thus, we draw primarily on quasi-experimental research. In the sections that follow, we draw out emerging lessons from a mixture of experimental, quasi-experimental, and qualitative research on the strategic decisions organizations make in response to economic shocks or resource competition, as well as influxes of foreign aid or counterinsurgency efforts. We also present some qualitative evidence of how these types of groups may leverage non-material incentives—such as social capital, pride, or grievances—to achieve their objectives.

Given the scarce availability of resources in many crisis, post-conflict, and high-crime areas, it is often impossible for programs to reach the entire desired population (either due to financial or human resource constraints). As such, randomized evaluations (including those that leverage phase-in designs) may offer an important avenue through which we can deepen our understanding of how organizations strategically decide between violent and non-violent action. In particular, additional research is necessary to understand how non-material incentives may motivate groups' decisions to engage in acts of crime or violence and to unpack the mechanisms through which various forms of foreign aid can either dampen or exacerbate violence. One open question is whether the factors and incentives that drive individuals and groups to violence indeed differ.

ECONOMIC SHOCKS & RESOURCE COMPETITION

Building on Gary Becker's seminal economic model of criminality discussed in Question 3, researchers have sought to test the theory that just as individuals may weigh the relative returns to criminal activity and lawful employment, individuals in conflict or insurgency-affected settings may make similar strategic choices (Becker 1968; Bazzi and Blattman, 2014). One strand of research has thus considered the question of whether interventions that can transform the returns to licit employment may help to lessen the appeal of joining insurgencies.

Given feasibility and ethical constraints, to date, there have been no randomized evaluations of interventions on this topic. However, a number of quasi-experimental studies that examine the relationship between exogenous income shocks (such as those generated by dramatic changes in commodity prices) and conflict are providing some initial guidance on this question.

Several canonical cross-national studies have suggested that higher per capita income is correlated with lower risk of conflict (Collier and Hoeffler, 2004; Fearon and Laitin, 2003). Miguel, Satyanath, and Sergenti (2004) also found that growth instrumented by rainfall shocks led to higher conflict incidence in sub-Saharan Africa. Higher income may lower conflict through one of two channels: either by lowering the opportunity cost of joining armed groups or by

strengthening the state vis-à-vis armed groups. Subsequent research has sought to tease out evidence in support of either channel.

For example, Dube and Vargas (2013) found that decreases in the price of labor-intensive agricultural commodities (e.g., coffee, sugar, bananas) had adverse effects on workers' wages and increased violence perpetrated by armed groups in Colombia. In contrast, *increases* in the price of natural resources (e.g., oil, gold, and coal), which are produced in a non-labor-intensive manner, increased violence as armed groups sought to gain control of these resources. These results provide evidence that negative shocks to labor income can lead to conflict through the opportunity cost channel, and that the opportunity cost channel is especially important where production is labor intensive.

Bazzi and Blattman (2014) conduct a multi-country analysis of commodity price shocks in developing countries and find no evidence that these economic shocks influence the outbreak of new conflict or coups (contrary to previous theories that rising state revenues incentivize state capture). However, they do underscore that these shocks may play a role in existing conflicts, contributing to the persistence and intensity of insurrection.

These findings suggest that policies designed to mitigate household economic shocks may ultimately influence the operations and geographic locations of cartels and armed groups. Insurance schemes, vocational and skills training programs, public work projects, or other interventions designed to smooth incomes during or immediately following periods of economic instability have been suggested as potential interventions to reduce local vulnerability to income shocks (Miguel, Satyanath, and Sergenti, 2004).

27. **The Violent Consequences of Trade-Induced Worker Displacement in Mexico (2018),** Dell, Feigenberg, and Teshima, Working Paper
    Location: Mexico
    Method: IV
    – This study examines how fluctuations in manufacturing job opportunities have affected trade-related violence and violent drug conflicts in Mexico by exploiting variation in Chinese exports to the US market—where Chinese firms act as a key source of competition to Mexican manufacturing firms.
    – Trade-induced declines in manufacturing employment led to substantial increases in drug-related violence and homicides. These impacts were concentrated in municipalities where a transnational drug trafficking organization was present.
    – Impacts also appeared greater in municipalities where international competition for marketing job opportunities disproportionately affected young, less-educated men.
    – These findings suggest that when it becomes more profitable to traffic drugs—and it is, therefore, more lucrative to pursue criminal employment—criminal organizations may practice violence to gain control of the market.

28. **From Maize to Haze: Agricultural Shocks and the Growth of the Mexican Drug Sector (2016),** Dube, García-Ponce, and Thom, *Journal of the European Economic Association*
    Location: Mexico
    Method: Diff-in-diff
    – Exploiting shifts in the Mexican maize price linked to weather conditions in US maize-growing regions, this study examines how shocks to legal commodity prices affect the drug trade in Mexico. This empirical approach is necessary to understand how drug production responds to legal alternatives available to farmers.

- In municipalities with climates conducive to maize production, lower maize prices increased cultivation of both marijuana and opium poppies.
- Researchers also found a negative relationship between maize prices and cartel presence, as well as killings perpetrated by these groups, suggesting that price changes affected the strategic decisions of cartels, which moved into economically depressed territories where farmers were willing to supply illicit crops.
- These results suggest that the economic impact of price changes on households and their subsequent decisions to grow illicit crops may ultimately affect the industrial organization of violence in Mexico. As such, policies designed to mitigate household economic shocks may influence the operations and geographic locations of cartels.

29. **Commodity Price Shocks and Civil Conflict: Evidence from Colombia (2013),** Dube and Vargas, *Review of Economic Studies*
Location: Colombia
Method: Diff-in-diff

- This study explores how changes in the prices of labor-intensive agricultural goods (e.g. coffee) and non-labor-intensive natural resources (e.g. oil) affect violence levels (categorized by guerrilla attacks, paramilitary attacks, and other forms of clashes and casualties) in Colombian municipalities between 1988-2005.
- The authors find that *some* types of income shocks reduced conflict, while others increased it. In particular, they find that changes in the price of labor-intensive agricultural commodities were negatively related to conflict: when the price fell, conflict rose in municipalities that produced relatively more of these goods. It appears that a sharp fall in the world coffee price led to an increase in violence, in part by lowering the opportunity cost of joining armed activity (because returns to coffee plantation work fell). They find similar patterns with other labor-intensive agricultural crops including sugar, banana, tobacco, and palm.
- By contrast, the price of less labor-intensive natural resources was *positively* related to conflict: when the price rose, conflict rose in municipalities that produced more of these resources, suggesting the oil shock increased violence by promoting rapacity over contestable resources.
- These findings point to several policy implications: i) price stabilization schemes which place a floor on the price of labor-intensive commodities may help mitigate violence in the wake of price shocks, ii) improved monitoring may help prevent natural resource revenue from fueling conflict, and iii) natural resource price shocks may pose more of a threat as a potential trigger to predatory violence when more money is transferred to local level.

30. **Making a Narco: Childhood Exposure to Illegal Labor Markets and Criminal Life Paths (2019),** Sviatschi, Working Paper
Location: Peru
Method: Diff-in-diff & IV

- The author leverages changes in Colombia's drug enforcement policies—including aerial crop spraying—to examine how a shift coca production to Peru, and resulting exogenous price shock, effected those living in areas where coca production with agriculturally viable.
- When coca production became more profitable, parents were more likely to use child labor for illegal coca cultivation. This exposure sets youth on a trajectory to be more engaged in illicit activities in the future—as adults, individuals who grew up in coca producing districts that experienced these exogenous price shocks were 30 percent more likely to be incarcerated for violent and drug-related crimes (but not other types of crime) than those born either in a different district or born in the same district but at a different time.

- Meanwhile, individuals who grew up in districts that experienced exogenous price shocks for other, licit commodities (like coffee and gold), or where coca was grown for medical and religious purposes, do not have a higher likelihood of engaging in crime later in life.
- The author also finds that early investments, such as conditional cash transfers that promote school attendance, can play a role in reducing child labor in illegal drug production.

31. **Social Insurance and Conflict: Evidence from India (2014),** Fetzer, Working Paper
Location: India
Method: Diff-in-diff

- This study evaluates the impact of India's National Rural Employment Guarantee Act (NREGA)— the world's largest public-works program, which guarantees 100 days of public-sector employment to all rural households in India willing to work at the minimum wage—on the relationship between local monsoon shocks and conflict and crime.
- The NREGA program appears to have lowered the opportunity cost of engaging in violence by dampening the effect of poor rainfall, resulting in a decrease in conflict and some forms of crime in districts affected by Maoist violence.
- Because households in developing countries tend to be at higher risk of income shocks, due to erratic weather or other unforeseen events, these findings suggest that social insurance in the form of a public employment program may be an effective policy in other developing countries.

32. **Guns *and* Butter? Fighting violence with the promise of development (2017),** Khanna and Zimmerman, *Journal of Development Economics*
Location: India
Method: RDD

- Researchers analyzed the impact of NREGA on incidents of Maoist insurgency-related violence. Because the program was phased in over time, targeting first the poorest communities, researchers were able to use a regression discontinuity design to analyze its short-run effects on violence reduction.
- The NREGA program led to an increase in Maoist-related violence in the short-run (primarily driven by an increase in police-initiated attacks, but also driven partially by an increase in insurgent attacks on civilians) and increased the number of captured Maoists.[7]
- The researchers suggest that civilians in Maoist-affected areas may have been more willing to share information with the police when NREGA was offered, as it demonstrated the government's commitment to helping the poor. However, they are unable to rule out competition for resources as the mechanism driving the almost immediate rise in violence.

