Closing the Broken Feedback Loop: Can Responsive Aid Strengthen State Legitimacy?

Bradley C. Parks  
College of William & Mary

Matthew DiLorenzo  
Old Dominion University

Daniel Aboagye  
Open Data Cambodia
Abstract
A guiding principle of counterinsurgency operations and development programming in weak states is that aid projects should flexibly respond to the needs and expectations of local residents because doing so will activate a virtuous circle: citizens will credit government institutions for their responsiveness, voluntary compliance with government policies will increase, and, as governance costs decline, the state will expand the provision of public goods that address citizen needs. However, if aid is subject to high levels of predation and capture by local elites, it may undermine legitimacy. We exploit high-frequency, panel survey data from more than 5,000 Afghan villages to construct a measure of aid responsiveness at the village level. We then examine how aid responsiveness varies with village-level perceptions of local, district, provincial, and national government institutions. We find that aid responsiveness strengthens the legitimacy of local and district government but with diminishing returns at higher levels of treatment.

Author Information
Bradley C. Parks
College of William & Mary

Matthew DiLorenzo
Old Dominion University

Daniel Aboagye
Open Data Cambodia

The views expressed in AidData Working Papers are those of the authors and should not be attributed to AidData or funders of AidData’s work, nor do they necessarily reflect the views of any of the many institutions or individuals acknowledged here.

Acknowledgements
We thank USAID/Afghanistan and USAID’s Office of Afghanistan and Pakistan Affairs (OAPA) for facilitating access to the village-level survey data used in this study. We also thank Jason Lyall for providing useful information about the design and implementation of this survey. Additionally, we thank the William and Flora Hewlett Foundation for generous funding (through grant #2017-5577) that made this study possible. We also acknowledge that this study was indirectly made possible through a cooperative agreement (AID-OAA-A-12-00096) between USAID’s Global Development Lab and AidData at the College of William and Mary under the Higher Education Solutions Network (HESN) Program.
Introduction
Countries rarely achieve stability and prosperity in the absence of government institutions that can maintain law and order, collect taxes, and deliver essential public services. Western militaries and international development organizations spend tens of billions of dollars annually to address this challenge by training and equipping judges, legislators, police officers, and tax officials; reforming and restructuring line ministries to increase their transparency, accountability, and operational efficiency; and installing modern technology systems to help governments more efficiently manage their people, programs, physical assets, and finances. But for many scholars and policymakers this high level of investment is expensive irony. Decades of research and practice suggest that externally-financed state-building efforts usually fail to achieve their objectives. There is also little consensus about how external actors can build effective, autonomous, and durable government institutions in failed and fragile states.

At the root of the state fragility problem is a persistent lack of state legitimacy; too few citizens recognize and respect the state’s right to rule. States that lack popular legitimacy face a wide array of obstacles to governance. In the absence of trust and voluntary compliance, it is significantly more difficult for states to collect taxes, implement judicial decisions, limit crime and violence, organize effective public health interventions, and reduce inequality through redistribution programs. Conversely, states that enjoy popular legitimacy spend less time, money, and effort on monitoring and coercing compliance. Higher levels of voluntary compliance allow states able to govern in a more efficient and effective manner. When citizens believe their government institutions to be legitimate and effective, they are more willing to pay taxes, comply with government regulations, and collaborate with state institutions to facilitate the delivery of public services.

Consequently, in many failed and fragile states, aid agencies and development banks seek to engineer these types of self-reinforcing feedback loops by selecting, designing, and implementing community-driven development (CDD) projects in response to citizen feedback. In counterinsurgency and stabilization settings, it is also increasingly common for Western military strategists to advocate for small-scale relief and reconstruction projects that respond to local needs and explicitly credit host government institutions for implementation. These “responsive aid” initiatives share a common aim: helping weak states demonstrate that they are willing and able to hold up their end of the social contract. However, we still know little about whether, when, and how these types of interventions affect state legitimacy.

To address this empirical gap, we evaluate one of the most challenging cases of the 21st

---

1 North 1990; Rodrik 2000; Acemoglu and Robinson 2012.
3 As Matt Andrews, Lant Pritchett, and Michael Woolcock put it, “[s]ome building is easy. Development projects have, by and large, been successful at building physical stuff: schools, highways, irrigation canals, hospitals and even building the buildings that house government ministries, courts, and agencies. But some building is hard. … [B]uilding capabilities of … human systems—including that human system called ‘the state’—has proven much more difficult.” See Andrews et al. 2013, 234.
4 Gilley 2009.
6 Tyler et al. 1989; Tyler 1997.
7 Nivette and Eisner 2013; Mario and Hooghe 2011.
8 Lieberman 2007; Blair et al. 2017; Martinez-Bravo and Stegmann 2017; Lowes and Montero 2018.
10 Tyler 1990; Levi and Sacks 2009.
11 Bodea and LeBas 2014.
13 Joshi and Moore 2004; Tsai 2011.
15 Typically, these projects are also branded as host government projects because the intent of external sponsor(s) is to increase public confidence in the host government. See Berman et al. 2013.
century: a large-scale, externally-financed state-building effort in Afghanistan. We use high-frequency, panel survey data from more than 5,000 Afghan villages throughout the period of 2012 to 2014 to construct a unique measure of the degree to which local residents received the types of development projects that they wanted. We then merge this time-varying, village-level measure of aid responsiveness with state legitimacy outcome measures and covariates measured at the village level to estimate the state legitimation effects of responsive aid.

Our statistical analysis provides evidence that externally-financed efforts to close the broken feedback loop can strengthen the legitimacy of the state. Villages that receive more responsive aid tend to develop more confidence in local and district government institutions. But we also find evidence of diminishing returns at higher levels of responsiveness. This empirical pattern is consistent with the notion that the process of state legitimation is non-linear. It is also consistent with the theoretical argument that when citizens have higher baseline expectations of their government, they request and receive more from it. Further, it implies that the external sponsors of responsive aid programs can more effectively promote state legitimacy by targeting communities where the linkages between governor and governed are particularly weak.

This study makes a number of contributions. First, it identifies the conditions under which external actors can use responsive aid programming to strengthen fragile states. Addressing this gap in the literature is important because ineffective state-building efforts have far-reaching consequences: a variety of transnational threats to international security—including terrorism, infectious disease outbreaks, large-scale human population movements, and illicit trafficking of drugs and weapons—originate in failed and fragile states. Second, this study contributes to a small but growing body of research on whether, when, and how social contracts between citizens and government leaders at various levels of representation are competing or complementary. Third, we shed light on the non-linear nature of the state legitimation process, and thereby identify where there is scope for better targeting of responsive aid programs.

**Foreign Aid and State Legitimacy: Existing Theory and Evidence**

International development organizations increasingly acknowledge that technocratic institution-building programs have disappointed, and they must confront the more political task of building legitimacy. The United States Agency for International Development (USAID) has called for its assistance programs in failed states to “focus on the underlying sources of fragility—the governing arrangements that lack effectiveness and legitimacy—rather than the symptoms.” Similarly, the United Kingdom’s Department for International Development (DFID) has encouraged its staff working in fragile state environments to prioritize the delivery of public services in a manner that responds to the needs and demands of citizens. This approach, it argues, will foster a more “inclusive political settlement” between the state and societal groups and thereby increase state legitimacy and reduce the likelihood of conflict and violence.

