Investing in the Fight

Assessing the Use of the Commander's Emergency Response Program in Afghanistan

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Preface

The Commander's Emergency Response Program (CERP) provides local commanders with funds that enable them to assist indigenous populations by providing urgent, small-scale projects and services focused on humanitarian relief and reconstruction. The United States has spent nearly four billion dollars in CERP funds in Afghanistan. This report summarizes the findings of the RAND Corporation's assessment of CERP.

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Summary

This report examines the use of the Commander's Emergency Response Program (CERP) in Afghanistan. It explores the effectiveness of CERP in supporting tactical operations in Afghanistan during the counterinsurgency-focused 2010–2013 time frame using both qualitative and quantitative methods and describes CERP's origins, history, and existing research on the effectiveness of CERP in Iraq and Afghanistan.

The qualitative component of this analysis provides an assessment of CERP from the perspective of its implementers, drawing on semistructured interviews with nearly 200 military officers and noncommissioned officers who designed and implemented CERP projects. These data provide a fine-grain view of the program on the ground, examining projects its implementers thought were successful and those viewed as unsuccessful. Our intent is to understand how and why tactical and operational units used CERP and whether the program achieved its intended effects in the local areas where it was used. Our first two key findings emerge from this qualitative analysis:

1. Tactical operators overwhelmingly believed that CERP was a useful tool, although the execution of CERP in Afghanistan was far from optimal.
2. Projects were more effective in achieving *softer* outcomes—for example, building rapport, enhancing local governance, and security—than in improving infrastructure.

The quantitative analysis then explores the relationship of CERP activity with both population- and coalition-focused outcomes. Our

analysis of population-focused outcomes studies population movements, economic activity, and agricultural activity. The comparable analysis of coalition-focused outcomes focuses on intelligence about enemy activity, attacks involving coalition forces, and coalition freedom of movement. This analysis uses geospatial analytic methods, in which CERP administrative data and detailed data from 400 CERP projects collected in our qualitative data set are linked to outcomes based on highly granular locational information. The inclusion of data on the disposition of U.S. forces allows us to compare the impact of U.S. operations with CERP to those without. Three additional findings emerge from this quantitative analysis:

1. Operations in which CERP was nested improved economic conditions and security for Afghans in the vicinity of those operations.
2. CERP activity was associated with contemporaneous increases in intelligence gathering, coalition freedom of movement, and coalition engagements with the enemy. Areas with CERP saw long-term decreases in enemy engagements.
3. Quantitative estimates of CERP cannot disentangle the independent effect of CERP from the operations in which it is nested.

In the hope of guiding future similar programs, we identify key challenges faced in the execution of CERP, describe CERP's potential value for several different classes of overseas contingency operations, and highlight what the U.S. Department of Defense (DoD) should consider changing about CERP to prepare for its use in these future contingency operations. These recommendations draw from our tactically focused analysis and provide a necessary bottom-up perspective on CERP. We conclude by describing additional steps that DoD could take to prepare CERP for this next contingency.

Background on the Commander's Emergency Response Program

CERP started because of serendipity. In March 2003, in the initial phases of U.S. combat operations in Baghdad, a large quantity of cash—more than $900 million in all—was discovered hidden behind a villa belonging to one of Saddam Hussein's key associates. In April, President George W. Bush issued a memorandum giving DoD the authority to spend such cash to assist Iraqis and support reconstruction efforts. CERP, the name that would be given to this authority in June 2003, was born.

The U.S. Congress began funding CERP in November 2003, authorizing more than $7.8 billion in total spending for this program during fiscal years (FY) 2004 through 2015. This spending included more than $4.1 billion for Iraq and $3.7 billion in Afghanistan; a much smaller $2 million was allocated once for U.S. forces in the Philippines.

CERP allows U.S. operational military commanders to implement projects that both benefit local indigenous populations and support operational military objectives. CERP projects are predominantly small scale, low dollar, and short term, oriented often toward restoring essential services or generating short-term employment, although in some cases CERP has been used to fund larger infrastructure projects. CERP is deliberately flexible and differs substantively from other types of development and humanitarian assistance in that it is designed to support U.S. commanders' objectives in the course of operations.

As the only source of U.S. military financing for projects designed to benefit indigenous populations, CERP funds have been described by DoD as essential to the effectiveness of U.S. stability operations in Iraq and Afghanistan. However, despite a substantial body of evidence exploring the impact of CERP, there is still no consensus judgment about its relationship to U.S. stability operations outcomes.

About This Report

We focus on assessing how CERP was used at the tactical level and the effects that it achieved. Given the flexibility in how CERP could be applied by commanders, we rely on a mixed qualitative-quantitative approach for answering both questions. Qualitative interview data with CERP implementers provides information on how they used CERP, and the effects that they hoped to achieve with CERP. The quantitative data are then used to provide an objective evaluation of whether those effects were achieved.

While our qualitative methods are straightforward, our quantitative evaluation of CERP's effects relies on linking data on CERP activity to measures of long-term population-focused outcomes and shorter-term coalition-focused outcomes. CERP activity is linked to these outcomes based on geography; specifically, we divide Afghanistan into a grid of some 900,000 one-square-kilometer grid "cells" and explore the relationship between CERP activity and these outcome measures in that cell. Our analysis, which compares areas within Afghan districts in order to account for unobservable local characteristics (e.g., comportment of U.S. unit, quality of Afghan government officials), includes controls for the presence of U.S. forces and compares square-kilometer cells with CERP activity to other similar cells nearby.

For the longer-term population-focused outcomes, our quantitative analysis focuses on how overall CERP activity in 2010–2013 affected changes in these variables from 2009 to 2014, while our analysis of coalition-focused outcomes explores the contemporaneous relationship between CERP activity and these outcomes. For this analysis, we measure CERP activity in two ways. The first measure relies on maps drawn by CERP implementers on where projects were located and the intended beneficiaries. The second uses locational data available on official CERP administrative databases.

This analysis therefore relies on four types of new data. **The first are interviews with 197 officers and noncommissioned officers from the U.S. Army, U.S. Marines, and U.S. Special Operations Forces (SOF) with firsthand experience in administering CERP funding.** Interviewees included personnel operating at the platoon,

detachment, and company level with experience in either an oversight or implementation role for CERP in Afghanistan. The data collection was project specific, with participants asked to describe their experiences with as many as three different projects. They were first asked to discuss a project they deemed "successful," then a project they deemed "unsuccessful," and then a third project that they thought was "interesting," but it could either successful or unsuccessful. The intent of asking interviewees to describe a range of projects was neither to assess whether CERP was successful on net nor to judge what made projects successful but instead to try to capture a diverse range of experiences with CERP. For each project, they were asked to describe its type, how and where the project was implemented, intended and unintended beneficiaries, project objectives, and the outcomes from the project, whether intended or not. At the close of the interview, the interviewees were asked to reflect on their overall experiences with CERP and describe the types of challenges that they faced.

While the selection of interviewees was neither random nor representative, as volunteers were sought from units recently returned from deployment and with the approval of higher echelons, the report provides the first textured view of CERP project intent and results from the level of the implementers. This is particularly important for the assessment of CERP's effectiveness, since although there were rules, CERP projects were based on nonstandard, field-level initiatives and theories of change. Implementers' intentions and decisions mattered.

The second is a series of quantitative data sets that capture different aspects of CERP's potential impact at the tactical level. Previous analyses of CERP have focused on measures of violence, primarily against coalition forces, in order to measure the effectiveness of CERP. In this report, we include data capturing both population-focused outcomes and shorter-term coalition-focused outcomes. The analysis of CERP's population-focused effects examines the relationship between CERP activity and migration patterns, changes in overall economic activity, and changes in agricultural activity. Our estimates of migration patterns rely on satellite-derived population estimates derived annually by the Oak Ridge National Laboratory; those for economic activity rely on the "Nightlights" data collected by the National

Oceanic and Atmospheric Administration, which measures the quantity of light observable at night from space; and changes in agricultural activity are estimated by comparing vegetative density calculated using the visible and near-infrared imagery data collected by the Landsat satellites operated by the U.S. Geological Survey. In analyzing CERP's relationship with coalition-focused outcomes, we rely on operational data summarizing the quantity of intelligence collection, enemy attacks involving coalition forces, and coalition force freedom of movement.

The third data source is DoD's comprehensive CERP database, augmented with precise geographical information on where projects were implemented. We combine data from the quarterly financial reports submitted to the Congress with the precise locational information available in the Combined Information Data Network Exchange database to create a new Afghanistan CERP database amenable to assessing CERP's effects.

Finally, we conducted a limited number of interviews with senior congressional staffers, senior military leaders, and the U.S. Agency for International Development (USAID) personnel. These interviews focused on capturing the strategic context and effectiveness of CERP and describing how CERP might be used in future combat theaters.

Key Findings

The primary objective of our assessment was to characterize the tactical effects and effectiveness of CERP, based on available data from Afghanistan and augmented where possible by other perspectives on CERP. This assessment provides several broad findings on CERP based on the analysis in this report.

CERP spending can be effective when nested within operations. Our interviews with CERP implementers provided strong qualitative evidence for this finding, as the majority of CERP implementers that we interviewed—including 90 percent of the Army interviewees, 80 percent of SOF interviewees, and 60 percent of Marine interviewees—had a positive overall view toward CERP and its value in sup-

porting operations. And in most cases, those that thought that CERP was ineffective or hindered their efforts also thought that CERP could be a useful tool if used appropriately.

We also found significant quantitative evidence for this finding, in that operations in which CERP is nested are associated with positive population- and coalition-focused outcomes. Operations with CERP are associated with the enhancement of the security and economic environment of the local population over the long term and long-term reductions in violent attacks against coalition forces. Our estimates indicate that doubling CERP spending is associated with a 1.5-percent increase in immigration to that area, a modest 0.5-percent increase in economic activity, and a 0.5-percent reduction in violent attacks against coalition forces.

Our analysis suggests that quantitative measures of CERP spending function as a proxy for overall coalition activity. CERP spending on compensation payments, local security, and humanitarian assistance seem to function as a proxy for coalition-kinetic military operations, while spending on agriculture, public services, transportation, and water functions as a proxy for development-focused military operations. *However, we found that quantitative analyses cannot credibly identify the impact of CERP independent of overall coalition efforts.*

CERP implementers employed a diversity of "theories of change" in their application of CERP. The implementers' theories of change are the causal pathways through which they believe they could achieve these population- and coalition-focused outcomes. Interviewees reported using a mixture of different projects types to achieve each of these outcomes.

"Softer" outcomes (e.g., local rapport) were more important to implementers than project completion. Much of the discourse on CERP has focused on whether a school was successfully built, a road was properly constructed, or appropriate water infrastructure was developed. However, fewer than 50 percent of CERP projects were reported as successful in improving agriculture, roads, overall economic, health care, or education infrastructure. Projects were much more effective in achieving softer outcomes, namely building rapport, freedom of movement for locals and coalition forces, and local governance and security.

Efforts to improve these softer outcomes were reportedly successful some 75–80 percent of the time. Thus, these difficult-to-measure factors, typically involving a security or governance component, seem to be the primary benefit of CERP.

Despite their general support for CERP, almost all operators indicated that implementation in Afghanistan was far from optimal and that significant changes to the program should be made. Nearly all respondents, both those supportive and not supportive of CERP, indicated that CERP could be a valuable tool if implemented "correctly." However, almost every operator identified significant challenges facing the program, in terms of the way that it was either administered by DoD or implemented in the area of operations in Afghanistan and Iraq. The challenges highlighted by these operators echoed the perspectives offered by senior leaders and the existing literature on CERP.

Challenges

Challenges are reported to have hampered CERP's ability to achieve both tactical and strategic effects. The fact that these challenges persisted, despite the concerted efforts of CERP managers to address them during operations in Afghanistan and Iraq, suggests that future CERP-like programs will likely face similar challenges.

Use restrictions and paperwork associated with DoD administration of CERP was criticized by implementers. Among challenges related to the administration of the program, the foremost was what implementers considered onerous bureaucracy and paperwork that was required for project planning, approval, funding, and assessment. Operators considered that such paperwork distracted them from other responsibilities; but acknowledged these processes were somewhat less problematic for very small projects. A second was a lack of effective means for transitioning CERP projects to new units when deployments came to an end.

Spending effectively in combat environments presented major challenges. CERP implementers often highlighted the unique

challenge faced in trying to implement CERP projects in denied areas. Intimidation and threats from the Taliban against contractors, workers, or local elders undermined these teams' efforts. Although CERP may still be called upon as a tool to support operations in insecure areas, this suggests that CERP projects may not be advisable during clearance operations in denied areas but rather reserved for later stages of operations.

More realistic training, predeployment and in theater, could mitigate many implementation challenges. Each of the service communities interviewed (Marines, Army, and SOF) stressed that training for implementers was inadequate, while noting that no training could have fully prepared them for actual implementation of CERP. Thus, improvements in training before deployment would necessarily result only in incremental gains in performance. However, improvements could be made. Suggestions include professional officer education that incorporates the theory of money or aids in counterinsurgency and other campaigns, even after the end of the campaign in Afghanistan; predeployment training courses that focus on the legal requirements for CERP; alternate training materials that could include vignettes from the field that address effective CERP planning and implementation; roleplaying that could be incorporated into CERP training; and a mobile CERP team that could move around from fielded unit to unit to provide follow-on training, answer questions, and provide real-time guidance.

Management of data and reliability of financial-control processes was a continued challenge that the CERP program faced. Maintaining accurate information and following established guidelines for the design of projects, distribution of project-related resources, and oversight of the projects are essential to improving the effectiveness of CERP efforts and understanding its effectiveness. Although, as noted, implementers considered paperwork and administration burdens "onerous," commanders and parallel civilian efforts (such as USAID programs) often had insufficient data on which to judge the effectiveness and focus of CERP projects. While this challenge may be mitigated if a future CERP-like program is implemented on a significantly smaller scale than was used in Iraq and Afghanistan, DoD

should consider establishing feasible, field-implementable mechanisms that roll-up information in a usable fashion and ensure effective financial controls are in place.

Senior leaders highlighted the lack of guidance from theater commanders on how CERP should be implemented. Although senior leaders were unequivocal in their support for CERP and perceived CERP as an effective tactical tool, CERP reportedly did not achieve strategic effects in either Iraq or Afghanistan. CERP's effectiveness as a tool was hampered primarily by a lack of theater-level guidance, allowing commanders to develop often mutually incompatible CERP "strategies." These senior leaders also highlighted a variety of implementation challenges such as units' lack of familiarity with CERP-like programs, constant pressure to show immediate effects, and short deployments as undermining the ability of CERP to achieve strategic effects.

Potential Applications of the Commander's Emergency Response Program in Future Contingency Operations

Given the tactical value of CERP to operations in Afghanistan, it is likely to be considered as a tool in future contingency operations. Our data collection and interviews provide insights on the potential value of a CERP-like capability to foreign internal defense, combating terrorism, and foreign humanitarian-assistance operations in unstable environments.

CERP is likely to be of significant value to future foreign internal defense operations, demonstrated by experience in both Afghanistan and the Philippines. Based on the experience in Afghanistan, CERP could play three important roles in future U.S. foreign internal defense operations. First, CERP can serve as an important tool for gaining access in communities where the United States intends to establish and develop local defense forces. Second, CERP can serve as a short- or medium-term mechanism for funding local defense forces during the beginning of operations involving foreign internal defense; as examples, local security forces were established by both SOF (e.g.,

Afghan Local Police) and the Marines (e.g., Interim Security Critical Infrastructure). These forces were initially funded using CERP dollars. Third, the compensation-payment mechanism allowable under CERP can be an important enabler for maintaining these forces, by both providing economic opportunity to the communities providing these forces and compensating fallen fighters.

CERP is unlikely to be effective in quick entry/exit operations focused on combating terrorism (CT); however, CERP could serve as an enabler for operations where CT is nested within broader stability operations. Our analysis suggests that CERP is unlikely to be of significant value in CT-focused operations where the United States does not maintain persistent engagement with host-nation communities. Although nearly 10 percent of CERP projects were reported to have resulted in improved intelligence, in most cases, accessing this intelligence depended on the persistent presence of the U.S. unit involved. Our analysis indicates that the primary value of CERP is through enhancing the relationship of operational units with the local community.

CERP could be an important tool in foreign humanitarian-assistance missions in insecure environments, if clear processes for coordination with the U.S. Department of State and USAID were established in advance. In responding to a humanitarian crisis in insecure environments, where USAID's Office of U.S. Foreign Disaster Assistance can face challenges, CERP may provide a valuable tool when military forces are used for responding to unfolding crises. Keeping CERP under control of DoD to maintain those unique authorities, but integrating USAID into planning and execution, could create a powerful U.S. capability for responding to emerging crises.

If a CERP-like capability is to be added to the U.S. military's toolkit for future contingencies, the word _emergency_ should probably be dropped from the title. Our report indicates that CERP-like resources can be carefully used as an element in counterinsurgency and similar operations, as long as the scale, design, and duration of projects is appropriate, officers and service personnel running the program are trained, and effective oversight is maintained. If all these elements are

in place, however, the program is not an *emergency* program, and the name should reflect that fact.

Implications of Analysis for Future Commander's Emergency Response Program

Our analysis suggests that any future CERP, or a CERP-like construct, should differ in several substantive ways from CERP as used in Afghanistan. These changes include improvements in the structure of the program, the preparation of military personnel involved in the program, and the overall integration of CERP into U.S. government efforts.

Consider restricting CERP to only small dollar-value projects. Many of the operators we interviewed indicated that CERP was one of the few DoD programs where it was truly possible to do "more for less," as small projects were easier to implement, monitor, and control and were thus typically perceived as being more effective than larger projects. Larger projects were reportedly more likely to induce negative secondary effects, including local inflation, corruption, or unfulfilled expectations, as larger projects were often much slower to implement than smaller projects. Our quantitative analysis, echoing an analogous literature that studied CERP projects in Iraq, provides limited evidence that small- and medium-sized projects—namely projects less than $50,000—are more effective at achieving short-term coalition-focused operational outcomes. However, we do not find evidence that smaller projects were more effective at achieving long-term population-focused goals.

Develop processes that ensure that CERP projects are effectively transitioned to incoming units. The transition of incomplete projects from one unit to the next often created significant problems for the incoming units. One approach to mitigate this challenge is to require that units complete all projects that they begin, although this restriction may impede CERP's effectiveness. Alternatively, DoD might consider modifying deployment cycles if CERP is being used, ensuring that CERP-focused personnel have sufficiently long overlap to

transition projects even if this means that they deploy out of sync with the rest of their unit. Partnerships with USAID or another U.S. civilian agencies may also help mitigate this challenge.

Ensure that all relevant units have personnel with appropriate training and experience to execute CERP. While the SOF community was able to rely on the expertise of civil-affairs teams in executing CERP in Afghanistan, these teams were often few and far between, even for the SOF community. While the Marines had access to a civil-affairs capability within their reserves, the conventional Army's 85th Civil Affairs Brigade was not created in sufficient time to provide the Army an equivalent capability. Developing an enduring Civil Affairs–like capability and integrating these individuals into predeployment courses, Joint Combined Exchange Training, and other training exercises may be necessary to effectively use CERP in future operations. Selecting a small number of officers or noncommissioned officers to receive extensive CERP-related training may be one effective approach for building this enduring capability.

Create a more formal role for USAID and civilian authorities in the implementation of CERP. Both military and civilian personnel highlighted the value of USAID involvement in the implementation of CERP. Although there was often fruitful collaboration at the local level between USAID and DoD personnel in the design and execution of CERP, this collaboration was in practice constrained by operational and other constraints. Designing mechanisms to ensure USAID participation and advice in all, or nearly all, CERP projects would likely improve CERP's effectiveness. New operational designs (e.g., providing training to relevant USAID personnel in working with the military, including USAID "foreign service limited" officers as a new class of tactical enablers) should be considered and evaluated. These operational designs will likely also facilitate the implementation of CERP if DoD forces are under the authority of a U.S. ambassador, as U.S. forces will have a natural partner among U.S. civilian agencies.

Preparing the Commander's Emergency Response Program for Future Contingency Operations

In order to prepare CERP for future contingency operations, DoD should consider undertaking two related efforts to prepare CERP for future contingency operations.

1. **Conduct a DoD-wide, senior-level review of CERP focused on preparing for future contingency operations.** Effectively preparing CERP for a diverse set of future contingency operations requires capturing a broader set of views and experiences with CERP than those captured in this report. A DoD-wide data call from personnel who had executed CERP at the battalion level or above in Iraq or Afghanistan, or been involved in financial management of CERP, could garner new insight into how CERP impacted the ability of units to execute counterterrorism, counterdrug, foreign internal defense, humanitarian assistance, and counterinsurgency operations. A centralized and systematic review of these data, in coordination with relevant senior-level personnel, could be used to develop revised "Money as a Weapons System" guidance applicable for tactical and strategic commanders across a broad array of future operations.

2. **Assess the role of CERP in contributing to U.S. strategic goals in Iraq and Afghanistan.** A complement to DoD's internal review of CERP and its applicability to future contingency operations would be a review of CERP's role in a whole-of-government approach to stability operations. This analysis would require DoD to coordinate with USAID, the U.S. Department of State, and other agencies of the U.S. government to conduct a holistic assessment of how the diversity of U.S. capabilities supported U.S. stability operations. This assessment could be particularly beneficial in preparing for the application of CERP to future contingency operations when DoD personnel were under the authority of a U.S. ambassador.

Acknowledgments

Abbreviations

AIF	Afghan Infrastructure Fund
ALP	Afghan Local Police
ANDSF	Afghan National Defense and Security Forces
AOR	area of responsibility
BFT	Blue Force Tracker
CENTCOM	U.S. Central Command
CERP	Commander's Emergency Response Program
CIDNE	Combined Information Data Network Exchange
CJSOTF-A	Combined Joint Special Operations Task Force–Afghanistan
CJTF	Combined Joint Task Force
CORDS	Civil Operations and Rural Development Support
DoD	U.S. Department of Defense
FMR	Financial Management Regulation
FY	fiscal year
GAO	Government Accountability Office
GIRoA	Government of the Islamic Republic of Afghanistan

GOI	Government of Iraq
HA/CMO	humanitarian assistance and civil military operations
HSP	Human Subjects Protection
I-CERP	Iraqi-CERP
IED	improvised explosive device
IPW	inverse-probability weighting
ISAF	International Security Assistance Force
JSOTF-P	Joint Special Operations Task Force–Philippines
MAAWS	Money as a Weapons System
MAAWS-A	Money as a Weapons System–Afghanistan
MNC-I	Multi-National Corps–Iraq
MNF-I	Multi-National Force–Iraq
MOU	memorandum of understanding
NDVI	Normalized Difference Vegetation Index
OEF-P	Operation Enduring Freedom–Philippines
SIGACTS	significant activities
SOF	Special Operations Forces
SOP	Standard Operating Procedure
SRC	Supreme Reconstruction Council
USAID	U.S. Agency for International Development
USFOR-A	U.S. Forces–Afghanistan
USMC	U.S. Marine Corps
USPACOM	U.S. Pacific Command
VSO	Village Stability Operations

Introduction

The Commander's Emergency Response Program (CERP) provides U.S. operational military commanders financial resources that can be used to provide "urgent civil support relief and reconstruction requirements within their Area of Responsibility (AOR) by carrying out programs that will immediately assist the indigenous population."[1] CERP allows these commanders to implement projects—which are predominantly small scale, low dollar, short term, and oriented toward restoring essential services or generating employment, although can include larger infrastructure projects—that both benefit local indigenous populations and support operational military objectives.

CERP differs substantively from other types of development and humanitarian assistance in that it is designed to support U.S. commanders' objectives in the course of operations. Projects should be nested within the broader security objectives and operations of these commanders. A defining characteristic of CERP, which differentiated it from economics tools used to support previous counterinsurgency efforts, was that ground commanders were responsible for project selection, execution, and oversight.[2]

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[1] This definition is from the CERP Standard Operating Procedure (SOP) issued on March 2012 (U.S. Forces, Afghanistan [USFOR-A], "Money as a Weapons System Afghanistan [MAAWS-A]: Commander's Emergency Response Program [CERP] SOP, USFOR-A Pub 1-06, March 2012, p. 2).

[2] As an example, economic developments that were an integral part of U.S. pacification efforts throughout the 1950s and 1960s in Vietnam were under the control of the U.S. Agency for International Development (USAID) (specifically, the U.S. Overseas Mission

Given the highly heterogeneous environments in which U.S. commanders operate, CERP is deliberately flexible. In addition to allowing humanitarian relief, reconstruction, and development projects, as long as they are urgent in the judgment of the commander, CERP allows ground commanders to provide compensation payments for damage caused by U.S. or coalition partners, whether that damage is to individuals or property.[3]

As the only source of U.S. military financing for projects designed to benefit indigenous populations, many high-ranking military and civilian officials have viewed CERP funds as essential to the effectiveness of stability operations. In 2008, Admiral (ret.) Michael Mullen, then the chairman of the Joint Chiefs of Staff, reported that "CERP has proven in most cases more valuable and perhaps more rapid than bullets or bombs in the fight against extremism."[4] U.S. Secretary of Defense Robert Gates similarly argued in 2008 that CERP was the "single most effective program to enable commanders to address local

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which was the term for USAID personnel in Saigon, Vietnam). And when the Civil Operations and Rural Development Support (CORDS) program was formed to integrate military and civilian pacification efforts in Vietnam, USAID retained primary responsibility for the execution of economic development projects while military personnel focused on the training and equipping of police and paramilitary groups (e.g., James K. McCollum, "The CORDS Pacification Organization in Vietnam: A Civilian-Military Effort," *Armed Forces and Society*, Vol. 10, No. 1, Fall 1983, pp. 105–122; Robert M. Perito, "The U.S. Experience with Provincial Reconstruction Teams in Afghanistan: Lessons Identified," United States Institute for Peace, October 2005, Special Report 152; and Francis Njubi Nesbitt, "Hearts and Minds and Empire," John Feffer, ed., *Foreign Policy in Focus*, March 20, 2009). Interestingly, in addition to supporting development objectives, the CORDS "[s]uccess in meeting basic needs of the populace led, in turn, to improved intelligence that facilitated an assault on the Viet Cong political infrastructure" (Headquarters, Department of the Army, *Counterinsurgency*, FM 3-24/MCWP 3-33.5, Washington, D.C., December 15, 2006, p. 2–13); we find a similar result for CERP in our quantitative analysis in Chapter Seven. We thank Lieutenant General Robert Schmidle for this suggestion.

[3]   *Urgent* is defined as "any chronic or acute inadequacy of an essential good or service that, in the judgment of the local commander, calls for action and supports his/her [counterinsurgency] objectives." (USFOR-A, 2012, p. 2).

[4]   Official testimony presented during Senate hearings for the 2009 National Defense Authorization Act (U.S. Senate, 110th Cong., 2nd Sess., *Department of Defense Appropriations: Hearing Before the Committee on Appropriations*, Fiscal Year 2009, Washington, D.C.: Government Printing Office, 2008).

populations' needs and get potential insurgents in Iraq and Afghanistan off the streets and into jobs."[5] And General David Petraeus (ret.) reported, in testimony to the U.S. Senate Committee on Armed Services in 2009, that CERP was a "a vital counter-insurgency tool for our commanders in Afghanistan and Iraq" and that "small CERP projects can be the most efficient and effective means to address a local community's needs, and where security is lacking, it is often the only immediate means for addressing those needs."[6] The perceived effectiveness of small-scale CERP projects, in particular, in enabling stability operations has also been highlighted by the U.S. Congress, with one report noting that condolence and battle-damage payments authorized under CERP "contributed greatly to promoting goodwill with local populace in combat zones," and that future contingency operations should use this type of program again if appropriate.[7]

Evidence on the effectiveness of CERP, however, has proven elusive; several efforts over the past decade to assess the value or impact of CERP have failed to produce a consensus judgment. The high degree of discretion afforded commanders to identify objectives, select projects, and assess results is one reason for the difficulty in assessing the program. Additional reasons include gaps in data, overlapping or unclear project objectives, multiple perspectives on "appropriate" objectives for CERP, and an ongoing debate about the appropriate measures of effectiveness. These factors have made it difficult to produce a definitive assessment of the impact of CERP in Iraq and Afghanistan.