The advent of more micro-level grid cell data has improved our ability to measure shocks and test theories and channels through which conflict arise in a more fine-grained manner. For example:

33. **External Shocks, Internal Shots: The Geography of Civil Conflicts (2015),** Berman and Couttenier, *Review of Economics and Statistics*

---

[7] It should be noted that the NREGA program was affected by significant implementation challenges in the first few months of implementation, resulting in low take-up rates.

Location: sub-Saharan Africa

Method: Georeferenced panel data

- The authors conduct a cross-national analysis of agricultural price shocks, leveraging fine-grained data in 50x50 km grid cells within these countries. They show that at the grid cell level, negative price shocks to agricultural commodities increase conflict onset, incidence, and intensity; however, these effects are smaller in the interior of the country where there is less trade.

- They also show that when the data is aggregated to the country level, there is an insignificant effect on conflict onset, but conditional on country outbreak, conflicts are more likely to start in the most open locations.

- In addition, the paper presents some evidence favoring the opportunity cost channel over the state capacity channel. For example, agricultural shocks affect income, but do not affect military spending, a key factor in state capacity. In addition, the effects on conflict are not any smaller in capital cities, where the state typically has greater control over territory.

34. **Conflict, Climate and Cells: A disaggregated analysis (2014),** Harari and La Ferrara, *Review of Economics and Statistics*

    Location: sub-Saharan Africa

    Method: Georeferenced panel data

    - The authors use grid-cell level data on crop cover and within-year variation in weather shocks to construct a measure of agricultural shocks.

    - They find that negative climate shocks that occur during the growing season of the main crop cultivated in a particular cell have persistent effects on conflict incidence.

    - A number of additional within-country analyses also point to the importance of opportunity cost effects in contexts such as the Mexican drug war and the Maoist insurgency in India.

35. **This Mine is Mine! How Minerals Fuel Conflicts in Africa (2017),** Berman, Couttenier, Rohner, and Thoenig, *American Economic Review*

    Location: sub-Saharan Africa

    Method: Georeferenced panel data

    - The authors use grid-cell level data on fourteen minerals to examine the effects of price shocks to these commodities in sub-Saharan Africa.

    - They find that positive price shocks increase conflict in grid cells producing more of these minerals and present evidence suggesting that armed groups are financed by predating on these resources.

    - For example, spikes in mineral prices inside an ethnic homeland lead to spatial diffusion of fighting by armed groups outside the homeland; and appropriation of a mining area by rebel groups increases the chance they perpetrate violence elsewhere.

Overall, these results suggest that changes in economic conditions can lead to conflict by influencing the geographic operations and locations of armed groups, and the incentives of workers to join these armed groups.

- The findings around opportunity cost effects suggest that policies designed to mitigate household economic shocks may ultimately influence violence perpetrated by armed groups. Insurance schemes, vocational and skills training programs, public work projects, or other interventions designed to smooth incomes during or immediately following periods of economic instability have been suggested as potential interventions to reduce local vulnerability to income shocks (Miguel, Satyanath, and Sergenti, 2004).

- The findings on predation effects suggest that efforts to improve the transparency of mining and revenues generated form mining may be important for reducing conflict.

WINNING HEARTS AND MINDS

In conflict-affected contexts, groups may strategically resist the implementation of aid and counterinsurgency efforts or attempt to extract resources through violent and non-violent means.

There are two prevalent theories for how development spending in conflict-affected countries might lead to increased peace and stability, by either:

1. **Shifting opportunity costs to participation** in armed violence through material inputs that generate improved economic opportunities (e.g. jobs and other welfare benefits). This model predicts that retaining and recruiting rebels will become more difficult and, thus, decrease violence as the costs of engaging in illicit insurgency activities rise relative to legal economic activities.
2. **Increasing popular support for government** by "winning hearts and minds." These programs are grounded in the assumption that when populations perceive the state to be providing beneficial goods and services, they may be more likely to provide to government forces (allowing the government to better target their counterinsurgency efforts) and less likely to sympathize with insurgent groups.

Evidence supporting either of these channels nevertheless remains limited; few randomized evaluations have been conducted on these subjects. One emerging insight from quasi-experimental studies is that the *type* of aid appears to matter, including whether the form of aid delivered is easily lootable. Similarly, the *timing* of aid is important. This may be because rebel groups stand to benefit by capturing aid resources or through sabotaging government efforts to deliver improved services. There are also indications that humanitarian aid delivered to contested areas in the midst of ongoing hostilities may increase the duration and lethality of civil wars.[8]

Given that they are operating with finite resources, insurgents must make strategic decisions regarding where and how to carry out acts of resistance. Emerging evidence suggests that these groups are more likely to initiate attacks where the costs and likelihood of retaliation are low. For example, researchers find that, in Afghanistan (Sexton 2016), aid delivery led to an increase in violence in contested areas as the Taliban attempted to exert control, but not in government-controlled territories. Furthermore, in the Philippines, Crost, Felter, and Johnston (2014) suggest insurgent groups increased violent attacks in areas targeted by a community-driven development (CDD) program in order to prevent communities from participating in the program.

---

[8] See: Lyall, Jason. 2018. "Civilian Casualties, Humanitarian Aid, and Insurgent Violence in Civil Wars." Working Paper; Strandlow, Daniel, Michael Findley and Joseph Young. 2016. "Foreign Aid and the Intensity of Violent Armed Conflict." AidData Working Paper No.24; Wood, Reed and Christopher Sullivan. 2015. "Doing Harm by Doing Good? The Negative Externalities of Humanitarian Aid Provision during Civil Conflict." *Journal of Politics* 77(3):736–748; Narang, Neil. 2015. "Assisting Uncertainty: How Humanitarian Assistance Can Inadvertently Prolong Civil War." *International Studies Quarterly* 59(1):184–195; Nunn, Nathan and Nancy Qian. 2014. "US Food Aid and Civil Conflict." *American Economic Review* 104(6):1630–66; Crost, Benjamin, Joseph Felter and Patrick Johnston. 2014. "Aid Under Fire: Development Projects and Civil Conflict." *American Economic Review* 104(6):1833–1856; Fast, Larissa. 2014. *Aid in Danger: The Perils and Promise of Humanitarianism*. Philadelphia, PA: University of Pennsylvania Press; Nielsen, Richard, Michael Findley, Zachary Davis, Tara Candland and Daniel Nielson. 2011. "Foreign Aid Shocks as a Cause of Violent Armed Conflict." *American Journal of Political Science* 55(2):219–232; and Polman, Linda. 2010. *The Crisis Caravan: What's Wrong with Humanitarian Aid?* New York: Henry Holt and Co.

These findings suggest additional research is necessary to better understand how the form in which aid programs are delivered can influence the risk of violent conflict and, in some cases, even exacerbate conflict. Some evidence from Iraq (Iyengar, Monten, and Hanson, 2011) and Afghanistan (Sexton 2016) suggests that small-scale (under US$50,000), conditional, community-informed interventions implemented in government-held or non-contested areas may be most successful in reducing violence. Experimental evidence from the Philippines (Crost, Felter, and Johnston, 2016) further emphasizes that the type of aid program matters—while the CDD program described above led to increases in insurgent attacks, a conditional cash transfer (CCT) program implemented by the same government agency decreased conflict-related incidents, potentially because it was more difficult to sabotage.

36. **The National Solidarity Programme: Assessing the Effects of Community-Driven Development in Afghanistan (2015)**, Beath, Christia, and Enikolopov, *International Peacekeeping*
    Location: Afghanistan
    Method: RCT

    – Researchers examined the effect of the National Solidarity Program (NSP)—Afghanistan's largest development program—on villagers' attitudes towards their well-being and their government, as well as the program's impact on local security. Rollout of the NSP was randomized across two waves, in which treatment villages began the program in 2007 and comparison villages in 2012.

    – The introduction of the CDD program led to significant improvements in villagers' perceptions of their economic wellbeing as well as in their attitudes towards the government.

    – NSP also improved villagers' perceptions of local security in the medium term, although these results only persisted beyond project completion for male villagers.

    – The program had no impact on reductions in the number of security incidents reported by villagers. However, when examining data on the number of security incidents recorded by the International Security Assistance Force (ISAF), the authors find the number of security incidents decreased in the medium term, driven by declines in "secure villages"—which recorded low levels of initial violence. Declines in security incidents disappear after the program ended.[9]

    – The results based on ISAF data suggest that development programs may be more effective in preventing the spread of violence, rather than in reducing the level of violence in already insecure regions.

37. **Conditional Cash Transfers, Civil Conflict, and Insurgent Influence: Experimental Evidence from the Philippines (2016),** Crost, Felter, and Johnston, *Journal of Development Economics*
    Location: Philippines
    Method: RCT

    – Researchers leverage an ongoing experiment of a CCT program in the Philippines to estimate its effects of a on civil conflict at the village level.