---

16 McLoughlin 2015.
17 Boter et al. 2013.
19 U.S. Army Field Manual 3-07 states that “the greatest threat to our national security comes not in the form of terrorism or ambitious powers, but from fragile states either unable or unwilling to provide for the most basic needs of their people.” Similarly, the 2002 U.S. National Security Strategy concluded that “America is now threatened less by conquering states than we are by failing ones.” Subsequent versions of the U.S. National Security Strategy (in 2006, 2010, and 2015) made the same argument. See United States Department of the Army 2009, vi; The Office of the President of the United States of America 2002, 1; The Office of the President of the United States of America 2006, 2010, 2015.
20 Henn 2018; Van der Windt et al. forthcoming
21 NORAD 2009; DFID 2010; World Bank 2012; King and Samii 2014.
22 USAID 2005, 5.
23 DFID 2010, 7.
Western military doctrine also postulates that the best way to defeat a counterinsurgency in a weak state is to win the “hearts and minds” of the population by helping the host government deliver essential public services. ²⁴ U.S. Army Field Manual 3-24 (FM-3-24) states that “[s]uccess in counterinsurgency (COIN) operations requires establishing a legitimate government supported by the people and able to address the fundamental causes that insurgents use to gain support.” ²⁵ Elaborating on this point, the authors of FM-3-24 argue that “[t]he host nation increases its legitimacy through providing security, expanding effective governance, providing essential services, and achieving incremental success in meeting public expectations.” ²⁶

Yet there is little evidence about whether, when, and how externally-sponsored investments strengthen and undermine state legitimacy. ²⁷ Conventional wisdom suggests that a government’s popular legitimacy depends upon its responsiveness to taxpayer preferences. ²⁸ When domestic public expenditures are misaligned with citizen preferences, taxpayers can register their dissatisfaction through protest, voting, or exit. ²⁹ But the intended beneficiaries of foreign aid pay no taxes for the services they receive and have a limited ability to provide feedback on the quality and quantity of goods and services rendered. ³⁰ Consequently, some scholars argue that reliance on foreign aid (or other sources of “unearned income”) insulates governments from the consequences of poor policy decisions, effectively short-circuiting political accountability relationships. ³¹

However, a new wave of research challenges this conventional wisdom. Simone Dietrich, Minhaj Mahmud, and Matthew Winters provide experimental evidence that the receipt of foreign aid actually improves citizen perceptions of the state. ³² One potential explanation for this fact is that citizens believe aid projects are secured as a result of the skill and effort of their political leaders. ³³ Alternatively, citizens may not expect their governments to be the exclusive or primary suppliers of public goods and services, but do expect them to facilitate the work of development organizations. ³⁴ Experimental research indicates that citizens in developing countries generally prefer donor-funded development projects over government-funded projects because they think that the former are less affected by corruption than the latter. ³⁵ Therefore, it is possible that citizens credit rather than blame their government for securing and facilitating the implementation of donor-funded development projects.

International development organizations have bet on community-driven development (CDD) projects as a particularly promising way to help host government gain popular legitimacy by demonstrating the presence, responsiveness, performance, and procedural fairness of the state at the local level. ³⁶ CDD projects attempt to involve local citizens in the design and

---

²⁵ United States Department of the Army 2007, 6-1.
²⁶ United States Department of the Army 2007, 5-1, emphasis added.
²⁷ There is, to be sure, a substantial literature on whether, when, and how specific aid and public expenditure programs affect conflict and violence. See Crost et al. 2014, 2016; Sexton 2016; Weintraub 2016; Khanna and Zimmerman 2017.
³⁰ Martens et al. 2002; Gibson et al. 2002; Whittle 2013. Intermediaries in principal-agent relationships involved with aid delivery have their own incentives, which may not align with recipient preferences. Thus, critics of foreign aid charge that long chains of delegation short-circuit the feedback loop between donors and their intended beneficiaries. See, for example, Easterly 2006, 17.
³¹ For example, Smith 2008; Djankov et al. 2008.
³² Dietrich et al. 2018.
³³ Guiteras and Mobarak 2016; Brass 2016; Cruz and Schneider 2017; Winters et al. forthcoming.
³⁴ Stel and Ndayiragije 2014; Dolan 2018.
³⁶ Barron 2011; Casey et al. 2012. Cleary 2007 argues that there are three reasons why government officials are more responsive to local needs when they directly engage with citizens: first, government officials gain more
implementation of development projects. CDD projects rest upon a common diagnosis of an underlying problem: weak states are insufficiently responsive to citizen needs and requests, so citizens are less willing to defer to the authority of the state. This means that tax revenues decline, the cost of governance (via coercion) is higher, and the state’s (already limited) ability to provide public goods and services is further diminished. CDD projects also tend to rely upon a shared theory of change: that citizen expectations of the state must be stimulated “through an initial show of performance” to set in motion a virtuous circle.\textsuperscript{37} Once citizen expectations are stimulated through the provision of responsive aid, advocates of CDD assume that a self-reinforcing cycle of accountability will emerge.\textsuperscript{38}

CDD projects are part of a broader effort among international development organizations to introduce citizen feedback mechanisms and promote flexible programming modalities that enable course corrections based on citizen needs and demands. Projects increasingly feature community scorecards and social audit mechanisms that provide customer satisfaction data to frontline service providers\textsuperscript{39}, participatory decision-making processes and platforms that give voice to traditionally marginalized and underrepresented populations\textsuperscript{40}, and web-, phone-, and paper-based tools that help citizens monitor and evaluate governments.\textsuperscript{41}

However, some scholars worry that these efforts could actually erode state legitimacy. Increasing citizen engagement may raise expectations of state performance, thereby widening the gap between expectations and reality.\textsuperscript{42} It is also possible that these types of projects undermine social cohesion by pitting beneficiaries against non-beneficiaries.\textsuperscript{43}

Responsive Aid and State Legitimacy

Existing evidence on the state legitimacy impacts of CDD projects is decidedly mixed. One panel survey study from Afghanistan finds that receipt of aid at the household level (mostly via CDD projects) positively correlates with the perceived legitimacy of the state.\textsuperscript{44} Another provides evidence from a randomized evaluation that the effects of CDD projects on state

---

\textsuperscript{37} McLoughlin 2015, 347. Similarly, Guerrero 2011 argues that citizens in fragile states often have exceedingly low expectations of government and prefer to minimize government “interference” in their communities. He provides evidence that rapid improvements in public service delivery in historically marginalized communities served the purpose of stimulating citizen expectations and thereby setting in motion the state legitimation process in Medellín, Colombia. This is also an increasingly popular approach in stabilization and counterinsurgency programming, where a key objective is often to increase citizen loyalty to the state. See Petraeus 2006; Berman et al. 2011; Beath et al. 2016; Lyall et al. 2017.

\textsuperscript{38} There are also reasons to believe that coproduction of public goods and services by government and local community groups can build trust and social capital and thereby cultivate citizen loyalty to the state. See Tsai 2011; Bodea and LeBas 2014.

\textsuperscript{39} Reinkikka and Svensson 2005, 2011; Björkman and Svensson 2009.

\textsuperscript{40} Besley et al. 2005; Grossman et al. 2014; Beath et al. 2017; Buntaine et al. forthcoming.

\textsuperscript{41} Fox 2015; Peixoto and Fox 2016; Aker et al. 2017.

\textsuperscript{42} McLoughlin 2015, 348. The so-called expectation-disconfirmation theory of citizen satisfaction suggests that citizen satisfaction is a function of the difference between the expected service level and the service level that citizens actually experience. See James 2009; Sey 2015.

\textsuperscript{43} Haushofer et al. 2015. CDD projects also pose risks that are not necessarily present in other types of projects with citizen feedback mechanisms. If government institutions shoulder most of the burden of implementing CDD projects, insurgents that are competing for the allegiance of the local population might seek to sabotage these projects. See Crost et al. 2014; Sexton 2016; Weintraub 2016. If local communities or NGOs shoulder most of the burden of implementing CDD projects, citizens might question the competence of the state, and previous research suggests that the perceived administrative competence of the state can also influence judgments about the legitimacy of the state. See Levi 1988; Hutchison and Johnson 2011. Additionally, to the extent that CDD projects are manipulated and misused by local elites, they may be more of a political liability than an asset. See Mansuri and Rao 2004.