Given the perceived effectiveness of CERP in Afghanistan and Iraq, at least from the military perspective, it is likely that the U.S. Department of Defense (DoD) will request CERP or some CERP-like capability in future stability operations. Toward this end, this report

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[5] Official testimony presented during Senate hearings for the 2009 National Defense Authorization Act (U.S. Senate, 2008).

[6] "Posture Statement: Senate Armed Services Committee Statement of General David H. Petraeus, U.S. Army, Commander U.S. Central Command Before the Senate Armed Services Committee on the Afghanistan-Pakistan Strategic Review and the Posture of U.S. Central Command," April 1, 2009.

[7] U.S. Congress, 112th Cong., 2nd Sess., *National Defense Authorization Act for Fiscal Year 2013*, House Report 112-705, December 18, 2012.

assesses the tactical effectiveness of CERP in Afghanistan from the perspective of the CERP implementer.

Our intent is to understand how and why tactical units used CERP and whether the program achieved its intended effects in the local areas where it was used. This report, which implements an empirical approach for assessing CERP that was developed at the request of the Office of the Secretary of Defense, Office of Cost Assessment and Program Evaluation, in fiscal year (FY) 2011, provides a new, comprehensive assessment of CERP's effectiveness by melding RAND-collected qualitative data from tactical operators involved with CERP in Afghanistan together with a multitude of existing quantitative data. While this mixed qualitative-quantitative approach allows us to assess whether CERP was effective, these qualitative data also allow us to explore how and why operators used CERP and the effects that they had hoped to achieve.

1.1. Objectives

The central objective of this report is to provide an assessment of CERP's effectiveness in Afghanistan. A secondary objective is to provide guidance, based on this assessment, on how CERP or a CERP-like alternative might be employed in future U.S. engagements. Our approach to achieving these two objectives relies on providing answers to four fundamental questions underlying the use of CERP:

1. What types of effects were CERP projects used to achieve?
2. How did they hope to achieve those effects?
3. Were CERP projects effective?
4. What were the key challenges and good practices underlying CERP's implementation in Afghanistan?

The first goal of this assessment, therefore, is to describe the range of effects that CERP was intended to, and did or did not, achieve. Many types of effects are clearly defined by the type of project being implemented (e.g., well projects should improve access to water for

irrigation, road projects should improve freedom of movement along that road). However, as demonstrated by several previous studies,[8] the secondary effects of projects (e.g., building a relationship between the tactical military unit and the local community), whether they were anticipated by CERP implementers or not, were often as important, if not more important, than the direct effect of the project.

The second goal requires articulating a *theory of change* (i.e., causal pathway) underlying the use of CERP.[9] Most CERP implementers in Afghanistan nested the use of CERP within an overall counterinsurgency strategy, which involved contesting the Taliban by improving security, governance, and development.[10] However, a complex causal pathway mediates the relationship between CERP inputs—e.g., the type of project, the amount of dollars spent—and these counterinsurgency outcomes. An example, based on RAND's case study of the use of CERP in the U.S. Marine Corps–led effort in Marjah (Operation Moshtarak),[11] is provided in Figure 1.1. Although projects (in this example, roads projects) are implemented with a specific intent (immediate purpose), they only influence longer-term outcomes typically associated with counterinsurgency through shorter-term outcomes that they are able to achieve. Understanding these shorter-term effects is essential to studying CERP effectiveness.

The third goal is to assess CERP's effectiveness by exploring the types of outcomes that CERP projects were able to achieve. Deriving

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[8] See Chapter Three of this report and the discussion about Operation Moshtarak in Appendix E.

[9] As an example, USAID defines a *theory of change* as "a description of the logical causal relationships between multiple levels of conditions or interim results needed to achieve a long-term objective" (USAID, "Technical Note on Developing Results Frameworks," Version 1.0, July 2013).

[10] Headquarters, Department of the Army, *FM 3-24 MCWP 3-33.5: Insurgencies and Countering Insurgencies*, May 2014, defines counterinsurgency as "comprehensive civilian and military efforts designed to simultaneously defeat and contain insurgency and address its root causes" but "is not a substitute for strategy." However, most post-surge operations conducted in Afghanistan relied on an earlier draft of this document (Headquarters, Department of the Army, 2006).

[11] See Appendix D of this report.

empirical results that allow a definitively causal result is beyond the scope of this analysis, as CERP was nested within the local operational approach that implementers had adopted. Our goal is instead to test whether the intended outcomes were achieved in areas where CERP was implemented. An example of this difference, as seen in Figure 1.1, is that a commander that is using CERP to *reduce incentives for insurgent activity* is likely to be using military force, and other tools at his or her discretion, to achieve this same goal as part of his or her overall strategy in that area. Our analysis will include a variety of controls and statistical matching techniques to produce results that arguably admit a causal interpretation.

The fourth goal is to identify the challenges influencing CERP's effectiveness, with an eye toward understanding how a CERP-like program might be best designed to support future stability operations. In order to address this goal, our intent is to identify both challenges and good practices from CERP implementers in Afghanistan, with a particular focus on how training, command guidance, policies and procedures, and local conditions, among many others, mitigate CERP's

Figure 1.1
Notional CERP "Theory of Change"
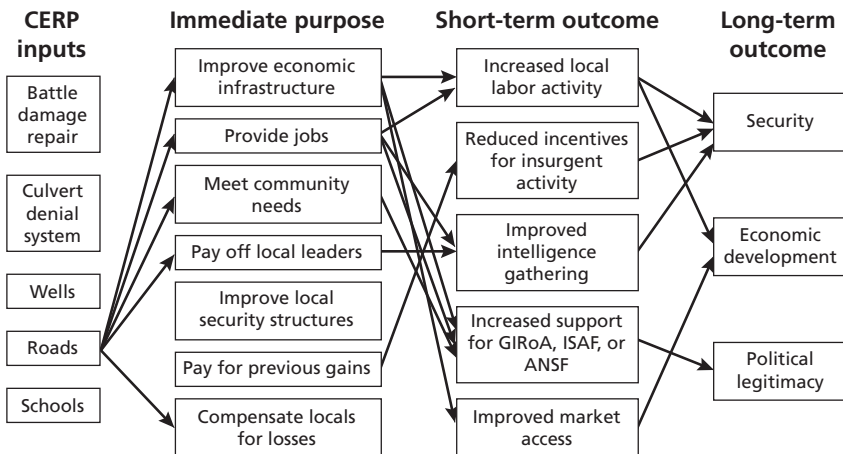
NOTES: GIRoA = Government of the Islamic Republic of Afghanistan;
ISAF = International Security Assistance Force; ANSF = Afghan National Security Forces.
RAND *RR1508-1.1*

effects and effectiveness. In addition to deriving good practices from the personal experiences of CERP implementers in Afghanistan, we augment this analysis with interviews with personnel operating at the strategic level and through a review of the diverse range of existing secondary literature focused on CERP. Our intent is not to determine whether CERP should continue in the future; future theaters of operations will have unique military, political, economic, and sociocultural factors to consider, and U.S. strategic objectives will likely be different from those in Iraq and Afghanistan. Rather, we seek to draw out practical recommendations that can guide CERP-like programs for better effect should Congress and DoD determine that such a program is needed.

1.2. Research Challenges

Significant effort has been already been made by academic researchers, the oversight community, and the media to understand CERP. This research has typically focused on project oversight (e.g., how money was spent and accounted for), execution (e.g., contracting processes, interagency coordination), and effectiveness. This previous research has provided significant insights into CERP's plausible effects and the mechanisms guiding these effects, in addition to guiding our own research efforts.

However, research on CERP has faced four key challenges: (1) a lack of consensus in what constitutes effectiveness, (2) a lack of project-specific CERP "theories of change," (3) inappropriate or insufficient data, and (4) an inability to disentangle the tactical and strategic effects of CERP. Our research approach was designed specifically to account for the first three challenges, as discussed throughout this chapter and in further detail in Section 1.3. However, we believe that the fourth challenge is more difficult to address from an empirical perspective and acknowledge this as a significant limitation, as discussed further in Section 1.4.

Defining effectiveness. A definition of *effectiveness*, and corresponding measures of effectiveness, is not specified in DoD's established

guidelines for the use of CERP. Other analyses and our interviews for this project reveal a wide range of definitions used by CERP implementers, many of which are subjective. For some, *effectiveness* or *success* may mean simply that the project was completed. For others, it may mean a change in local attitudes toward U.S. forces, improved quality of life for local citizens, or a near-term economic impact. In a limited number of cases, the key objective was simply to spend money, as total CERP expenditures were viewed by some as an indicator of unit performance. Moreover, CERP projects often have multiple objectives and outcomes, at times with contradictory effects. For our assessment, we deliberately remain agnostic about what constitutes effectiveness. Rather, as described in Section 1.3, we ask the tactical operators using CERP to describe the effects that they hoped to achieve with specific projects in light of their operational considerations (and CERP program guidance) and then assess those projects relative to the implementers' intent.

Theory of change. The second challenge, which is closely related to the first, derives from the flexibility of CERP and the broad implementing guidance given to ground commanders in its application. CERP was authorized to "enable U.S. Commanders to respond to urgent humanitarian relief and reconstruction requirements within their area of responsibility by carrying out programs that will immediately assist the indigenous population,"[12] but in practice there were few restrictions put on CERP, and it was used in many different contexts to achieve many different types of effects. Thus, understanding what CERP implementers' objectives were for projects when the projects were initiated is essential to understanding the effectiveness of CERP in a particular area. However, the intended objectives of projects were typically not documented and, in some cases, the descriptions of the projects in formal reporting was vague or misleading, making it difficult for third parties to later assess the effectiveness of projects. Our approach, as summarized in the following section, was designed specifically to deal with this by capturing both the intended and unintended effects of CERP projects from the perspectives of the implementers.

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[12] Quote is from USFOR-A, 2012.

Availability of relevant data. Assessments of CERP face two data-related challenges. The first is that there is typically insufficient systematically collected data to measure the types of effects that CERP is used to achieve. As an example, a number of studies have used existing military databases of attacks against coalition forces—commonly referred to as *significant activities* (SIGACTS)—as a proxy for security conditions in a given area. However, while SIGACTS may be a useful measure of CERP's effectiveness as a force protection measure,[13] it does not necessarily provide insights on CERP's usefulness as a counterinsurgency tool in Afghanistan.[14] Data on other CERP outcomes are typically difficult to obtain as has been highlighted in a variety of previous studies. For our assessment, we consider a broad array of different types of data as outcome measures, including agricultural production, ambient light, SIGACTS, ISAF vehicular movement, intelligence reporting, migration rates, nonmilitary vehicular movement, market activity, and survey data to address this concern.

An additional challenge is the quality of data on specific CERP projects. Although comprehensive CERP data are available through DoD's quarterly CERP reports, the data suffer from a lack of precision on where projects were implemented, the populations that the projects were intended to benefit or influence, the type of project that was to be implemented, and the specific intent of the project.[15] Our assess-

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[13] A negative correlation between the number of attacks against coalition forces and CERP spending, controlling for a variety of the factors, would indicate that CERP may contribute to force protection.

[14] Note that this type of analysis is highly appropriate for Iraq (e.g., Eli Berman, Jacob N. Shapiro, and Joseph H. Felter, "Can Hearts and Minds Be Bought? The Economics of Counterinsurgency in Iraq," *Journal of Political Economy*, Vol. 119, No. 4, August 2011, pp. 766–819), where CERP was commonly viewed as a force protection measure (see Chapter Three for details).

[15] Importantly, although these data fields are available for most CERP projects, the data entered into the Combined Information Data Network Exchange (CIDNE) database can be very misleading, as detailed in Chapter Four. Note that these same challenges face the other data collected by CIDNE; however, the impact of mismeasurement in the treatment indicator typically is much more severe for impacts than "classical" measurement error in outcome variables. Although classical measurement error that is uncorrelated with the unobservables will simply cause attenuation of the point estimates (e.g., Dan Black, Seth Sanders, and

ment addresses this challenge by pressing tactical operators for specific details on the projects in which they were involved, although we recognize that this limits our analysis to only projects that we were able to discuss with the operators involved in them.

Tactical versus strategic effects. Previous studies have noted that tactical and strategic effects can be contradictory, both in the context of the counterinsurgency campaign and in broader strategic development objectives. The security-oriented, localized operational and tactical effects of CERP, for example, may be positive but can undermine larger economic development and governance objectives. Moreover, different actors can assess the localized effects differently. This limitation is discussed in greater depth in Section 1.4.

1.3. Our Assessment Approach

Our study approach has two stages. The first stage collects qualitative data from tactical operators on specific CERP projects in order to identify the intent of those projects. The second stage exploits a diversity of quantitative data collected by both military and civilian components of the U.S. government to provide an objective approach for measuring whether these intended effects were achieved.

In addition to mitigating the research challenges documented in the previous section, this two-stage approach is specifically designed to account for the high degree of variability in how CERP is used and

Lowell Taylor, "Measurement of Higher Education in the Census and Current Population Survey," *Journal of the American Statistical Association*, Vol. 98, No. 463, 2003, pp. 545–554), measurement error in a treatment indicator is typically not classical because errors are mean-reverting (e.g., Dennis J. Aigner, "Regression with a Binary Independent Variable Subject to Errors of Observation," *Journal of Econometrics*, No. 1, 1973, pp. 49–60; Brent Kreider, "Regression Coefficient Identification Decay in the Presence of Infrequent Classification Errors," *Review of Economics and Statistics*, Vol. 92, No. 4, November 2010, pp. 1017–1023). Daniel Millimet provides a review of the general challenges facing empirical analyses with measurement error in a binary regressor (Daniel L. Millimet, "The Elephant in the Corner: A Cautionary Tale About Measurement Error in Treatment Effects Models," Discussion Paper No. 5140, Bonn, Germany: IZA, August 2010). See also (e.g., Harley Frazis and Mark A. Loewenstein, "Estimating Linear Regressions with Mismeasured, Possibly Endogenous, Binary Explanatory Variables," *Journal of Econometrics*, Vol. 117, No. 1, 2003, pp. 151–178).

what it was used to achieve; for example, similar projects were often used to achieve very different effects. Thus, the first stage identifies the types of effects that the operator intended to influence and the second stage validates, using quantitative data, whether those effects were achieved.

Our first stage relies on structured qualitative data collected from 197 tactical operators who had experience using CERP in Afghanistan. This included operators with very diverse experiences, including Soldiers from Regional Commands South and East, marines from Regional Command Southwest, and Special Operations Forces (SOF) operating in support of Village Stability Operations (VSO) throughout the country. Human Subjects Protection (HSP) protocols have been used in this report in accordance with the appropriate statutes and DoD regulations. These interviewees are therefore identified only as Army, Marines, or SOF. Additional interviews with congressional staffers, senior military officers, and USAID personnel were similarly conducted in line with HSP protocols, and these interviewees are identified anonymously as well. In all cases, these sources' views are solely their own and do not represent the official policy or position of DoD or the U.S. government.

In order to try to capture the full range of project experiences, we asked each of these operators to discuss three CERP projects: one project that they saw as successful, a second that they saw as unsuccessful, and a third that they thought was noteworthy. We did not define success; we asked the operators to use their own definition of what successful meant. The intent of asking interviewees to describe a range of projects was neither to assess whether CERP was successful on net nor to judge what made projects successful, but instead to try to capture a diverse range of experiences with CERP.

Interviewees discussed a cumulative total of 407 projects and the range of effects that they were intended to achieve; these data form the foundation for our second-stage quantitative analysis. Our quantitative data allow us to test whether there was a noticeable change in conditions corresponding to the intent. The detailed data on project location and the locations of beneficiary populations collected during

the interviews allow us to match the qualitative interview data to these quantitative data.

We test these hypotheses by comparing the areas where projects were implemented to similar areas nearby. Similar *control* areas were identified using statistical matching methods based on available data. We focus on how conditions in the project and control areas change over time.

A key aspect of our empirical analysis is to clearly describe the fragility (i.e., stability) of our results to the specific empirical specifications. Our empirical analysis considers a variety of approaches for matching and specifying the empirical model; we report all these different results to provide visibility on how empirical specification can influence the estimated effect of CERP programming.

In addition to contributing to the overall assessment of CERP's effectiveness, which was the primary intent of this report, the qualitative interviews with tactical CERP implementers offer rich insights from the operators' perspective that are useful for thinking about how CERP-type efforts could be guided, executed, and evaluated in future operations. The qualitative analysis of these data, combined with interviews with a diverse group of individuals who offer a more strategic view on the intent and potential effects of CERP, is added to appropriately contextualize the effects that are observed later.

1.4. Limitations

Although our analytic approach was designed to mitigate a number of challenges that are inherent in CERP, it nonetheless has limitations that affect the extent to which our findings and recommendations can be generalized.

Data limitations. Although we use several varied data sets for our quantitative analysis, each has its own shortfalls, and combined, the data still fall short of providing a definitive, comprehensive picture of the local effects. A specific concern, described in detail in Chapter Six, is our diverse quantitative sources of data function only as proxies for the outcomes in which we are interested. As an example, using changes

in nighttime ambient light as a data source for measuring changes in economic conditions requires assumptions about the relationship between nighttime light production and economic activity; in rural areas of Afghanistan, this relationship is likely to be tenuous.

Sample size. Our new data set on CERP project implementation, based on the 407 projects for which we have detailed data, has significant advantages to that available in the CIDNE. However, these projects only represent a small percentage of the nearly 56,000 unique CERP projects attempted in Afghanistan. We recognize that the relatively small sample size and the nonrandom selection of interviewees limit the applicability of our findings. Still, we believe that the contextual information provided in our structured interview protocol across three subsets of implementers makes the results more than simply anecdotal data.

Time frame for assessing effects. We recognize that implementers' assessments of CERP effects are necessarily short-term in nature, both because CERP is intended to provide short-term impact and because the time horizon for implementers is bounded by the unit's rotation date. It is possible that a project that might be assessed as successful by the implementing unit in the short term could be viewed by the inheriting unit as unsuccessful for a variety of reasons, such as longer-term effects were negative or the project was unsustainable.

Other variables. In a complex operating environment, establishing clear cause-effect relations for CERP projects and outcomes is inherently difficult due to the range of actors and developments and their interactions that can affect local conditions. Improved security, for example, may have resulted from multiple factors, such as changing Taliban tactics or effective military operations. Popular attitudes similarly are influenced by many elements, including the effectiveness of local governing officials, national government programs, or the level of violence. Improved or worsened conditions for U.S tactical forces, then, can be the result of many variables beyond a single CERP project, making the linkage between CERP projects and outcomes less than definitive. Although our approach uses state-of-the-art matching techniques designed for addressing these challenges, unobserved fac-

tors driving both CERP activity and that of key outcome variables are likely to have been important confounding factors.

Representative sampling of CERP activity in qualitative data collection. Our qualitative data collection asks interviewees to discuss up to three CERP projects—one perceived as successful, a second perceived as unsuccessful, and a third that was noteworthy—executed by their own unit. Although we believe that the data reflect a fairly balanced sample of successful and unsuccessful projects, such self-assessments may bias the respondent to reflect positively on their own performance. Further, no inference should be made that the overall number of projects deemed "successful" is representative of projects in general.

Tactical versus strategic effectiveness. Our mixed qualitative-quantitative approach, relying on our interviews with 197 CERP implementers, is designed to assess the tactical effectiveness of CERP. That is, it is designed to capture whether CERP projects achieved their desired effects in the areas where they were intended. These findings, by themselves, do not necessarily provide any insight into the strategic effectiveness of CERP to stability operations in Afghanistan. For insights into the strategic effects of CERP, or lack thereof, we rely on interviews with senior military and civilian leaders.

Time frame of analytical focus. Our analysis is restricted to CERP activity in Afghanistan during only 2010–2013. Thus, our analysis is restricted to the assessment of CERP only after the surge and during the counterinsurgency-focused campaign against the resurging Taliban in the south.

1.5. Organization of This Report

The remainder of this report is divided into six chapters. Chapter Two (History of CERP) explores the history of the CERP program during its first 13 years of operation. Starting from its beginning as the Commander's Discretionary Fund, we describe how and why CERP was funded and the evolution of congressional intent, DoD oversight, and the Money as a Weapons System ground commander guidance for the program in Iraq and Afghanistan. We also describe three deriva-

tive programs that emerged from the CERP experience in Iraq and Afghanistan: the Afghan Infrastructure Fund (AIF), Iraqi-CERP, and CERP in Operation Enduring Freedom–Philippines (OEF-P).

Chapter Three (Perspectives on CERP) synthesizes the body of existing perspectives on CERP, including those from Congress, senior military commanders, the academic community, and the nongovernmental organization community, among others. Our objective in this chapter is to acknowledge the broad range of perspectives on CERP, some of which differ markedly from one another and from those of the implementers, to both underscore the complexity of assessing the program and recognize the inherent tension between CERP as a tactical military tool and CERP as a broader counterinsurgency and development tool. In the context of perspectives from relevant communities, the chapter also describes the existing assessments of CERP in Iraq and Afghanistan.

Chapter Four (CERP Activity in Afghanistan) describes the data for Afghanistan available in existing administrative databases. In addition to providing a detailed background on when and where CERP was used in Afghanistan, the chapter explores the factors that influence CERP activity. The chapter also discusses the strengths and limitations of the CERP quantitative database that we use in Chapter Seven's quantitative analysis.

Chapter Five *(*Exploring How and Why CERP Was Used) focuses on the first goal of our assessment by describing the types of effects that CERP was designed to achieve and how it was designed to achieve them. The chapter draws on the structured qualitative data collected from the 192 interviews held.

Chapter Six (Good Practices for Implementation) draws from our diverse interview data to identify key implementation and better practices in the implementation of CERP. The chapter draws on the interviews with the nearly 200 tactical operators, where each was asked to comment on CERP training, project execution, and overall better practices in the field.

Chapter Seven (Quantitative Assessment of CERP) focuses on the second goal of our assessment and provides our estimates of the effectiveness of CERP projects based on our mixed qualitative-quantitative

approach. The chapter begins by describing available quantitative data, both on CERP and on secondary data that will be used for measuring effectiveness. The final section in the chapter then uses these data to assess CERP effectiveness. An important part of this analysis is an articulation of the robustness of these results, as we display point estimates obtained from a wide range of different empirical specifications.

Chapter Eight (Conclusions and Policy Implications) concludes by drawing on the entire analysis to provide an overall assessment of CERP's effectiveness, knowledge gaps, and recommendations for future thinking about CERP. We conclude by describing additional steps that DoD could take to prepare CERP for future contingencies.

This report has five appendixes; they provide, respectively, a description of available data on CERP, more-detailed descriptions of the quantitative outcome data, more-detailed descriptions of the geographic component of the interview data, a qualitative assessment of CERP in the Philippines, and a case study of CERP in Operation Moshtarak.

History of CERP

CERP was created in Iraq in May 2003 to provide U.S. soldiers a tool for dealing with the humanitarian crisis that U.S. soldiers were facing in a post-invasion Iraq. Funded with assets seized from the Iraqi regime, CERP was the only tool that commanders had to purchase goods or services from Iraqi citizens to help address humanitarian problems. During its early months, CERP was perceived as an almost unequivocal success; this success would be the impetus for the creation of what would become a nearly $8 billion program employed in Iraq, Afghanistan, and the Philippines over the next 13 years.

This chapter explores the history of the CERP program during its first 13 years of operation. Beginning from its start as the Commander's Discretionary Fund, we describe how and why CERP was funded and the evolution of congressional intent, DoD oversight, and the Money as a Weapons System (MAAWS) ground commander guidance for the program in Iraq and Afghanistan. We also describe three derivative programs that emerged from the CERP experience in Iraq and Afghanistan: Afghan Infrastructure Fund (AIF), which was created in 2011 to separately manage very large infrastructure projects that had been previously under the CERP mantle; the Iraqi-CERP program that was a collaboration between coalition forces and the government of Iraq; and CERP in Operation Enduring Freedom–Philippines (OEF-P), which received congressional appropriations for only a single year. This chapter, for the most part, does not address the perceived effectiveness of CERP across its first 13 years; that is the focus of the next chapter.

2.1. CERP's Origins as the Commander's Discretionary Fund

CERP originated in 2003 from the short-lived Commander's Discretionary Fund, created by the Office of Reconstruction and Humanitarian Assistance in Iraq. At the time of the initial invasion, "clearing streets of destroyed vehicles, bulldozing mountains of garbage, distributing rations, repairing damaged roofs, wells, and sewers, rehabilitating broken-down jails and police stations, and tending to a variety of urgent medical needs became the business of soldiers," but they had no resources to reimburse local civilians for supporting these efforts.[1] DoD lawyers had advised that operations and maintenance funds could be used for certain types of humanitarian and civic assistance, but significant "uncertainty concerning the nature and scope of projects that could be funded under this authority" inhibited the ability of ground forces to access financial resources in support of these efforts.[2]

However, soon after the U.S. invasion began in March 2003, U.S. troops began finding caches of U.S. dollars hidden around the country. The first, and most noteworthy, find was in an area of Baghdad called "Little Venice," where troops under the command of then–Colonel David Perkins found some $650 million in uncirculated $100 bills hidden in a bricked-up shed.[3] A few days later, an additional $112 million in U.S. currency was found in a nearby animal kennel.[4]

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[1]   Mark Martins, "No Small Change of Soldiering: The Commander's Emergency Response Program (CERP) in Iraq and Afghanistan," Department of the Army Pamphlet 27-50-369, *Army Lawyer*, February 2004, p. 3.

[2]   Martins, 2004, p. 3.

[3]   Interview with general officer who reported that engineers had found a "house with no windows and no doors," which had been an "outdoor shed that the Iraqis had wanted to seal up." The shed was filled with boxes labeled "Bank of Jordan," each of which was filled with $10,000 bundles from the Federal Reserve of New York with uncirculated $100 bills. There were some 150 boxes, each of which had as much as $7.5 million. See also David Zucchino, "Troops Find Baghdad Stash: $650 Million/Little-Noticed Cottages Hold Boxes of Cash," *Los Angeles Times*, April 19, 2003a.

[4]   David Zucchino, "$768 Million Found So Far in Baghdad," *Los Angeles Times*, April 23, 2003b.

In total, just under $930 million was found and seized, of which nearly $180 million would be used to support what would become CERP.[5] A presidential memorandum issued shortly after the funds were seized directed DoD to coordinate with the U.S. Department of the Treasury, State, and the Office of Management and Budget to develop "procedures governing use, accounting, and auditing" of these seized funds.[6] U.S. Central Command (CENTCOM) decided that these seized funds were the property of the former regime, and that they thus "belonged to the Iraqi people."[7]

The Commander's Discretionary Fund was created in May 2003 by the V Corps to "put the seized Iraqi assets . . . into action."[8] A series of fragmentary orders issued by the V Corps headquarters gave commanders "the authority to use the seized Iraqi funds to conduct reconstruction assistance in their areas of operation."[9] These fragmentary orders were the origin of CERP.

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[5] An aggregate number of $926.8 million is reported in DoD, "Internal Controls over Payments Made in Iraq, Kuwait and Egypt," Report No. D-2008-098, May 22, 2008. A reported $179 million of these seized assets was spent on CERP (U.S. Department of State, "Quarterly Update to Congress, 2207 Report," July 2004).