    – They found that villages that received cash transfers experienced a substantial decrease in conflict-related incidents, relative to control villages, in the first nine months of the program (though these effects dissipated in the second year).

    – Treated villages also experienced a decrease in "insurgent influence"—categorized on a spectrum from permanent rebel presence, indicating strong influence, to no rebel presence or risk of being targeted,

---

[9] See also: Beath, Andrew, Fotini Christia, and Ruben Enikolopov. 2013. "Winning Hearts and Minds Through Development: Evidence from a Field Experiment in Afghanistan." APSA 2013 Annual Meeting Paper. Available at SSRN: https://ssrn.com/abstract=2303475.

meaning no influence. This finding suggests that the CCT program played a role in weakening rebel presence. CCT programs may be less easy to sabotage because aid is dispersed directly to households through electronic transfers, making it more difficult to derail. This offers suggestive evidence that CCT programs may be more effective than other aid programs like CDD, which was observed to increase conflict in the same setting.

- The authors note several possible limitations of these findings: (1) they cannot rule out displacement effects and (2) they cannot rule out that cash transfers reduced civilian violence by enabling households to pay more "revolutionary taxes" to insurgents.

38. **Aid Under Fire: Development Projects and Civil Conflict (2014),** Crost, Felter, and Johnston, *American Economic Review*
Location: Philippines
Model: RDD

- Using a regression discontinuity design, researchers estimated the effect of a large CDD program (KALAHI-CIDSS) on conflict in the Philippines.

- They found that municipalities barely eligible for the program experienced large increases in conflict casualties compared to those municipalities that were barely ineligible for the program.

- The researchers determined that the increase in violence was driven by insurgent-initiated incidents that occurred before funds were dispersed, in the preparatory stage. This suggests that insurgents were primarily interested in preventing eligible communities from participating in the program, rather than motivated by appropriating the program's resources.

- Results are consistent with the hypothesis that insurgents may strategically try to sabotage development programs for political reasons: the successful implementation of government-supported projects would weaken insurgents' positions among the population by repairing negative attitudes of local communities toward the government.

39. **Civilian Casualties, Humanitarian Aid, and Insurgent Violence in Civil Wars (2018),** Lyall, Working Paper
Location: Afghanistan
Method: Natural experiment

- The study draws on data from the USAID-funded Afghan Civil Assistance Program (ACAP II), which investigated over 1,000 civilian casualty incidents from 2011-13. Researchers leverage the program's as-if random design to assess the impact of humanitarian assistance on Taliban attacks against the International Security Assistance Force (ISAF), Afghan forces, and civilians.

- ACAP II aid was associated with a reduction in Taliban attacks against ISAF, but not Afghan forces or civilians, for up to two years after the initial incident. The program was most effective in locations close to ISAF military bases and when responding to events with only moderate numbers of civilian casualties or property damage.

40. **Aid as a Tool against Insurgency: Evidence from Contested and Controlled Territory in Afghanistan (2016),** Sexton, *American Political Science Review*
Location: Afghanistan
Method: Time series regression

- Using random variation in the distribution of some US counterinsurgency aid in Afghanistan, the study analyzes the effects of aid spending on resulting levels of insurgent violence.

– The researchers find that insurgents used violence as a strategic response to counterinsurgency aid delivered in contested districts. Civilian aid reduced insurgent violence when distributed in pro-government controlled districts, but increased insurgent violence when allocated to contested districts. This calls into the question the utility of counterinsurgency aid as a strategy for extending pro-government control to contested areas.

– Findings also suggest that the type of aid matters: humanitarian projects did not lead to increases in insurgent violence, whereas projects designed to build military defense infrastructure provoked more violent attacks in both contested and secured districts.

41. **Building Peace: The Impact of Aid on the Labor Market for Insurgents (2011),** Iyengar, Monten, and Hanson, *NBER Working Paper Series*
   Location: Iraq
   Method: Diff-in-diff

– Researchers leveraged variation in the implementation of the Commander's Emergency Response Program (CERP) in Iraq—which offered funding for a range of infrastructure and social service programs, including "labor-intensive" projects to create local employment opportunities—to assess the relationship between labor market conditions and violence.

– They found that increased labor-related spending led to a decline in labor-intensive insurgent violence and an overall reduction in violence (driven by fewer attacks on civilians, despite increased attacks against military targets).

– These findings suggest that shifting opportunity costs by increasing the availability of legal, non-violent labor market opportunities may reduce insurgent groups' ability to recruit and, thus, lead them to substitute away from labor-intensive forms of violence, which require sufficient manpower, towards more capital-intensive attacks, like attacks on military infrastructure.

New GCCI Research:

One study currently being funded through GCCI will contribute to our understanding of how governments may be able to limit the governance role of non-state actors and increase state legitimacy:

- **Contesting Criminal Gang Governance in Medellin: Experimental Impacts of Intensive Municipal Governance on Gang Governance** – Chris Blattman, Gustavo Duncan, Ben Lessing, and Santiago Tobón will evaluate an anti-gang program put in place by the Mayor's Office that intensifies outreach and service delivery in various neighborhoods has shifted the relative use of combo/state services and perceived legitimacy in both groups. (CVI)

NON-MATERIAL INCENTIVES

Organizations must balance economic (e.g. wages, monetary rewards, or in-kind rewards like drugs and alcohol) with non-economic (e.g. intrinsic value, utility, social capital) rewards to recruit adequate numbers, maintain organizational cohesion, and deter defection. However, these non-material explanations are very difficult to measure and test. As such, there has been limited quantitative analysis (through experimental or quasi-experimental approaches) to understand how these factors, particularly grievances and social networks, affect crime and violence outcomes.

A largely qualitative literature on the socialization strategies of militaries, street gangs, and armed groups helps shed light on how these groups use a mixture of coercion, indoctrination, and encouragement to shape recruits' (particularly young people's) self-image and behavior. Beber and Blattman (2015) suggest these techniques bear a strong resemblance to CBT interventions, focusing on changing appearance, providing role models, encouraging repetitive practice, and positively reinforcing behavior.

The recruitment of child soldiers offers some initial insights regarding when armed groups optimize between threatening or causing pain versus offering rewards.[10] Looking at a case study from Uganda, qualitative evidence reveals that the Lord's Resistance Army (LRA) used extreme violence to break down abductees' psychological defenses and desensitize them to violence and used other forms of misinformation to promote fear and loyalty and to fundamentally alter the beliefs and values of recruits (Beber and Blattman, 2015).

This research suggests that punishment or coercive recruitment is more likely when recruits have poor outside options and coercion is "cheap"—as when there is little civilian support to lose, or foreign powers insensitive to human rights violations fund the movement, or when militaries fail to protect civilians. Possible strategies to counteract or deter the forcible recruitment of children include counterpropaganda—to counter the indoctrination and misinformation strategies that rebels employ—and escape training, as well as enforcement of international penalties or prosecution, such as by making aid conditional on human rights behavior.

Large unanswered questions also remain in understanding the drivers of radicalization. For example, we have very little rigorous empirical evidence on non-material incentives such as religion and the role of religious institutions, or social alienation and the role of social structures in driving radicalization.

New GCCI Research

One study currently being funded through GCCI will contribute to our understanding of how rebel groups motivate recruits through either material or non-material means:

- **What drives individuals to join armed organizations? The role of revenge, moral sentiments, and social networks** – Raul Sanchez de la Sierra is leveraging an existing relationship with a large-scaled armed organization to examine who joins armed organizations and why, as well as the effect of the participation motives on the performance and trajectories inside the group. The study aims to shed light on the traditionally unexplored role of moral sentiments of injustice and parochial revenge and their impact on recruitment and violent labor management. (CVI and P&R)

---

[10] Logic would suggest that children take longer to train and are less physically capable than adults, which leads one to question why an armed group would target them specifically. However, theory also suggests that children may be easier to lead and indoctrinate, cheaper to retain, and more responsive to coercive methods, and that they may be more willing to fight for non-pecuniary rewards (e.g. duty, revenge, purpose, and/or protection).

CHAPTER 4 REFERENCES

Bazzi, Samuel and Christopher Blattman. 2014. "Economic Shocks and Conflict: Evidence from Commodity Prices." *American Economic Journal: Macroeconomics* 6(4): 1-38. https://doi.org/10.1257/mac.6.4.1.

Beath, Andrew, Christia Fotini, and Ruben Enikolopov. 2015. "The National Solidarity Programme: Assessing the Effects of Community-Driven Development in Afghanistan." *International Peacekeeping* 22(4): 302-320. https://doi.org/10.1080/13533312.2015.1059287.

Becker, Gary S. 1968. "Crime and Punishment: An Economic Approach." *Journal of Political Economy*, 76(2): 169-217. https://www.jstor.org/stable/1830482.

Berman, Nicolas, and Mathieu Couttenier. 2015. "External Shocks, Internal Shocks: The Geography of Civil Conflicts." *Review of Economics and Statistics* 97(4): 758–776.

Berman, Nicolas, Mathieu Couttenier, Dominic Rohner, and Mathias Thoenig. 2017. "This Mine is Mine! How Minerals Fuel Conflicts in Africa." *American Economic Review* 107(60): 1564 − 1610. https://doi.org/10.1257/aer.20150774.