\textsuperscript{44} Böhnke and Zürcher 2013. Descriptive evidence also suggests state legitimacy increased substantially after fifteen years of CDD project implementation under the auspices of the National Solidarity Program. See Böhnke et al. 2017.
legitimacy are small and short-lived.\textsuperscript{45}

However, a major blind spot in the literature is that not all CDD projects are equally responsive to citizen needs in all of the locations where they are active. Some disproportionately benefit wealthier, better-educated, and more politically connected individuals.\textsuperscript{46} Others are vulnerable to rent-seeking, predation, and capture by community leaders and local politicians.\textsuperscript{47} By ignoring these sources of treatment heterogeneity and simply classifying communities that receive CDD projects as “treated” and communities that do not receive CDD projects as “untreated,” the existing literature overlooks the possibility that some CDD projects may have stronger state legitimation effects than others.\textsuperscript{48}

Responsiveness to citizen preferences is a source of treatment heterogeneity that merits particularly close attention because a large number of single- and multi-country studies suggest that governments win or lose the loyalty of their citizens based on the actions that they take to deliver public goods and services (i.e. performance legitimacy). Kevin Croke provides evidence that the receipt of insecticide-treated bed nets increased public approval of political leaders in Tanzania, especially in malaria endemic areas where bed nets are needed the most.\textsuperscript{49} Kim Yi Dionne and Jeremy Horowitz find that a large-scale agricultural subsidy program in Malawi increased popular support for the country’s political leaders.\textsuperscript{50} David Evans, Brian Holtemeyer, and Katrina Kosec find that the successful implementation of a cash transfer program in Tanzania increased trust in government institutions.\textsuperscript{51} Gaurav Khanna and Laura Zimmerman provide evidence that suggests a large-scale poverty reduction program in India increased the willingness of beneficiaries to share information with the police.\textsuperscript{52} Margaret Levi and Audrey Sacks analyze household survey data from 18 African countries and find support for the notion of a “fiscal contract” between governor and governed: citizens more often accept the government’s right to tax when they approve of how their governments spend public resources.\textsuperscript{53}

Existing research also suggests that when governments use transparent, predictable, and impartial procedures to make decisions, citizens are more willing to defer to the authority of the state and voluntarily comply with its rules and regulations.\textsuperscript{54} This is known as procedural legitimacy. Michael Bratton analyzes Afrobarometer survey data from 20 countries and finds that when citizens evaluate the responsiveness of their governments they rely heavily on procedural criteria, such as the public accessibility of budgetary information, citizen participation in decision-making processes, and the effectiveness of complaint handling.\textsuperscript{55} Similarly, Mitchell Seligson examines survey data from 4 Latin American countries and finds that firsthand experiences with public sector corruption—where agents of the state are engaging in unlawful behavior that is observed by citizens—erode regime legitimacy.\textsuperscript{56} Tanja Börzel and Thomas Risse argue that, in areas of limited statehood, procedural fairness in local governance must be

\textsuperscript{45} Beath et al. 2015.
\textsuperscript{46} Mansuri and Rao 2013.
\textsuperscript{47} Bardhan 2002; Platteau and Gaspart 2003; Lessmann and Marward 2012.
\textsuperscript{48} There are some important exceptions to this rule – for example, Evans et al. 2019.
\textsuperscript{49} Croke 2017.
\textsuperscript{50} Dionne and Horowitz 2016.
\textsuperscript{51} Evans et al. 2019. Similarly, Lyall et al. (2017) provide evidence that a cash transfer program in Afghanistan increased support for the central government, particularly when it was implemented alongside a vocational training program. Lyall and Wolfe (2018) argue that “[c]ash transfers provide an immediate, tangible, signal of the government’s relative effectiveness, helping to bind together the individual and her preferences for order with a weak government that is struggling to establish its legitimacy.”
\textsuperscript{52} Khanna and Zimmerman 2017. On the relationship between state-building and information gathering, see Lee and Zhang 2017.
\textsuperscript{53} Levi and Sacks 2009.
\textsuperscript{54} Levi 1997; Tyler 2001, 2006; Grimes 2006; Rothstein and Teorell 2008.
\textsuperscript{55} Bratton 2012.
\textsuperscript{56} Seligson 2002.
attained before the central government can win the loyalty of its citizens: “[t]he more [local] governance services are provided in an impartial and procedurally fair way, the more they help generate and maintain generalized trust as an enabling condition for the upscaling of governance—even in the absence of functioning state institutions.”

Performance and procedural legitimacy can also work synergistically. David Evans, Brian Holtemeyer, and Katrina Kosec find that the trust-enhancing effects of a government-sponsored cash transfer program accrued disproportionately in those places where village leaders spent more time and effort sharing information about local government decisions and actions and providing opportunities for village residents to articulate their concerns and preferences.

In summary, the creation of formal institutions that are designed to increase responsiveness to citizen preferences provide an opportunity for the state to earn performance and procedural legitimacy. However, not all CDD projects are equally responsive to citizen preferences. CDD projects that are more responsive to citizen preferences for development projects should be more effective at increasing state legitimacy.

Hypothesis 1 (H1): Higher levels of CDD project responsiveness to local development project preferences lead to higher levels of state legitimacy.

A growing body of literature also suggests that the relationship between responsiveness to citizen preferences and legitimacy may be non-linear. More responsive states generally enjoy more popular legitimacy, but how the process of legitimation unfolds over time also matters: as responsiveness increases, citizen expectations of and demands on the state tend to increase, thereby placing a heavier burden on the state. Therefore, if the state has a fixed level of capacity to respond to citizens, the state legitimation returns on “responsive aid” provision may attenuate soon after the state initially demonstrates its willingness and ability to be responsive.

Fredrik Sjoberg, Jonathan Mellon, and Tiago Peixoto provide evidence that when an individual files a complaint through the “Fix My Street” online platform in the United Kingdom and local authorities address that complaint, the complainant is 57% more likely to submit a second complaint. In a field experiment implemented in collaboration with city officials in Buenos Aires, Laura Trucco finds that government responses to requests by citizens to repair sidewalks crowd in new complainants. Similarly, Mark Buntaine, Daniel Nielson, and Jacob Skaggs designed and administered a field experiment in collaboration with the Kampala Capital City Authority (KCCA) in Uganda and found that when the KCCA respond to solid waste reports (complaints) filed by citizen reporters, a new set of citizen reporters come forward to file complaints of their own.

All of this suggests that as governments respond to more citizen requests, other citizens will be encouraged to make their own requests, and test whether the authorities can deliver results. These tests represent opportunities for the government to win the allegiance of its constituents, but if citizen demands overwhelm capacity, the government runs the risk of losing (or not gaining) legitimacy.

57 Börzel and Risse 2015, 8. Jochem et al. 2016 and Beath et al. 2017 provide evidence that procedural fairness reforms have improved the quality of local governance in Afghanistan.
58 Evans et al. 2019.
59 In principle, CDCs should contribute to performance legitimacy if they are delivering public goods and services that reflect the collective preference of local residents, and they should contribute to procedural legitimacy if decisions are being made in a consultative, transparent, and principled manner.
64 Similarly, Tsai 2015 argues that in transitional and nondemocratic systems (where lodging a formal complaint with
Hypothesis 2 (H2): Responsiveness to local needs and demands will help the state gain legitimacy up until a point, but as citizens’ expectations of government rise, the state legitimation effects of responsiveness will attenuate.

In the next section, we will describe how we test these expectations by measuring varying levels of CDD responsiveness to citizen preferences across villages, sectors, and time. Our aim is to isolate the state legitimacy impacts of “responsive aid,” as opposed to measuring the state legitimacy impacts of CDD projects (which have many components and goals, of which one is responding to citizen needs and demands).