[6] Martins, 2004, p. 3, reports that this Presidential memorandum, "The President to the Secretary of Defense, subject: Certain State- or Regime-Owned Property in Iraq" was issued on April 30, 2003.

[7] Quote is from p. 4, footnote 19, of Martins, 2004. The footnote is attributed to reporting released by U.S. Central Command.

[8] Center for Law and Military Operations, *Legal Lessons Learned from Afghanistan and Iraq:* Volume II *(Full Spectrum Operations [2 May 2003–30 June 2004])*, Charlottesville, Va., undated, p. 169).

[9] A total of four fragmentary orders were issued by Headquarters, U.S. Army V Corps, before the transition to Combined Joint Task Force 7 (CJTF-7) (Center for Law and Military Operations, undated, 2005, p. 169 [footnotes 894 and 895]). Note that it is not clear from the context whether the quote is referring to the Commander's Discretionary Fund as created by V Corps or CERP as established by CJTF-7 shortly later.

2.2. CERP Is Established by the Coalition Provisional Authority

The administrator of the Coalition Provisional Authority created CERP on June 16, 2003, in a memorandum to the commander of the newly formed Combined Joint Task Force 7. This memorandum indicated that the commander should

> take all actions necessary to operate a Commanders' Emergency Response Program . . . [t]his Program will enable command-ers to respond to urgent humanitarian relief and reconstruction requirements within their areas of responsibility, by carrying out programs that will immediately assist the Iraqi people and sup-port the reconstruction of Iraq.[10]

The Coalition Provisional Authority simultaneously created two similar programs, which would use seized Iraqi assets for the purposes of reconstruction and development.

The Combined Joint Task Force 7 commander issued initial guid-ance for the use of CERP three days later, on June 19, 2003.[11] This ini-tial guidance specified that CERP should be used for "reconstruction assistance" to benefit the Iraqi people, where reconstruction assistance was defined to include "the building, repair, reconstitution, and rees-tablishment of the social and material infrastructure in Iraq."[12] Specifi-cally, CERP could be used to purchase goods and services from Iraqi citizens including, but not limited to

> water and sanitation infrastructure, food production and distri-bution, healthcare, education, telecommunications, projects in

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[10] Quote from memorandum is as reported in Martins, 2004. The memorandum also reportedly specified total allowable CERP expenditures and the total amount that could be spent on a single CERP project as implemented by division and brigade commanders.

[11] Headquarters, Combined-Joint Task Force 7, Fragmentary Order 89 (Commander's Emergency Response Program [CERP] Formerly the Brigade Commander's Discretionary Fund) to CJTF-7 Operational Order 03-036 (192346 June 03). As reported in Martins, 2004.

[12] Fragmentary Order 89, as reported in Martins, 2004.

furtherance of economic, financial, management improvements, transportation, and initiatives which further restore of [sic] the rule of law and effective governance, irrigation systems installation or restoration, day laborers to perform civic cleaning, purchase or repair of civic support vehicles, and repairs to civic or cultural facilities.[13]

Spending was initially prohibited for eight categories of projects: (1) benefit of coalition forces, either direct or indirect; (2) entertainment; (3) weapons buyback; (4) purchase of weapons or removal of unexploded ordnance; (5) public services already available through Iraqi municipal governments; (6) support for private businesses, with the exception of battle damage repair; (7) salaries to government employees; and (8) any type of rewards program.[14] However, the restriction on using CERP to pay rewards was removed by July,[15] and at times there were "very liberal rewards programs at various [Brigade Combat Teams] that looked suspiciously like weapons buyback programs."[16]

CERP funds were distributed to commanders at the brigade and division level, with allocations of $200,000 to brigade commanders and $500,000 to division commanders. Once these initial allocations were exhausted, the units could request additional funds from the Coalition Provisional Authority. As a part of these allocations, units were required to provide weekly reports on CERP expenditures including "dates, locations, amounts spent, and brief descriptions of the CERP projects undertaken."[17]

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[13] Fragmentary Order 89, as reported in Martins, 2004.

[14] Martins, 2004. That author has these in seven categories, with rewards and weapons buyback grouped together.

[15] Headquarters, Combined-Joint Task Force 7, Fragmentary Order 250 (Amendment to the Commander's Emergency Response Program [CERP] Formerly the Brigade Commander's Discretionary Fund) to CJTF-7 Operational Order 03-036 (011947 July 03). As reported in Martins, 2004.

[16] Christopher M. Ford, "The Practice of Law at the Brigade Combat Team (BCT): Boneyards, Hitting for the Cycle, and All Aspects of a Full Spectrum Practice," *Army Lawyer*, No. 379, December 2004, p. 22.

[17] Martins, 2004.

In the first four months of the program, drawing from the initial allocation of seized Iraqi assets, nearly $79 million was spent on some 11,000 unique projects.[18] This included paying "thousands of able-bodied Iraqis" to clean streets and allies, repairing local electricity infrastructure, installing air conditioning units, water and sewage projects, transportation infrastructure projects, and a variety of projects designed to jumpstart local governance.[19] The early experiences of commanders with CERP would be highlighted during Senate hearings that led to the first congressional appropriations for CERP in October 2004, discussed in the next section.

Over the next 12–15 months, CERP would continue to be funded, in large part, through seized Iraqi assets under the auspices of the Development Fund for Iraq.[20] This fund contributed nearly $370 million to CERP by September 2004, accounting for more than 50 percent of the total funding for CERP—the initial seized assets contributed $177 million, and U.S. congressional appropriations for fiscal year (FY) 2004 provided an additional $140 million for CERP in Iraq.[21]

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[18] Martins, 2004.

[19] Martins, 2004.

[20] The Development Fund for Iraq was created by the United Nations (United Nations, Security Council, "Resolution 1483," S/RES/1483, May 22, 2003) to protect seized Iraqi assets. Originally operated by the Coalition Provisional Authority, the Development Fund for Iraq was the "primary source of funds for the operation of the Iraqi Government" to be used for only "humanitarian assistance, economic reconstruction, Iraqi civil administration, and other purposes benefiting the Iraqi people (such as establishing security forces with training and equipment)." The Development Fund for Iraq was transitioned to the Interim Iraqi Government in the fall of 2004 with the passage of United Nations Security Council Resolution 1483 (U.S. Department of State, "Quarterly Update to Congress, 2207 Report," July 2004).

[21] Yosef Jabareen, "The U.S. Reconstruction Agenda and Projects in Iraq," lecture notes from e-course titled "The Politics of Reconstructing Iraq" at the Massachusetts Institute of Technology, Spring 2005. Slightly different numbers are provided in U.S. Department of State, 2004.

2.3. Congressional Support for CERP in Iraq and Afghanistan

By fall 2003, with the original seized funds designated for CERP rapidly being depleted, DoD turned to Congress for support for the program. An initial appropriation of $180 million for FY 2004, including $140 million for Iraq and $40 million in Afghanistan, first appeared in legislation in the November 2003 "Emergency Supplemental Appropriations Act for Defense and for the Reconstruction of Iraq and Afghanistan, 2004."[22] The request for CERP to be included in this emergency legislation was reportedly last minute, with the request for CERP entering the House version of the bill only shortly before the joint conference; Senate staffers only agreed to this appropriation following a series of Senate briefings by members of the Joint Staff involving officers with personal experience using CERP.[23]

Total congressional appropriations for CERP during FYs 2004 to 2016, as shown in Figure 2.1, were just more than $7.8 billion. This included $854 million in FY 2005, an appropriation that was

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[22] Public Law 108-106, Emergency Supplemental Appropriations Act for Defense and for the Reconstruction of Iraq and Afghanistan, 2004, November 6, 2003. House Report 108-312 (Section 1110), specifies that:

> During the current fiscal year, from funds made available in this Act to the Department of Defense for operation and maintenance, not to exceed $180,000,000 may be used, notwithstanding any other provision of law, to fund the Commander's Emergency Response Program, established by the Administrator of the Coalition Provisional Authority for the purpose of enabling military commanders in Iraq to respond to urgent humanitarian relief and reconstruction requirements within their areas of responsibility by carrying out programs that will immediately assist the Iraqi people, and to establish and fund a similar program to assist the people of Afghanistan: Provided, That the Secretary of Defense shall provide quarterly reports, beginning on January 15, 2004, to the congressional defense committees regarding the source of funds and the allocation and use of funds made available pursuant to the authority provided in this section. (U.S. Congress, 108th Cong., 1st Sess., *Making Emergency Supplemental Appropriations for Defense and for the Reconstruction of Iraq and Afghanistan for the Fiscal Year Ending September 30, 2004, and for Other Purposes*, House Report 108-312, October 14, 2003)

[23] The CERP appropriation first appeared in House Report 108-312 (U.S. Congress, 2003). It was maintained during conference negotiations, including the Joint Staff briefings discussed in this sentence, and included in the final bill that became Public Law 108-106 (Martins, 2004; Public Law 108-106, 2003; and interviews with congressional staffers).

revised twice from an original of $300 million;[24] a total of $923 million in FY 2006, including an initial appropriation of $500 million and $423 million in emergency supplemental appropriations;[25] and $956.4 million in FY 2007, appropriated again in two iterations of $500 million and $456.4 million.[26] Total congressional support surged in 2008, with $1.255 billion in appropriations for CERP in 2008 and nearly $1.3 billion in 2009.[27] Though total appropriations remained

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[24] CERP was included at a level of $300 million in the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005 signed into law in October 2004 (Public Law 108-375, Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005, October 28, 2004, Section 1201). After both the House and Senate passed the final legislation and conference report, the Consolidated Appropriations Act of 2005 in December 2004 (U.S. Congress, 108 Cong., Consolidated Appropriations Act, Washington, D.C., H.R. 4818, December 8, 2004, Division J, Sec. 102) increased funding from $300 million to $500 million (note that the accompanying joint explanatory text offers no insight into why lawmakers increased the authorization). Early the following year, the Emergency Supplemental Appropriations Act in May 2005 increased funding again—from $500 million to $854 million (Public Law 109-13, Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Tsunami Relief, 2005, May 11, 2005).

[25] Public Law 109-163 (National Defense Authorization Act for Fiscal Year 2006, January 6, 2006) authorized $500 million for CERP for FYs 2006 and 2007; $500 million in FY 2006 funds were appropriated by Public Law 109-148 (Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006, December 30, 2005). Public Law 109-234 (Emergency Supplemental Appropriations Act for Defense, The Global War on Terror, and Hurricane Recovery, 2006, June 15, 2006) appropriated an additional $423 million in June 2006.

[26] The initial $500 million was appropriated in Public Law 109-289 (Department of Defense Appropriations Act, 2007, September 29, 2006) in September 2006 and an additional $464.4 million was appropriated in May 2007 as part of Public Law 110-28 (U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Accountability Appropriations Act, 2007, May 25, 2007).

[27] Reported figure on total appropriations for these two years is from the sources listed in Figure 2.1. For FY 2008, the initial authorization for CERP was $977,441,000 (U.S. Congress, 110th Cong., 1st Sess., National Defense Authorization Act for Fiscal Year 2008, Washington, D.C., H.R. 110-477, December 6, 2007), although this was changed retroactively to $1.5 billion with the signing of Public Law 110-417 (Duncan Hunter National Defense Authorization Act for Fiscal Year 2009, October 14, 2008), which also authorized $1.7 billion for CERP in FY 2009. Public Law 110-161 (Consolidated Appropriations Act, 2008, December 26, 2007) appropriated $500 million and subsequent legislation in June 2008 appropriated an additional $1,226,841,000 (Public Law 110-252, Supplemental Appropriations Act, 2008, June 30, 2008).

Figure 2.1
Congressional Appropriations for CERP in Iraq and Afghanistan
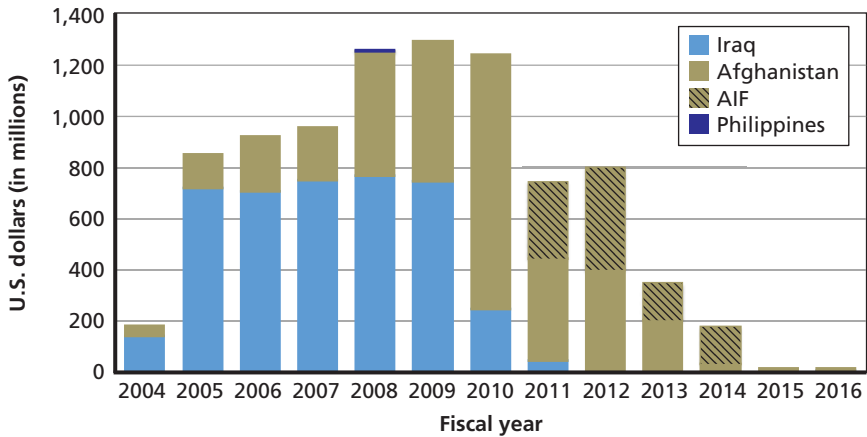
SOURCE: Data are from Table B.3 of *U.S. House of Representatives, Learning from Iraq: A Final Report from the Special Inspector General for Iraq Reconstruction*, Washington, D.C., U.S. Government Printing Office, July 9, 2013; Table B.1 of Special Inspector General for Afghanistan Reconstruction, "Quarterly Report to the United States Congress," July 30, 2015c; and Public Law 114-92. See Section 2.6 for a description of the AIF and its relationship to CERP.

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roughly constant through FY 2010, at just less than $1.25 billion, appropriations for CERP in Iraq fell sharply in tandem with the withdrawal of U.S. forces.[28]

In FY 2011, projects that would have previously been very large CERP projects—that is, more than $20 million—were segregated into a newly authorized AIF, discussed later in this chapter (Section 2.6). A total of $500 million was authorized for CERP in FY 2011, with $100 million and $400 million designated, respectively, for Iraq and Afghanistan; however, only $444 million was appropriated.[29] Funding

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[28] Total authorization for CERP in FY 2010 was $1.3 billion (Public Law 111-84, National Defense Authorization Act for Fiscal Year 2010, October 28, 2009) and the total appropriations were $1.2 billion (Public Law 111-118, Department of Defense Appropriations Act, 2010, December 19, 2009).

[29] Public Law 112-10 (Department of Defense and Full-Year Continuing Appropriations Act, 2011, April 15, 2011, Section 9005) allowed a total appropriation up to $500 million.

for FY 2012 included $400 million for Afghanistan only; although $25 million in CERP funds for Iraq was requested in FY 2012, this request was denied under the justification that this funding was no longer necessary because U.S. forces in Iraq were serving only in a training and advisory capacity.[30] The authorization for FY 2013 fell to $200 million, half of the $400 million requested by DoD, with the congressional committee pointing to under-execution of funds as justification.[31] With combat operations drawing to a close, CERP authorizations fell to $60 million in FY 2014 and $20 million in FY 2015,[32] with Congress indicating that there may be a need for CERP funding in the future in Afghanistan and instructing that CERP funding should continue at a "minimum level commensurate with the train, advise, and assist mission anticipated for U.S. forces in 2015 and beyond."[33] In FY 2016, a total of $10 million in CERP was authorized, including $5 million for Afghanistan and $5 million for operations in Iraq, although funding for Iraq was restricted to "ex gratia payments for damage, personal injury, or death that is incident to combat operations of the Armed Forces in Iraq."[34]

The congressional justification for CERP evolved rapidly during its first few years. The initial stated purpose of the program, to enable military commanders in Iraq and Afghanistan to "respond to urgent humanitarian relief and reconstruction requirements within their areas of responsibility by carrying out programs that will immediately

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[30] U.S. Congress, 112th Cong., 1st Sess., *National Defense Authorization Act for Fiscal Year 2012*, House Report 112-78, May 17, 2011.

[31] Public Law 112-239, National Defense Authorization Act for Fiscal Year 2013, January 2, 2013.

[32] For FY 2014, see Public Law 113-66, National Defense Authorization Act for Fiscal Year 2014, December 26, 2013. For FY 2015, see U.S. Congress, 113th Cong., 2nd Sess., *Howard P. 'Buck' McKeon National Defense Authorization Act for Fiscal Year 2015*, House Report 113-446, May 19, 2014, and U.S. Senate, 113th Cong., 2nd Sess., *Carl Levin National Defense Authorization Act for Fiscal Year 2015*, Senate Report 113-176, June 2, 2014.

[33] U.S. Senate, 2014.

[34] Public Law 114-92, National Defense Authorization Act for Fiscal Year 2016, November 25, 2015.

assist" the Afghans or Iraqis,[35] mirrored the initial intent of the Commander's Discretionary Fund. The FY 2005 authorization modified this slightly, with the House report altering its definition of CERP to "small humanitarian and reconstruction projects."[36] However, Congress became increasingly proscriptive in FY 2006 in how CERP could be used, specifying that

> CERP funds be used to assist the Iraqi and Afghan people in the following representative areas: water and sanitation; food production and distribution; agriculture; electricity; healthcare; education; telecommunications; economic, financial and management improvements; transportation; irrigation; rule of law and governance; civic cleanup activities; civic support vehicles; repair of civic and cultural facilities; and other urgent humanitarian or reconstruction projects.[37]

Beginning in FY 2006, Congress concluded that there should be restrictions on how CERP could be used. In FY 2006, Congress acknowledged that restrictions placed on CERP by the Undersecretary of Defense (Comptroller) were sensible; the comptroller had issued guidance restricting the use of foreign labor for CERP projects, stating that local citizens should be employed when possible, and that CERP should not be used for goods, services, or funds for Iraqi or Afghani

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[35] Public Law 108-106.

[36] U.S. Congress, 108th Cong., 2nd Sess., *National Defense Authorization Act for Fiscal Year 2005*, House Report 108-491, May 14, 2004. The final bill, Public Law 108-375, also added a provision that afforded DoD the ability to waive any provision of law that "would prohibit, restrict, limit, or otherwise constrain implementation of the CERP program." Later, in May 2005, a new restriction was added: No more than $10 million could be used to purchase weapons from persons, foreign governments, international organizations, or entities to dispose of the weapons for the purposes of protecting U.S. forces overseas, and the Secretary of Defense is to submit quarterly reports regarding the purchase and disposal of these weapons (Public Law 109-13, 2005, Section 1006).

[37] U.S. Senate, 109th Cong., 1st Sess., *National Defense Authorization Act for Fiscal Year 2006*, Senate Report 109-69, May 17, 2005, indicated that this use was consistent with the Undersecretary of Defense (Comptroller's) February 18, 2005, memorandum.

security forces.[38] In the same year, Congress ordered the development of a joint policy on contingency contracting and standardized training for contingency contracting personnel on appropriate use of CERP funds.[39] The FY 2008 legislation contained a passage regarding "martyr payments," questioning whether this was an appropriate use of CERP funds and directing DoD to review the practice and to provide a report to Congress. Specific restrictions were introduced in FY 2009 for CERP dollars spent in Iraq, limiting the amount of CERP funds that could be obligated to a single project to $2 million and required that any project over $1 million "[address] urgent humanitarian relief and reconstruction requirements that will immediately assist the Iraqi people."[40] However, spending on CERP projects in Afghanistan was not restricted until FY 2011, when projects that were more than $20 million were disallowed and projects more than $2 million

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[38] Public Law 109-163, 2006, Section 817, indicates that:

> It is the understanding of the conferees that the CERP program is currently being implemented pursuant to the guidance issued by the Comptroller on July 27, 2005. That guidance explicitly prohibits, among other things, the use of CERP funds for providing goods, services, or funds to national armies, National Guard forces, border security forces, civil defense forces, infrastructure protection forces, highway patrol units, police, special police, or intelligence or other security forces. The conferees expect this element of the current CERP guidance to remain in any subsequently issued CERP guidance. The Congress has appropriated significant funds for the specific purpose of training and equipping the Iraq and Afghanistan national armies, police, and security forces, and therefore CERP funds are specifically not intended to be used for that purpose.

[39] Public Law 109-163, 2006, Section 817.

[40] Public Law 110-417, 2008. The text, which reflects congressional concerns, required that Iraq increase its capability to undertake projects and begin assuming a larger financial role in carrying out CERP projects. This sentiment also appears in the accompanying House Report (U.S. Congress, 110th Cong., 2nd Sess., *Duncan Hunter National Defense Authorization Act for Fiscal Year 2009*, House Report 110-652, May 20, 2008), in which the House expressed concern about the amount the Government of Iraq (GOI) was contributing to CERP projects and how the CERP budget was being developed. This concern led to a requirement that the Secretary report to Congress about how the base and supplemental budget requests are formulated for CERP. Additionally, the House report also points out that CERP operations in Afghanistan were not seeing growth comparable to those in Iraq.

required a waiver from the Secretary of Defense or Deputy Secretary of Defense.[41]

The congressional reporting requirements for CERP also evolved over this time. Initially, the only restriction on funds issued for FY 2004–2005 was that DoD provide quarterly reports to Congress.[42] FY 2011 introduced new reporting requirements for projects exceeding $5 million, requiring that Congress be notified and provided information on the project's location, purpose, budget and implementation timeline, local involvement, and sustainment plan;[43] the House bill also included reporting requirements for projects more than $1 million.[44] The FY 2014 CERP authorization repealed the requirement for certain reports and briefings, instead directing DoD to produce a comprehensive report on the lessons learned and good practices from Operation Iraqi Freedom and Operation Enduring Freedom.[45]

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[41] Public Law 111-383 (Public Law 111-383, Ike Skelton National Defense Authorization Act for Fiscal Year 2011, January 7, 2011, Section 1212(c)(2)) specified that CERP "may not be obligated or expended to carry out any project if the total amount of funds made available for the purpose of carrying out the project, including any ancillary or related elements of the project, exceeds $20,000,000." Larger projects would be shifted to the newly created AIF, as discussed in Section 2.6 of Chapter Two. House Resolution 5136 (U.S. Congress, 111th Cong., 2nd Sess., *National Defense Authorization Act for Fiscal Year 2011*, House Resolution 5136, May 28, 2010) included the waiver requirement for projects more than $2 million.

[42] See footnote 22 of this chapter. Note that guidelines for these quarterly reports were not provided until 2005, when the Senate added requirements that DoD provide detailed information on the amount, recipient, and specific purpose of the funds (U.S. Senate, 108th Cong., 2nd Sess., *National Defense Authorization Act for Fiscal Year 2005*, Senate Report 108-260, May 11, 2004). Public Law 108-375, 2004, contained a reporting requirement for a description of military civil affairs and reconstruction efforts, including CERP, and an assessment of the programs' effectiveness.

[43] Public Law 111-383, 2011.

[44] U.S. Congress, 2010.

[45] Public Law 113-66, 2013.

2.4. Evolution of DoD Guidance

DoD guidance for the use of CERP was first issued in late November 2003, less than three weeks after the first appropriation of congressional funds for CERP.[46] This guidance reportedly stated that CERP was a "a very powerful tool for the military commanders in carrying out their current security and stabilization mission" and that newly appropriated congressional funds should "preserve the same flexibility and responsiveness" of the initial funds.[47] This initial guidance also reportedly maintained as a brigade combat team–focused program, with "a minimalist approach to higher level oversight."[48]

This initial guidance was codified in April 2005 with the release of the DoD Financial Management Regulation (FMR) for CERP.[49] This FMR, which rescinded the previous congressional guidance, delineated 15 permissible categories of projects analogous to those previously allowed.[50] Seven prohibited categories specified in the FMR differed from existing prohibitions in two ways: (1) the restriction on

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[46] Martins (2004) indicates that the following memorandum was drafted by Under Secretary of Defense (Comptroller) (USD[C]) Dov Zakheim: "Memorandum, Under Secretary of Defense (Comptroller), to Commander, U.S. Central Command and Secretary of the Army, subject: Guidance on the Use of Appropriated Funds for the Commander's Emergency Response Program (CERP) (25 Nov. 2003)."

[47] Martins (2004), quoting USD(C) Zakheim's November 2003 memorandum. However, this memorandum also reportedly tasked U.S. Central Command and the Department of the Army with developing procedures for the use of these funds.

[48] Marlin Paschal, "Knowing When to Say No and Providing a Way Forward: The Commander's Emergency Response Program and the Advising Judge Advocate," *Army Lawyer*, Vol. 13, September 2011.

[49] DoD, Financial Management Regulation, "Commander's Emergency Response Program (CERP)," DoD 7000.14-R, Vol. 12, Ch. 27, May 2005.

[50] These 15 permitted uses were analogous to those delineated by Headquarters, Combined-Joint Task Force 7, Fragmentary Order 89 (Commander's Emergency Response Program [CERP] Formerly the Brigade Commander's Discretionary Fund) to CJTF-7 Operational Order 03-036 (192346 June 03), as reported in Martins, 2004, and continued by the previous Undersecretary of Defense (Comptroller) guidance. They are as follows: (1) water and sanitation, (2) food production and distribution, (3) agriculture, (4) electricity, (5) health care, (6) education, (7) telecommunications, (8) economic, financial, and management improvements, (9) transportation, (10) rule of law and governance, (11) irrigation, (12) civic

providing support to private businesses or individuals was removed and (2) the prohibition on the payment of salaries was expanded including Iraqi or Afghan military in addition to civilian government personnel.

The FMR also established that the Army would serve as the executive agent for CERP, and assigned the Secretary of the Army responsibility for promulgating "procedures as necessary to ensure that unit commanders carry out the CERP in a manner consistent with applicable laws, regulations, and [FMR] guidance."[51] The Undersecretary of Defense (Comptroller) assumed responsibility for overseeing the execution of the program and for satisfying congressionally mandated reporting requirements,[52] while the CENTCOM commander was assigned responsibility for determining how CERP should be allocated across commands and advocating "for appropriate resources and authorities in support of the theater's military global war on terrorism mission."[53]

The FMR began to evolve in substantive ways almost immediately.[54] A September 2005 amendment clarified the intent of CERP, specifying that "CERP is intended for small-scale, urgent, humanitarian relief and reconstruction projects for the benefit of the Iraqi and Afghan people."[55] This amendment also expanded the number of per-

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cleanup activities, (13) civic support vehicles, (14) repair of civic and cultural facilities, and (15) other urgent humanitarian or reconstruction projects.

[51] DoD, 2005, p. 27-4, paragraph 270302. The DoD FMR also assigned the Army responsibility for providing monthly reports on all CERP projects to the Secretary of Defense including, for each project, a description of the project; the project's location; the unit conducting the project; the type of funds (e.g., congressionally appropriated, the Development Fund for Iraq, etc.); and cumulative totals of CERP allocated, committed, obligated, and disbursed. Projects more than $1 million were also required, including a statement of how the project supports the purpose of CERP and the estimated length of completion.

[52] The initial congressional appropriation of CERP funds had established a quarterly congressional reporting requirement, specifying that "the Secretary of Defense shall provide quarterly reports, beginning on January 15, 2004, to the congressional defense committees regarding the source of funds and the allocation and use of funds made available" (Public Law 108-106, 2003, Section 1110).

[53] DoD, 2005, p. 27-4, paragraph 270303.

[54] Minor amendments to the regulation were made in May 2007 and May 2008, in addition to the amendment to project types that was made in September 2005 (previously discussed).