Collier, Paul, and Anke Hoeffler. 1998. "On Economic Causes of Civil War." *Oxford Economic Papers,* 50(4): 563-573. https://doi.org/10.1093/oep/50.4.563.

Collier, Paul, and Anke Hoeffler. 2004. "Greed and Grievance in Civil War." *Oxford Economic Papers* 56: 563-595. https://doi.org/10.1093/oep/gpf064.

Crost, Benjamin, Joseph Felter, and Patrick Johnson. 2014. "Aid Under Fire: Development Projects and Civil Conflict." *American Economic Review* 104(6): 1833-1856. http://dx.doi.org/10.1257/aer.104.6.1833.

Crost, Benjamin, Joseph H. Felter, and Patrick B. Johnston. 2016. "Conditional cash transfers, civil conflict and insurgent influence: Experimental evidence from the Philippines." *Journal of Development Economics* 118: 171-182. https://doi.org/10.1016/j.jdeveco.2015.08.005.

Dell, Melissa, Benjamin Feigenberg, and Kensuke Teshima. "The Violent Consequences of Trade-Induced Worker Displacement in Mexico." *American Economic Review*: Insights (Forthcoming).

Dube, Oeindrila, and Juan Vargas. 2013. "Commodity Price Shocks and Civil Conflict: Evidence from Colombia." *The Review of Economic Studies* 80(4): 1384-1421. https://doi.org/10.1093/restud/rdt009.

Dube, Oeindrila, Omar García-Ponce, and Kevin Thom. 2016. "From Maize to Haze: Agricultural Shocks and the Growth of the Mexican Drug Sector." *Journal of the European Economic Association* 14(5): 1181-1224. https://doi.org/10.1111/jeea.12172

Fast, Larissa. 2014. *Aid in Danger: The Perils and Promise of Humanitarianism.* Philadelphia, PA: University of Pennsylvania Press.

Fearon, James, and David Laitin. 2003. "Ethnicity, Insurgency, and Civil War." *American Political Science Review* 97(1): 75-90. https://doi.org/10.1017/S0003055403000534.

Fetzer, Thiemo. 2014. "Social Insurance and Conflict: Evidence from India." Retrieved from: http://www.trfetzer.com/job-market-paper/

Harari, Mariaflavia, and Eliana La Ferrara. 2014. "Conflict, Climate and Cells: A disaggregated analysis." *Review of Economics and Statistics* 100(4): 594-608. https://doi.org/10.1162/rest_a_00730.

Iyengar, Radha, Jonathan Monten, and Matthew Hanson. 2011. "Building Peace: The Impact of Aid on the Labor Market for Insurgents." NBER Working Paper 17297. https://doi.org/10.3386/w17297.

Khanna, Gaurav, and Laura Zimmermann. 2017. "Guns and Butter? Fighting Violence with the promise of development." *Journal of Development Economics* 124: 120-141. https://doi.org/10.1016/j.jdeveco.2016.09.006.

Lyall, Jason. 2018. "Civilian Casualties, Humanitarian Aid, and Insurgent Violence in Civil Wars." Working Paper. http://dx.doi.org/10.2139/ssrn.3212804.

Miguel, Edward, Shanker Satyanath, and Ernest Sergenti. 2004. "Economic Shocks and Civil Conflict: An Instrumental Variables Approach." *Journal of Political Economy* 112(4): 725-753. https://ssrn.com/abstract=562402.

Narang, Neil. 2015. "Assisting Uncertainty: How Humanitarian Assistance Can Inadvertently Prolong Civil War." *International Studies Quarterly* 59(1):184–195. https://doi.org/10.1111/isqu.12151.

Nielsen, Richard, Michael Findley, Zachary Davis, Tara Candland, and Daniel Nielson. 2011. "Foreign Aid Shocks as a Cause of Violent Armed Conflict." *American Journal of Political Science* 55(2):219–232. https://doi.org/10.1111/j.1540-5907.2010.00492.x.

Nunn, Nathan and Nancy Qian. 2014. "US Food Aid and Civil Conflict." *American Economic Review* 104(6):1630–66. http://dx.doi.org/10.1257/aer.104.6.1630.

Polman, Linda. 2010. *The Crisis Caravan: What's Wrong with Humanitarian Aid?* New York: Henry Holt and Co.

Sexton, Renard. 2016. "Aid as a Tool against Insurgency: Evidence from Contested and Controlled Territory in Afghanistan." *American Political Science Review* 110(4): 731-749. https://doi.org/10.1017/S0003055416000356.

Strandlow, Daniel, Michael Findley and Joseph Young. 2016. "Foreign Aid and the Intensity of Violent Armed Conflict." AidData Working Paper No.24. Retrieved from: http://docs.aiddata.org/ad4/pdfs/wps24_foreign_aid_and_the_intensity_of_violent_armed_conflict.pdf.

Sviatschi, Maria Micaela. 2019. "Making a Narco: Childhood Exposure to Illegal Labor Markets and Criminal Life Paths." Princeton University: Working Paper.

Wood, Reed, and Christopher Sullivan. 2015. "Doing Harm by Doing Good? The Negative Externalities of Humanitarian Aid Provision during Civil Conflict." *Journal of Politics* 77(3):736–748. https://doi.org/10.1086/681239.

5. WHAT DO RCTS TELL US ABOUT WHAT WORKS IN PEACEBUILDING, RECONCILIATION, AND DISPUTE RESOLUTION?

This section provides an overview of the evidence on peacebuilding, reconciliation, and dispute resolution programming. There is still little experimental evidence on this subject, and the completed studies discussed below often represent some of the first rigorous evaluations of interventions in this area.

Many of the interventions evaluated in studies review here have emerged from a non-experimental literature that argues strengthening social capital—that is to say, the strengthening of social networks and the development of prosocial norms within and between communities—may be an effective means towards defusing intergroup tension and conflict. This literature argues that social ties can allow for both information exchange and peaceful bargaining between groups. Can interventions designed to foster social capital then provide the means and incentives for people and groups to more peacefully negotiate? Other programs reviewed here seek to improve communities' dispute resolution skills or develop informal institutions that will provide a forum for peaceful negotiation. Randomized evaluations provide a means for testing the assumptions that underpin these programs and measuring their impact.

This note reviews evidence on five broad categories of programming:

1. **Community driven development (CDD) and community-driven reconstruction (CDR) interventions** (henceforth CDD/R programs), which grant community members a key role in determining how aid is allocated. CDD/R programs in fragile states often aim, in part, to contribute to social cohesion and reduce conflict within a given community.
2. **Transitional justice interventions**, which generally bring victims and perpetrators of conflict face-to-face in a community forum. Such programs are based on the understanding that the open discussion of grievances promotes societal and individual healing.
3. **Alternative dispute resolution (ADR) interventions,** which teach communities a set of skills and behaviors that build norms around how people should resolve disputes. Such programs address the need for informal structures for peaceful bargaining in contexts where the rule of law and formal justice institutions are weak.
4. **Media interventions**, such as radio and television programming, which aim to shift social norms, build social capital, and contribute to peace. Media programs often provide a far-reaching and low-cost way of spreading information to large numbers of people.
5. **Social contact and peace education interventions**, which facilitate contact between diverse groups of people, often through peace education programming. These interventions are based in a belief that intergroup contact can reduce prejudice and bias.

COMMUNITY-DRIVEN DEVELOPMENT AND RECONSTRUCTION INTERVENTIONS

CDD/R interventions involve provision of grants or resources to a community, coupled with the establishment of highly participatory decision-making structures that allow communities to collectively determine how to invest the provided resources in public goods. While the established decision-making structures vary (e.g. direct elections vs. representative meetings, unconditional vs. performance-based incentives), the economic and empowerment aims of such programs remain the same: "to safeguard the benefits of decentralized service delivery where institutions are weak," and empower communities by allowing them to invest resources as they choose (Casey 2018).

CDD/R programs may be implemented in conflict or post-conflict settings, and increasing social capital and cohesion, as well as reducing conflict, are often among these programs' explicit objectives (Casey 2018). Most existing research has evaluated these programs' (mixed) successes in generating improvements in governance-related outcomes, such as service delivery and support for democratic institutions.

Evaluations of the impact of CDD/R on social capital and conflict outcomes has shown disappointing results—while they can contribute to reconstruction and improved service delivery in fragile contexts, they may not improve social cohesion or reduce violence. A recent meta-analysis of CDD interventions showed that most programs had null or mixed results on social capital and collective behavior. An evaluation of a follow-on cash-transfer program in the DRC, for instance, found no evidence that previous exposure to CDR increased levels of community participation or decisions to target resources at those most in need. Similarly, an evaluation of a CDD intervention in post-war Sierra Leone found no evidence that the program led to fundamental changes in local institutions, participation in decision-making, or social norms of behavior.

Similarly, CDD/R programming has been found to have null or negative effects on security or conflict-related outcomes in certain contexts. As mentioned above (Crost et al. 2014, Study #38), quasi-experimental research from the Philippines has shown that a CDD program increased conflict casualties during the early stages of program preparation, suggesting that insurgents may try to sabotage projects for political reasons. In Afghanistan, while a CDD program reduced the number of security incidents in some areas, no such effect was observed in the two program districts with the highest initial levels of violence (see Beath et al. 2015, Study #36).