Research Design

To test our hypotheses, we evaluate one of the largest CDD projects ever implemented: the National Solidarity Program (NSP) in Afghanistan.\textsuperscript{65} Between 2002 and 2017, Afghanistan’s Ministry for Rural Rehabilitation and Development (MRRD) oversaw the implementation of the NSP with generous financial support from a multi-donor trust fund. The purpose of this program was to increase community participation in local decision-making processes, improve public service delivery at the local level, reduce poverty, and strengthen public confidence in government institutions. To achieve these objectives, the NSP provided block grants of up to $60,000 to villages with 25-300 families. It also introduced village-level governance institutions called Community Development Councils (CDCs) tasked with selecting and designing development projects for their village in consultation with residents. To this end, each village was divided into “clusters” of 5-20 families and each cluster elected a man and a woman to represent them at the CDC (via secret ballot and universal suffrage).\textsuperscript{66} The national rollout of the NSP took place in three phases. The first two phases of NSP ran from 2002 to 2010, supported 52,000 projects in 22,000 villages, and cost $1.2 billion. The third phase of NSP, which cost $1.4 billion and ran from 2011 to 2017, extended coverage to Afghanistan’s 16,000 remaining villages. In total, more than 86,000 “sub-projects” were implemented at the village-level by the end of the program’s third phase. The vast majority of these sub-projects supported road construction and maintenance, irrigation infrastructure, water supply and sanitation infrastructure, and electricity production and transmission. A smaller share of these sub-projects supported literacy courses, vocational training, school construction, and agricultural interventions.

Between 2002 and 2017, Afghanistan’s Ministry for Rural Rehabilitation and Development (MRRD) oversaw the implementation of the NSP with generous financial support from a multi-donor trust fund. The purpose of this program was to increase community participation in local decision-making processes, improve public service delivery at the local level, reduce poverty, and strengthen public confidence in government institutions. To achieve these objectives, the NSP provided block grants of up to $60,000 to villages with 25-300 families. It also introduced village-level governance institutions called Community Development Councils (CDCs) tasked with selecting and designing development projects for their village in consultation with residents. To this end, each village was divided into “clusters” of 5-20 families and each cluster elected a man and a woman to represent them at the CDC (via secret ballot and universal suffrage). The national rollout of the NSP took place in three phases. The first two phases of NSP ran from 2002 to 2010, supported 52,000 projects in 22,000 villages, and cost $1.2 billion. The third phase of NSP, which cost $1.4 billion and ran from 2011 to 2017, extended coverage to Afghanistan’s 16,000 remaining villages. In total, more than 86,000 “sub-projects” were implemented at the village-level by the end of the program’s third phase. The vast majority of these sub-projects supported road construction and maintenance, irrigation infrastructure, water supply and sanitation infrastructure, and electricity production and transmission. A smaller share of these sub-projects supported literacy courses, vocational training, school construction, and agricultural interventions.

In the next section, we will describe how we test these expectations by measuring varying levels of CDD responsiveness to citizen preferences across villages, sectors, and time. Our aim is to isolate the state legitimacy impacts of “responsive aid,” as opposed to measuring the state legitimacy impacts of CDD projects (which have many components and goals, of which one is responding to citizen needs and demands).

Research Design

To test our hypotheses, we evaluate one of the largest CDD projects ever implemented: the National Solidarity Program (NSP) in Afghanistan. Between 2002 and 2017, Afghanistan’s Ministry for Rural Rehabilitation and Development (MRRD) oversaw the implementation of the NSP with generous financial support from a multi-donor trust fund. The purpose of this program was to increase community participation in local decision-making processes, improve public service delivery at the local level, reduce poverty, and strengthen public confidence in government institutions. To achieve these objectives, the NSP provided block grants of up to $60,000 to villages with 25-300 families. It also introduced village-level governance institutions called Community Development Councils (CDCs) tasked with selecting and designing development projects for their village in consultation with residents. To this end, each village was divided into “clusters” of 5-20 families and each cluster elected a man and a woman to represent them at the CDC (via secret ballot and universal suffrage). The national rollout of the NSP took place in three phases. The first two phases of NSP ran from 2002 to 2010, supported 52,000 projects in 22,000 villages, and cost $1.2 billion. The third phase of NSP, which cost $1.4 billion and ran from 2011 to 2017, extended coverage to Afghanistan’s 16,000 remaining villages. In total, more than 86,000 “sub-projects” were implemented at the village-level by the end of the program’s third phase. The vast majority of these sub-projects supported road construction and maintenance, irrigation infrastructure, water supply and sanitation infrastructure, and electricity production and transmission. A smaller share of these sub-projects supported literacy courses, vocational training, school construction, and agricultural interventions.

Hypothesis 2 (H2): Responsiveness to local needs and demands will help the state gain legitimacy up until a point, but as citizens’ expectations of government rise, the state legitimation effects of responsiveness will attenuate.

In the next section, we will describe how we test these expectations by measuring varying levels of CDD responsiveness to citizen preferences across villages, sectors, and time. Our aim is to isolate the state legitimacy impacts of “responsive aid,” as opposed to measuring the state legitimacy impacts of CDD projects (which have many components and goals, of which one is responding to citizen needs and demands).

Research Design

To test our hypotheses, we evaluate one of the largest CDD projects ever implemented: the National Solidarity Program (NSP) in Afghanistan.\textsuperscript{65} Between 2002 and 2017, Afghanistan’s Ministry for Rural Rehabilitation and Development (MRRD) oversaw the implementation of the NSP with generous financial support from a multi-donor trust fund. The purpose of this program was to increase community participation in local decision-making processes, improve public service delivery at the local level, reduce poverty, and strengthen public confidence in government institutions. To achieve these objectives, the NSP provided block grants of up to $60,000 to villages with 25-300 families. It also introduced village-level governance institutions called Community Development Councils (CDCs) tasked with selecting and designing development projects for their village in consultation with residents. To this end, each village was divided into “clusters” of 5-20 families and each cluster elected a man and a woman to represent them at the CDC (via secret ballot and universal suffrage).\textsuperscript{66} The national rollout of the NSP took place in three phases. The first two phases of NSP ran from 2002 to 2010, supported 52,000 projects in 22,000 villages, and cost $1.2 billion. The third phase of NSP, which cost $1.4 billion and ran from 2011 to 2017, extended coverage to Afghanistan’s 16,000 remaining villages. In total, more than 86,000 “sub-projects” were implemented at the village-level by the end of the program’s third phase. The vast majority of these sub-projects supported road construction and maintenance, irrigation infrastructure, water supply and sanitation infrastructure, and electricity production and transmission. A smaller share of these sub-projects supported literacy courses, vocational training, school construction, and agricultural interventions.

The economic, social, and governance impacts of the NSP have been rigorously evaluated with experimental, quasi-experimental, and qualitative methods. See Barakat et al. 2006; Beath et al. 2015, 2017; Komorowska 2016. However, none of these studies account for the fact that NSP sub-projects demonstrate widely varying levels of responsiveness to citizen preferences. We measure responsiveness to citizen preferences across villages, sectors, and time and isolate the state legitimation effects of responsiveness to citizen needs and requests.

The NSP website notes that the primary purpose of the program is to “develop the ability of Afghan communities to identify, plan, manage and monitor their own development projects.” Each CDC has four elected members: a chairperson, vice-chairperson, secretary, and treasurer. The CDC is a decision-making body and it is in many cases supported by a project management committee and a procurement committee. CDCs and their subsidiary committees are responsible for identifying village-level development priorities and plans in consultation with local residents, developing and vetting project proposals according to appraisal criteria, overseeing the procurement of goods and services, supervising and monitoring project implementation, managing and accounting for NSP block grants, and developing and implementing operations and maintenance (O&M) plans to support the long-run sustainability of projects. According to Barakat (2009, 121), “[t]he NSP is, at its core, a long-term governance project masquerading as a quick-impact, infrastructure-improvement initiative.”
Data and Methods

Between 2012 and 2014, USAID funded the implementation of a village-level, panel survey in 5,093 Afghan villages. The Measuring Impact of Stability Initiatives (MISTI) survey was implemented in five waves: the first wave was undertaken between September and December 2012; the second wave was undertaken between May and August 2013; the third wave was undertaken between November 2013 and January 2014; the fourth wave was undertaken between April and June 2014; and the fifth wave was undertaken between September and November 2014. Many, but not all, villages participated in multiple waves of the survey. Figure 1 provides a visual representation of the distribution of the MISTI survey across villages and waves. The survey contains a variety of questions that are relevant for testing our hypotheses, as we describe below. Our analysis aggregates individual responses in each survey wave up to village level so that our units of analysis are village-waves.