[55] DoD, 2005, p. 27-5, paragraph 270302.

mitted and prohibited projects and created "a fairly clear distinction between using the CERP for the benefit of the indigenous population (allowed) and using the CERP for the benefit of local security forces (forbidden)."[56]

Additional clarification on what exactly CERP projects "should look like" and new reporting requirements, including the collection of performance "metrics" and indicators, were introduced in June 2008.[57] These changes were a response to a Government Accountability Office (GAO) report that explored the adequacy of existing criteria for CERP project selection, extent of coordination by commanders in implementing CERP, and DoD oversight of CERP in Iraq.[58] The clarification of the definition of a CERP project—implemented in the FMR through the introduction of (1) additional language defining the meaning of *small-scale* and *urgent* and (2) an annex providing detailed descriptions of each project type—was a response to GAO's conclusion that "DOD guidance provides no definition for small-scale or urgent, which leaves commanders with the responsibility of developing their own definitions" and that commanders "had varying definitions for small-scale."[59] The new reporting requirements, which were introduced in the FMR

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[56] Quote is from Paschal, 2011, p. 20. The four permissible categories added were: (1) repair of damage caused by U.S. coalition or "supporting military operations," (2) condolence payments to civilians resulting from U.S. coalition or "supporting military operations," (3) payments to individuals upon release from detention, and (4) physical protective measures. Projects that were newly prohibited were any that provided any support to the Iraqi military, including (1) goods, services, or funds to national armies, national guard forces, civil defense forces, infrastructure protection forces, highway patrol units, police, special police, or intelligence or other security forces; (2) bonuses or pensions (in addition to salaries) for host country government personnel; (3) training, equipping, or operating costs of Iraqi or Afghan security forces; and (4) psychological or information operations or other U.S. coalition or Iraq/Afghanistan security force operations (DoD, 2005, p. 27-4 and 27-5, paragraphs 270103 and 270301).

[57] DoD, "Commander's Emergency Response Program (CERP)," DoD 7000.14-R, Vol. 12, Ch. 27, June 2008.

[58] GAO, "Military Operations: Actions Needed to Better Guide Project Selection for Commander's Emergency Response Program and Improve Oversight in Iraq," GAO-08-736R, June 23, 2008a.

[59] GAO, 2008a.

with an acknowledgement that "[p]erformance metrics are essential to ensure that funds are being applied for the most beneficial projects," required that "[p]erformance indicators must be included in evaluation packages for proposed CERP projects and used as part of the close-out process for evaluating the project at its completion."[60] Additionally, this FMR introduced a requirement to coordinate projects with other U.S. and host-nation agencies, although the GAO report concluded that this was already being done.[61]

The FMR guidance for CERP was further amended twice. In August 2008, the FMR was modified to allow CERP to be used in the Philippines, with the Secretary of the Navy as the executive agent (discussed later in this chapter [Section 2.8]).[62] The current FMR, released in January 2009, introduced additional restrictions on the use of bulk funds and the use of CERP for large projects. Projects more than $2 million in Afghanistan required CENTCOM approval; projects in Iraq were capped at $2 million; and projects more than $750,000 in Iraq were "expected to be funded on a cost-share basis with the GOI."[63]

2.5. "Money as a Weapons System" in Iraq and Afghanistan

Guidance for the implementation of CERP for ground commanders was provided in MAAWS. MAAWS was created to delineate the standard operating procedures for "how to financially resource operations" and to "serve as a financial road map to assist [commanders] in navigating the myriad of funding challenges and issues that will arise."[64] MAAWS provides the standard operation procedures "for proposing

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[60] DoD, 2008, p. 27-9, paragraph 270315.

[61] GAO, 2008a, p. 4.

[62] DoD, 2008.

[63] DoD, "Commander's Emergency Response Program (CERP)," DoD 7000.14-R, Vol. 12, Ch. 27, January 2009, p. 27-4, paragraph 270103.

[64] Multi-national Corps Iraq, "Money as a Weapons System (MAAWS)," MNC-I CJ8 SOP, January 26, 2009.

projects, awarding contracts, and managing CERP-related activities" with the intent of providing "a user-friendly guide designed to help commanders get from point A to point Z in the CERP implementation and management process."[65]

The initial MAAWS, which was first issued in Iraq by the Multi-National Corps–Iraq (MNC-I) in October 2005,[66] covered each of the more than one dozen different sources of potential funding for ground commanders in Iraq.[67] When U.S. Forces–Afghanistan (USFOR-A) issued the first MAAWS-Afghanistan (MAAWS-A) in May 2009, a single 165-page document was dedicated to the execution and management of only CERP projects.[68]

MAAWS, which is based on the FMR, was the command guidance for both MNC-I and USFOR-A for the use of CERP funds by ground commanders. It was designed to provide a "streamlined version of the government procurement process, designed to meet the intent of the [FMR], while providing commanders with maximal flexibility" and provide guidance in procurement, management, and reporting for CERP projects.[69] A major difference between the MAAWS and the FMR was its procedural emphasis: It was a "day-to-day reference that combines regulatory standards with cradle-to-grave processes for initiating and closing out CERP projects."[70]

Both the MAAWS for Iraq and the MAAWS-A were designed like textbooks. Although organized somewhat differently than the MAAWS

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[65] Paschal, 2011, p. 26.

[66] Special Inspector General for Iraq Reconstruction, *Iraq Commander's Emergency Response Program Generally Managed Well, but Project Documentation and Oversight Can Be Improved*, SIGIR 10-003, October 28, 2009, p. 1. MAAWS for Iraq was updated at least four times including May 2008, including a discussion of Iraqi-CERP (I-CERP), and again in January 2009, September 2009, and March 2010.

[67] CERP accounted for 94 of the 324 pages in the January 2009 iteration of MAAWS for Iraq. Multi-national Corps Iraq, 2009.

[68] MAAWS-A was reportedly created as nearly a direct copy of the MAAWS from Iraq, with one senior officer reporting euphemistically that they had simply put a new cover on the MAAWS developed by MNC-I. Interview with senior Army officer.

[69] Paschal, 2011, p. 26.

[70] Paschal, 2011, p. 26.

issued by MNC-I, the December 2009 release of the MAAWS-A illustrates the type of information included in the MAAWS.[71] The December 2009 MAAWS-A begins by providing basic information on the background, purposes, use, and reporting requirements for CERP. However, the bulk of the text is a series of annexes that provide guidance on specific aspects of CERP execution. These annexes include a more detailed description of the project execution and management process (Annex A),[72] detailed descriptions of the types of projects permissible (Annex B and C),[73] guides for CERP program managers, resource managers, purchasing officers, and pay agents (Annexes E, F, and K); a guide for entering projects into CIDNE (Annex G); and discussions of the variety of different forms, checklists, and other paperwork required for CERP (Annex I and Annex J).

In line with the FMR guidance from June 2008, which delineated the importance of collecting performance metrics, the December 2009 MAAWS-A requires that performance metrics be identified for each project. Specifically, each project must specify a problem statement, a benefit to the local population, sustainability, the number of local population involved in the project, the number of locals benefiting, and expected duration.[74] Later revisions to the MAAWS-A brought an enhanced focus on measuring effectiveness;[75] for example, the March 2012 revision—which contains sections on selecting, executing, and

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[71] USFOR-A, U.S. Forces, Afghanistan, "Money as a Weapon System Afghanistan (MAAWS-A): Commander's Emergency Response Program (CERP) SOP," USFOR-A Pub 1-06, December 2009.

[72] Annex A in USFOR-A, 2009, also delineates the responsibilities for all individuals involved in CERP implementation.

[73] Annex C provides details for the microgrant program that "expands the flexibility of CERP and authorizes Commanders to provide cash, equipment, tools, or other material support (in-kind contributions preferred) to small businesses that lack available credit or financial resources" (USFOR-A, 2009, p. 45).

[74] USFOR-A, 2009, Annex G.

[75] A previous update, in February 2012, had focused on enhancing fiscal stewardship of CERP projects stating that MAAWS-A was both the "USFOR-A Financial Management Policy and a commander's guide to the resources available in this complex and dynamic contingency operation" (USFOR-A 2012, p. 2).

evaluating projects for both counterinsurgency effects and economic effects—discusses the need to assess both the outputs and outcomes of CERP projects.[76]

2.6. Afghan Infrastructure Fund

The U.S. Congress created the AIF in 2011 to fund infrastructure projects that are "in support of the counterinsurgency strategy . . . including, but not limited to, water, power, and transportation projects and related maintenance and sustainment costs."[77] Although often perceived as a "CERP-like funding source,"[78] AIF projects explicitly required participation from both the Secretary of Defense and Secretary of State.[79] A total of just more than $1 billion was appropriated for AIF during FYs 2011 through 2014.[80]

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[76] USFOR-A, 2012. Chapters Six and Seven of USFOR-A, 2012, detail procedures for selecting, executing, and evaluating CERP for, respectively, "counterinsurgency effects" and "economic effects." It does not, however, offer detailed guidance on project selection or on establishing or evaluating specific measures of effectiveness.

[77] Public 112-10, 2011. AIF was authorized in the Public Law 111-383, 2011, Section 1217.

[78] Paschal, 2011, p. 17.

[79] Public 112-10, 2011, specifies that "any projects funded by [AIF] shall be jointly formulated and concurred in by the Secretary of State and Secretary of Defense."

[80] The total appropriation of $1.04 billion included $299 million in FY 2011 appropriations (the Appropriations Act for 2011 allowed a maximum AIF appropriation of $400 million, Public Law 112-10, 2011, 125 Stat. 90), $400 million in FY 2012 appropriations (Public Law 112-74, Public Law 112-74, Consolidated Appropriations Act, 2012, December 23, 2011, 125 Stat. 842), $145.5 million in FY 2013 appropriations (the Appropriations Act for 2013 allowed a maximum AIF appropriation of $325 million, Public Law 113-6, Public Law 113-6, Consolidated and Further Continuing Appropriations Act, 2013, March 26, 2013, 127 Stat. 332), and $199 million in FY 2014 appropriations (Public Law 113-76, Making Consolidated Appropriations for the Fiscal Year Ending September 30, 2014, and for Other Purposes, January 17, 2014, 128 Stat. 140). The discrepancy between congressional and actual appropriations reflects the transfer of $280.5 million from AIF to USAID's Economic Support Fund (Special Inspector General for Afghanistan Reconstruction, *Department of Defense Commander's Emergency Response Program (CERP): Priorities and Spending in Afghanistan for Fiscal Years 2004–2014*, SIGAR-15-49-SP, April 2015b, actual appropriations provided in Table B.1 of that report).

AIF was created in response to a concern within the Senate that "CERP funds were being used to pay for large-scale reconstruction projects and other DoD efforts outside the scope of the purposes of CERP."[81] As a result, the Secretary of Defense and Secretary of State submitted a joint request to establish a new fund "for the purpose of executing large-scale infrastructure projects in Afghanistan," with the Secretary of Defense willing to reduce its CERP request by $400 million to fund this new program.[82] Interagency coordination involving the ISAF regional commands, the U.S. embassy, USFOR-A, and the Afghan government was required for each project before being submitted to the ISAF commander and U.S. ambassador for approval.[83]

Most AIF funding was focused on projects in the energy sector, with around 80 percent of total funds dedicated to the construction, installation, or rehabilitation of transmission lines, power substations, and diesel generators.[84] The intent was for all these projects to be sustained by the Afghan government upon completion.

2.7. "I-CERP" Is Established as an Iraqi Government Program

In 2008, the GOI, in coordination with the Multi-National Force–Iraq (MNF-I), established an Iraqi-funded CERP equivalent, I-CERP.[85]

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[81] GAO, "Agencies Could Benefit from a Shared and More Comprehensive Database on U.S. Efforts," GAO-13-34, November 7, 2012. This report references U.S. Senate, 111th Cong., 2nd Sess., *Making Appropriations for the Department of Defense for the Fiscal Year Ending September 30, 2011, and for Other Purposes*, Senate Report 111-295, September 16, 2010.

[82] GAO, 2012, p. 8.

[83] GAO, 2012, p. 27.

[84] Table 3.22 of Special Inspector General for Afghanistan Reconstruction, *Quarterly Report to the United States Congress*, January 30, 2015a.

[85] The GOI also established another CERP-like funding stream when it took over paying the Sons of Iraq, who were previously paid using U.S. CERP funds (GAO, "Iraq Has a Cumulative Budget Surplus, Offering the Potential for Further Cost-Sharing," GAO-10-304, September 13, 2010).

Total GOI funding for I-CERP was $270 million, which was trans-
ferred from the Iraqi Treasury to the Federal Reserve Bank of New
York as part of an April 2008 memorandum of understanding (MOU)
signed between the MNF-I and the GOI's Supreme Reconstruction
Council (SRC);[86] the GOI had initially indicated that it would provide
$300 million in total funding for the program,[87] but $30 million was
retained for SRC-selected projects.[88] The MOU required that MNF-I
provide quarterly reports on I-CERP activities and train Iraqi security
forces on how to manage the program.[89]

The GOI reportedly funded this program, as it "believed that the
accumulated U.S. expertise would enhance the efficient channeling of
Iraqi budget surplus funds into the reconstruction effort."[90] However,
the creation of I-CERP may also have been a response to the House
Report accompanying the 2009 National Defense Authorization Act,
published the following month in May 2008, indicating that:

> The committee notes with significant concern the increasing
> requests for funding for [CERP] in the Republic of Iraq at a
> time when the Government of Iraq is experiencing unanticipated
> increases in national revenue, has a growing institutional capabil-
> ity to undertake its own humanitarian and reconstruction proj-
> ects, and has itself contributed its own national funds to projects
> administered under CERP authority . . . the committee recom-
> mends a provision elsewhere in this title to limit the expenditure
> of U.S. CERP funds in fiscal year 2009 to no more than twice

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[86] Charles Bronowski and Chad Fisher, "Money as a Force Multiplier: Funding Military
Reconstruction Efforts in Post-Surge Iraq," Department of the Army Pamphlet 27-50-443,
Army Lawyer, April 2010. The authors report that this relationship was formalized in the
following MOU: "Memorandum of Understanding Between Iraq Supreme Reconstruction
Council of the Secretariat of the Council of Ministers and the Multi-National Force-Iraq
Concerning Implementation of the Government of Iraq Commander's Emergency Response
Program annex B to MNF-I FRAGO 08-166 (3 Apr. 2008)."

[87] Special Inspector General for Iraq Reconstruction, 2009.

[88] Bronowski and Fisher, 2010.

[89] Special Inspector General for Iraq Reconstruction, 2009.

[90] Bronowski and Fisher, 2010, p. 57.

the amount obligated by the Government of Iraq for its CERP account in calendar year 2008.[91]

This provision in the National Defense Authorization Act could only be waived if the Secretary of Defense determined that CERP was "required to meet urgent and compelling needs that if unmet, could rationally be expected to lead to increased threats to United States military and civilian personnel."[92]

Though I-CERP used CERP's existing "procedures, controls, and disbursement mechanisms," it differed in several ways from U.S.-funded CERP activities.[93] First, the U.S. implementers were required to provide quarterly reports to the GOI, including detailed descriptions of all projects that were more than $50,000.[94] Second, I-CERP projects were paid in Iraqi dinars, rather than dollars. Third, the types of projects that I-CERP could be spent on were more restrictive, focusing primarily on construction projects as GOI officials reportedly believed that "because brick and mortar projects are more perceptible to the public, they more effectively convey to a wider Iraqi audience that the government is working for them."[95] Projects were therefore restricted to water purification plans, the repair or reconstruction of either schools or health clinics, municipal buildings, and measures to protect I-CERP projects; roads, sewers, irrigation, and small business projects were permissible "by exception" if the U.S. commanding general for that region approved them.[96] Fourth, I-CERP funds were to

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[91] Discussion included under "Title XII–Matters Relating to Foreign Nations: Commanders' Emergency Response Program in Iraq" in U.S. Congress, 2008.

[92] U.S. Congress, 2008, Section 1214.

[93] Bronowski and Fisher, 2010, p. 57. An analogous description is provided in Special Inspector General for Iraq Reconstruction, 2009, p. 1.

[94] Special Inspector General for Iraq Reconstruction, 2009.

[95] Bronowski and Fisher, 2010, p. 58.

[96] Special Inspector General for Iraq Reconstruction, 2009. Note that the Special Inspector General for Iraq Reconstruction references the September 2009 MAAWS for this list. This restricted list of permissible projects reportedly frustrated commanders trying to use I-CERP (Bronowski and Fisher, 2010).

be spent in only non-Kurdish provinces, with the share of total funds going to each province proportional to the population.[97]

As of September 2009, MNF-I had obligated approximately $229 million of the $270 million total allocation for I-CERP to more than 1,100 unique projects. The four most common types of projects funded with I-CERP were schools, with $82 million in obligations for 373 projects; small business grants, with $4.3 million for 233 projects; water treatment facilities, with $41 million for 199 projects; and roads, with $71 million for 134 projects.[98] Municipal buildings, health clinics, irrigation, and sewer projects accounted for the remaining funding; no I-CERP funds were obligated for protective measures.

I-CERP received no additional funding from the GOI after 2008, reportedly as a result of "limited capital budgets and competing spending priorities."[99] By the summer of 2011, $256 million of the $270 million initial Iraqi appropriation for I-CERP had been obligated.[100]

2.8. CERP in Operation Enduring Freedom–Philippines

OEF-P was initiated in 2001, just weeks after the commencement of U.S. military action in Afghanistan. The objective of OEF-P was to reduce the transnational extremist threat posed by al Qaeda affiliates in the southern Philippines. The main affiliates included the Abu Sayyaf Group and elements of Jemaah Islamiyah, the Indonesian Islamist extremist organization responsible for the 2002 Bali bombing.[101] The

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[97] Special Inspector General for Iraq Reconstruction, 2009.

[98] Table 3 of Special Inspector General for Iraq Reconstruction, 2009.

[99] GAO, 2010, p. 28.

[100] Special Inspector General for Iraq Reconstruction, *Commander's Emergency Response Program Obligations Are Uncertain*, SIGIR 11-012, January 31, 2011a. This report also documents a variety of challenges that U.S. Forces–Iraq, the successor to MNF-I, had faced in properly managing I-CERP. Note that a 2009 GOI audit of I-CERP reported significant concerns about the MNF-I management of the program. See Appendix C of Special Inspector General for Iraq Reconstruction, 2009.

[101] Brian Petit, "OEF-Philippines: Thinking COIN, Practicing FID," *Special Warfare*, Vol. 23, No. 1, February 5, 2010, p. 11.

U.S. formally terminated OEF-P in the first quarter of 2015, 13 years after it began, although a small number of U.S. military advisers remain.[102]

The Philippines, under the auspices of OEF-P, is the only country other than Iraq and Afghanistan to have received CERP funds. The appropriation of CERP for OEF-P resulted from a chance interaction of two key individuals, Senators Daniel Inouye (Hawaii) and Ted Stevens (Alaska), who were, respectively at the time, the chair and ranking member of the U.S. Senate Committee on Appropriations on Defense, with SOF personnel operating in OEF-P.[103] Senators Inouye and Stevens, whose constituencies included key elements of U.S. Pacific Command (USPACOM), met with the commander of the Joint Special Operations Task Force–Philippines (JSOTF-P) during a U.S. congressional delegation visit to the Philippines in January 2008.[104] When the senators inquired about JSOTF-P resource gaps and needs, the JSOTF-P commander stated that he needed CERP to be authorized for OEF-P.[105] The U.S. embassy spokesman in Manila also conveyed the need for OEF-P CERP to the chairman of the Joint Chiefs of Staff, Admiral Mike Mullen.[106]

As a result, in late 2008, the Office of the Undersecretary of Defense (Comptroller) published a revised version of the 2008 FMR, which assigned responsibility for managing CERP in the Philippines to the Secretary of the Navy as the CERP manager—the revised version was published on August 8, 2008.[107] The Office of the Undersecretary

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[102] Liezel Lacastesantos, "U.S. Special Forces Leaving Philippines," ABS-CBN News Zamboanga, February 25, 2015; and Joseph Trevithick, "Yes, American Commandos Are Still in the Philippines: Special Troops Help Manila with Intel, Training and Transport," WarisBoring.com, November 5, 2014.

[103] Public Law 110-252, 2008.

[104] Interview with senior Army officer.

[105] Interview with senior Army officer.

[106] Jim Garamone, "Mullen Views Interagency Success in Philippines," American Forces Press Service, June 1, 2008.

[107] DoD, 2008, pp. 3–5. Note that the this FMR amendment designating the Secretary of the Navy as the USPACOM CERP manager did not establish an effective channel for

of Defense (Comptroller) also executed an internal reprogramming action transferring $2 million from the Army operations and maintenance account to the Navy operations and maintenance account for the execution of OEF-P CERP.[108]

The late appropriation and reprogramming of CERP resources demanded swift and largely centralized execution. The JSOTF-P commander had fewer than 60 days to obligate the funds before the end of the FY on September 30.[109] Given the extremely short execution window, the JSOTF-P commander used the CERP funds to fill funding gaps in high-priority, centrally managed civil affairs projects.[110] While the sum apportioned for OEF-P CERP was limited and the execution window too brief to distribute the funds to lower echelons for discretionary use, it appeared as if Congress and the Under Secretary of Defense for Policy (USD[P]) were taking promising steps toward institutionalizing channels for requesting and receiving CERP funds in the USPACOM AOR.

OEF-P was never to receive CERP resources again. The National Defense Authorization Act for FY 2009 did not authorize the expenditure of CERP funds in support of OEF-P.[111] The 2009 amendments to the FMR removed the previous language regarding CERP in the Philippines.[112]

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communicating the joint force commander's CERP requirements to the Department of the Army, nor did it establish a budgeting mechanism other than a destination account for Army operations and maintenance transfers, which seemed to assume that the Army was willing to share resources and that the Navy was willing to assume budgetary responsibility for supporting land operations.

[108] Office of the Under Secretary of Defense (Comptroller) [OUSD(C)], "Reprogramming Action-Internal FY 08-46 IR, Subject: CERP for Philippines," copy of memorandum provided to authors, 2008.

[109] Interview with senior Army officer.

[110] Interview with senior Army officer.

[111] Public Law 110-417, 2008.

[112] DoD, 2009.

2.9. Timeline of CERP

CERP had a relatively modest beginning, with only $180 million of the more than $900 million seized in "Little Venice" allocated to conduct reconstruction operations. However, building largely from the perceived effectiveness of CERP during this early period, Congress would authorize $7.8 billion to CERP to support operations in Afghanistan, Iraq, and the Philippines during FYs 2004 through 2016. The key events in CERP's development as a DoD program are illustrated in Figure 2.2. The next chapter explores existing perceptions of CERP and its effectiveness.

Figure 2.2
Timeline of Key Events for CERP

Cache of U.S. dollars discovered in "Little Venice," Baghdad

Iraqi-CERP formed

Commander's Discretionary Fund created to "put the seized Iraqi assets… into action"

Collection of performance "metrics" and indicators added to CERP Financial Management Regulation

CERP established by the Coalition Provisional Authority

One-time appropriation for CERP in OEF-P

MAAWS first released for Iraq

MAAWS-Afghanistan released

2003   2004   2005   2006   2007   2008   2009   2010   2011   2012   2013   2014   2015

DoD Financial Management Regulation for CERP released

CERP activity in Iraq ends

First DoD guidance for CERP issued

First congressional appropriation for CERP

Afghan Infrastructure Fund established

Perspectives on CERP

CERP has attracted significant political attention, public controversy, and scrutiny between 2003 and 2015. The political attention largely arises from the large sums of U.S. tax dollars dedicated to the CERP program, nearly $8 billion in total from FYs 2004 through 2016. The flexibility given to ground commanders in the disbursement of substantial amounts of financial resources has in turn invited controversy, from the civilian development and inspector general communities, among others. Given the argued importance of CERP, at least from the perspective of senior military leaders, in providing force protection for deployed forces and achieving the goals of counterinsurgency, it has received substantial scrutiny from military and academic scholars.

This chapter explores this range of existing perspectives on CERP and the use of CERP funds in both Iraq and Afghanistan. We first explore strategic perspectives toward the program by describing how Congress, senior military leaders, and senior civilian leaders from the development community viewed CERP. There is almost universal support among these strategic actors for the value of CERP to tactical military forces. And while the intent of this report is not to assess the effectiveness of CERP as a strategic tool, these strategic perspectives provide context for how and why CERP was provided to tactical military forces and the implementation challenges that CERP faced.

We next review perspectives from the oversight community responsible for CERP in Iraq and Afghanistan. The oversight community has acknowledged CERP's value to operations in Iraq and Afghanistan, but highlighted a variety of challenges faced in the exe-

cution of CERP that may either have attenuated CERP's effectiveness or, in the worst cases, had deleterious effects. Although the existing reporting from this community has focused on identifying weaknesses and problems with the execution and oversight of CERP by DoD, the intent of this reporting is focused on helping ensure that "CERP funds are used properly and as intended."[1]

The final set of perspectives considered here is from those in the academic and policy community that endeavor to understand and measure the effectiveness of CERP activities. This literature has focused on identifying challenges and good practices for implementing CERP projects, describing legal issues surrounding CERP, and assessing the impact of the program, writ large.

We conclude this chapter by summarizing the views of each community and, with the intent of guiding the design of a future CERP-like capability, the challenges and good practices identified by each community. Each of these perspectives also has implications for our assessment of CERP. The review of senior leader perspectives suggests that the primary benefit of CERP in Afghanistan was through its tactical, rather than strategic, effects; thus, any assessment of CERP should be focused at the tactical level. The oversight community provides valuable insights into the limitations of the CERP program, particularly from the perspective of data collection. These perspectives confirm that any assessment of CERP should not rely on program data alone. Our review of the academic and journalistic perspectives highlights the value of qualitative data collection to supplement quantitative data collection.

The discussion in this chapter is intended to capture the diverse range of U.S. stakeholders for this U.S. program. As such, the analysis does not capture Iraqi, Afghan, or other international perspectives on CERP. The perspectives of Iraqis and Afghans would offer valuable insights into local perceptions of the efficacy of the program, and international perspectives would describe how CERP nested within

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[1]   Special Inspector General for Afghanistan Reconstruction, 2009, p. 5.

the broader international efforts in Iraq and Afghanistan.[2] However, as the broader intent of this chapter is to support recommendations for the use of CERP in future U.S. military operations, our analysis is restricted to U.S. personnel intimately familiar with the program or analyses focused on understanding CERP in Iraq or Afghanistan.

3.1. Strategic Perspectives

U.S officials operating at the strategic level—including Congress, senior military leaders, and senior civilian leaders from the development community—are almost universally supportive of the value of CERP to tactical military forces. There is also a consensus that CERP faced a variety of implementation challenges that attenuated its potential effectiveness, particularly the potential effectiveness of CERP as a strategic tool. This section discusses the perspectives of these three different strategic communities, with a focus on the types of challenges that CERP faced from their perspective and the potential value of CERP for future engagements.

3.1.1. Congress

The pervasive view in Congress in support of CERP, at least initially in Iraq, was that it was a "force protection" measure to keep U.S. troops safe. This view evolved for Afghanistan, where CERP was also viewed as a tool for contesting the insurgency. Although Congress sought to limit CERP funding or constrain its use in some cases, citing a variety of concerns including mission creep toward larger infrastructure projects, lack of oversight, limited interagency coordination, and an inability to measure project effectiveness, senior military officers' vocal support for CERP maintained support for the program among members of Congress.

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[2] For example, see Barbara J. Stapleton and Michael Keating, "Military and Civilian Assistance to Afghanistan 2001–14: An Incoherent Approach," Afghanistan: Opportunity in Crisis Series, No. 10, London: The Royal Institute of International Affairs, Chatham House, 2015. Interviews with non-U.S. representatives of provincial reconstruction teams could also inform this perspective. We thank a reviewer for this suggestion.

Our depiction of the "congressional perspective" on CERP in this section relies on interviews we conducted in late 2014 with congressional staffers from the U.S. Senate Committee on Appropriations, U.S. House Armed Services Committee, U.S. Senate Committee on Armed Services, and the Financial and Contracting Oversight Subcommittee of the U.S. Senate Committee on Homeland Security and Governmental Affairs. These staffers were deeply familiar with CERP— each interviewee had at least seven years of experience working with CERP in Congress—and our interviews included personnel who had worked with CERP from the first authorization and appropriation in fall 2003 through 2015. We augment these interviews, when possible, with public statements from members of Congress and other secondary sources describing how members of Congress viewed CERP.