Existing evidence in this area suggests that CDD/R interventions may be less effective than the other categories of interventions at creating the horizontal linkages that allow for peaceful bargaining. Given the often-high cost of CDD/R programming, future research should explore whether other types of interventions may provide a more cost-effective means to achieve the shared social capital aims.

42. **Healing the Wounds: Learning from Sierra Leone's Post-War Institutional Reforms (2012),** Casey, Glennerster, and Miguel, NBER Working Paper
    Location: Sierra Leone
    Method: RCT
    Link to evaluation summary
    – Researchers evaluated the impact of a CDD program that promoted inclusive and accountable decision-making by providing villages with small development grants to be allocated by village committees. In total, 236 villages from two ethnically and politically distinct districts were randomly allocated into a treatment group or a comparison group.
    – The program successfully established village-level organizations and tools to manage development projects, and contributed to higher quality local public goods, such as functioning primary schools. The program additionally led to more market activity in treatment communities, including the presence of more traders and items for sale, suggesting short-run economic gains.
    – There was no evidence that the program led to fundamental changes in local institutions, participation in decision-making, or social norms of behavior. The study additionally found no impact on women's participation in community meetings or the likelihood that they would occupy leadership roles.
    – Results from a long-term follow-up study (Casey, Glennerster, Miguel, and Voors, 2018) found that the CDD program had continued material benefits—in the form of gains in local public goods and market activities—but that there were no observable changes in the use of democratic decision-making within local

institutions. These findings suggest that it is extremely difficult to fundamentally alter local, deeply entrenched political hierarchies, particularly through external interventions.

43. **Exporting Institutions: Evidence from a Field Experiment in Congo (2019),** Humphreys, Sanchez de la Sierra, and van der Windt, *Journal of Development Economics*
Location: Democratic Republic of the Congo
Method: RCT
- Researchers measured the effects of an unconditional cash transfer program randomly assigned to communities immediately following a four-year DFID-funded CDR program (Tuungane I) that sought to alter attitudes towards democratic practices and local decision-making. Both communities that did and did not receive the CDR intervention received the cash transfers.
- Communities that were previously exposed to CDR did not demonstrate increased levels of community participation or oversight, and did not have a greater likelihood of allocating resources to those most in need, suggesting that the CDR program did not produce lasting behavioral change or social capital and cohesion benefits.

44. **How Does Development Assistance Affect Collective Action Capacity? Results from a Field Experiment in Post-Conflict Liberia (2015),** Fearon, Humphreys, and Weinstein, *American Political Science Review*
Location: Liberia
Method: RCT/Lab-in-field
- Researchers examined the effects of a CDR program which randomly invited communities to organize and receive up to US$420 in matching funds for a new local development project—determined by the level of contributions by randomly selected community members in a public goods game.
- The study found that the program improved collective action capacity in post-conflict Liberia, with treatment villages exhibiting higher levels of social cooperation and participants contributing on average 7.8 percent more to the public goods game.
- These collective action gains were only found in mixed-gender groups, however, with female-only groups experiencing zero or negative impacts on collective action. Researchers suggest that female-only groups may have relied on traditional women's networks unaffected by the intervention to make decisions, while the intervention improved communities' ability to solve mixed-gender collective action problems.

45. **International Interventions to Build Social Capital: Evidence from a Field Experiment in Sudan (2015),** Avdeenko and Gilligan, *American Political Science Review*
Location: Sudan
Method: RCT/Lab-in-field
- In Sudan, researchers studied a large-scale CDD program launched by the World Bank in 2008 to encourage post-war reconstruction and reconciliation. The program offered grants for infrastructure and physical capital investments, coupled with the creation of participatory local governance structures and the provision of capacity building on topics such as budgeting and monitoring.
- The program increased civic participation and improved perceptions that local governance was participatory, but did not impact social networks, prosocial behavior, or societal norms.
- Researchers attributed the increase in community participation to more open local governing institutions, as opposed to strengthened social capital.

Transitional justice interventions, such as truth and reconciliation commissions or reconciliation programming, have become a common approach to rebuilding social ties and promoting healing among communities in the aftermath of conflict. These programs generally bring victims and perpetrators of conflict face-to-face in a community forum and are grounded in the belief that the open discussion of grievances can promote societal and individual healing.

Randomized evaluations provide a means for testing this belief. Findings from the first such evaluation of a reconciliation program in Sierra Leone (detailed below) suggests that at least in some cases, transitional justice programming can harm individual healing. While the evaluated reconciliation program did lead to greater forgiveness of war perpetrators and strengthened social ties, it came at a significant cost to individuals' psychological wellbeing.

It is worth noting, however, that this program appears to have been more effective than CDD programming in the same setting in achieving shared aims of increasing horizontal ties between individuals and groups. While Casey, Glennerster, and Miguel (2012) found no evidence that a CDD program in Sierra Leone created greater social cohesion, Cilliers, Dube, and Siddiqi (2016), describe below, find that reconciliation programming had significant impacts on social capital (including strengthened social networks, greater trust in ex-combatants, higher likeliness to contribute to public goods, etc.) at a much lower cost.

46. **Reconciling after civil conflict increases social capital but decreases individual well-being (2016),** Cilliers, Dube, and Siddiqi, *Science*
   Location: Sierra Leone
   Method: RCT
   Link to evaluation summary, policy brief
   − In Sierra Leone, researchers partnered with local NGO, Fambul Tok, to evaluate the impact of a community-based reconciliation program. Fambul Tok's program created forums for victims to describe the violence they experienced and for perpetrators to seek forgiveness for their crimes, integrating these testimonials with traditional ceremonies. No one was prosecuted or punished for participating, and there were no monetary rewards for participating. These ceremonies took place ten years after the war ended.
   − The program led to greater forgiveness of war perpetrators and strengthened social capital in the form of increased trust for ex-combatants and migrants (who are often perceived to be ex-combatants). It also strengthened social networks, increased participation in community groups such as parent teacher associations and women's organizations, and increased contributions to public goods.
   − However, the program had negative impacts on psychological health—villages where the reconciliation forums took place recorded higher prevalence of depression, anxiety, and post-traumatic stress disorder (PTSD) after the intervention.
   − These negative impacts on psychological wellbeing challenge the view that reconciliation promotes individual healing through catharsis or forgiveness. Rather, they are more consistent with a view that talking about the past brings up painful memories and can potentially re-traumatize individuals.
   − Both positive and negative program effects persisted for nearly three years after the intervention. Taken together, the findings suggest that people do not self-heal, since reconciliation processes ten years after the war still had effects on forgiveness. Since the need for reconciliation may remain in place long after war ends, this suggests that reconciliation processes should be restructured in ways that reduce their negative psychological costs, while retaining their positive social capital benefits, perhaps by taking place earlier or by being coupled with psychological support.

47. **Do Museums Promote Reconciliation? A Field Experiment on Transitional Justice (2018),** Voytas, Balcells, and Palanza, *ESOC Working Paper*
    Location: Chile
    Method: RCT
    – Researchers randomly assigned Chilean university students to visit a transitional justice museum memorializing victims of General Augusto Pinochet's dictatorship in Chile in order to assess whether museums have a polarizing or conciliatory effect in promoting reconciliation after violence.
    – Although those identifying with the right or left viewed the museum differently, regardless of their ideological priors, the students who visited the museum were more supportive of democracy, more opposed to military governments, more distrustful of the police, and more likely to support victim compensation and pardons for perpetrators.
    – The authors suggest that transitional justice museums can provide subtle support to reconciliation processes by increasing support for transitional political systems and fostering agreement on divisive political issues.

New GCCI Research:

GCCI is currently funding one study that examines how recorded apologies from former combatants influences community sentiments and willingness to reintegrate individuals into their communities:

- **Improving Community Acceptance of Returnees from Boko Haram in Nigeria** – Graeme Blair, Rebecca Littman, and Rebecca Wolfe are using a randomized evaluation to explore whether recordings of former Boko Haram members apologizing, and/or explaining how they have changed, reduce feelings of anger and fear and, in turn, increase willingness to accept former members back into the community in the future. (P&R)

ALTERNATIVE DISPUTE RESOLUTION

For communities emerging from conflict, effective systems of dispute resolution are an essential part of maintaining a lasting peace and preventing violence. In weak states, strengthening formal conflict resolution institutions can take decades. Alternative dispute resolution (ADR) trainings address the need for immediate dispute resolution norms and institutions by teaching communities a set of skills and behaviors that help build norms around how people should resolve disputes. By building improved dispute resolution skills and norms, ADR could help parties reach self-enforcing bargains faster than through the formal justice systems in fragile states.

Thus far, there is little evidence to support the effectiveness of ADR programs, and the randomized evaluation detailed below is the first to address the topic in a conflict-affected context.

48. **Engineering Informal Institutions: Long-run Impacts of Alternative Dispute Resolution on Violence and Property Rights in Liberia (2018),** Hartman, Blair, and Blattman, *NBER Working Paper*
    Location: Liberia
    Method: RCT
    Link to evaluation summary
    – In Liberia, researchers examined the impact of introducing ADR trainings on the rate at which community members resolved property disputes, the level of satisfaction with dispute resolution, and the incidence of violence related to the disputes. The program involved eight day-long workshops over the course of two months. Overall, the workshops aimed to strengthen informal methods of dispute resolution—such as

decisions by customary leaders—and to train and encourage ordinary residents to negotiate their own disputes or mediate those of their neighbors.