Figure 1: Distribution of MISTI Survey Village-Waves

Independent variable. To calculate a measure of aid responsiveness, we combine information about survey participants’ reported preferences for future development projects (“desired aid”) in $t_0$ and the projects that they actually witnessed in their villages (“observed aid”) in $t_1$. Survey respondents were asked (in Question 17b) if they had seen or heard of 9 specific types of development projects in their local area: roads and bridges, electricity, drinking water, schools, medical facilities, irrigation and water maintenance systems, retaining and flood walls, agricultural assistance (in the form of seed fertilizer and equipment), and farm produce processing or storage facilities. They were also asked to identify in an open-ended question (Question 18a) the types of development projects that believed were most needed in their local communities. These open-ended responses were subsequently coded into 72 development project types by the MISTI survey research team. Therefore, to facilitate comparison, we first map “desired aid” project types to the fixed list of “observed aid” project types. For each village-wave, we determine whether or not anyone in a village at $t_0$ reported a given type of development project as being desirable. We then carry out the same set of calculations to

---

67 USAID 2015a.
68 Given the sequencing and duration of the MISTI survey waves, the amount of time that elapsed between $t_0$ and $t_1$ was usually 6-12 months.
69 They were also asked (in Question 17c) if they believed that those specific projects had improved life for people in their communities.
70 The details of this mapping procedure appear in the Online Appendix.
develop a measure of observed aid in the same village at $t_1$. For each village, we identify all types of development projects that were reported as desired aid in $t_0$ and calculate the proportion of these project types that were observed between $t_0$ and $t_1$ as reported at time $t_1$. This procedure generates a measure of aid responsiveness that varies between 0 and 100, with 0 indicating aid that is not responsive to citizen preferences and 100 indicating aid is highly responsive to citizen preferences.\footnote{For example, if all 9 types of development projects were desired by at least one resident of a given village (the average number of residents surveyed per village is just over 15) during the first wave of the survey, but only 6 types of development projects were reported observed (taking into account the observations of any and all residents) in that village during the second wave of the survey, the aid responsiveness score is (approximately) 0.66. If all 9 types of development projects were observed during the second wave of the survey the aid responsiveness score is 1, and if none were observed, the aid responsiveness score is 0.}

An important caveat is that we do not know that all of the projects observed by respondents were NSP sub-projects. However, NSP was by far the largest, village-level development program in Afghanistan between 2002 and 2017.\footnote{Beath et al. 2015, 2017.} According to the lead evaluator of the NSP’s mid-term evaluation, few people at the village level were aware of any development projects other than those supported through the NSP.\footnote{Barakat et al. 2009, 121. Böhnke et al. (2013, 416) provide evidence that, on average, each village in Afghanistan had 2-3 development projects underway between 2005 and 2009. According to Question 17b (or Question 20b for Waves 2-5) from the MISTI survey, the average respondent was aware of 2.02 active development projects in his or her village between 2012 and 2014. Administrative data from the MRRD reveal that, on average, each village received 2.12 NSP sub-projects between 2005 and 2009 and 1.49 NSP sub-projects between 2012 and 2014. These summary statistics suggest that the vast majority of village-level development projects during our period of study were NSP sub-projects.} Therefore, it seems reasonable to assume that the vast majority of the projects that citizens evaluated in the MISTI panel survey were NSP sub-projects selected and managed by village CDCs.

**Outcome Data.** We use several different measures from the MISTI survey to measure state legitimacy. First, we measure the percentage of villagers who report that the Afghan government is well regarded in their community (using the data from Question 8). Second, as a proxy for behavioral legitimacy, we measure the percentage of villagers who report that they or their family members who would go to government courts to seek justice in the event of a dispute over land, water, theft, assault, murder, or kidnapping (from Questions 20a, 20b, and 20c). Finally, to account for the fact that Afghan citizens might initially form opinions about their government based on their interactions with local officials and these interactions might in turn influence the way that they assess higher levels of government administration, we use three parallel measures of public confidence in local village/neighborhood leaders; district governors, and provincial governors (Questions 9a, 9c, and 9d).\footnote{If we identify a consistent set of treatment effects across three different levels of government, one could interpret this pattern as evidence that supports a core hypothesis from Börzel and Risse (2015, 10) regarding the process of legitimation in failed and fragile states: that “good local governance enables the upscaling of governance beyond the local level through the mechanism of generalized trust – even if state institutions are dysfunctional.”}

**Control variables.** We also include a battery of potentially-confounding village-level control variables that could affect the sensitivity of local development projects to citizen preferences and perceptions of state legitimacy. These measures include household income, employment, literacy, and perceived economic security; the accessibility and quality of local public goods and services; levels of awareness of Community Development Councils and District Development Assemblies; perceived local corruption levels and trends; perceived local security levels and trends; the local presence of state and non-state actors; community cohesion, the receptiveness of local leaders to citizen interests, and village capacity for self-governance. These control variables are summarized in Table 1.
Table 1: Variable Names and Descriptions

<table>
<thead>
<tr>
<th>Name in table output</th>
<th>Variable Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment rate</td>
<td>the percentage of respondents who indicated that they had part-time or full-time work</td>
</tr>
<tr>
<td>Perceptions of authority abuse (district)</td>
<td>the percentage of respondents who indicated that district government officials abused their authority to make money for themselves</td>
</tr>
<tr>
<td>Perceived increase in local corruption</td>
<td>the percentage of respondents who indicated that local corruption had increased a little or a lot in the past year</td>
</tr>
<tr>
<td>Average monthly village-level wealth</td>
<td>A twelve-point index(^{75}) of average monthly income (in Afghanis) that households in a given village reported from all sources; lower values represent poorer villages and higher values represent wealthier villages</td>
</tr>
<tr>
<td>Percent not worried about meeting needs</td>
<td>the percentage of respondents who indicated they were not worried about being able to meet their basic needs over the next year</td>
</tr>
<tr>
<td>Pct. indicating can read book</td>
<td>the percentage of respondents who indicated that they could fluently read a book in their native language</td>
</tr>
<tr>
<td>Local receptiveness to citizen interests</td>
<td>the percentage of respondents who indicated that their local leaders sometimes or often consider the interests of ordinary people when making decisions affecting their villages/neighborhoods</td>
</tr>
<tr>
<td>Capacity of village to solve problems</td>
<td>the percentage of respondents who indicated that people from their village can sometimes or often solve problems that arise from inside the village</td>
</tr>
<tr>
<td>Good security</td>
<td>the percentage of respondents who indicated that security in their...</td>
</tr>
</tbody>
</table>