The original congressional perspective on CERP, which drove the first appropriation for CERP in FY 2004, was that it was something "necessary for the war effort."[3] This view was reportedly driven by an active military effort to sway members to support this early appropriation for CERP, including a brief to Senate staffers on October 22, 2003, just before the passage of an emergency supplemental appropriations bill for defense and reconstruction in Iraq and Afghanistan.[4] Conducted by members of the Joint Staff and commanders who had used CERP in Iraq in early 2003, the briefing emphasized that CERP was no less vital to victory in Iraq than sophisticated military equipment. Congressional members did not want to "appear unsupportive,"[5] and $180 million was appropriated for CERP in Iraq.[6]

From the beginning, there was a perception that CERP would function as a force-protection measure for troops deployed in Iraq.[7] Three mechanisms were offered as explanations for how CERP could

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[3] Interview with senior congressional staffer.

[4] Martins, 2004, p. 10.

[5] Interview with senior congressional staffer.

[6] Martins, 2004, p. 11.

[7] Several interviewees emphasized that there never was a congressional "intent" for CERP, as the program was not developed by Congress but was simply a DoD request (interview with senior congressional staffers).

play this role. The first was through job creation, based on the "theory that if people are working, they won't rent themselves out to the insurgency."[8] The second, winning the "hearts and minds" of the Iraqis by providing them economic opportunities, was touted on Capitol Hill by returning military officers.[9] A third, which reflected the fact that a significant share of early CERP funds was Iraqi funds, is that showing Iraqis how to protect their people with their own money would enhance U.S. force protection.[10]

In Afghanistan, in addition to its continued role as a force protection measure, CERP was justified to Congress as a necessary tool to create an alternative to the insurgency. For example, then–CENTCOM commander General David Petraeus testified to the U.S. Senate Committee on Armed Services that CERP was critical to the process of taking the initiative away from the Taliban and denying them sanctuary.[11] This sentiment was reinforced by then–Undersecretary of Defense for Policy Michele Flournoy, who described CERP as an "absolutely critical and flexible counterinsurgency tool."[12] However, in addition to being perceived as an economic development tool that could support counterinsurgency, force protection remained an important driver for congressional support for CERP, as it allowed the military to "make friends by spreading money around."[13]

Concerns over DoD's execution of CERP surfaced as early as 2004. An early concern was that CERP may not be well designed for the implementation of large infrastructure projects.[14] While small proj-

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[8] Interview with senior congressional staffer.

[9] Interview with senior congressional staffers.

[10] Interview with senior congressional staffers.

[11] "Afghanistan Operations Part 1," Senate Armed Services Committee, C-Span, June 16, 2010.

[12] " Afghanistan Operations Part 1," 2010.

[13] Interview with senior congressional staffers. However, one congressional staffer indicated that the method through which CERP provided force protection in Iraq—by providing "walking around money"—did not necessarily translate to Afghanistan.

[14] As discussed in Chapter Two, the FY 2005 appropriation had modified the definition of CERP to be "small humanitarian and reconstruction projects." The use of CERP to fund

ects that enabled troops to befriend local power brokers and smooth community relations were generally believed to be an effective use of CERP,[15] the idea that large infrastructure projects were going to jumpstart the Iraqi economy was described as fanciful.[16] Senator John Warner (Virginia) expressed concern over one such CERP project, a $33 million hotel, office, and business complex in Baghdad, claiming that CERP "is looking like it is a bank for development," as opposed to a military tool.[17] Congressman Ike Skelton (Missouri), then the chair of the U.S. House Committee on Armed Services, related a similar concern for large projects in Afghanistan, indicating that he did "not believe that the use of CERP funds [for a large electricity project], which are intended to carry out small-scale, quick-impact projects, is proper or well advised."[18] Senator Claire McCaskill (Missouri) introduced an amendment in 2011 that would prohibit the use of CERP funds in Afghanistan for projects costing more than $50,000, as these projects were largely unsustainable and led to waste, fraud, and abuse.[19] In opposing certain elements of CERP, Senator McCaskill claimed, "after years of work on wartime contracting issues, and looking at the way we have spent money through contracting in both Iraq and Afghanistan, I have come to a stark and real conclusion about money that we have wasted and continue to waste in this effort: we are building infrastructure in Afghanistan that we cannot secure and that will

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large infrastructure projects was reportedly a key concern of Senator Claire McCaskill (interview with senior congressional staffer).

[15] Interview with senior congressional staffers.

[16] Interview with senior congressional staffers. Some of these projects (e.g., the $40 million five-star hotel near the Baghdad Airport and other "white elephants") were particularly problematic.

[17] Dana Hedgpeth and Sarah Cohen, "Money as a Weapon: A Modest Program to Put Cash in Iraqis' Hands Stretches Its Mandate with Big Projects," *Washington Post*, August 11, 2008.

[18] Quoted in Tony Capaccio, "Pentagon Misspends Emergency Fund on Afghan Power Project, Skelton Says," *Bloomberg Business*, August 16, 2010.

[19] "McCaskill: Stop Funding Construction in Afghanistan, Build Roads and Bridges at Home," website of United States Senator Claire McCaskill, December 1, 2011.

not be sustained."[20] A related concern for Afghanistan was that the sums of money being dispersed were simply too large for the economy and that Afghanistan did not have the ability to absorb the nearly $1 billion in CERP funds.[21]

Difficulty in monitoring the execution of CERP funds was highlighted as a second major concern.[22] This was particularly problematic when CERP first began, as the emergency supplemental appropriations bill that first authorized CERP only called for quarterly reports to Congress with aggregate dollar amounts by type of project.[23] The information provided to Congress would improve significantly in later years, as DoD would later provide a searchable database with project-specific information, but staff members expressed concern that the lack of information in the interim made it difficult for Congress to provide comprehensive oversight.[24]

A third major concern was the lack of coordination between DoD and other U.S. agencies in the execution of CERP. This lack of coordination, which was described as "competition between CERP and USAID,"[25] reflected a disagreement about how reconstruction funds should be used as well as the differing operational approaches of the two agencies. There were also reportedly no incentives for cooperation.[26] A perceived consequence of this lack of coordination was reduced project effectiveness, particularly for the larger projects that would have

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[20] "McCaskill: Stop Funding Construction in Afghanistan, Build Roads and Bridges at Home," 2011.

[21] Interview with senior congressional staffers.

[22] A related concern was that ground commanders were being pressured to spend CERP dollars. One staffer reported that, "people were getting orders to spend all their CERP by the end of the year . . . there was a huge pressure to push money out the door so they get more next year." Interview with senior congressional staffer.

[23] Martins, 2004, p. 11.

[24] Interview with senior congressional staffers.

[25] Interview with senior congressional staffer.

[26] Interview with senior congressional staffer.

benefited from USAID expertise and experience.[27] This coordination reportedly got better as time went on.[28]

The inability of Congress to assess CERP's effectiveness was highlighted as another concern. One staffer summarized this view in reporting that Congress lacked insight as to which CERP projects were effective and which were not.[29] The staffers were cognizant of the challenges that commanders faced in measuring effectiveness, particularly given the frequent rotation of units, but were concerned that there was "limited foresight" and minimal concern about how CERP projects would be perceived in the future.[30] Senator Carl Levin (Michigan) expressed concern over assessing the effectiveness of CERP in a 2008 U.S. Senate Committee on Armed Services hearing, at which he described a trip to Diyala in Iraq, where a U.S. military officer told him of a CERP-funded garbage-collection program. In regard to this supposedly successful program, an Iraqi official said to Senator Levin, "As long as you are willing to pay for the cleanup, why should we?"[31]

Congressional staffers believed that the off-budget nature of CERP programming weakened "the ability of the Afghan state to control resources, which results in donor duplication, and can fuel corruption."[32] They were also concerned about the lack of an Afghan plan for sustaining CERP projects.

Although these concerns created pressure to limit CERP funding or constrain its use, continued support for CERP among senior military officers effectively dissuaded members of Congress from constraining its use. Members were generally hesitant to challenge what the

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[27] Interview with senior congressional staffer.

[28] Interview with senior congressional staffer.

[29] Interview with senior congressional staffer.

[30] Interview with senior congressional staffer.

[31] Hedgpeth and Cohen, 2008.

[32] The referenced quote was specifically applied to off-budget USAID spending, but the subsequent sentence highlighted CERP off-budget spending as a specific type of spending of concern. Note that this report indicated earlier that CERP "deserves closer scrutiny" (Committee on Foreign Relations, "Evaluating U.S. Foreign Assistance to Afghanistan," United States Senate, Senate Print 112-21, June 8, 2011, pp. 18–19).

warfighters said they needed; thus, when staffers would raise concerns, these members would talk to commanders who would reinforce that they needed the funds and that the program was vital. Staff members focused on improving oversight, sometimes with the active support of DoD personnel who also felt that CERP needed improved oversight.[33] One reported success, from the perspective of the congressional staffers, was the creation of the Afghanistan Resources Oversight Council to provide more internal management and oversight of the big-ticket items.[34]

Despite these concerns, there still is a general view that CERP will be useful in future stabilization operations, although its execution could be improved in several ways. First, there was a general belief that the effectiveness of CERP projects would be enhanced if restrictions were placed on project size, with CERP being used on a case-by-case basis and for small projects that are easy to monitor and control.[35] Projects need to be well thought out and coordinated to achieve long-term goals. Efforts should be made to ensure CERP is still easy to use and unnecessary bureaucracy is avoided. Another staffer summarized this view, claiming that CERP could be militarily useful as "walking around" money if use was limited to certain ranks and project and program cost ceilings were implemented, thereby ensuring CERP would not become a reconstruction authority.[36]

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[33] One staffer recounted that efforts to reform CERP were mostly staff driven. Interview with senior congressional staffer.

[34] This and other types of congressional oversight were often introduced first by staffers on the Appropriations Committee. We note that the DoD participants in the Afghanistan Resources Oversight Council found it to be a "hugely time-wasting exercise . . . whose only utility was to tell Congress that we had done as instructed" (personal communication with David Sedney, former Deputy Assistant Secretary of Defense for Afghanistan, Pakistan and Central Asia).

[35] Interview with senior congressional staffer.

[36] This staffer also emphasized that this restriction would release the pressure that commanders feel to spend. Interview with senior congressional staffer. Another staffer did not think that "buying access to places" is likely to be important in core U.S. stabilization missions.

A second proposed way to improve the future effectiveness of CERP was to strengthen training for CERP implementers by conducting a study of lessons learned for CERP focused on the schools for CERP implementers. One staffer noted that in teaching counterinsurgency to troops, military officials often tout the value of CERP, but no focus is placed on how to execute CERP to improve effectiveness and reduce waste.[37] Despite these views, one staffer challenged the future utility of CERP, claiming an analysis of CERP's benefits, objectives, and ways of assessing, monitoring, and proving real returns on investment is needed before CERP should be used in future stability operations.[38]

3.1.2. Senior Military Leaders

Senior military leaders, both those speaking on the public record and those participating in non-attributed interviews on CERP, were unequivocal in their support for CERP. While perceived as an effective tactical tool, the use of CERP at the theater level was more difficult because of its bottom-up nature. Senior leaders considered CERP's effectiveness as a strategic tool as being hampered primarily by a lack of strategic guidance from theater commanders, allowing tactical commanders to develop often mutually incompatible CERP "strategies." A variety of implementation challenges, such as tactical units' lack of familiarity with CERP-like programs, constant pressure to show immediate effects, and short deployments, also affected the ability of CERP to achieve strategic effects. Despite these challenges, these leaders remained unanimous in their support for the continuation of this program for other stability operations.

Our depiction of the "senior military leader perspective" on CERP in this section relies on interviews we conducted during 2013–2015 with several general officers with experience using CERP in either Iraq or Afghanistan and commanders of several Afghan Provincial Reconstruction Teams. We augmented these interviews with public state-

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[37] Interview with senior congressional staffer.

[38] Interview with senior congressional staffer.

ments, memoirs, or other descriptions of CERP by military leaders at the general officer level.

Overall, senior military leaders saw CERP as a tool essential for executing operations in Iraq and Afghanistan. This view was ubiquitous among military leaders in congressional hearings, typically under the auspices of DoD requests for additional funding for CERP, with Admiral (ret.) Michael Mullen stating that "CERP has proven in most cases more valuable and perhaps more rapid than bullets or bombs in the fight against extremism."[39] Then–Secretary of Defense Robert Gates argued that CERP was the "single most effective program to enable commanders to address local populations' needs and get potential insurgents in Iraq and Afghanistan off the streets and into jobs."[40] General David Petraeus stated that CERP was a "a vital counterinsurgency tool for our commanders in Afghanistan and Iraq" and that "small CERP projects can be the most efficient and effective means to address a local community's needs, and where security is lacking, it is often the only immediate means for addressing those needs."[41] General Petraeus concluded that, "depending on the situation, money can be more important than real ammunition."[42]

The commanders we interviewed were also unanimous in their support for CERP. One commander, speaking about his experience with CERP in Afghanistan, concluded that CERP was "a valuable tool in improving the lives of Afghans but also in protecting the lives of American soldiers because it did garner local popular support for our

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[39] Official testimony presented during Senate hearings for the 2009 National Defense Authorization Act (U.S. Senate, 110th Cong., 2nd Sess., Senate Hearings Before the Committee on Appropriations, Department of Defense Appropriations for Fiscal Year 2009, S. Hrg. 110–611, Washington, D.C.: U.S. Government Printing Office, 2008).

[40] Official testimony presented during Senate hearings for the 2009 National Defense Authorization Act (U.S. Senate, 2008).

[41] "Posture Statement: Senate Armed Services Committee Statement of General David H. Petraeus, U.S. Army, Commander U.S. Central Command Before the Senate Armed Services Committee on the Afghanistan-Pakistan Strategic Review and the Posture of U.S. Central Command," April 1, 2009.

[42] David Petraeus, "Learning Counterinsurgency: Observations from Soldiering in Iraq," *Military Review*, January–February 2006.

efforts, and if we did not have that, our soldiers, our men and women in uniform, would have been in much greater risk."[43] And a Provincial Reconstruction Team commander similarly indicated that "if I didn't have one penny of CERP [funds] I don't think I could have done nearly as good of a job as I did."[44]

CERP effectiveness at the tactical level, where it gave ground commanders a new tool for engaging with locals, was unquestioned.[45] CERP "allowed [U.S. forces] to quickly gain and maintain the support of local communities in a way that provided security" that otherwise would not have been attainable.[46] One commander reported, in highlighting the importance of CERP as a tactical tool, that ground forces reportedly "missed a huge opportunity" to shape operations as a result of not having a CERP-like construct at the very beginning of operations in Iraq.[47] There was a general view among these senior commanders that smaller projects were the most effective in Afghanistan, with one Provincial Reconstruction Team commander concluding that CERP would be more effective if restricted to projects of no more than $10,000–20,000 and that the number of projects in a given area should also be restricted,[48] although one general officer indicated that these small CERP projects were connected to larger projects implemented by USAID or other agencies.[49]

The general officers we interviewed indicated that use of CERP was rarely part of any considered strategy.[50] Described as CERP's

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[43] Interview with general officer.

[44] Interview with Provincial Reconstruction Team commander.

[45] Interview with general officer.

[46] Interview with general officer.

[47] Interview with general officer.

[48] Interview with Provincial Reconstruction Team commander.

[49] Interview with general officer.

[50] One Provincial Reconstruction Team commander indicated that CERP did contribute to U.S. strategic goals in Afghanistan by encouraging the Afghans to seek Kabul-based funding sources as a result of increasing restrictions on the use of CERP funds beginning in 2012. Interview with Provincial Reconstruction Team commander.

"greatest challenge,"[51] these commanders reported that there was never a consistent and persistent strategy for the use of CERP. Once CERP was created, the focus at the general-officer level shifted to monitoring the spending of CERP funds rather than trying to nest CERP into a broader military strategy.[52] One of the interviewees, who had spent time coordinating CERP at the theater level, indicated that he spent more time "spending CERP [funds] than [he] did making sure that it fit the context."[53] With a lack of strategic guidance for CERP, subordinate commanders at the company, battalion, and brigade level would develop their own "strategies" to use CERP.[54]

As an example, although the focus of CERP in Iraq was (at least initially) to reduce violence and to keep so-called military aged males off the streets, there was never a clear strategy for how this would be achieved using CERP. As a result, implementers used CERP in disparate ways in an effort to achieve this reduction in violence, including labor-intensive projects to quickly employ at-risk individuals, business support programs to encourage job creation that would have the same effect, programs designed to improve the functioning of local markets, and programs designed to gain leverage within a community and discourage violence through such influence. Implementers rarely were aware if they were either doing something "economically dysfunctional" or doing something that could have negative side effects, and some of these goals could be "diametrically opposed."[55]

In Afghanistan, similarly, there was reportedly never a strategic plan for the use of CERP. One officer reported the following: "we didn't talk about it or think about it . . . we were focused on the current fight."[56] Some interviewees suggested that ISAF should have cre-

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[51] Interview with general officer.

[52] Interview with general officer.

[53] Interview with general officer.

[54] Interview with general officers.

[55] Interview with general officer.

[56] There was reportedly increased coordination of CERP following the creation of ISAF Joint Command. Interview with general officer.

ated a "campaign plan" for CERP. Such a campaign plan would have started at the strategic level, outlining more clearly (than the regulations) the types of projects and areas of emphasis for CERP in line with the Afghan government's plans and priorities. Analogous plans would have been built for ISAF Joint Command and the Regional Commands, nesting their development efforts within the priorities of the provinces. This approach would also have allowed the military to better coordinate CERP activity with civilian agencies such as USAID or international donors.

Commanders understood that the effectiveness of CERP was affected by conditions of the areas in which projects were located. They asserted—as is policy—that projects are most successful when they are "well nested within a tactical plan for a specific area and a specific mission."[57] However, the infantry units using this tactical tool typically had limited cultural knowledge (at least initially), no training in the application of non-lethal effects, and an inability to assess the second- and third-order effects of their CERP efforts.[58] While some units (e.g., SOF) were able to mitigate these challenges by leveraging experienced civil-affairs teams,[59] commanders observed that many units became focused on "spending the money versus being focused on what effect they were having" and would often implement projects with negative secondary and tertiary effects.[60] The establishment of the 85th Civil Affairs Brigade in 2011 created an additional capability available to

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[57] Interview with general officer.

[58] CERP could also have negative consequences, which were typically poorly understood, as ground commanders were not prepared to assess the secondary and tertiary consequences of CERP. A prominent example of this was the creation of local problems, or potentially U.S. enemies, if a CERP project empowers one group but not another (interview with general officer).

[59] In many cases, tactical unit commanders were reportedly more effective at implementing CERP projects because they were more experienced than the civil affairs teams supporting them.

[60] One general officer that we interviewed reported that the misuse of CERP created corruption and, in many cases, provided a source of funding for the enemy.

conventional units to help address this,[61] although learning to not "want it more than they want it" would remain a challenge.[62]

A second challenge in the view of strategic commanders was the delay between when a project was promised to a community and when it was delivered, often colloquially called the delay from "flash to bang."[63] As a result of paperwork, administrative duties, hiring local contractors, and coordinating security, projects often took much longer than anticipated or promised—even projects implemented by units with significant experience using CERP. One commander stressed that the military "probably exaggerated how quickly we could get our projects done . . . and may have presented a false impression that we can use CERP for anything out there." As a result, both units and the communities promised the projects often ended up frustrated.

High turnover rates among U.S. ground commanders attenuated CERP's ability to achieve more than short-term effects. New commanders would often bring a new "strategy" for how they would use CERP. Further, although long-term engagements with communities were always a challenge, this challenge was amplified by high turnover rates. Communities anticipating the likely return of enemy forces following the withdrawal of U.S. forces were unlikely to be interested in long-term projects as, in many cases, successful CERP projects became targets for insurgent activity.[64]

Commanders were aware of the pressure to achieve immediate and measurable effects. One consequence of this was the development of metrics to track CERP, some of which had deleterious effects; an important example from Iraq was that unit's success in implementing CERP was measured by the amount of money that had been spent.[65] This metric discouraged empowering locals—for example, rather than

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[61] Although, by this time, CERP activity was beginning to wane. Interview with general officer.

[62] Interview with Provincial Reconstruction Team commander.

[63] Interview with general officer.

[64] Interview with general officers.

[65] Interview with general officer.

supporting local education in a community by working through the community, CERP would be used to build a school for which there might not be teachers available.[66]

Commanders told us that they understood the importance of effectively coordinating CERP activity with other U.S. agencies (e.g., USAID, State Department), other international donors, and nongovernmental organizations. Both the Provincial Reconstruction Teams, which were typically collocated with brigades, and battalions had embedded USAID personnel who would help coordinate the execution of CERP projects.[67] Projects were reportedly the most successful where there was effective coordination.[68] Interviewees admitted that CERP projects often had "nothing to do with the other broader or larger assistance programs or development programs that were going on," but they were clear that projects were still most effective if the "platoon, company, or battalion had a plan to eventually connect these or to link them in [to USAID] eventually."[69]

Despite these challenges, commanders generally believed that CERP could be an important tool for future stability operations. However, they anticipated new challenges might arise, particularly in the application of CERP outside a theater of war. The first challenge was the difficulty that military units face in maintaining the persistent presence that is both necessary for CERP to be effective and one of the key benefits of CERP.[70] A second was that CERP might be less useful to commanders if the projects had to be nested within the guidance of U.S. civilian development agencies. Further, allowing CERP into a new theater would entail the risk that new personnel, unfamiliar with CERP, might re-create many of the mistakes in Iraq and Afghanistan. One commander concluded our interview on a cautionary note, reporting that CERP can have "huge benefits not only to the host nation,

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[66] Interview with general officer.

[67] Interview with Provincial Reconstruction Team commander.

[68] Interview with general officer.

[69] Interview with general officer.

[70] Interview with general officer.

but at every single level of the campaign at the tactical, operational and strategic level," but that CERP was a "double-edged sword" that required trained and proficient operators to avoid secondary, negative consequences.[71]

3.1.3. USAID

Although USAID personnel were often dubious of CERP's effectiveness as it was used in Iraq and Afghanistan, there was a general consensus that CERP or a CERP-like capability is an important DoD capability.[72] In general, the USAID perspective is that finding ways to involve USAID personnel in future CERP efforts could make the program a tool of significant value to the United States in future stability operations. This perspective was summarized in USAID testimony to the U.S. House Committee on Foreign Affairs, where the USAID representative emphasized the following about the goals of CERP:

> We no longer see CERP programs that don't have a developmental eye cast upon them. Now, that doesn't always mean that CERP programs are what I would consider good long-term development programs. But that's not their goal. Their goal is to satisfy something that the tactical commander needs at that moment. And we [USAID] tolerate that. We work with CERP to make sure that it integrates into good development even if at the moment it may not be a developmentally sound project. It does serve a military goal.[73]

Our description of the USAID strategic perspective relies primarily on three sources: (1) a single interview with a senior USAID offi-

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[71] Interview with general officer.

[72] The authors could not find any "official" USAID perspective on CERP in congressional or analogous reporting. This assessment is therefore based on a single interview with a senior USAID official with experience in Afghanistan and other reports released by USAID.

[73] Larry Sampler, assistant to the administrator, Office of Afghanistan and Pakistan Affairs, U.S. Agency for International Development, quoted at a Hearing of the House Foreign Affairs Committee ("Hearing of the House Foreign Affairs Committee on the Subject "Afghanistan 2014: Year of Transition," Washington, D.C.: Federal News Service, December 11, 2013.

cial with significant experience in Afghanistan, (2) informal interviews with several USAID personnel who had operated in Afghanistan and who had supported CERP activity at the district or provincial level, and (3) a USAID report that identified lessons learned from more than 100 USAID personnel with experience at the operational level in Afghanistan.[74] We augmented these data with USAID reports that discussed CERP and a Special Inspector General for Iraq Reconstruction report that discussed the experiences of nearly 30 USAID personnel in Iraq.[75]

Overall, although USAID personnel felt that CERP could have been used more effectively, most believed that it was an important capability that DoD should maintain. One interviewee summarized this view by stating that: "I would hope that the conclusion is not we should not use CERP—I hope the conclusion is that we should be careful how we use CERP."[76]

Several reports indicate a view among USAID personnel that CERP was often not effectively used in support of development objectives in Afghanistan or Iraq.[77] A senior USAID official considered that CERP, as used, was ineffective as a stability tool, but that CERP could help reinforce local governance structures that were essential to the effectiveness of stability operations.[78] This perspective was echoed by USAID's published "lesson learned" report, which indicated that small amounts of CERP dollars could play an important role in establishing local government legitimacy through "small, local initiatives."[79]

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[74] Norma Parker, "Lessons Learned: USAID Perspectives on the Experience with Provincial Reconstruction Teams (PRTs) in Afghanistan," June 2013.

[75] Stuart Bowen Jr. and Craig Collier, "Iraq Reconstruction Special Report: Reconstruction Leaders' Perceptions of the Commander's Emergency Response Program in Iraq," Special Inspector General for Iraq Reconstruction, 2012.

[76] Interview with senior USAID official.

[77] As an example, a USAID report from Iraq quotes a USAID representative as saying that "CERP funds were a disaster," although the report appears to indicate that USAID is supportive of CERP overall (QED Group, *Iraq Rapid Assistance Program (IRAP) Evaluation: Final Report*, Washington, D.C., November 2010, p. 15).

[78] Interview with USAID official.

[79] Authors' inference based on lessons learned #5 (p. 2) and the final paragraph on p. 21 of Parker, 2013.

The key USAID concern with CERP, common to both Iraq and Afghanistan, was a lack of sufficient coordination between military implementers of CERP and USAID officials in the field. In Iraq, USAID personnel reported that coordination did occur, but that it was based on personal relationships rather than formal mechanisms.[80] In Afghanistan, typically USAID personnel were formally integrated into the CERP process (e.g., USAID personnel worked alongside their military colleagues within the Provincial Reconstruction Teams). Nonetheless many CERP projects were implemented without consultation with USAID personnel.[81] As a result, a key lesson drawn by USAID from the CERP experience in Afghanistan was that, "[i]n the next Overseas Contingency Operation, USAID [officers] should be more involved in CERP planning and implementation and could even assist in the management of CERP funds."[82]

A related challenge, highlighted in both USAID reporting and our interview, was a concern over what USAID employees considered a lack of both expertise and a coherent strategy for reconstruction and development among the military. "Each commander had a different idea about the purposes of CERP," with some viewing CERP principally as a tool for reimbursing the local populace for war-related damages and others viewing it as a means of winning hearts and minds.[83] As a consequence, rather than building Afghan capacity—"a far more strategic and enduring stabilization objective"—CERP funds typically focused on building things.[84]

CERP's usefulness for stability operations, from the perspective of USAID, was its ability to respond rapidly to unfolding crises and in challenging security environments. Though CERP's effectiveness in Iraq and Afghanistan may have been questioned, in the USAID

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[80] Bowen and Collier, 2012.

[81] Parker, 2013.

[82] Parker, 2013.

[83] Interview with senior USAID official.

[84] Management Systems International, "Measuring Impact of Stabilization Initiatives, Task 1: Desk Review of Stabilization Resources and References," Washington, D.C.: USAID, July 11, 2012.

perspective, it demonstrated a unique capability to rapidly deploy both resources and relevant personnel to address a challenge. Keeping CERP under the control of DoD to maintain those unique authorities, but integrating USAID into planning and execution, could generate a powerful U.S. capability for responding to emerging crises. [85]

3.2. Oversight Community Perspectives

The oversight community has acknowledged that "CERP is an important tool for U.S. commanders" and that CERP can fund projects that are a "great idea to win the hearts and minds,"[86] but that commanders have "to be very careful with CERP."[87] Although existing reporting from this community has focused on identifying weaknesses and problems with the execution and oversight of CERP by DoD, the intent of this reporting is focused on helping ensure that "CERP funds are used properly and as intended."[88]

There are four major components of the U.S. oversight community that have examined CERP and its implementation in Afghanistan and Iraq: DoD Inspector General, GAO, Special Inspector General for Iraq Reconstruction, and Special Inspector General for Afghanistan Reconstruction. Throughout their efforts, the intent of these four agencies has been to identify challenges with CERP and its implementation and to work with DoD to improve execution of this program. The reports published by this community, which are the focus of this section, are reviewed with DoD, which is given a chance to respond to the critiques, but encouraged to take corrective action.