- Communities that received ADR workshops were more likely to resolve land disputes, experienced less violence, and reported higher levels of satisfaction with dispute outcomes, especially for long-standing disputes. ADR did not, however, lead to better outcomes for disputes over money.

- Treatment communities also saw a 9.2 percentage point (181 percent) increase in extrajudicial punishment (witch hunts and trials by ordeal, traditionally common means of community punishment and justice). This is a serious side effect that may have resulted from increased emphasis on informal dispute resolution.

- Researchers suggest that it is difficult to view this intervention as cost effective, as the amount spent on the intervention only "breaks even" after three years if the resolution of each dispute is valued at twice the annual average income in Liberia.

New GCCI Research

GCCI is currently funding one study that compares the effectiveness of local alternative dispute resolution processes to problem-oriented policing:

- **Community Policing, Citizen Feedback, and Public Trust (Ongoing)** Researchers Cheema, Shapiro, and Hasanain are extending an ongoing study testing the efficacy of citizen-centric problem-oriented policing, and local alternative dispute resolution and reconciliation forums in Pakistan. (CVI)

MEDIA INTERVENTIONS

Media interventions, such as radio and television programs, are commonly used by nonprofits working on peacebuilding and conflict resolution as a cost-effective and far-reaching method to spread information about peace. There is an emerging body of literature that evaluates whether media interventions can be used to shift social norms, build social capital, and contribute to peace.

Two studies by Elizabeth Levy Paluck and co-authors suggest that media interventions can positively impact social norms around dissent and dispute resolution, and can encourage interpersonal discussion.[11] However, media interventions can also have unintended consequences on attitudes and behaviors associated with conflict. For example, media programming that encouraged perspective taking (i.e. "the thoughtful consideration of the world from other viewpoints") in the eastern Democratic Republic of the Congo led to increased intolerance (Paluck 2010).

While information campaigns have often been found to be ineffective at changing individual behavior (see Question 3), the below studies suggest that peer influence, in these cases through group discussion, and dramatization are important avenues through which messages are understood and translated into group behavior. Given the differing impact of the interventions detailed below on attitudes and behavior, however, more research is needed on the mechanisms underpinning the impact media interventions.

---

[11] Elizabeth Levy Paluck and co-authors have also recently completed a media intervention in Nigeria (results forthcoming) and are preparing to evaluate the behavioral effects of a post-conflict radio intervention in Southern Sudan.

49. **Deference, Dissent, and Dispute Resolution: An Experimental Intervention Using Mass Media to Change Norms and Behavior in Rwanda (2009),** Levy Paluck and Green, *American Political Science Review*
    Location: Rwanda
    Method: RCT
    Link to evaluation summary
    - Researchers studied a year-long post-genocide radio program in Rwanda that aimed to promote reconciliation. The radio soap opera, called New Dawn, told the story of two fictional communities, and attempted to discourage blind obedience and reliance on direction from authorities and promote independent thought and collective action in problem solving and dispute resolution.
    - Study communities represented salient political, economic, and ethnic categories of present-day Rwanda, including: genocide survivor communities (most Tutsi), Twa communities (the Pygmy minority), prisons, and general population communities from four regions. Members in each community listened to the broadcasts in groups.
    - While this intervention had little impact on beliefs or attitudes about interaction with members of other groups, the radio program had a substantial impact on several social norms and behaviors. It increased listeners' willingness to express dissent, and improved the way they resolved communal problems by increasing active negotiation, open expression about sensitive topics, and cooperation.
    - This study suggests that some social norms about dissent, difference, and dispute resolution can be shifted in the short run by media interventions.

50. **Is it better not to talk? Group polarization, extended contact, and perspective taking in Eastern Democratic Republic of Congo (2010),** Levy Paluck, *Personality and Social Psychology Bulletin*
    Location: Democratic Republic of the Congo
    Method: RCT
    - In Eastern DRC, researchers evaluated the relative effectiveness of a weekly radio talk show, paired with a related soap opera about a fictional conflict, compared to the soap opera only on promoting intergroup tolerance and cooperation. The talk show was designed to promote perspective taking about intergroup conflict and cooperation and encouraged listeners to engage in discussion with others on relevant themes.
    - After one year of broadcast, listeners of the talk show were less tolerant of outgroups across a variety of indicators, including attitudes and helping behaviors, as measured through behavioral games. Researchers suggest that this could be because the talk show highlighted intergroup grievances and provided only "light-handed" guidance encouraging perspective taking (Paluck 2012).
    - The talk show, however, was found to increase levels of interpersonal discussion amongst listeners.
    - While the radio talk show was designed by the research team and grounded in theoretical predictions about the benefits of discussion about conflict, the show had significant counterintuitive and unintended negative effects. The research team suggests that this demonstrates the need to be sensitive to the context when applying psychological theory, especially on topics as important as conflict.

51. **Counting violence against women at scale: A mass media experiment in rural Uganda (2019),** Green, Wilke, and Cooper, Working Paper
    Location: Uganda
    Method: RCT
    - Researchers evaluated whether videos encouraging communities to speak out about violence against women (VAW)—screened during community film festivals—could change behavior, attitudes, and norms related to accepting and reporting VAW.

- Results showed the proportion of women who reported any VAW in their household over the preceding six months was substantially lower in villages where the videos were screened relative to villages in the comparison group. The impact appears to be driven by a reduction in the perception that those who speak out against violence will face social sanctions.
- However, there was little evidence that the videos had an effect on attitudes towards VAW or on views concerning gender equality.
- These findings suggest mass media campaigns that use dramatization to convey a particular message may provide a cost-effective approach to changing behaviors around violence.

SOCIAL CONTACT AND PEACE EDUCATION INTERVENTIONS

Social contact interventions are grounded in the understanding that intergroup contact can reduce prejudice and bias.[12] There have been few rigorous studies of intergroup contact in conflict-affected contexts to date; much of the existing research focuses on relatively peaceful climates. While contact interventions are generally found to be effective at reducing prejudice, a 2018 meta-analysis of randomized evaluations studying intergroup social contact suggested that interventions addressing racial or ethnic bias often produce much weaker effects (Paluck, 2018).

The existing contact literature from conflict-affected contexts may be limited by two main factors. Firstly, many of the studies only measure the short-term impact of such interventions on attitudes—recording outcomes immediately after the intervention finishes—but no existing experimental study examines changes in conflict incidents. Secondly, many of the contact interventions involve peace education, therefore possibly compromising self-reporting about individual prejudice and bias. The recent study from Scacco and co-authors below represents the first contact study that attempts to address both of these concerns.

52. **Long-Term Effects of Peace Workshops in Protracted Conflicts (2005),** Malhotra and Liyanage, *Journal of Conflict Resolution*
Location: Sri Lanka
Method: Natural experiment/Lab-in-field
- Researchers studied the long-term impacts of a four-day peace workshop and contact intervention for 306 Sinhalese and Tamil students in Sri Lanka, who were identified as being "leaders" amongst their peers at school. These participants were compared to students who were also nominated, but who were unable to participate, and to demographically similar participants from non-participating schools.
- The workshop led to greater empathy towards the "other"—a result that held one year later—and increased the amount of money that participants donated in a behavioral game to help poor children of the other ethnicity.
- While this study was limited by its sample size and highly selected nature of the participants, it suggests that further research should be done on the long-term attitudinal and behavioral impacts of brief periods of contact.

---

[12] Gordon W. Allport, in his seminal 1954 theory on social contact, suggested that four conditions were needed in order for contact to reduce prejudice and bias: a shared goal, the need to cooperate to reach the goal, equal status, and the support of authority figures.

53. **Can Social Contact Reduce Prejudice and Discrimination? Evidence from a Field Experiment in Nigeria (2018),** Scacco and Warren, *American Political Science Review*
    Location: Nigeria
    Method: RCT/Lab-in-field

    – Researchers studied a vocational training program that brought together Christian and Muslim young men in Kaduna, a conflict-prone city in Nigeria, for sixteen weeks of computer training. The study aimed to test whether extended contact in an educational setting can reduce prejudice and discrimination between groups that are often adversarial. The program was cross-randomized such that those assigned to receive the training were randomly assigned to either mixed-religion or some-religion classrooms. Within mixed classes, participants were then assigned either a co-religious or non-co-religious learning partner.

    – Regardless of treatment group, participation had no impacts on prejudice towards the out-group, which researchers suggest could stem from the entrenched nature of negative attitudes towards the out-group in this conflict-affected context.

    – However, young men who participated in mixed classes demonstrated significantly less out-group discriminatory behavior after the intervention, suggesting that behavior change does not necessarily require a change in attitudes.

    – Researchers suggest that this contact intervention's focus on skills development as opposed to peace education helped minimize potential reporting bias.