\(^{75}\) This index is calculated by first assigning each household income category an ordinal number between 1 and 12. Then, for each village, the number of households that reported being in a given income category are multiplied by their corresponding ordinal numbers, the products of which are summed for each village across income categories.
<table>
<thead>
<tr>
<th>Description</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvement in security</td>
<td>the percentage of respondents who indicated their local area was somewhat more or much more secure than it was a year ago</td>
</tr>
<tr>
<td>ISAF / Afghan government controls village</td>
<td>a binary measure that assumes a value of 1 if ISAF or Afghan security forces were permanently based in the area (with no reported Taliban activity or presence), and 0 otherwise; variable only takes a value of 1 when all enumerators assigned to the village made this designation</td>
</tr>
<tr>
<td>Taliban controls village</td>
<td>a binary measure that assumes a value of 1 if Taliban forces were permanently based in the area and able to operate freely (with no ISAF or Afghan security force presence or activity), and 0 otherwise; variable only takes a value of 1 when all enumerators assigned to the village made this designation</td>
</tr>
<tr>
<td>Arbaki controls village</td>
<td>a binary measure that assumes a value of 1 if Arbaki control the village, and 0 otherwise; variable only takes a value of 1 when all enumerators assigned to the village made this designation</td>
</tr>
<tr>
<td>Pct. indicating presence of DDA</td>
<td>percentage of respondents who indicated that they were aware of a District Development Assembly in their district</td>
</tr>
<tr>
<td>Pct. indicating presence of CDC</td>
<td>percentage of respondents who indicated that they were aware of a Community Development Council in their area</td>
</tr>
<tr>
<td>Village infrastructure quality (interviewer assess.)</td>
<td>a five-point measure of the accessibility and quality of three public goods and services (roads, water, and electricity)(^{76}); calculated using the average score assigned by all enumerators in a given village</td>
</tr>
<tr>
<td>Community cohesion</td>
<td>the percentage of respondents who indicated that their</td>
</tr>
<tr>
<td>Types of aid desired</td>
<td>Number of types of aid that</td>
</tr>
</tbody>
</table>

\(^{76}\) Higher values indicate more accessible and higher quality public goods and services.
Statistical model. To evaluate the state legitimation effects of responsive aid, we use fixed-effects panel estimation to effectively isolate within-village differences in state legitimacy that are related to our measure of treatment (the responsiveness of village-level development projects to citizen preferences). We control for two sets of fixed effects: village fixed effects that account for time-invariant unobservable factors across villages, and time-period-fixed effects that account for time period-specific factors. We estimate heteroskedasticity-consistent two-way clustered standard errors (clustered by village and quarter) to capture village-specific and time-period-specific correlations. Our baseline model can be expressed as:

\[
\text{Legitimacy}_{it} = \beta \text{Responsiveness}_{it} + \alpha^T \mathbf{X}_{it} + \sum_{i=1}^{N} v_i \delta_i + \sum_{t=1}^{W} w_t \lambda_t + \epsilon_{it},
\]

where \( i \) denotes villages and \( t \) denotes the survey wave. \( \beta \) is the marginal effect of aid responsiveness on perceived government legitimacy at the village-wave level. \( \alpha \) is a vector of partial effects for a matrix of village-wave-level control variable measures denoted by \( \mathbf{X}_{it} \). Here \( \delta_i \) denotes unmeasured time-invariant determinants of government legitimacy in village \( i \), and \( v_i \) denotes an indicator for village \( i \) that takes a value of 1 for village \( i \) and 0 otherwise. \( \lambda_t \) denotes unmeasured effects on government legitimacy common to all villages during wave \( t \) with indicators for wave \( t \) denoted by \( w_t \). The term \( \epsilon_{it} \) denotes all unmeasured idiosyncratic factors that affect the perceived legitimacy of the Afghan government in village \( i \) during wave \( t \).

Results

In Table 2, we report results from five baseline models that control for village fixed effects and survey wave fixed effects. The point estimates on our treatment variable (Responsiveness) are positive and statistically distinguishable from zero (at either a 90% or 99% confidence level) in three out of five models: aid responsiveness appears to improve perceptions of the district government, provincial government, and national government.\(^{77}\) Across all models, the estimated coefficient for the aid responsiveness measure (Responsiveness) is positive, which is broadly consistent with our theoretical expectation that greater responsiveness to citizen preferences in aid provision should increase the legitimacy of the state.

However, when we build upon these baseline models by controlling for a battery of village characteristics (models 1-5 in Table 3), we observe some non-trivial differences in the results.\(^{78}\) In three of the five models, the treatment variable enters the equation as positive and statistically significant. But treatment does not improve the same set of outcomes. Higher levels of aid responsiveness boost public confidence in local and district government, and increase the probability that villagers will report that they are willing to use government courts to resolve disputes. Yet higher levels of aid responsiveness do not result in greater public confidence in provincial or national government, which suggests that social contracts between citizens and their leaders may be complementary at lower levels of representation (neighborhood/village and district government) but not at higher levels of representation (provincial and national government).

---

\(^{77}\) The only difference across these 5 models is the outcome measure used to measure state legitimacy.

\(^{78}\) Across these models, several of our control variables consistently reach conventional levels of statistical significance: perceived levels of corruption, perceived security levels and trends, and village control by non-state actors (the Taliban and Arbaki).
government).

The models reported in Table 3 also include a quadratic term for the treatment variable, and in three of the five models, this quadratic term registers a negative and statistically significant effect, which suggests that responsive aid increases state legitimacy but with diminishing returns at higher levels of responsiveness. In the model of public confidence in of national government, however, the base term and squared term are negative in sign and not statistically significant. This result contrasts with the results in Table 2, which suggested a (weakly) positive relationship between aid responsiveness and the legitimacy of the national government.

**Table 2. Aid responsiveness and government legitimacy (no controls)**

<table>
<thead>
<tr>
<th></th>
<th>Local leaders (1)</th>
<th>District government (2)</th>
<th>Provincial government (3)</th>
<th>Government court legitimacy (4)</th>
<th>National government (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsiveness</td>
<td>0.010</td>
<td>0.045**</td>
<td>0.033***</td>
<td>0.041</td>
<td>0.028*</td>
</tr>
<tr>
<td></td>
<td>(0.019)</td>
<td>(0.010)</td>
<td>(0.011)</td>
<td>(0.026)</td>
<td>(0.017)</td>
</tr>
<tr>
<td>Village FEs</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Wave FEs</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>N. villages</td>
<td>2840</td>
<td>2840</td>
<td>2840</td>
<td>2840</td>
<td>2840</td>
</tr>
<tr>
<td>Observations</td>
<td>6,155</td>
<td>6,155</td>
<td>6,155</td>
<td>6,155</td>
<td>6,155</td>
</tr>
</tbody>
</table>

*p<0.10; **p<0.5; ***p<0.01
Two-tailed tests. Two-way clustered estimated standard errors (by village and survey wave) in parentheses.

In summary, the results in Tables 2 and 3 broadly support H1 and H2, though mainly at the most local levels of government. They suggest that responsive aid increases the legitimacy of the state but the externally-aided process of state legitimation is non-linear. In Figure 2, we display the estimated coefficient for Responsiveness across the range of the variable along with its 95% confidence interval. In Models 1 and 2, where the outcome variables measure confidence in local government and district government, respectively, the estimated coefficient is positive and statistically distinguishable from zero only at low levels of responsiveness, eventually becoming negative and statistically significant at higher levels of treatment. This pattern of evidence is consistent with the notion that once local/district government demonstrates its willingness and ability to respond to citizen preferences (thereby dislodging pre-existing beliefs about the state’s right to rule), public expectations will rise, and if local/district government is unable to meet these rising expectations, it will be increasingly difficult for the authorities to continue gaining popular legitimacy.

**Robustness Checks**

79 Note that there are government courts in every Afghan district. Therefore, responses to the survey questions about willingness to resolve disputes through government courts likely reflect willingness to resolve disputes through district government courts.

80 This pattern is also present in Models 3 and 4, though it is not statistically significant in Model 3 and is only statistically significant at the 90% confidence level in Model 4 (90% confidence interval not shown).
The results in the previous section provide empirical support for the notion that responsiveness to citizen preferences in aid provision increase state legitimacy, but only at certain levels of representation. In particular, local leaders and district governments tend to enjoy greater legitimacy when aid is more responsive to their constituents. Yet this relationship attenuates at higher levels of responsiveness. It is only at relatively low levels of responsiveness that treatment tends to boost state legitimacy.