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[85]   Interview with USAID official and Parker, 2013.

[86]   First quote is from Special Inspector General for Afghan Reconstruction, 2009, p. 5. Second quote is from John Sopko, Special Inspector General for Afghanistan Reconstruction, response during question and answer period at the Atlantic Council ("Afghan Reconstruction," Atlantic Council, C-Span, March 20, 2014).

[87]   John Sopko, Special Inspector General for Afghanistan Reconstruction, response during question and answer period at the Atlantic Council ("Afghan Reconstruction," Atlantic Council, C-Span, March 20, 2014).

[88]   First quote is from Special Inspector General for Afghanistan Reconstruction, 2009, p. 5.

The overwhelming concern from the oversight community concerning CERP is that challenges in execution either attenuate its effectiveness or, in the worst cases, create deleterious effects. An important example of this view was the Special Inspector General for Afghanistan Reconstruction review of the failed CERP project to build a bridge in Afghanistan where the United States "lost some of the hearts and minds because the CERP funding was so poorly done," although the oversight community in this case worked with DoD to resolve the situation.[89]

The oversight community identified seven major shortcomings with the execution of CERP in Afghanistan and Iraq. A recurring concern is the inadequacy of CERP financial control processes. This problem was identified in the first audit of CERP, with the Special Inspector General for Iraq Reconstruction pointing to a variety of challenges with the execution of CERP funds during its first year of operations including a lack of adherence to authorized project limits, ineffective control over the distribution of funds, and inadequate documentation of projects.[90] Similar problems were identified in Afghanistan with deficiencies in the way that cash was stored and distributed by pay agents,[91] unauthorized payments for projects,[92] incomplete legal reviews,[93]

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[89] John Sopko, Special Inspector General for Afghanistan Reconstruction, response during question and answer period at the Atlantic Council ("Afghan Reconstruction," Atlantic Council, C-Span, March 20, 2014).

[90] Special Inspector General for Iraq Reconstruction, 2005, p. 1, reported that "Federal Acquisition Regulation and Department of Defense controls over the distribution of appropriated funds were not consistently followed and the required documents were not consistently used to maintain accountability of projects."

[91] DoD, Inspector General, "Implementation of the Commanders' Emergency Response Program in Afghanistan," Report No. D-2007-064, February 28, 2007.

[92] For example, an $8 million project in Laghman province was not signed by a warranted contracting officer (Special Inspector General for Afghanistan Reconstruction, *Commander's Emergency Response Program in Laghman Province Provided Some Benefits, but Oversight Weaknesses and Sustainment Concerns Led to Questionable Outcomes and Potential Waste*, SIGAR Audit 11-7, January 27, 2011).

[93] Special Inspector General for Afghanistan Reconstruction, 2011.

improper payments for CERP projects,[94] and unauthorized advance payments on projects.[95] Additional problems with financial control were identified by the oversight community. They included inadequate systems for mitigating currency rate fluctuations and ineffective mechanisms for de-obligating funds following project termination.[96]

A second general shortcoming in the view of the oversight community was that processes for monitoring the execution of CERP projects were inadequate. Although processes for monitoring CERP had been established, these were often not followed. As an example, in 2009, DoD was unable to provide the Special Inspector General for Afghanistan Reconstruction a complete list of ongoing projects.[97]

DoD was also criticized for failing to establish appropriate mechanisms for assessing the effectiveness of CERP projects. A relatively early oversight report noted that, while projects were required to specify their intended goals, there was no requirement to establish mechanisms for measuring progress toward these goals:

> CERP-funded projects contain measures of desired impact—such as improved public sentiment toward local and national governments, increased jobs and economic growth, and increased local support to deter terrorist recruitment—it is not stated how these indicators will be measured and what data collection efforts are planned.[98]

This problem still had not been resolved as of 2011, with the Special Inspector General for Afghanistan Reconstruction concluding that "Commanders and CERP oversight officials lack a coordinated, results-

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[94] DoD, Inspector General, "Management Improvements Needed in Commander's Emergency Response Program in Afghanistan," Report No. DODIG-2012-023, November 21, 2011.

[95] DoD, Inspector General, 2011.

[96] DoD, Inspector General, 2011.

[97] Special Inspector General for Afghanistan Reconstruction, 2009.

[98] GAO, "Afghanistan Reconstruction: Progress Made in Constructing Roads, but Assessments for Determining Impact and a Sustainable Maintenance Program Are Needed," GAO-08-869, July 8, 2008b.

oriented approach to determine whether CERP projects have achieved their goals, are being used as intended, and are being sustained by the government of Afghanistan."[99] Similarly, Special Inspector General for Iraq Reconstruction identified the development of appropriate metrics for CERP as essential to tracking project success.[100]

Similarly, a third issue was reportedly a lack of adequate data-collection processes about CERP activity. Official data on CERP projects were reportedly "inaccurate, incomplete, and inconsistent," with significant problems in recorded project categories, locations, disbursements, and project intent.[101] Although requirements did exist for updating and rectifying reporting on CERP, the "requirements for record updates and retention by CERP personnel were not implemented or fully understood," and as a consequence the Special Inspector General for Afghanistan Reconstruction reported discovering that "more than half of the files were incomplete and lacked required information on the status of individual projects."[102] As an example, although DoD reported (in 2008) completing 155 kilometers of CERP-funded civilian roads, the data on these roads were incomplete, and DoD reportedly could not identify the location of some of the completed roads.[103] This challenge reportedly persisted throughout CERP's operations, with a 2015 Special Inspector General for Afghanistan Reconstruction report concluding that CERP reporting still had significant deficiencies.[104]

A fourth issue was a lack of adequate planning and processes for sustaining CERP projects. This issue was first identified in Iraq,

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[99] Special Inspector General for Afghanistan Reconstruction, 2011, p. 17.

[100] Special Inspector General for Iraq Reconstruction, *Lessons Learned on the Department of Defense's Commander's Emergency Response Program in Iraq*, SIGIR 13-005, January 24, 2013.

[101] DoD, Inspector General, 2011.

[102] Special Inspector General for Afghanistan Reconstruction, 2009.

[103] GAO, 2008b.

[104] Special Inspector General for Afghanistan Reconstruction, 2015c. This problem was also reported for CERP projects in Iraq as late as 2011 (Special Inspector General for Iraq Reconstruction, *Management of the Iraq Commander's Emergency Response Program Needs to Be Improved*, SIGIR 11-021, July 29, 2011b).

when the Special Inspector General for Iraq Reconstruction identified "planning for the transition of completed projects to the Iraqi government" as a key weakness facing the effectiveness of large-scale projects involving CERP.[105] This challenge was also identified in Afghanistan, where a targeted review of CERP activity in one province of Afghanistan concluded that CERP managers needed to develop processes to improve construction quality and establish sustainment plans, ensure that contractors will repair defective work, and coordinate with local nationals in developing sustainment plans for all projects.[106]

A related fifth concern was that there was insufficient coordination between DoD and USAID in the execution of CERP projects. This problem was identified as early as 2005,[107] but would persist in various forms throughout CERP's history despite the development of guidelines that required coordination with USAID. A contributing factor to this lack of coordination was the inability of DoD to establish an effective mechanism for sharing CERP project data with other relevant U.S. government actors. This concern, which was noted as early as 2009,[108] continued through at least 2013, with USAID personnel unable to access data on CERP activity.[109] Coordination between USAID and DoD personnel was instead informal, leading to suspected duplication of effort.[110]

A sixth major concern was that DoD did not have appropriate mechanisms for executing large-scale projects. CERP managers and

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[105] Special Inspector General for Iraq Reconstruction, *Commander's Emergency Commander's Emergency Response Program in Iraq Funds Many Large-Scale Projects*, SIGIR 008-006, January 25, 2008.

[106] Special Inspector General for Afghanistan Reconstruction, 2011.

[107] Special Inspector General for Iraq Reconstruction, *Management of Commanders' Emergency Response Program for Fiscal Year 2005*, SIGIR 05-025, January 23, 2006.

[108] GAO, "Actions Needed to Improve Oversight and Interagency Coordination for the Commander's Emergency Response Program in Afghanistan," GAO-09-615, May 2009.

[109] GAO, 2012. This report also documents the complementary challenge, that is, that DoD personnel were unable to access systematic information on USAID activity.

[110] GAO, 2012. The report notes that the data limitations made it impossible to verify or reject whether duplication of effort had occurred.

other personnel reportedly indicated that they were "not sufficiently trained or experienced to oversee or manage large-scale, complex projects."[111] The relatively frequent rotation of CERP managers—that is, approximately once every nine months—meant that large, long-term projects would have to be managed by a series of different CERP managers.[112] The finding that "large, long-term projects are not suited to field command management" was one of the five key lessons learned that the Special Inspector General for Iraq Reconstruction identified from the experience of CERP in Iraq.[113]

A final challenge highlighted was that CERP projects sometimes did not meet the stated intent of the program. While CERP implementers in Iraq reportedly developed a process that allowed CERP to be effectively coordinated with the theater-level strategy, with the Special Inspector General for Iraq Reconstruction concluding that MNF-I had "implemented processes to effectively prioritize and align CERP projects with its strategic objectives,"[114] a similar conclusion was not reached for Afghanistan. An early audit of CERP projects in Afghanistan concluded that funds were being used for unauthorized types of projects.[115] This theme was echoed in later years, when the Special Inspector General for Afghanistan Reconstruction expressed concern that large-scale projects being implemented with CERP dollars "appeared more in-line with large-scale development efforts."[116]

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[111] Special Inspector General for Afghanistan Reconstruction, 2009, p. 4.

[112] Special Inspector General for Afghanistan Reconstruction, 2009, p. 4.

[113] Special Inspector General for Iraq Reconstruction, 2013.

[114] Special Inspector General for Iraq Reconstruction, 2006, p. 5.

[115] This audit was for projects executed during April–October 2006 (DoD, Inspector General, 2007).

[116] Special Inspector General for Afghanistan Reconstruction, 2011, p. 16.

3.3. Academic and Journalistic Perspectives

CERP has received considerable attention by both academia and the media. In this section, we review four major components of the discussion of CERP in academia and media: challenges to program implementation, legal issues concerning implementation, good practices, and program evaluation. Similar to the oversight community's perspectives, discussed earlier in this chapter (Section 3.2), academic experts aim to identify and understand challenges in the implementation of CERP projects in order to improve CERP's efficacy for possible use in any future operational environments.

Identifying challenges that faced CERP implementation in Iraq and Afghanistan is a major topic. The first set of challenges, prominent among media reporting, focused on challenges facing the CERP program itself. These challenges include a general concern about the sustainability of the impacts of CERP,[117] that CERP "is taking on too many large-scale projects that should be handled by civilian agencies with reconstruction expertise,"[118] concern over how condolence payments were being handled,[119] and a lack of established approaches for measuring the effectiveness of projects funded through CERP.[120] Related to this was a concern that the military was unable to provide sufficient oversight of CERP activities and that the training provided to CERP implementers was insufficient.[121]

According to the academic literature, implementers frequently did not understand the purpose of the program. Critiques of the program

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[117] David E. Sanger, "Bush Plan for Iraq Requests More Troops and More Jobs," *New York Times*, January 7, 2007; Ernesto Londoño, "U.S. 'Money Weapon' Yields Mixed Results; Review of Military Program Sought," *Washington Post*, July 27, 2009; and Josh Boak, "In Afghan Hands, Aid Projects Neglected," *Washington Post*, January 4, 2011.

[118] Londoño, 2009; Hedgpeth and Cohen, 2008.

[119] Walter Pincus, "The Measure of a Life, in Dollars and Cents," *Washington Post*, June 8, 2007.

[120] Hedgpeth and Cohen, 2008.

[121] Sudarsan Raghavan, "Troops Confront Waste in Iraq Reconstruction," *Washington Post*, August 25, 2007.

included the "notion that money spent means forward progress,"[122] that "the primary purpose of CERP is to gain intelligence for future combat operations,"[123] and both big projects and projects focused on more traditional economic activities (e.g., roads) are necessarily more effective.[124] Implementers were thought not to have understood CERP's secondary and tertiary effects.[125] Frequent reliance on contractors from outside the community, while able to execute projects quickly and effectively, has been cited as something that sometimes creates significant friction within the local community.[126] Related challenges include the difficulty in developing an effective understanding of what communities need,[127] and significant disagreement on the characteristics of projects that make them most effective.[128] A fourth critique was the perceived pressure to spend.[129] A final criticism was the lack of transparency and coordination with other civilian agencies;[130] indeed, com-

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[122] Daniel Plumb, "MAAWS: Getting the Biggest 'Bang' for Your Buck," *Infantry Magazine*, Vol. 100, No. 5, November–December 2011.

[123] Andy Brosnan, "The Commander's Emergency Response Program in Counterinsurgency Warfare: Identifying Problems and Interagency Solutions," Harvard Kennedy School of Government, April 2008.

[124] Brosnan, 2008.

[125] Plumb, 2011; Brosnan, 2008; Gregory Johnson, Vijaya Ramachandran, and Julie Walz, "The Commanders Emergency Response Program in Afghanistan: Refining U.S. Military Capabilities in Stability and In-Conflict Development Activities," working paper, Washington, D.C.: Center for Global Development, 2011; Londoño, 2011.

[126] One study that described this challenge reported that the use of non-local contractors "was appealing to us because contractors typically speak English, bring their own equipment, and work quickly. Projects were usually completed within days of calling the contractor, and we as a unit were able to send positive progress reports to higher ups?" (Plumb, 2011).

[127] Timothy D. Gatlin, "An Institutional Analysis of the Commander's Emergency Response Program," *InterAgency Journal*, Vol. 5, No. 1, Winter 2014.

[128] Brosnan, 2008.

[129] Paul Fishstein and Andrew Wilder, "Winning Hearts and Minds? Examining the Relationship Between Aid and Security in Afghanistan," Medford, Mass.: Feinstein International Center, Tufts University, 2012.

[130] Fishstein and Wilder, 2012.

munities often did not understand what programs were being implemented in their communities.[131]

One prominent aspect of this public discourse has been a series of legal discussions trying to describe the appropriate execution of CERP. These studies often discuss the legal challenges faced by CERP and its implementers—commanders, pay agents, and contracting officers alike—given its unique appropriations and contracting mechanisms, particularly given the language that CERP may be used "notwithstanding any other provision of law" (i.e., the Federal Acquisition Regulation procedures do not apply to CERP).[132] Another component of this literature has focused on understanding the limits of what is allowable under CERP, with articles exploring whether CERP could be applied conditionally or rather withdrawn conditionally based on the willingness of the community to support U.S. military efforts in the area;[133] how and whether compensation payments should be paid to civilian casualties using CERP;[134] and how and whether CERP should be paid to local nationals as a reward for providing information.[135]

Identifying good practices for the use of CERP in counterinsurgency is the second component of this public discourse. A common approach used to identify good practices is collecting qualitative data with CERP implementers, although the specific methodological approaches have varied significantly. As examples, while one study collected structured qualitative information from more than 1,000 Army

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[131] Michael Kamber, "Road for Relief Team Is Gauntlet of Enemy Fire," *New York Times*, June 13, 2004.

[132] For example, Martins, 2004; Heidi Lynn Osterhout, "No More 'Mad Money': Salvaging The Commander's Emergency Response Program," *Public Contract Law Journal*, Vol. 40, No. 4, Summer 2011; Ford, 2004.

[133] Paschal, 2011.

[134] Jonathan Tracy, "Responsibility to Pay: Compensating Civilian Casualties of War," *Human Rights Brief*, Vol. 15, No.1, 2007; and Ford, 2004.

[135] Karin Tackaberry, "Judge Advocates Play a Major Role in Rebuilding Iraq: The Foreign Claims Act and Implementation of the Commander's Emergency Response Program," *Army Lawyer*, No. 369, February 2004.

officers with experience implementing CERP in Iraq or Afghanistan,[136] others have focused on documenting their own experiences and experiences of others with their units.[137]

The literature on good practices first focused on the selection and preparation of projects. Authors pointed to the importance of setting "project conditions,"[138] conducting adequate area evaluations,[139] selecting projects appropriate to the stage of conflict,[140] implementing projects appropriate for the local economy,[141] implementing a variety of projects in areas to reach different parts of the target population,[142] and establishing clear criteria for prioritizing and grading projects.[143] A second focus has been on project implementation. Authors have pointed to the importance of using local labor and resources,[144] managing local expectations,[145] and working through local institutions to implement projects.[146] A reduced reliance on nongovernmental organizations and construction, as "these entities do not advance our [counterinsurgency] objectives," has also been recommended.[147]

Another component of the good practices literature has focused on developing methods for avoiding potential deleterious side effects including co-opting projects by locals,[148] empowering corrupt

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[136] Brosnan, 2008.

[137] For example, see Plumb, 2011.

[138] Plumb, 2011.

[139] Brosnan, 2008.

[140] Brosnan, 2008.

[141] Johnson, Ramachandran, and Walz, 2011.

[142] Plumb, 2011. This author emphasizes the importance of microgrants.

[143] Daniel Weggeland, "Less Boom for the Buck: Projects for COIN Effects and Transition," Kabul, Afghanistan: Counterinsurgency Advisory and Assistance Team—International Security Assistance Force, CAAT Special Report, April 2011.

[144] Plumb, 2011.

[145] Brosnan, 2008.

[146] Fishstein and Wilder, 2012.

[147] Weggeland, 2011.

[148] Brosnan, 2008.

officials,[149] or using "heavy-handed tactics" in implementing projects.[150] The importance of coordinating with civilian authorities, both local and those based in the United States, has been a third focus. Authors have warned about the risk of supplanting civilian agencies in implementing CERP projects and emphasized the value of civil affairs units as a tool for coordinating with locals.[151] Authors have also emphasized the importance of clearly explaining CERP projects to the local communities where the projects are being implemented, including providing information on costs, contracting procedures, selection procedures, and quality assurance.[152]

Identifying approaches for improving pre-deployment training including offering development economics and business courses to CERP implementers, revising existing military education, broadening opportunities for assignments with civilian agencies, and enhancing training scenarios at training centers is a fourth strain of this literature.[153] This literature also focuses on monitoring and evaluating CERP projects. Authors have suggested that population-centric and other more development-focused evaluation approaches could lead to more effective outcomes.[154]

A major focus of the public discourse on CERP has been on developing appropriate tools for assessing the effects and effectiveness of CERP as a counterinsurgency tool. A significant portion of this literature has focused on understanding the limitations of the existing tools for assessing CERP.[155] Researchers have identified a variety of

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[149] Brosnan, 2008.

[150] Gatlin, 2014.

[151] Plumb, 2011; Brosnan, 2008; and Chad Livingston, "Beyond SWEAT: Developing Infrastructure in Stability and COIN Operations," *Small Wars Journal*, October 5, 2011.

[152] Rebecca Patterson and Jonathan Robinson, "The Commander as Investor: Changing CERP Practices," *Prism*, Vol. 2, No. 2, March 2011.

[153] Johnson, Ramachandran, and Walz, 2011.

[154] Fishstein and Wilder, 2012; and Gatlin, 2014.

[155] Note that a broader literature has discussed the challenges faced in assessments in a counterinsurgency context (e.g., Stephen Downes-Martin, "Operations Assessment in Afghanistan Is Broken," *Naval War College Review*, Vol. 64, No. 4, Autumn 2011; Jonathan

challenges that impede accurate assessments of CERP projects, including a lack of meaningful metrics on community and host government participation,[156] the challenge in identifying how to measure CERP activity for analytical purposes (e.g., population affected),[157] and the need to collect data on more direct outcomes (e.g., local ownership, infrastructure construction completed, employment, agricultural exports) rather than simply using the level of violence as an outcome,[158] among others.

The most prominent approach for studying the effectiveness of CERP has focused on the use of measurable violence as a proxy for security conditions.[159] This has included case studies—for example, an analysis of a randomized rollout of a CERP-funded culvert denial system demonstrated a statistically significant reduction in attacks against coalition forces—but has been dominated by quantitative studies.[160] This has included analyses of military-collected data on attacks against coalition forces, commonly referred to as SIGACTS;[161] analy-

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Schroden, "Why Operations Assessments Fail: It's Not Just the Metrics," *Naval War College Review*, Vol. 64, No. 4, Autumn 2011, pp. 89–102; and Christian van Stolk, Tom Ling, Anais Reding, and Matt Bassford, *Monitoring and Evaluation in Stabilisation Interventions: Reviewing the State of the Art and Suggesting Ways Forward*, Santa Monica, Calif.: RAND Corporation, TR-962-SU, 2011).

[156] Weggeland, 2011.

[157] Michael Fischerkeller, "The Premature Debate on CERP Effectiveness," *Prism*, Vol. 2, No. 4, September 2011, pp. 139–150.

[158] Johnson, Ramachandran, and Walz, 2011.

[159] Note that measurable violence has been used to measure other non-CERP programs implemented in a counterinsurgency context. For an analysis of USAID programming in the Philippines, see Seth Bodnar and Jeremy Gwinn, "'Monetary Ammunition' in a Counterinsurgency," *Parameters*, Autumn 2010.

[160] Fischerkeller, 2011.

[161] For example, see Justin B. Gorkowski, "A Penny for Your Thoughts, a Nickel for Your Heart: The Influence of the Commander's Emergency Response Program on Insurgency," master's thesis, Monterey, Calif: Naval Postgraduate School, December 2009; Berman, Shapiro, and Felter, 2011; Tiffany Chou, "Does Development Assistance Reduce Violence? Evidence from Afghanistan," *The Economics of Peace and Security Journal*, Vol. 7, No. 2, 2012, pp. 5–13; Eli Berman, Joseph H. Felter, Jacob N. Shapiro, and Erin Troland, "Modest, Secure, and Informed: Successful Development in Conflict Zones," *American Economic*

ses of the Worldwide Incidents Tracking System database which "catalogues all publicly known, premeditated, politically motivated violence directed at police, military, government, and civilians 'outside of war-like settings'" based on reports in open media;[162] and a database focused only on civilian casualties.[163]

These analyses of the relationship between CERP and violence have generated a variety of different, often conflicting results. In analyses of CERP in Iraq, CERP was found to reduce attacks against coalition forces,[164] but one study finds that CERP activity is associated with increased violence against civilians.[165] Another study found evidence that CERP was associated with increased, not reduced, violence against coalition forces.[166] These studies suggested that project characteristics are important for understanding effectiveness of CERP.[167] While some studies have concluded that project size is important—that is, smaller projects are more effective than larger ones[168]—others have focused on

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Review: Papers and Proceedings, Vol. 103, No. 3, 2013, pp. 512–517; Nicholas J. Clark and John Jackson, "Development of Nonlinear Mixed-Effects Models for Assessing Effectiveness of Spending in Iraq," *Military Operations Research*, Vol. 18, No. 1, 2013, pp. 5–19; John C. Jackson and Nicholas J. Clark, "Assessing the Effectiveness of Commander's Emergency Relief Program (CERP) Funds During Contingency Operations in Iraq," U.S. Military Academy, 2015.

[162] Ryan J. Novotny, "The 'Road' to Success: Importance of Construction on Reconstruction in Conflict-Affected States," thesis, Monterey, Calif.: Naval Postgraduate School; Travers Barclay Child, "Hearts and Minds Cannot Be Bought: Ineffective Reconstruction in Afghanistan," *Economics of Peace and Security Journal*, Vol. 9, No. 2, 2014, pp. 43–49.

[163] Radha Iyengar, Jonathan Monten, and Matthew Hanson, "Building Peace: The Impact of Aid on the Labor Market for Insurgent," NBER Working Paper No. 17297, August 2011. Note that these data, the Iraq Body Count, are available only for Iraq.

[164] This result is reported in three existing studies (Berman, Shapiro, and Felter, 2011; Berman et al., 2013; Iyengar, Monten, and Hanson, 2011).

[165] Iyengar, Monten, and Hanson, 2011.

[166] Gorkowski, 2009. Note that the author uses a different unit of analysis (villages versus districts) and different control variables than the studies referenced in the preceding sentence.

[167] Several studies have also argued that "knowledge of the operational environment is critical for successful CERP implementation" (quote is from Gorkowski, 2009; see also Berman et al., 2013).

[168] Berman, Shapiro, and Felter, 2011; and Berman et al., 2013.

how project type can influence the relationship between CERP activity and violence against coalition forces or civilians, and demonstrated that some types of CERP activity are actually associated with increased violence.[169] For Afghanistan, the results of research have been mixed. One author only found a weak relationship between CERP activity and violence, and then only for small projects.[170] Another concluded that there is no statistically significant relationship between the two.[171] A third reported that CERP activity resulted in increased violence.[172]

Other evaluations of CERP suggest that focusing on only violence as an outcome measure could generate spurious results. "In a review of over 2,000 CIDNE CERP records from Afghanistan, less than 10 percent specified a primary or secondary intended benefit that could reasonably be equated with changes in levels of violence, with the intended change being a reduction."[173] A frequent challenge in analyses of CERP using SIGACTS as an outcome measure is that accurate data on U.S troop activity are classified.[174] Thus, observed correlations between CERP and SIGACTS may be capturing either (1) a relationship between overall U.S. military activity and violence; or (2) a mechanical relationship between the presence of forces and attacks against those forces.

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[169] Iyengar, Monten, and Hanson, 2011, provide a discussion of how labor-intensive projects reduce violence against civilians but increase violence against coalition forces. Clark and Jackson, 2013, focus on a comparison of all project types.

[170] Chou, 2012.

[171] Child, 2014.

[172] Novotny, 2011.

[173] Fischerkeller, 2011.

[174] Fischerkeller, 2011, p. 143. Note that high-resolution data on troop activity are available for Afghanistan as part of the Blue Force Tracker (BFT) database. See Appendix B for a discussion.

3.4. Overview of Existing Perspectives and Implications for Assessment

CERP is widely viewed as an important capability for U.S. operational forces. Both Congress and senior military leaders believed CERP to be an important force protection measure in Iraq and Afghanistan. They also thought that CERP could enhance the effectiveness of U.S. operations, a view echoed by USAID. And even the oversight community, which was often critical of CERP, concluded that "CERP is an important tool for U.S. commanders" and is a "great idea to win the hearts and minds."[175] Although existing academic analyses of CERP provide a mixed view of CERP's effectiveness, these studies provide only a partial understanding of CERP as they focus almost entirely on exploring CERP's relationship with attacks involving coalition forces.

Each community highlighted significant limitations that CERP faced in Iraq and Afghanistan. Three of these key limitations, which can be summarized as follows, have important implications for assessing CERP:

1. **CERP may not be well designed for large infrastructure projects.** This view has been highlighted in concerns with CERP expressed by both Congress and the oversight communities, with journalistic reporting indicating that CERP "is taking on too many large-scale projects that should be handled by civilian agencies with reconstruction expertise."[176] USAID has analogously emphasized CERP's comparative advantage in nimbly executing smaller projects, and academic research has found smaller projects to be more effective than larger projects. *Our quantitative analysis will therefore explore whether project size mitigates CERP's effectiveness.*

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[175] The first quote is from Special Inspector General for Afghanistan Reconstruction (2009, p. 5). The second quote is from John Sopko, Special Inspector General for Afghanistan Reconstruction, response during question and answer period at the Atlantic Council ("Afghan Reconstruction," 2014).