54. **Types of Contact: A Field Experiment on Collaborative and Adversarial Caste Integration (2018),** Lowe, Working Paper
    Location: India
    Method: RCT

    – In Varanasi, Uttar Pradesh, Lowe randomly assigned 1,261 young men from different castes to either participate in month-long cricket leagues or to serve as a control group. Players who were recruited were randomly assigned to either homogeneous-caste or mixed-caste teams to create opportunities for collaborative contact. Teams were also randomly assigned opponents to examine the effects of adversarial contact, given competing teams had opposing goals.

    – The results showed that when members of different castes were assigned to "collaborative contact"—that is, playing on the same team as members of other castes—they were more likely to report cross-caste friendships after the league had ended and showed 33 percent less own-caste favoritism when voting to allocate cricket rewards.

    – In contrast, "adversarial contact"—pitting members of different castes against one another on different teams—generally had either no effect or harmful effects.

    – These findings provide further evidence that the economic effects of inter-group integration depend on the type of contact.

55. **Valuing Peace: The Effects of Financial Market Exposure on Votes and Political Attitudes (2018),** Jha and Shayo, Working Paper
    Location: Israel
    Method: RCT

    – Prior to the 2015 Israeli elections, researchers randomly assigned 1,345 Jewish Israeli voters to either a financial asset treatment or a comparison group. Within the treatment group, individuals either received endowments of assets that tracked the value of specific indices or company stocks from both Israel and the

Palestinian Authority, or received an endowment of cash to invest in stocks. In addition, they were given incentives to learn about the performance of their assets and make weekly decisions to buy or sell.

- They found that exposure to financial markets resulted in a large shift in individuals' vote choices towards parties that supported restarting the peace process and away from parties skeptical of peace negotiations. They suggest this shift came about as a result of improvements in financial literacy that led individuals within the treatment group to reevaluate the economic costs of conflict.

- While not a traditional "contact" study, relative to the others presented in this section, this evaluation sheds light on how creating deep horizontal linkages between groups—in this case through the delivery of financial assets that incentivize stability—may lead to more peaceful bargaining.

New GCCI Research

GCCI is currently funding two studies that test contact theory in Iraq and Nigeria, and a third study that examines the role of empathy education on intergroup behavior and exclusion in Turkey with Syrian refugee and host community children:

- **Overcoming the Trust Deficit: Inter-group Contact and Associational Life in Post-ISIS Iraq** - Salma Mousa is examining whether inter-group contact through mixed-religious group soccer teams can reduce prejudice and rebuild social trust in Iraq. This study builds on a 2017 pilot (Mousa 2018), which found that Christians assigned to mixed-religion soccer teams were more likely to express trusting attitudes towards Muslims and to change behaviors—including training alongside Muslims and attending a mixed-religion social event. These findings suggest that, over time, meaningful contact can fill information gaps about the "other," relieve out-group anxiety, and induce empathy at the individual level. (CVI and P&R)

- **Can Contact Reduce Conflict between Farmers and Herders? Evidence from Nigeria** - Oeindrila Dube and James Robinson are investigating whether contact can help resolve the endemic farmer-herder conflict in Nigeria. The study will provide the first field experimental micro evidence on whether, and how, contact influences conflict, by convening farmer-herder dialogues in 120 communities in partnership with Search for Common Ground. (CVI and P&R)

- **Fostering Empathy in the Classroom: A Randomized Educational Intervention for the Integration of Child Refugees** - Sule Alan and Ceren Baysan are conducting an evaluation in partnership with the Turkish Ministry of Education to test a curriculum that aims to foster empathy toward Syrian refugee children who are being integrated into the school system in Turkey. Researchers will measure whether in-group/out-group formations, bullying, and acts of social exclusion are influenced through promoting tolerance for ethnic diversity and empathy. (CVI and P&R)

PRIORITIES FOR FUTURE RESEARCH

Overall, there is a limited experimental evidence base on peacebuilding, reconciliation, and dispute resolution programming. The few evaluations that do exist identify some unexpected and counterintuitive outcomes, and as a result we would encourage additional research on this question. Broadly, future studies should aim to test fundamental theories of peace, reconciliation, and conflict resolution, such that their findings are applicable across contexts and across types of programming.

Randomized evaluations may be particularly well placed to explore the following evidence gaps:

- While there is an emerging body of evidence on social networks and contact theory, most existing experimental evidence has focused on activities that form relatively weak bonds between individuals and groups. Future research could extend these findings by experimenting with the creation of deeper horizontal linkages as a means of constructing peaceful bargains, such as the creation of financial linkages between groups, for example, though the study of trade associations, unions, or business associations in conflict-affected contexts (see Jha and Shayo, 2018 above as an example). Can creating deeper intergroup bonds prevent future conflict?

- Current interventions that create horizontal ties have proven to be quite expensive; one area for innovation will be to design more cost-effective interventions.

- While reconciliation and dispute resolution programming have been shown to build social capital and strengthen dispute resolution norms, these impacts have come with significant negative, unintended consequences on outcomes such as psychosocial wellbeing and extrajudicial punishment. How can future interventions be designed to preserve the positive impacts of such programming, while also mitigating the harmful effects?

- More broadly, what are other types of interventions that can restore broken ties and promise social capital in the aftermath of conflict?

CHAPTER 5 REFERENCES

Avdeenko, Alexandra, and Michael Gilligan. 2015. "International Interventions to Build Social Capital: Evidence from a Field Experiment in Sudan." *American Political Science Review* 109(3): 427-449. https://doi.org/10.1017/S0003055415000210.

Balcells, Laia, Valeria Palanza, and Elsa Voytas. 2018. "Do museums promote reconciliation? A field experiment on transitional justice." *Empirical Studies of Conflict Project (ESOC)* Working Paper 10.

Casey, Katherine. 2018. "Radical Decentralization: Does Community Driven Development Work?" *Annual Review of Economics* 10(1): 139-63. https://doi.org/10.1146/annurev-economics-080217-053339.

Casey, Katherine, Rachel Glennerster, Edward Miguel, and Maarten Voos. 2018. "Skill versus Voice in Local Development." NBER Working Paper No. 25022. Retrieved from: https://www.nber.org/papers/w25022.

Cilliers, Jacobus, Oeindrila Dube, and Bilal Sidiqqi. 2016. "Reconciling after civil conflict increases social capital but decreases individual well-being." *Science* 352 (6287): 787-794. https://doi.org/10.1126/science.aad9682.

Fearon, James, Macartan Humphreys, and Jeremy Weinstein. 2015. "How Does Development Assistance Affect Collective Action Capacity? Results from a Field Experiment in Post-Conflict Liberia." *American Political Science Review* 109(3): 450-469. https://doi.org/10.1017/S0003055415000283.

Glennerster, Rachel, Katherine Casey, and Edward Miguel. 2012. "Healing the Wounds: Learning from Sierra Leone's Post-War Institutional Reforms." NBER Working Paper. https://doi.org/10.3386/w18368.

Green, Donald, Anna Wilke, and Jasper Cooper. 2019. "Countering violence against women at scale: A mass media experiment in rural Uganda." Working Paper.

Hartman, Alexandra, Robert Blair, and Christopher Blattman. 2018. "Engineering Informal Institutions: Long-run Impacts of Alternative Dispute Resolution on Violence and Property Rights in Liberia." NBER Working Paper. https://doi.org/10.3386/w24482.

Humphreys, Macartan, Raul Sanchez de la Sierra, and Peter Van der Windt. 2019. "Exporting Institutions: Evidence from a Field Experiment in Congo." *Journal of Development Economics*. https://doi.org/10.1016/j.jdeveco.2019.03.011.

Jha, Saumitra, Moses Shayo. 2018. "Value Pricing: The Effects of Financial Market exposure on Votes and Political Attitudes." Working Paper.

Lowe, Matt. 2018. "Types of Contact: A Field Experiment on Collaborative and Adversarial Caste Integration." Working Paper.

Malhotra, Deepak, and Sumanasiri Liyanage. 2005. "Long-term Effects of Peace Workshops in Protracted Conflicts." *Journal of Conflict Resolution*. https://doi.org/10.1177/0022002705281153.

Mousa, Salma. 2018. "Overcoming the Trust Deficit: An Experiment on Intergroup Contact and Soccer in Post-ISIS Iraq." Working Paper.

Paluck, Elizabeth Levy, and Donald Green. 2009. "Deference, Dissent, and Dispute Resolution: An Experimental Intervention Using Mass Media to Change Norms and Behavior in Rwanda." *American Political Science Review* 103(4): 622-644. https://doi.org/10.1017/S0003055409990128.

Paluck, Elizabeth Levy. 2010. "Is it better not to talk? Group polarization, extended contact, and perspective taking in Eastern Democratic Republic of Congo." *Personality and Social Psychology Bulletin* 36(9): 1170-1185. https://doi.org/10.1177/0146167210379868.

Paluck, Elizabeth Levy. 2012. "Media as an instrument for reconstructing communities following conflict". In K. Jonas & T. Morton (Eds.), *Restoring civil societies: The psychology of intervention and engagement following crisis*. Wiley-Blackwell.

Scacco, Alexandra, and Shana Warren. 2018. "Can Social Contact Reduce Prejudice and Discrimination? Evidence from a Field Experiment in Nigeria." *American Political Science Review* 112(3): 654-677. https://doi.org/10.1017/S0003055418000151.