Table 3. Aid responsiveness and government legitimacy (controls)

<table>
<thead>
<tr>
<th>Dependent variable:</th>
<th>Local Leaders</th>
<th>District government</th>
<th>Provincial government</th>
<th>Government court legitimacy</th>
<th>National government</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>0.146***</td>
<td>0.137***</td>
<td>0.028</td>
<td>0.079*</td>
<td>-0.014</td>
</tr>
<tr>
<td></td>
<td>(0.039)</td>
<td>(0.040)</td>
<td>(0.041)</td>
<td>(0.046)</td>
<td>(0.037)</td>
</tr>
<tr>
<td>Responsiveness squared</td>
<td>-0.002***</td>
<td>-0.001***</td>
<td>-0.0002</td>
<td>-0.001**</td>
<td>-0.0002</td>
</tr>
<tr>
<td></td>
<td>(0.0004)</td>
<td>(0.0004)</td>
<td>(0.0003)</td>
<td>(0.0004)</td>
<td>(0.0003)</td>
</tr>
<tr>
<td>Employment rate</td>
<td>-0.005</td>
<td>-0.014</td>
<td>-0.005</td>
<td>0.022</td>
<td>-0.005</td>
</tr>
<tr>
<td></td>
<td>(0.023)</td>
<td>(0.020)</td>
<td>(0.020)</td>
<td>(0.026)</td>
<td>(0.031)</td>
</tr>
<tr>
<td>Perceptions of authority abuse (district)</td>
<td>-0.033**</td>
<td>-0.061***</td>
<td>-0.113***</td>
<td>-0.076***</td>
<td>-0.027</td>
</tr>
<tr>
<td></td>
<td>(0.017)</td>
<td>(0.019)</td>
<td>(0.018)</td>
<td>(0.028)</td>
<td>(0.026)</td>
</tr>
<tr>
<td>Perceived increase in local corruption</td>
<td>-0.016</td>
<td>-0.046***</td>
<td>0.006</td>
<td>-0.076***</td>
<td>0.006</td>
</tr>
<tr>
<td></td>
<td>(0.032)</td>
<td>(0.016)</td>
<td>(0.011)</td>
<td>(0.014)</td>
<td>(0.011)</td>
</tr>
<tr>
<td>Average monthly village-level wealth</td>
<td>1.145**</td>
<td>-0.784</td>
<td>-0.236</td>
<td>0.003</td>
<td>-0.036</td>
</tr>
<tr>
<td></td>
<td>(0.549)</td>
<td>(0.537)</td>
<td>(0.168)</td>
<td>(0.538)</td>
<td>(0.815)</td>
</tr>
<tr>
<td>Percent not worried about meeting needs</td>
<td>-0.018</td>
<td>0.092***</td>
<td>-0.013</td>
<td>-0.068***</td>
<td>0.075***</td>
</tr>
<tr>
<td></td>
<td>(0.020)</td>
<td>(0.020)</td>
<td>(0.018)</td>
<td>(0.020)</td>
<td>(0.018)</td>
</tr>
<tr>
<td>Pct. indicating can read book</td>
<td>-0.001</td>
<td>0.032**</td>
<td>0.052***</td>
<td>0.020</td>
<td>0.113***</td>
</tr>
<tr>
<td></td>
<td>(0.018)</td>
<td>(0.018)</td>
<td>(0.017)</td>
<td>(0.019)</td>
<td>(0.033)</td>
</tr>
<tr>
<td>Local receptiveness to citizen interests</td>
<td>0.125***</td>
<td>-0.023</td>
<td>0.004</td>
<td>0.030</td>
<td>0.070**</td>
</tr>
<tr>
<td></td>
<td>(0.017)</td>
<td>(0.017)</td>
<td>(0.015)</td>
<td>(0.025)</td>
<td>(0.028)</td>
</tr>
<tr>
<td>Good security</td>
<td>0.077**</td>
<td>0.068***</td>
<td>0.112***</td>
<td>0.126***</td>
<td>0.135***</td>
</tr>
<tr>
<td></td>
<td>(0.031)</td>
<td>(0.019)</td>
<td>(0.017)</td>
<td>(0.039)</td>
<td>(0.021)</td>
</tr>
<tr>
<td>Improvement in security</td>
<td>0.092***</td>
<td>0.244***</td>
<td>0.095***</td>
<td>0.167***</td>
<td>0.140***</td>
</tr>
<tr>
<td></td>
<td>(0.022)</td>
<td>(0.020)</td>
<td>(0.017)</td>
<td>(0.015)</td>
<td>(0.020)</td>
</tr>
<tr>
<td>Capacity of village to solve problems</td>
<td>0.183***</td>
<td>0.064***</td>
<td>-0.004</td>
<td>0.011</td>
<td>0.113***</td>
</tr>
<tr>
<td></td>
<td>(0.038)</td>
<td>(0.020)</td>
<td>(0.020)</td>
<td>(0.074)</td>
<td>(0.032)</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>ISAF / Afghan controls village</td>
<td>0.002</td>
<td>0.470</td>
<td>3.477</td>
<td>0.007</td>
<td>4.044***</td>
</tr>
<tr>
<td></td>
<td>(1.510)</td>
<td>(3.168)</td>
<td>(2.796)</td>
<td>(1.823)</td>
<td>(1.179)</td>
</tr>
<tr>
<td>Taliban controls village</td>
<td>-3.571</td>
<td>-3.543***</td>
<td>-1.308</td>
<td>-4.739**</td>
<td>2.467**</td>
</tr>
<tr>
<td>(2.410)</td>
<td>(1.072)</td>
<td>(0.830)</td>
<td>(2.331)</td>
<td>(1.205)</td>
<td></td>
</tr>
<tr>
<td>Arbaki controls village</td>
<td>3.130</td>
<td>1.400</td>
<td>5.500***</td>
<td>3.544**</td>
<td>2.792</td>
</tr>
<tr>
<td>Community cohesion</td>
<td>(2.158)</td>
<td>(2.101)</td>
<td>(1.254)</td>
<td>(1.523)</td>
<td>(1.710)</td>
</tr>
<tr>
<td></td>
<td>(0.039)</td>
<td>(0.024)</td>
<td>(0.018)</td>
<td>(0.042)</td>
<td>(0.025)</td>
</tr>
<tr>
<td></td>
<td>-0.033</td>
<td>-0.073***</td>
<td>0.026</td>
<td>0.017</td>
<td>-0.099***</td>
</tr>
<tr>
<td>Pct. indicating presence of CDC</td>
<td>0.069**</td>
<td>-0.056***</td>
<td>0.010</td>
<td>-0.021</td>
<td>0.063***</td>
</tr>
<tr>
<td>(0.030)</td>
<td>(0.015)</td>
<td>(0.013)</td>
<td>(0.019)</td>
<td>(0.020)</td>
<td></td>
</tr>
<tr>
<td>Pct. indicating presence of DDA</td>
<td>0.017</td>
<td>0.079***</td>
<td>-0.011</td>
<td>0.098***</td>
<td>0.149***</td>
</tr>
<tr>
<td>(0.017)</td>
<td>(0.017)</td>
<td>(0.013)</td>
<td>(0.035)</td>
<td>(0.024)</td>
<td></td>
</tr>
<tr>
<td>Types of aid desired</td>
<td>-0.106</td>
<td>-0.197</td>
<td>-0.577**</td>
<td>0.765**</td>
<td>0.147</td>
</tr>
<tr>
<td></td>
<td>(0.336)</td>
<td>(0.214)</td>
<td>(0.341)</td>
<td>(0.375)</td>
<td>(0.324)</td>
</tr>
<tr>
<td>Village infrastructure quality</td>
<td>0.934</td>
<td>0.573</td>
<td>1.127***</td>
<td>0.563</td>
<td>-0.826</td>
</tr>
<tr>
<td>(interviewer assess.)</td>
<td>(0.661)</td>
<td>(1.048)</td>
<td>(0.409)</td>
<td>(1.004)</td>
<td>(0.675)</td>
</tr>
</tbody>
</table>

| Village FEs                         | Y       | Y       | Y       | Y       | Y       |
| Wave FEs                            | Y       | Y       | Y       | Y       | Y       |
| N. villages                         | 2604    | 2604    | 2604    | 2604    | 2604    |
| Observations                         | 5,001   | 5,001   | 5,001   | 5,001   | 5,001   |

* p<0.1; ** p<0.05; *** p<0.01

Two-tailed tests. Two-way clustered estimated standard errors (by village and survey wave) in parentheses.
Figure 2. Marginal effects of aid responsiveness across range of starting values

Note: The solid line indicates the estimated coefficient for the aid responsiveness variable conditional on the base value of aid responsiveness. The shaded region indicates the 95% confidence interval around the estimates. The darker shaded area indicates the region corresponding to 2 standard deviations below the mean level of aid responsiveness (6.6%) to 2 standard deviations above (100%). The mean level of aid responsiveness is 68.3%.