[176] Londoño, 2009; and Hedgpeth and Cohen, 2008.

2. **CERP was generally not implemented in a way conducive to achieving strategic effects.** CERP was initially designed to be a tool for force protection. Senior leaders told us that, in the field, CERP was not generally implemented in a way conducive to achieving strategic effects. *Qualitative and quantitative analysis should therefore be as localized as feasible to pick up CERP's effects at the tactical level.*

3. **Existing administrative CERP databases are insufficient for assessing its effects.** While administrative CERP databases provide a plethora of detailed project-level information, they are widely believed to be insufficient for assessing CERP's effects. One representative view concluded these data were "inaccurate, incomplete, and inconsistent," with significant problems in recorded project categories, locations, disbursements, and project intent.[177] An important example of this concern, which informed the design of our structured qualitative work, is that project descriptions rarely mention "building relationships," "force protection," or other "soft outcomes," which were often among CERP's foremost goals. *Our mixed qualitative-quantitative empirical approach was specifically designed to mitigate this limitation.*

And other identified limitations, in addition to the existing analyses of CERP good practices, offer guidance for how a future CERP-like capability might be better designed. Two key good practices that emerge from this literature are as follows:

1. **Enhance coordination between USAID and DoD.** Despite efforts by both USAID and DoD to enhance coordination, insufficient coordination between military implementers of CERP and USAID officials in the field was identified across each of these diverse communities. This lack of coordination, common to both Iraq and Afghanistan, reportedly made it difficult for DoD personnel to nest their CERP operations within

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[177] DoD, Inspector General, 2011.

broader USAID operations and, at least in some cases, denied DoD access to expertise that may have benefited CERP projects. *Any future CERP-like capability should have mechanisms to incentivize and ensure that both DoD and USAID proactively coordinate.*

2. **Improve training of CERP implementers**. Congress, senior military leaders, the oversight community, and previous CERP-related analyses have all identified a lack of appropriate training as a significant impediment to CERP's effectiveness. Senior military leaders highlighted, in particular, limited cultural knowledge, a lack of training in the application of nonlethal tools, and an inability to understand and plan for secondary and tertiary effects among tactical forces implementing CERP. This lack of training made it particularly difficult to oversee or manage large projects and to manage projects across deployments. *Enhanced training, building on the diverse existing good practices literature, and perhaps developing a specialized cadre of personnel dedicated to executing CERP-like projects would likely improve CERP's effectiveness.*

CERP Activity in Afghanistan

This chapter uses existing administrative databases to describe CERP activity in Afghanistan. Our analysis relies on CERP's two primary administrative databases. The first is the financial reports submitted to the U.S. Congress on a quarterly basis discussed in Section 2.3 (henceforth, "DoD Quarterly CERP Reports").[1] The second is the database used by implementers to document CERP projects throughout their life cycle, the Combined Information Data Network Exchange (CIDNE), which provides precise locational information on where projects were implemented (among other things).[2] We measure CERP spending using total obligations, because as of the close of the fiscal year, the DoD Quarterly CERP Reports provide only a snapshot of the total amount of project funds disbursed.[3] Appendix A provides additional details on these two CERP databases.

We begin by using these data to describe the evolution of CERP activity from FYs 2004 through 2014, illustrating the shift in CERP activity from the early counterterrorism-focused years of the campaign to its use in the years following the U.S. surge in 2009. CERP activ-

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[1] These reports are the only complete source of information on CERP activity.

[2] See chapter three of USFOR-A, 2012, for a discussion of the various data entered into CIDNE.

[3] Although a reported 99 percent of obligated funds were disbursed before projects were closed, only 31 percent of funds obligated were disbursed within the same fiscal year (Special Inspector General for Afghanistan Reconstruction, "CERP Priorities and Spending in Afghanistan FY 2004–2014," SIGAR-15-49-SP Fact Sheet, 2015d, p. 5). Thus, using the disbursement field would understate total CERP spending attributable to specific projects.

ity during FYs 2010–2013—which roughly corresponds to this latter period and accounts for 36 percent of spending and 77 percent of projects in Afghanistan[4]—is the focus of our qualitative and quantitative analyses in, respectively, Chapters Five and Seven.[5]

We then examine the determinants of CERP activity. This analysis focuses on variation within Afghan districts, using a database that links the precise geographical information in CIDNE with DoD Quarterly CERP Reports. We find that CERP activity during 2010–2013 is concentrated in the parts of districts with greater contemporaneous, and historical, military activity. CERP spending was also concentrated in the most populous, economically developed, and agriculturally rich areas of Afghan districts, although implementers also targeted CERP projects toward remote areas.

The quantitative analysis of Chapter Seven, which exploits these highly localized CERP activity to study CERP's effects, is specifically designed to adjust for the fact that CERP activity is influenced by this range of factors. The intuition for this approach, and a description of the other challenges in using administrative data for assessments of CERP, is the focus of the last section of this chapter.

4.1. Evolution of CERP Activity

The evolution of CERP spending at the provincial level, from 2004 through 2014, is illustrated in Figure 4.1. Although CERP had been a national-level program in Afghanistan since 2004, most CERP activity during early years was concentrated along the provinces that bordered Pakistan, the U.S. focus during this time frame. During FY 2006–

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[4]   CERP activity during the fiscal years accounted for just more than 43,500 of the approximate 57,000 total projects and more than $900 million of the $2.55 billion in total spending reported in DoD Quarterly CERP Reports for 2004–2014. Appendix A provides additional details.

[5]   We restrict quantitative analysis to this time period because of difficulties linking the two sources of CERP in earlier years (see Appendix A) and the increased availability of other quantitative data during this time period.

Figure 4.1
Evolution of CERP Spending by Province
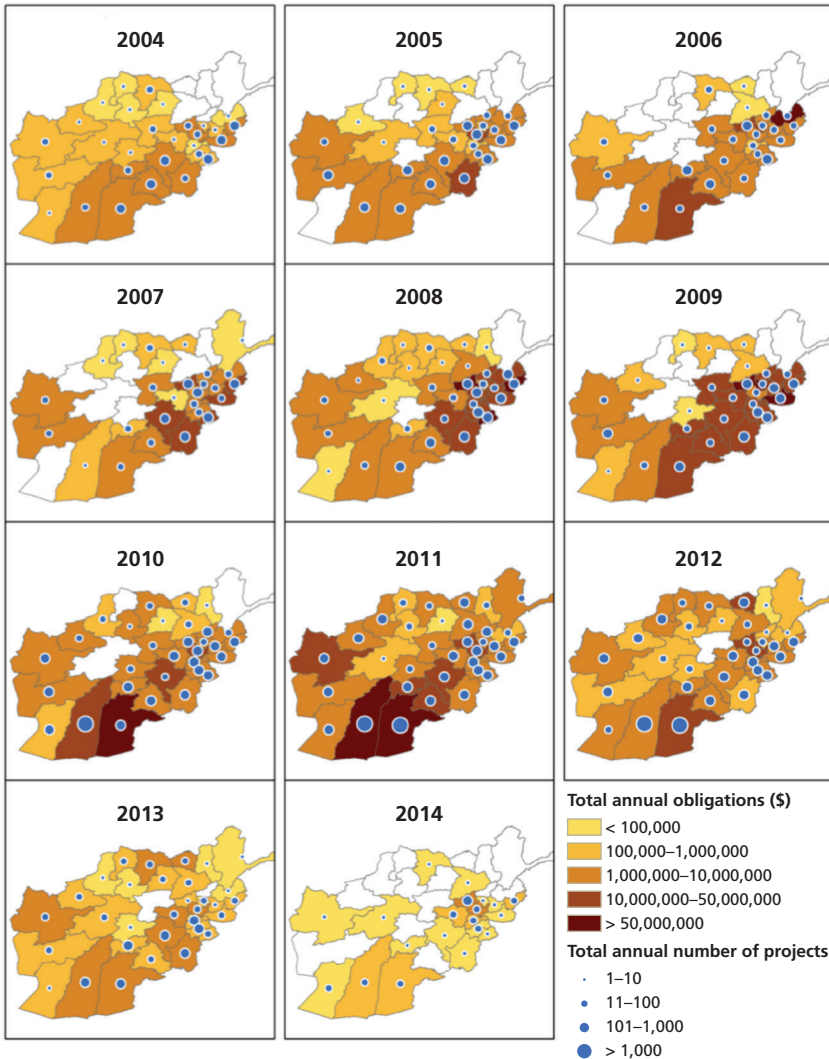
SOURCE: Authors' estimates based on DoD Quarterly CERP Reports. See Appendix A for data in a tabular format.

RAND *RR1508-4.1*

2009, CERP spending remained highly concentrated in eastern and southeastern Afghanistan.

In 2009, with the resurgence of the Taliban in southern Afghanistan and the pivot in U.S. efforts to contest the Taliban, CERP activity began to shift to the south. This was seen most dramatically in FYs 2010 and 2011, with the surge in CERP activity in Helmand as the Marines pursued the "hold" phase of their counterinsurgency campaign in the months following their initial arrival in summer 2009.[6] By 2014, CERP activity outside of the Kabul cluster had fallen dramatically, with nearly 90 percent of CERP spending concentrated in Kabul and its neighboring provinces of Logar, Parwan, and Wardak.

CERP spending was authorized for 21 different project categories.[7] Given the significant overlap in project categories from a program evaluation perspective, we aggregate these into nine project types for our analysis as summarized in Table 4.1. In two cases—agriculture and transportation—our simplified project types correspond to only a single MAAWS-A category, while the remaining types correspond to between two and four MAAWS-A project categories.

The prevalence of different types of CERP activity before and following the U.S. surge is examined in Figure 4.2. This figure reports the percentage of total CERP obligations and the percentage of total CERP projects in each of the 21 approved MAAWS-A project categories.

Overall, though the intent of CERP projects may have changed with the shift toward contesting expanding Taliban influence, the types of CERP activity was roughly comparable before and after the surge. As an important example, while the prominence of transportation projects fell significantly—accounting for 60 percent of obligations in 2004–2009 and less than 30 percent of obligations in 2010–2014—it still remained the most important type of project. And although the frequency of compensation payments appears to have increased dramatically, this is a data anomaly as multiple compensation payments

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[6]   The first major U.S.-led operation in Helmand was Operation Strike of the Sword (Operation Khanjar) during July and August of 2009 (Jeffrey Dressler, "Counterinsurgency in Helmand," Afghanistan Report 8, Institute for the Study of War, January 2011).

[7]   See Annex B (USFOR-A, 2009).

Table 4.1
CERP Project Types

RAND Type	MAAWS-A Category	MAAWS-A Description
Agriculture	Agriculture	Agricultural production (e.g., irrigation) or cooperative agricultural programs
	Food production and distribution	Projects to increase food production or distribution processes
Compensation payments	Battle damage repair	Repair, or make payments for repairs, of property damage that results from U.S., coalition, or supporting military operations and is not compensable under the Foreign Claims Act.
	Condolence payments	Payments to civilians for the death or physical injury resulting from U.S., coalition, or supporting military operations
	Hero payments	Payments made to next of kin for Afghan National Defense and Security Forces (ANDSF) personnel killed as a result of U.S., coalition, or supporting military operations
	Former detainee payments	Payments to individuals upon release from coalition detention facilities
Economic and infrastructure programs	Economic, financial, and management improvements	Improve economic or financial security
	Electricity	Repair, restore, or improve electrical production and distribution
	Telecommunications	Repair or extend telecommunication systems or infrastructure
Public services	Education	Repair or reconstruct schools; purchase school supplies or equipment
	Health care	Repair or improve health care infrastructure, equipment, medical supplies, immunizations, and training

Table 4.1—Continued

RAND Type	MAAWS-A Category	MAAWS-A Description
Local security	Protective measures	Repair or improve security infrastructure near critical infrastructure (e.g., oil pipelines, electric lines, etc.)
	Temporary contract guards for critical infrastructure	Projects including Sons/Daughters of Iraq and other projects to guard critical infrastructure, including neighborhoods and other public areas
Governance	Rule of law and governance	Repair government buildings (e.g., administrative offices, courthouses)
	Repair of civic and cultural facilities	Repair or restore civic or cultural buildings or facilities
	Civic cleanup activities	Projects to clean up public areas, area beautification
	Civic support vehicles	Projects to purchase or lease vehicles by public/government officials in support of civic and community activities
Transportation	Transportation	Repair or restore transportation networks (e.g., roads, canals), infrastructure (e.g., bus stations), or operations (e.g., traffic signals)
Water	Water and sanitation	Repair or improve drinking water availability, including production (e.g., wells), purification, and distribution. Sanitation projects focus on the hygienic disposal or recycling of waste materials, particularly human excrement.
Humanitarian relief	Other urgent humanitarian or reconstruction projects	Repair collateral damage not otherwise payable because of combat exclusions or condolence payments. Other urgent humanitarian projects not captured under any other category
	Other	Projects that do not fall in any of the above categories

SOURCE: MAAWS-A categories and descriptions are from USFOR-A, 2009.

Figure 4.2
Evolution of Prominence of Project Types
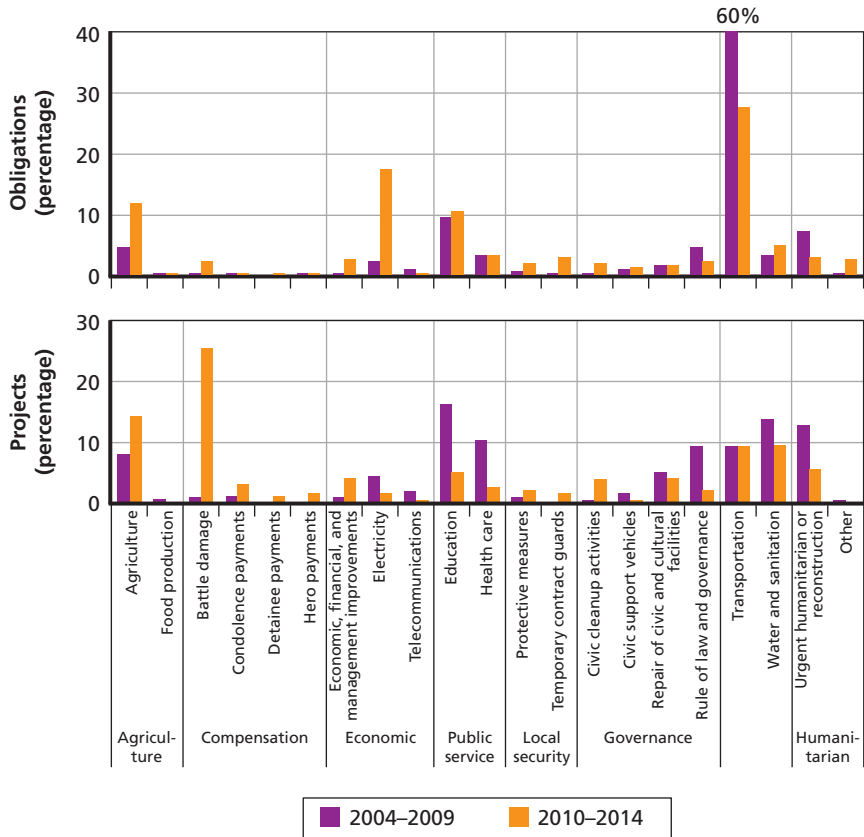
SOURCE: Authors' estimates based on DoD Quarterly CERP Reports.
NOTES: The number of compensation projects was significantly understated for 2004–2009 as projects were often grouped together. Thus, for 2004–2009, the reported share of total projects for compensation projects is understated while the share for other project categories is overstated. See Appendix A for more details.
RAND *RR1508-4.2*

were often grouped together into a single project in DoD Quarterly CERP Reports before 2010.

However, there are some meaningful differences in CERP activity across these two periods. One is the apparent surge in total obligations for electricity projects, which was largely driven by a single elec-

tricity project in Kandahar that cost more than $100 million. A second is the increase in importance of both agriculture projects and projects designed to improve local economic activity—that is, "economic, financial, and management improvements," one of the authorized categories of CERP spending. Both categories saw an increased focus in terms of the share of total obligations and projects.[8]

The importance of project size is an aspect of CERP that has received much discussion, as described in Chapter Three, and is a key component of our quantitative analysis in Chapter Seven. Figure 4.3 shows the evolution of project size from 2010 to 2013 by reporting the share of total obligations and total projects for small (less than $5,000), medium ($5,000–$50,000), large ($50,000–$500,000), and very large (greater than $500,000) projects.[9] Small projects accounted for an esti-

Figure 4.3
CERP Obligations by Size of Projects
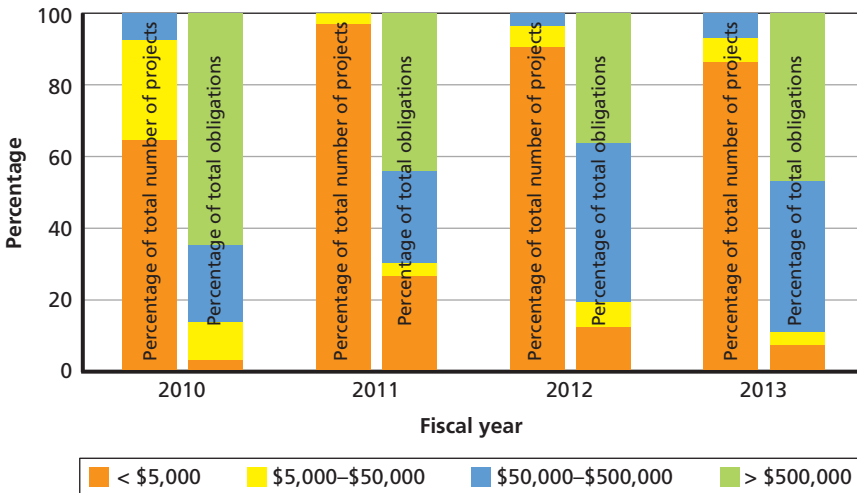
SOURCE: Authors' estimates based on DoD Quarterly CERP Report data.
RAND *RR1508-4.3*

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[8]   Note that the share of both categories of projects increased despite the change in how compensation payments were recorded between the two periods.

[9]   It is not possible to accurately calculate this share in earlier years because of the grouping of compensation projects, as discussed in the footnote to Figure 4.2.

mated 86 percent of all projects, but less than 8 percent of total CERP obligations in FYs 2010–2013. These small projects were particularly prominent in 2011, at the peak of counterinsurgency efforts in the south, accounting for more than 95 percent of all projects and more than 25 percent of all obligations despite the small size of the projects. Very large projects accounted for 40 to 70 percent of total obligations, although comprised less than one-half of 1 percent of the total number of projects.

4.2. Determinants of CERP Activity

Our quantitative analysis of CERP activity in Chapter Seven relies on a database of localized CERP activity that we construct by linking the DoD Quarterly CERP Reports and the CIDNE database. These data provide estimates of total CERP activity—both the total number of CERP projects and total obligations—for each square kilometer of Afghanistan.

This localized geographic distribution of CERP spending for 2010–2013, the focus of our quantitative analysis, is illustrated in Figure 4.4. For each fiscal year, the panel on the left reports the geographic distribution for projects, and the right reports the analogous distribution for CERP dollars.[10] CERP activity is geographically concentrated

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[10] The maps in Figure 4.4 are calculated by estimating the proximity of a given area to CERP activity. For this analysis, we divide Afghanistan into a grid with squares that are approximately one square kilometer in size. As all CERP activity during FYs 2010–2013 occurred in less than 0.3 percent of these grid squares, which would be very difficult to visualize, these figures assume that CERP activity affects neighboring squares as well. Specifically, we assume that grid squares as far as 20 kilometers away can be affected by CERP activity, but that the size of that impact is decreasing linearly with distance. Thus, while a project of value $100,000 would have a $100,000 impact in the grid square where it was reported and in all grid squares within one-kilometer distance (as the crow flies), this effect would only be $50,000 for grid squares two kilometers away, $25,000 for grid squares that are four kilometers away, etc. The depiction is analogous for the number of projects. Thus, in an area with only one project, five grid squares would be assigned the lowest value coloration (the location of the project and the four cardinal directions), and everything else would be blank.

Figure 4.4
Geography of CERP Spending

Projects

1	1–2	2–10	10–50	> 50

Dollars

< 5,000	5,000–50,000	50,000–100,000	100,000–1,000,000	> 1,000,000
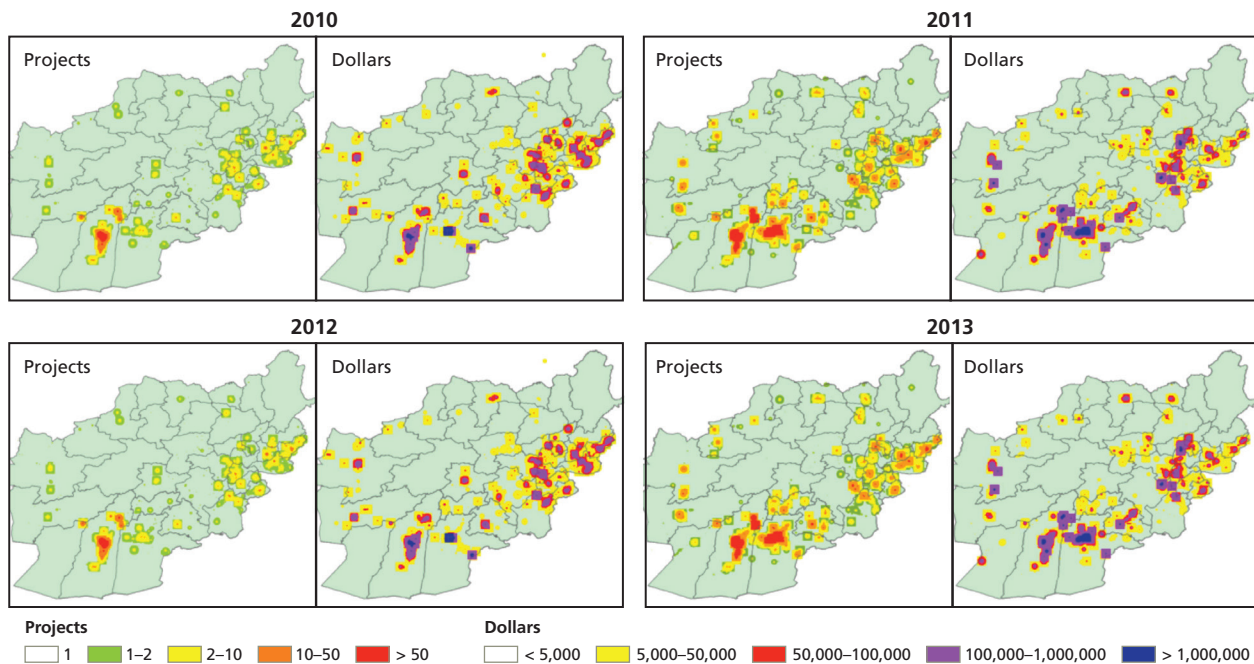
SOURCE: Authors' estimates based on linked Quarterly Report-CIDNE data.
NOTE: See footnote 10 in this chapter for a discussion of these estimates.

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in both projects and dollars.[11] This can be seen clearly for 2011, which demonstrates a high concentration of CERP activity in three locations in Helmand—Laskhar Gah and Marjah, which together make the southern red "blob," and Sangin in the north—and Kandahar. However, there is often a weak spatial correlation between the frequency of projects and the total quantity of spending in a geographic area. An important example of this is CERP spending for 2012, in which the vast majority of projects were concentrated in Helmand and Kandahar provinces but three of the major hotspots for CERP spending were in Kabul, Parwan, and Kunduz; a similar phenomenon is observed in the other years.

These localized data on CERP activity allow us to examine the factors influencing where CERP was used and the intensity of CERP use in those areas. By linking our data on CERP activity for each square kilometer of Afghanistan to corresponding data about activity of coalition forces, economic activity, and terrain, we are able to examine the types of factors that influence where CERP activity occurs. The data used throughout this analysis are described in greater detail in Chapter Seven.

Table 4.2 shows the determinants of aggregate CERP activity in FYs 2010–2013. The three columns in this table examine the relationship between coalition presence, historical economic activity, historical operational activity, and proximity to urban areas and, respectively, whether there was any CERP activity at all in a given square-kilometer grid square, the number of CERP projects, and total CERP obligations. In each case we focus on the relationship within, and not across, districts; this within-district variation is the focus of our quantitative analysis in Chapter Seven. Four sets of key results emerge from this analysis:

CERP activity is highly correlated with the overall activity of U.S. forces. These results are illustrated in the first set of rows of

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[11] Note that these figures somewhat exaggerate the concentration of CERP dollars. Although many (more than 8 percent) of the projects have multiple locations in the CIDNE data, each project is matched to only a single location; it is impossible to distribute total spending across the multitude of points in any accurate way.

Table 4.2, which shows a strong positive association between the amount of hours coalition forces spend in a given square kilometer during 2010–2013 and CERP activity. Blue Force Tracker (BFT), our measure of the presence of coalition forces, provides a rough proxy for the areas where the U.S. forces most frequently patrolled during this time frame.

Operational activity during earlier years was a strong predictor of CERP activity in 2010–2013. Our measures of historical operational activity—namely, the number of enemy engagements involving coalition forces in 2009, intelligence reporting in 2010, and BFT in 2009—are all strongly associated with CERP activity in the 2010–2013 time frame. This demonstrates that coalition forces concentrated their CERP activity in areas that had historically seen higher levels of operational activity.

Spending was concentrated in the most populous, economically developed, and agriculturally rich areas. This result is illustrated in the third set of rows, which finds a significant positive relationship between historical population levels; economic activity, for which we use "Nightlights" as a proxy; and agricultural activity, for which we use the Normalized Difference Vegetation Index (NDVI) as a proxy.

Implementers targeted CERP projects toward more remote rural areas. This is suggested by the positive relationship with distance to major road—which suggests that the probability of having a CERP project increases with the distance from a major road, after controlling for economic and counterinsurgency factors. Similarly, the negative association with road density indicates that CERP projects are less likely in areas with greater transportation access. However, while CERP activity may be targeted toward these rural areas, the lack of any significant relationship between these factors and either the total number of projects or total obligations indicates that the "rural-ness" of an area does not affect aggregate activity.

Table 4.2
Correlates of Aggregate 2010–2013 CERP Activity

	CERP Activity	Total Projects	Total Obligations
Controls[a]			
BFT—Distance (2010–2013)	0.20***	−0.02***	−0.03
	(0.02)	(0.01)	(0.03)
BFT—Hours (2010–2013)	0.13***	0.10***	0.37***
	(0.02)	(0.02)	(0.06)
Population (2008)	0.19***	0.03***	0.23***
	(0.02)	(0.01)	(0.04)
Nightlights (2009)	0.25***	0.23***	1.00***
	(0.02)	(0.03)	(0.11)
NDVI (2009)	1.17***	0.05	0.74***
	(0.07)	(0.04)	(0.19)
SIGACTS (2009)	0.27***	0.13*	0.47***
	(0.03)	(0.07)	(0.18)
Intelligence (2010)	0.33***	0.16***	0.52***
	(0.02)	(0.04)	(0.08)
BFT—Distance (2009)	0.00	−0.04***	−0.08***
	(0.01)	(0.01)	(0.03)
BFT—Time (2009)	0.13***	0.10***	0.34***
	(0.02)	(0.02)	(0.05)
Distance to major road	0.05***	0.03	0.05
	(0.01)	(0.04)	(0.11)
Road density	−0.01***	0.00	0.00
	(0.00)	(0.00)	(0.00)
Terrain ruggedness	−0.04***	0.00*	−0.04***
	(0.01)	(0.00)	(0.01)
District-fixed effects?	No	Yes	Yes
R^2	0.26	0.37	0.36
N=[b]	53,688	53,688	53,688

NOTE: Numbers in parentheses are standard errors.
[a] Outcome and control variables are specified in logarithmic terms or log changes.
[b] CERP-dependent variables are specified in logarithmic terms, but divided by 10 to allow easier comparison of the point estimates in the table. Point estimates should be interpreted as elasticities, so that a value of 0.2 indicates that a doubling of the explanatory variable would increase CERP activity by 2 percent.
* and *** indicate significance at, respectively, the 10- and 1-percent level.