6. DOES RCT EVIDENCE DEMONSTRATE THAT WOMEN'S INCLUSION INCREASES STABILITY, CONFLICT RESOLUTION, DISPUTE RESOLUTION, OR VIOLENCE REDUCTION OUTCOMES?

Randomized evaluations do not yet provide evidence on whether women's inclusion in development programs leads to improved stability or lower levels of violence or disputes. They do, however, provide a few building blocks towards an eventual answer, having established that:

- Across a variety of contexts, reserving local leadership roles for women leads to different policy decisions about public goods provision and can shift attitudes regarding women's participation;

- Involving women in decision-making bodies can change attitudes—Mandating women's participation in a community-driven development program in Afghanistan led to increased women's political participation and changed men's attitudes (in treatment villages) to women's participation;

- Placing women in visible leadership positions may influence crime reporting—Increasing women's representation in local government through gender quotas in India led to an increase in the number of documented crimes against women, primarily due to higher reporting of incidents;

- Mixed-gender decision-making bodies may be more effective, in some instances, at promoting collective action than single-sex groups—Gains in collective action at the village level, driven by a community-driven reconstruction program in Liberia, only emerged when participants were asked to form mixed-gender teams; and

- Men and women may respond differently to state and customary authority—in Bougainville, Papua New Guinea, women were more likely to express a preference for community police officers in an area with no previous police presence, and this was even more the case when those officers were female.

These initial findings suggest there is promise in studying whether women's inclusion in development programming may affect violence and peacebuilding outcomes, even if they do not point towards a particular answer. New studies that evaluate the impact of women's inclusion in interventions that are designed to promote change across a range of outcomes could be encouraged to explore impacts on measures of violence and stability. There is also scope for designing interventions around women's inclusion that are focused on improving stability and reducing violence.

PLACING WOMEN IN DECISION-MAKING ROLES

There is a growing body of both experimental and non-experimental research on whether having women in decision-making roles (e.g. legislators, chief executives, police officers, community leaders, etc.) leads to different policy outcomes. Broadly, this research suggests that the gender of decision-makers can have an impact on policy choices and social norms, but more experimental research is needed to understand both the impact of women leaders on peace and security policies, and the mechanisms behind this impact.

Relevant findings from studies covered in other parts of this review include the following:

- A randomized evaluation of a CDD program in Sierra Leone that required women to serve on village committees tasked with making funding decisions found that the program had positive impacts on the set up of village-level organizations and produced higher-quality local public goods (such as functioning primary schools), but did not lead to fundamental changes in how women participated in community meetings or the likelihood that they would occupy leadership roles. (See Casey et al. 2012, Study #42).

- A randomized evaluation of a CDR program in Liberia found that only when community-level groups were composed of men and women (instead of women alone) did they observe higher levels of social cooperation

(measured by increased average contributions to community development projects). (See Fearon et al. 2015, Study #44). Researchers suggest that female-only groups may have relied on traditional women's networks unaffected by the intervention to make decisions, while the intervention improved communities' ability to solve mixed-gender collective action problems.

- A randomized evaluation of the introduction of uniformed community police officers in rural Papua New Guinea found that the presence of any community police officer increased the probability that incidents of violence against women would be reported, and this was particularly true when the officer was female. (See Cooper 2018, Study #2).

- In contrast, a lab-in-field experiment that randomly varied the gender composition of policing teams comprised of Liberian National Police officers found no evidence that increasing the concentration of women could improve group sensitivity to sexual or gender-based violence or shift men's beliefs about women's roles in policing. (See Karim et al. 2018, Study #8).

Randomized evaluations on the impact of gender on policy demonstrate that women in positions of power may choose to implement different policies than men. A review of eleven randomized evaluations on gender quotas in Afghanistan, Lesotho, and across 24 states in India, for instance, found that reservation quotas influenced women's political participation and policy outcomes and increased the provision of public goods aligned with female voters' preferences (J-PAL 2018). While female leaders' policy preferences differed from men, they also differed from one another based on geographic location and background, cautioning against the assumption that women as a group have homogenous policy preferences (J-PAL 2018).

Are women leaders more likely to pursue peaceful policies? The question is different from whether women as individuals are likely to do so, in part because the considerations are much broader and insofar as women's choices may differ, they appear to depend on context. A review of established democracies between 1970-2000 found that having a higher proportion of female legislators was associated with less state conflict behavior and lower defense spending (Koch and Fulton, 2011). The same study found that female executives displayed increased conflict behavior and defense spending, which the authors suggest may in part be due to efforts by women leaders to combat gender stereotypes.

A quasi-experimental (IV) study by Dube and Harish (2017) of the effect of female rule on European polities between 1480-1913 found that polities led by queens were 27 percent more likely to engage in inter-state conflict than those led by kings. Married and unmarried queens faced different conditions and made different choices: unmarried queens were more likely to be attacked, while married queens were more likely to attack than married kings (Dube and Harish, 2017).

56. **Empowering Women Through Development Aid: Evidence from a Field Experiment in Afghanistan (2012),** Beath, Christia, and Enikolopov, *American Political Science Review*
Location: Afghanistan
Method: RCT
- Researchers drew on data from the same randomized evaluation of the National Solidarity program in Afghanistan (see Study #36) to test how mandating the involvement of women affected women's participation in decision-making and attitudes towards their involvement. Community development councils were required to be gender-balanced and to make a decision on funding at least one project that targeted women.

- Researchers found that the program led to increased women's participation in village governance, community life, and economic activities. Men in treatment villages became more open to female participation in local governance.
- Empowerment impacts were nevertheless largely limited to the spheres in which the program operated, however: there were no broader changes in attitudes toward the role of women in the household or in society more broadly, an important caveat for future programming.

57. **The Power of Political Voice: Women's Political Representation and Crime in India (2012)**, Iyer, Mani, Mishra, and Toplova, *American Economic Journal: Applied Economics*
Location: India
Method: RCT
- Researchers studied the consequences of a 1993 constitutional amendment that called for a random one third of village council leaders ("Pradhan") positions to be reserved for women. Specifically, they assessed how greater political representation of a traditionally underrepresented and disadvantaged group affected crime outcomes, including the number of reported crimes against women.
- Researchers found that the introduction of mandated quotas for women leaders led to an increase in the number of documented crimes against women. They suggest this rise was primarily due to an increase in reporting of incidents to police, rather than due to an increase in number of actual crimes against women committed.
- Quotas also heightened police responsiveness to crimes against women. Following the implementation of quotas, the number of arrests increased for both overall crimes committed against women as well as for kidnapping of women.

New GCCI Research

Two new studies being funded by GCCI in India will examine the impact of increasing women's representation in the police and whether this might improve police responsiveness and effectiveness in tackling cases of gender-based violdence.

- **Engendering Policing: Evaluating Reforms to Increase Women's Access to Security and Justice** – Sukhtankar, Kruks-Wisner, and Mangla use an RCT in partnership with the police of Madhya Pradesh state in India to evaluate whether the establishment of police station-level Women's Help Desks (WHDs), including deploying additional female personnel to these WHDs, improves the responsiveness of frontline officers to women, as well as levels of crime and crime reporting. The goal is to provide evidence on whether the increased presence of under-represented groups within the police can favorably affect policing practices towards these groups. (CVI)
- **Street Police Patrols and Crime Against Women in Public Space: Experimental Evidence from Urban India** – Fiala and co-authors are testing the role of increased police presence through patrolling and policing visibility (i.e. uniformed vs. undercover officers) on reporting of gender-based violence and engagement with police services. This will include varying the number of uniformed women officers patrolling a subset of pre-identified hotspots. (CVI)

PRIORITIES FOR FUTURE RESEARCH

Given limited understanding of the impact of women's inclusion on peace and stability outcomes, randomized evaluations are well-placed to help begin testing the assumptions detailed above—examining whether, and through what mechanisms, women's inclusion might contribute to stability.

While the important open question of whether women's participation in peace processes (as negotiators, civil society participants, or through popular consultations) may be difficult to evaluate experimentally, testing the impacts of women's participation in some of the component parts of any durable peace process may provide part of the answer.

CHAPTER 6 REFERENCES

Abdul Latif Jameel Poverty Action Lab (J-PAL). 2018. "Improving women's representation in politics through gender quotas." J-PAL Policy Insights. Last modified April 2018.

Beath, Andrew, Christina Fotini, and Ruben Enikolopov. 2012. "Empowering Women Through Aid: Evidence from a Field Experiment in Afghanistan." *American Political Science Review* 107(3): 540-557. https://www.jstor.org/stable/43654923.

Dube, Oeindrila, and S.P. Harish. 2017. "Queens". Working Paper. http://dx.doi.org/10.2139/ssrn.2947181.

Iyer,Lakshmi, Anandi Mani, Prachi Mishra, and Petia Topalova. 2012. "The Power of Political Voice: Women's Political Representation and Crime in India." *American Economic Journal: Applied Economics* 4(4): 165–193. https://www.jstor.org/stable/23269746.

Koch, Michael T., and Sarah A Fulton. 2011. "In the Defense of Women: Gender, Office Holding, and National Security Policy in Established Democracies." *The Journal of Politics* 73(1): 1-16. http://www.jstor.org/stable/10.1017/s0022381610000824.