We present a variety of robustness tests in the Online Appendix. We address potential concerns about imprecision in the measurement of our key causal variable, which may bias our estimate of responsive aid impact, in two ways. First, we implement an alternative method of measuring aid responsiveness—by implementing a one-to-many method of mapping observed aid to desired aid rather than a one-to-one method—and we rerun our models with this different measure of treatment (see Section 1 in the Online Appendix). Second, instead of constructing novel indicators of aid responsiveness that attempt to measure the “distance” between what Afghan villagers said they wanted and what they actually got, we use a direct measure of perceived CDC responsiveness from the MISTI survey and re-estimate our models with this measure of treatment. When we rerun our panel models with the linear and quadratic terms of our treatment variable and all of the same control variables included in Table 3, we still find empirical support for H1 and H2. The linear and quadratic terms of the treatment variable are positive and negative, respectively, and statistically distinguishable from zero in most model

81 Imai and Yamamoto 2010.
82 More specifically, we used Question 13c from the MISTI panel survey, which asked respondents: “How responsive do you think your Community Development Council is to the needs of the local people in this area? Is it very responsive, somewhat responsive, somewhat unresponsive, or very unresponsive?” CDCs were supposed to select, design and manage development projects at the village level, so it is reasonable to assume that respondent evaluations of CDC responsiveness were based heavily on the degree to which CDCs were perceived as discharging this core function in a fair and effective manner.
specifications. These robustness checks are reported in Section 2 of the Online Appendix.

To address this possibility that some control variables might be influenced by the responsiveness of aid, we follow the recommendation of Joshua Angrist and Jörn-Steffen Pischke and rerun our models without these “bad controls.” These include employment, literacy, household income, perceived economic security, and the quality of local infrastructure (see Section 3 in the Online Appendix). The results are similar to those in the main text, though they weaken for the model of district government legitimacy.

There is also the possibility of selection bias if state legitimacy increases even in the absence of responsive aid and if unobserved factors affect both the receipt of responsive aid and state legitimacy. To address the possibility that not all villages have the same probability of receiving responsive aid, we divide our sample into two cohorts: villages that received scores of 100 on the responsiveness variable (indicating that respondents from the village got all of the types of aid that they desired) and villages that did not and implement a matching strategy. We re-estimate our panel models with a subsample of matched village pairs, which is broadly analogous to a matched difference-in-differences estimation strategy. Our main results remain intact (see Section 4 in the Online Appendix).

Finally, to test the robustness of our finding that the state legitimation impacts on responsive aid are conditional upon the baseline expectations of citizens, we report results from a set of supplementary models that interact our primary measure of treatment (from Table 3) with several different variables that proxy for the baseline expectations of citizens. These variables include literacy (as measured by respondents’ self-reported ability to fluently read a book in their native language), access to information (as captured by the percentage of respondents who indicated that they get news from television), the quality and accessibility of local public goods and services (as reported by survey enumerators), and physical distance from Kabul (in hundreds of kilometers). The results from these models are broadly consistent with the evidence that we report in Table 3 of a non-linear relationship between aid responsiveness and state legitimation. For several of our outcome measures, we find that aid responsiveness is positively associated with state legitimation at lower levels of responsiveness. However, this conditional effect attenuates at higher doses of treatment and eventually turns negative. The results from these supplementary models are reported in their entirety in the Online Appendix.

Conclusion

In 2004, the World Development Report (WDR) proposed “putting poor people at the center of service provision: enabling them to monitor and discipline service providers, amplifying their voice in policymaking, and strengthening the incentives for service providers to serve the poor.” It also emphasized that the intended beneficiaries of aid and public expenditure should be able to monitor and hold accountable their service providers.

Over the last fifteen years, this notion that the feedback loop between aid providers, governments, and their nominal beneficiaries is broken and needs to be fixed has gained wide currency among bilateral and multilateral development finance institutions. Western military

---

83 Angrist and Pischke 2008.
84 Roughly 30% of the villages in the sample registered scores of 1 on our primary measure of aid responsiveness, so this dichotomization procedure leaves many observations.
85 World Bank 2003, 1.
86 In 2014, the World Bank rolled out a “Strategic Framework for Mainstreaming Citizen Engagement in Operations” and announced that it would include beneficiary feedback mechanisms in all of its IDA and IBRD investment projects by 2018. In 2015, USAID followed suit and released a Vision for Ending Extreme Poverty, which declared that “our efforts need to focus on the priorities that partner countries and their citizens have identified” and “[t]hrough the use of data and technology—including real-time data on performance and feedback from citizens—we can better measure progress and rapidly respond to a changing world.” Likewise, in 2018, the UK’s Department for International Development (DFID) published a policy paper, announcing that it would “regularly ask those on the ground whether
institutions have also embraced the notion that their counterinsurgency operations should flexibly respond to the needs and expectations of local residents because doing so will strengthen the legitimacy of the host government.\textsuperscript{87}

Yet the consequences of this shift in development and stabilization programming remain under-researched and poorly understood. This study represents an initial attempt to help close this evidence gap. Our findings suggest that the provision of responsive aid strengthens the legitimacy of some state institutions, but not others. We also recover evidence of diminishing returns at higher levels of aid responsiveness. Policymakers and practitioners should consider the results of this study both encouraging and cautionary. A “glass half-full” interpretation of our findings is that even modest improvements in responsiveness to citizen preferences—from low levels of baseline performance—can set in motion the state legitimation process.\textsuperscript{88} However, a “glass half-empty” interpretation is that things will get harder rather than easier for the host government and its external sponsors once the legitimation process is underway. If the authorities succeed in dislodging pre-existing beliefs about the state’s right to rule (by demonstrating their willingness and ability to respond to local needs and requests), citizens’ expectations will almost certainly increase. The general public will begin to expect more of the government, and if the government is unable to meet these rising expectations, it will be increasingly difficult to continue making popular legitimacy gains. Therefore, government officials in failed and fragile states—and their foreign sponsors—should think carefully about whether, when, and how it might be possible to match rising public expectations with a parallel increase in government capacity and readiness to address such expectations.

\textsuperscript{87} See Petraeus 2006; United States Department of the Army 2007, 5-1; Berman et al. 2011; Beath et al. 2016; Lyall et al. 2017.

\textsuperscript{88} In this respect, our findings are very much consistent with U.S. military counterinsurgency doctrine. Recall that U.S. Army Field Manual 3-24 (FM-3-24) states that “[t]he host nation increases its legitimacy ...[by] achieving incremental success in meeting public expectations.” See United States Department of the Army 2007, 5-1, emphasis added.
References


17. Doi: 10.1257/aer.103.3.512.


Brinkerhoff, Derick W., Anna Wetterberg and Erik Wibbels. 2018. Distance, services, and citizen


Dionne, Kim Yi and Jeremy Horowitz. 2016. The Political Effects of Agricultural Subsidies in


Grossman, Guy, Macartan Humphreys, and Gabriella Sacramone-Lutz. 2014. "I wld like


Khanna, Gaurav and Laura Zimmermann. 2017. Guns and Butter? Fighting Violence with the


Van der Windt, Peter, Macartan Humphreys, Lily Medina, Jeffrey F. Timmons, and Maarten Voors. forthcoming. Citizen Attitudes Towards Traditional and State Authorities: Substitutes or Complements? *Comparative Political Studies*.