4.3. Implications for Quantitative Analysis

Our quantitative analysis of the impacts of CERP activity, the focus of Chapter Seven, relies on linking the precise geographical information available in the CIDNE database to the authoritative list of CERP projects in the DoD Quarterly CERP Reports. The analysis of the CERP data presented in this chapter has several implications for our subsequent quantitative analysis.

The first is that the quantitative analysis in Chapter Seven needs to account for the fact that CERP activity is strongly influenced by historical levels of military activity, socioeconomic conditions, and terrain, as illustrated in the previous section. To derive a credible measure of CERP's effectiveness, our quantitative analysis must ensure that we compare areas with CERP activity to other areas that are as similar as possible.

Our empirical approach uses the results from Table 4.2 to focus analysis on areas most similar to those with CERP activity. The results from Table 4.2 allow us to estimate the probability that each square kilometer had CERP activity: By weighting our regression analysis by these probabilities, we focus analysis only on areas most similar to those with CERP activity. This approach is referred to as a propensity score approach.[12]

And while our linked database provides a data set of localized CERP activity, our data have three major limitations. The first is that we are only able to identify the precise location of a subset of CERP projects as a result of partial incompatibility of the two CERP administrative databases. Precise geographical information is available for only 77 percent of CERP projects and 55 percent of CERP obligations during FYs 2010–2013. While this represents the majority of projects and spending, our results may not be representative of CERP activity overall.

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[12] There is a multitude of other matching methods that could be used, but we use the propensity score because of its ubiquity in the program evaluation literature and its relative ease of use (e.g., Guido W. Imbens, "Nonparametric Estimation of Average Treatment Effects Under Exogeneity: A Survey," *Review of Economics and Statistics*, Vol. 86, No. 1, February 2004, pp. 4–30).

The second limitation is that our analysis is restricted to CERP activity during only 2010–2013. This limitation is a consequence of (1) difficulty in linking the two administrative databases in earlier years, as geographical information is available for only 20 percent of CERP projects executed in 2004–2009; (2) the aggregation of projects in data before 2010, as discussed earlier in this section, that would make it impossible to analyze the number of projects using pooled data; and (3) the unavailability of sufficient outcome data to assess CERP in earlier periods, as discussed in Chapter Seven. Thus, our analysis is restricted to the assessment of CERP only after the surge and the focus of the campaign against the resurging Taliban in the south.

The final limitation is that these data only provide an incomplete picture on where, when, and why projects were executed. In terms of location, our analysis relies on only the single military grid reference system coordinate for each project available in CIDNE, although the project and the intended beneficiaries may have been spread throughout a village or a long a road.[13] For the timing of when projects occur, our analysis assumes that the effect of a CERP project simply occurs at some point during the fiscal year as the administrative data do not provide accurate information on when projects were executed or completed.[14] And while the DoD Quarterly CERP Reports provide updated information on the type of project being implemented, the only data on the intended effects of the project are reported in CIDNE at project inception as part of the request for funds to support the project's execution. These data typically provide an incomplete picture of the actual intent of the projects and the implementers' theories of change and are not updated following the beginning of project execution.[15] The data collection for Chapter Five, which provides a detailed description of how and why CERP was used based on interviews with nearly 200 CERP implementers, was designed in part to help mitigate these data limitations.

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[13] See footnote 11 of this chapter for additional details.

[14] See Appendix A.2 for additional details.

[15] Authors' analysis based on a review of 125 projects.

Exploring How and Why CERP Was Used

This chapter describes how CERP was implemented in Afghanistan at the tactical level. Relying on qualitative interview data collected from nearly 200 CERP implementers that operated at the tactical level in Afghanistan, we explore the types of effects CERP projects were expected to achieve, how implementers used CERP projects to achieve these effects, and tactical operators' overall perspectives on the program.

The qualitative interview data underlying the analysis in this chapter and the impact assessment in Chapter Seven are project focused. Each interviewee was asked to discuss up to three different projects: one perceived as successful, another that was perceived as unsuccessful, and a third that was noteworthy—and to provide details on how and why they implemented the project. The intent of asking interviewees to describe a range of projects was neither to assess whether CERP was successful on net nor to judge what made projects successful, but instead to try to capture a diverse range of experiences with CERP. Section 5.1 describes the methodology underlying data collection, which was conducted with representatives from the Army, Marines, and SOF community with deployments in Afghanistan in 2010–2013. Although Army personnel are underrepresented among our interviewees, limiting our ability to make inference about the use of CERP overall during this time frame, our interviews do capture the experiences of SOF and Marine personnel.

The first objective of this chapter, describing the types of effects CERP projects were expected to achieve, is the focus of Section 5.2.

This section describes the CERP implementers' objectives and their views toward CERP's success in achieving those objectives. This section also explores unintended effects and the relationship between project objectives and overall project success.

The focus of Section 5.3 is to describe how CERP implementers intended to achieve these effects, or the CERP *theory of change*. We begin by discussing project types and community participation and then use these two project characteristics to describe the different types of theories of change adopted by CERP implementers to achieve counterinsurgency outcomes.

A final analytic section, presented in Section 5.4, summarizes the overall perceived value of CERP from the perspective of the tactical operators. Here we depart from the project-focused discussion of previous sections and focus on results from a summary question included in the interviews that asked respondents to reflect on their overall perception of CERP.

In addition to providing a systematic, if qualitative and subjective, assessment of CERP's effects and effectiveness, these qualitative data have a secondary purpose: to provide an empirical architecture to facilitate a quantitative assessment of CERP's effects, the focus of Chapter Seven. A central concern with existing CERP program data, discussed in Chapters Three and Four, is that the official program data do not provide accurate information on project location, project type, or project intent. Our concluding section, in addition to highlighting some general findings from analyses of these data, discusses the implications of our analysis for the quantitative analysis in Chapter Seven.

5.1. Methodology

Our goal was to build a systematic, qualitative data set of operators that had been involved in the use of CERP at the tactical or operational level. The intent was to interview operators involved with CERP, representative of the (1) U.S. Army, deployed to Regional Command–South and Regional Command–East; (2) the U.S. Marine Corps (USMC) deployed in Helmand and Nimruz provinces; and (3) SOF deployed in

support of the Village Stability Operations (VSO) program throughout the country. All interviews were voluntary, anonymous, unclassified, and conducted with operators following their deployments.[1] These interviews were conducted under HSP protocols in accordance with the appropriate statutes and DoD regulations, and interviewees are therefore identified only as Army, USMC, or SOF. In all cases, these sources' views are solely their own and do not represent the official policy or position of DoD or the U.S. government.

Army interviewees were identified in three ways:[2] (1) with the support of the Command and General Staff College, which identified and coordinated interviews with current students; (2) with the support of the U.S. Army Reserve Command, which coordinated interviews with relevant personnel; and (3) through direct solicitation over email, with our team contacting all Army individuals that had completed required CERP training courses or were listed as either a pay agent or project officer on at least one CERP project.[3] Marine interviewees were identified in coordination with Headquarters, U.S. Marine Corps, which helped us engage a sample of active duty and reserve elements of the Marines.[4] While it would have been preferable to select each recruited interviewee randomly, various unit training, deployment,

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[1] We made specific allowances for operators who chose not to participate in interviews without experiencing any repercussions from their command.

[2] RAND tried unsuccessfully to coordinate directly with several units that had deployed to Afghanistan.

[3] A total of 1,089 unique individuals were contacted by email—2,103 recruitment attempts were made, as individuals that did not respond to the first email were sent a follow-up email after two to three weeks. Of the 75 individuals who responded to at least one email (7-percent response rate), interviews were held with only 22 individuals. Of the remaining 53 individuals, 32 stopped returning emails after the initial contact, and 23 did not participate in CERP in Afghanistan.

[4] Interviewees included active duty and reserve marines ranging in rank from corporal through brigadier general. They included marines involved in operations at the tactical and operational level and those working in intelligence, finance, and planning. Approximately two-thirds of the interviewees were gunnery sergeant (E-7) or above. Nearly 50 percent of the respondents had spent one to ten months deployed to Operations Iraqi Freedom and Enduring Freedom combined for one to ten months; approximately 25 percent deployed for longer than 21 months combined.

and leave activities required us to accept interviewees selected by individual Marine units. In general, units tended to propose all marines who had any participation in CERP without filtering the interviewees. This approach provided our team with a wide range of experiences—both good and bad. SOF interviewees were required to have served as part of the VSO mission between 2010 and 2012 and were recruited through their Special Operations units. Key operational units that participated in this report included four Special Forces Groups, three Civil Affairs battalions, three separate SEAL teams, and representatives of the Marine Special Operations Command.

Our team interviewed a total of 197 individuals this way, including 32 Army soldiers, 84 marines, and 81 special operators.[5] Our sample of Army personnel is unlikely to be representative of the experience of Army personnel as a whole. However, we do believe that the marines and special operators that we interviewed are broadly representative of the experience of each of those communities.

One concern with our sampling is that non-SOF Army personnel, responsible for approximately 80 percent of CERP spending in 2010–2013,[6] are underrepresented, making it difficult for us to make generalizable conclusions about CERP's overall effectiveness during this period. While there are indeed meaningful differences across how these three communities used CERP, as we explore throughout this section, there are also many similarities. As an important example, a prominent use of CERP by both SOF and Marines was to directly support local security forces—SOF used CERP initially to provide projects in a quid pro quo arrangement for Local Defense Initiative personnel and later to pay the salaries of Afghan Local Police (ALP) directly, and Marines used CERP to pay the salaries of Interim Security Critical Infrastructure personnel directly. Army personnel similarly used CERP to pay the salaries of other local defense forces, namely the Crit-

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[5]   Each interview was conducted by two researchers, with one interviewer asking questions and a second interviewer dictating interviewee responses into a text document. Note that "special operators" also includes marines that deployed with Marine Special Operations Teams.

[6]   Authors' estimate based on total spending outside of Helmand during 2010–2013.

ical Infrastructure Protection program in Kunduz, Balkh, and Faryab and the Community Based Security Solutions in Kunar, Nangarhar, and Nuristan provinces.[7]

Each interviewee was asked to discuss as many as three different projects, so that our structured qualitative database of CERP projects includes a total of 407 CERP projects, summarized in Table 5.1.[8] Neither the individuals nor projects included in this database are random or representative, as participation in the study was voluntary and the participants were allowed to select the projects that they wanted to discuss. However, respondents were asked to discuss projects that were both successful and unsuccessful from their perspective. Specifically, they were first asked to discuss a project they deemed "successful"; second, to discuss a project they deemed "unsuccessful"; and third, to discuss a project that they thought was "interesting," but it could either be successful or unsuccessful.[9] The intent of this approach was to capture a diverse range of experiences with CERP. Indeed, a specific goal

Table 5.1
Interviewees and CERP Projects Implemented

Community	Number Interviewed	Number of Projects	Implementation Period
Army	32	60	2010–2012
Marines	84	169	2011–2012
SOF	81	178	2010–2012
Total	197	407	2010–2012

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[7] United Nations Assistance Mission in Afghanistan and UN Office of the High Commissioner for Human Rights, *Afghanistan: Annual Report 2012 Protect of Civilians in Armed Conflict*, Kabul, Afghanistan: February 2013. Intended to be temporary solutions to fill a requirement for security at the local level, these programs lacked the rigorous controls, patient partnering, and GIRoA connections that defined VSO/ALP.

[8] The original intent was to link projects discussed in these interviews to the CERP administrative data. However, the team was only able to link some 10 percent of the 407 projects to the administrative data with any certainty.

[9] These features of our survey design inevitably resulted in a large proportion of projects considered to be "successful" by respondents (since every respondent identified at least one successful project, and more than half of the "interesting" third projects were also deemed

of this approach was to explore whether projects perceived as unsuccessful benefited or hampered warfighters.

For each of the 407 CERP projects identified, interviewees were asked to describe the type of project, how and where the project was implemented, intended and unintended beneficiaries, project objectives, and the outcomes from the project, whether intended or not. These qualitative interviews were coded into a structured qualitative data set to allow them to be used with existing quantitative data. The workflow for this coding process was iterative in nature and designed to both reduce bias and increase the information obtained from the survey responses.[10]

We make three caveats to inferences based on these data. First, participants were asked to evaluate the success of CERP projects executed by their own unit. Second, although participants were asked to describe "successful" and "unsuccessful" projects, interviewers did not provide any additional clarifying definitions of these terms and left it up to participants to define successful and unsuccessful for themselves. Such self-assessments might have biased the respondents to reflect positively on their own performance, although we believe that the data reflect a fairly balanced sample of projects perceived as successful or unsuccessful. Third, no inference should be made that the overall number of projects deemed "successful" is representative of projects in general, since each respondent was asked to identify at least one successful project.

The structured data developed during this process are summarized in the remainder of this chapter. A structured database containing both the qualitative responses and the coded quantitative data have

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"successful" by respondents). Thus, the number of projects deemed successful should not be considered representative of the relative success rate of CERP projects overall, but as descriptions of the characteristics our respondents generally attributed to successful projects.

[10] This coding process had two stages. In the first stage, each interview was read by two coders and coded based on an inductive categorical system designed by the coding team. In the second stage, the lead coder then reread each interview to verify the coding and edited as necessary. This two-stage process was used to code project type, project objectives, and project outcomes. Coding was done simultaneously for all 197 interviews to improve comparability across responses.

been made publicly available as part of this project. This project-level database includes the name and general type of project implemented, descriptive information about the project, the interviewee's objectives and whether those objectives were achieved, unintended outcomes of the project, and intended participants and beneficiaries of the project.

5.2. Outcomes

CERP projects were used to achieve a variety of diverse objectives. Many objectives are clearly defined by the type of project being implemented—for example, well projects were intended to improve access to water for drinking or irrigation; road projects were aimed at improving transportation. However, other objectives were often equally as important to the implementers. Improving the relationship between ISAF personnel and local communities, enhancing perceptions of local Afghan governmental organizations, and gaining access to new sources of information about potential enemy activity, among others, were additional objectives that CERP implementers said they wanted to achieve with projects.

Our qualitative survey asked interviewees to characterize the full range of intended objectives of their projects. For each project, interviewees were asked to describe up to five objectives; interviewees were asked to provide qualitative descriptions of each objective rather than select from a predetermined list, as the research team believed that a prescribed list of objectives would limit the types of objectives that people might describe. The interviewees were then asked to describe whether that objective had been achieved, in their view, and describe why they felt that the project had succeeded or not. Interviewees were asked to describe up to two unintended outcomes of their CERP projects, whether positive or negative. The project team used these contextual responses to develop a comprehensive, discrete list of all project outcomes, both intended and unintended, in our sample.

Table 5.2 shows the full range of outcomes that the CERP implementers discussed during their interviews. We define "outcomes" here as including both intended outcomes (whether perceived to have been

effective or not) and unintended outcomes (either positive or negative). The 14 distinct outcomes identified are reported in the second column of Table 5.2, and a short description of the typical types of outcomes discussed are provided in the third column. In the first column, we group these 14 different outcomes into three different groups: development, ISAF security and influence, and Afghan governance.

The first group of outcomes, which we refer to as *development* outcomes, includes outcomes typically associated with traditional development projects. The types of development outcomes that CERP implementers achieved or attempted to achieve can be divided into five categories. The first are outcomes related to *agriculture*, with many projects designed to enhance local agricultural capacity and production. Most often, these projects involved efforts to increase access to water for agriculture; other projects included training,[11] improvements in the ability of farmers to get goods to market,[12] or purchases of new crops or livestock to support local farmers.[13] Second, many projects aimed to increase *economic* activity, generally defined, in an area. This was frequently cited as an objective in a variety of labor-intensive projects;[14] job-training programs;[15] projects that provided microgrants to local individuals' businesses[16] or grants to small- and medium-sized businesses;[17] and projects aimed toward improving access to markets.[18] Several projects sought to improve access to either *health care* or *education*, although these projects were almost solely through construc-

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[11] Interview with soldier.

[12] Interview with soldier.

[13] Interview with special operator.

[14] Interview with marine.

[15] Interview with special operator.

[16] Microgrants were often in the form of cash payments to specific local elders or businessmen with whom implementers desired a better relationship. Interview with a member of Special Operation Forces.

[17] Interview with special operator.

[18] Interviews with special operators and marines.

Table 5.2
Reported Outcomes from CERP Projects

Outcome Group	Outcome Type	Typical Project Outcomes
Development	Agriculture	Built new agricultural capacity or increased productivity of existing agriculture
	Economic	Increased economic activity by improving local markets, helped build local businesses, or employed/trained local labor
	Health care	Improved local access to health care facilities or improved quality of health care available to a community
	Education	Improved local access to educational instruction or improved existing school buildings, teacher quality, or educational resources
	Local freedom of movement	Improved the ability of locals to access other villages or cities within their district or province
ISAF security and influence	ISAF freedom of movement	Improved the ability of ISAF forces to move around the battlespace unimpeded
	ISAF security	Protected ISAF forces from attacks by insurgents
	Local rapport	Built relationships with local elders and members of the community
	Intelligence	Collected increased intelligence about local insurgent activities or local populations to better conduct operations
Afghan political and security institutions	Local governance	Improved the ability and capacity of GIRoA and local institutions to provide services to the local population
	Local security	Protected the local population from attack by insurgents
	Afghan National Defense and Security Forces development	Improved the ability and capacity of Afghan National Defense and Security Forces elements to secure the local population, including efforts to build the ALP program
	Corruption	Unintentionally led to the occurrence of corrupt acts or affected the overall level of corruption in a given area
	Local tensions	Increased tensions or conflict between competing tribes or villages based on allocation of ISAF resources to certain areas over others

SOURCE: CERP qualitative interviews.

tion or renovation of schools and medical clinics.[19] Another outcome was increased *local freedom of movement*, made possible by improving roads or transportation networks, to allow private citizens, business-people, and goods to more rapidly or more safely transit between local villages,[20] local markets,[21] and district centers.[22]

The overall frequency of different development outcomes is shown in the left-most section of Figure 5.1. Development outcomes, and especially efforts to enhance agriculture, economic conditions, and local freedom of movement, were among the most common of intended outcomes, but also the least likely to be achieved. Indeed, development outcomes have the highest reported "unsuccessful" rate.

The second group of outcomes, which we refer to as *ISAF security and influence* outcomes, includes outcomes designed to enhance the security of coalition forces' own security and their influence with the local population.[23] Improving **ISAF freedom of movement**, through the construction of new roads or new security measures along exist-ing roads, is the first type of outcome in this group.[24] A second type of outcome, which became a catchall for many different types of efforts, was to enhance the **security of ISAF forces** by protecting them from insurgent attack or reducing the probability of such an attack.[25] Proj-ects with this outcome most frequently attempted to reduce threats

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[19] Interview with soldiers.

[20] Interview with soldier.

[21] Interview with marine.

[22] Interview with special operator.

[23] There was often confusion in the interviews on whether CERP projects could be used for purposes that would benefit coalition forces.

[24] Interview with marine.

[25] Outcomes of this type were often poorly defined. For example, one interviewee reported that, "I guess you could say security by not [angering] the locals and having them sympa-thize with the enemy" (interview with marine). Another indicated that "it was understood or hoped that by getting that population that needed work to do things for basic public health and give them a bit of money, they would also just generally help with security" (interview with soldier).

Figure 5.1
Frequency of Project Outcomes
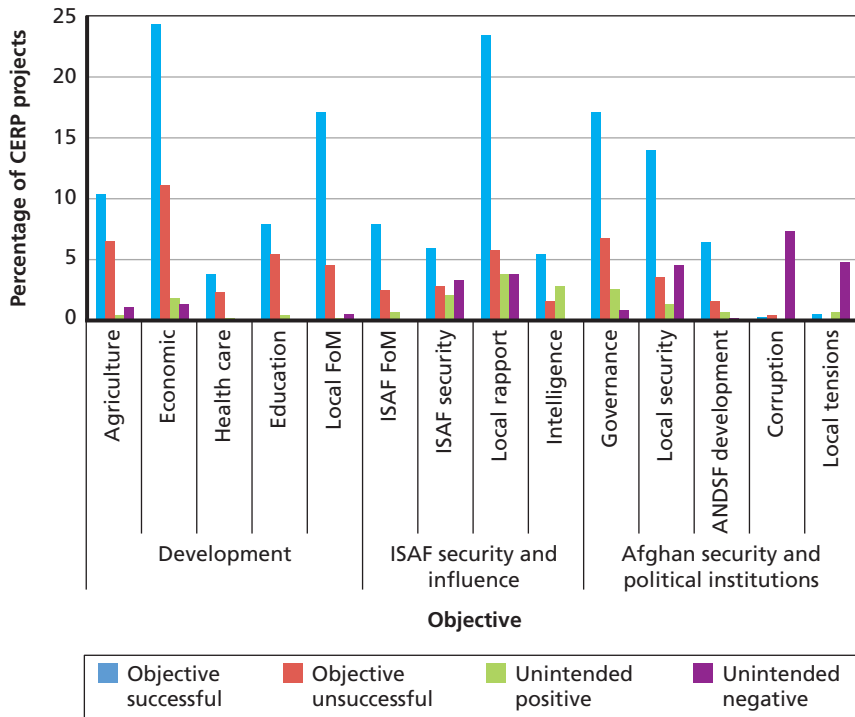
NOTES: For each of the 14 outcomes, the figure reports the percentage of projects in RAND's qualitative database that intended to and succeeded in achieving that outcome ("objective successful"), intended to but failed to achieve that outcome ("objective unsuccessful"), achieved that outcome accidentally ("unintended positive"), or negatively impacted that outcome ("unintended negative"). Each reported percentage is a share of the total 407 projects included in RAND's qualitative database. FoM = freedom of movement.
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from improvised explosive devices (IEDs) on roads,[26] build defensive positions for GIRoA or Afghan National Defense and Security Forces that would also protect coalition forces,[27] or provide short-term

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[26] Interview with special operator.

[27] Interview with special operator.

employment or education to military-aged men in hopes of discouraging insurgent activity.[28]

The most frequently cited outcome in this group was a desire to enhance **local rapport** (i.e., to build improved relationships or gain influence with local individuals or leaders).[29] Such projects were particularly important for some SOF teams in pursuit of their community-focused VSO/ALP mission, as they sought to overcome negative stereotypes and build relationships that would allow the team to perform their work effectively and safely.[30] A final outcome in this group, which is related to building local rapport, is a desire to collect better or more **intelligence** on insurgent activity or local conditions. This was typically an unintended outcome, although in some cases this was cited explicitly as a goal of the project (e.g., a Marines-funded project established an Internet café where the Marines hoped to monitor the online activities of locals for suspected insurgent activities).[31]

The final group of outcomes described by CERP implementers relates to development of **local governance**, which we define broadly as the ability of the Afghan official and traditional leaders to protect and support their populations. This often took the form of legitimizing specific provincial or district leaders or institutions,[32] putting an Afghan face on development projects to visibly demonstrate that GIRoA was working to benefit local populations,[33] or convincing local elders to

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[28] Interview with marine.

[29] This was often referred to as a desire to "build rapport" or "gain influence" with specific village elders or key stakeholders, to conduct projects "as a sign of good faith" or to "improve the image" or perception of coalition forces more generally (interviews with Army, SOF, and Marine personnel).

[30] For example, one SOF operator reported that,

> You are going into an area where not everyone likes you, so if you are providing for them and helping their families out, it helps. You can tell when you go into a village if you are well received or not—do people scurry off or do they come out and want to be friends? (Interview with special operator)

[31] Interview with marine.

[32] Interview with soldier.

[33] Interview with marine.

take ownership over local governance, education, and health care.[34] Such initiatives were often seen to have backfired, however, with local leaders becoming more dependent upon CERP funds to provide governance than through their own means or gaming the system to procure more funding. Many respondents noted that local villagers and elders, upon seeing a successful project, would frequently increase their requests for new and often unnecessary project work. One SOF operator noted that condolence payments made to the families of deceased ALP members led one ALP commander to request raises for his ALP unit: "He thought we had an endless pot of money to just give out, based on the condolence payments we were giving out, so asked for raises."[35] In another case, a VSO team implemented a cash-for-work program to clean up trash in their village. In the words of one team member, "everyone hears about it, and the next thing you know we have people who are purposely putting trash in their village."[36]

Enhancing the ability of Afghans to provide **local security** was the second outcome in this group. Interviewees differentiated this objective from a desire to protect coalition forces, hoping to "have an area where people feel safe,"[37] to supplant the Taliban from control over an area,[38] to "stabilize" the population,[39] or provide security for specific government institutions, schools, or health clinics.[40] A related but distinct third outcome was efforts to support **Afghan National Defense and Security Forces development** such as the ALP to facilitate governance and security. These projects often involved construction of new ALP checkpoints, martyr payments to the families of Afghan National

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[34] Interview with marine.

[35] Interview with special operator.

[36] Interview with special operator.

[37] Interview with marine.

[38] Interview with special operator.

[39] Interview with marine.

[40] Interview with special operator.

Defense and Security Forces soldiers killed in action to prevent attrition, or provision of uniforms, training, and other equipment.[41]

The final two potential outcomes in this group are different than the other 12 outcomes in that they were almost never intended and were almost always negative. The first were projects that impacted **corruption**. While a few projects were designed intentionally **to reduce corruption** through CERP, implementers of many more projects identified instances of corruption that resulted from CERP. This most frequently involved local police or government officials skimming off the top of CERP construction funds through bribes and extortion. Similarly, some CERP projects were seen to have had unintended impacts on **local tensions**, which, like corruption, was not an intentional goal of projects.[42] Many interviewees noted that provision of CERP funds to one tribe or village increased distrust between coalition forces and those tribes or led to conflict between the two tribes themselves. This often took the form of jealousy between the haves and have nots, as well as anger among those eager to sway the selection of CERP projects.

Figure 5.1 shows that building Afghan governance and providing for local security were two of the most frequently attempted objectives in our sample and were more often than not successful in their attempts. Outcomes in this group were also the most likely to be considered to have happened unintentionally—with most respondents reporting that CERP negatively affected the ability of Afghan institutions to provide services to local populations through increased corruption, local tribal tensions, and—in nearly 5 percent of projects—unintended harm to local security.

We also can assess the distribution of these project outcomes by the community implementing CERP. Figure 5.2 shows this same figure across Army, Marine, and SOF respondents in our sample. Several differences emerge from the data. First, Army CERP implementers heavily prioritized economic outcomes over others, but also attempted to build Afghan governance and educational access more than the other communities. By Army implementers' own estimation,

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[41] Interviews with special operator and marine.

[42] Examples of where this did occur were told through interviews with members of SOF.

they were largely successful at the former two objectives and relatively unsuccessful at increasing educational access. Respondents from the Marines were heavily concentrated on economic objectives as well but were equally focused on building local rapport and freedom of movement. The marines believed that they were less successful at economic objectives relative to SOF or Army respondents in our sample. Interestingly enough, the Marines account for the bulk of projects in our sample where CERP projects were considered to have unintentionally worsened local security. SOF respondents heavily focused on building local rapport and considered their efforts overwhelmingly successful. Perhaps understandably, given their mandate to build the VSO/ALP program, SOF implementers focused more on local security and governance than either the Marine or Army implementers in our sample. SOF respondents also had a much wider range of objectives across the board, whereas Marine and Army respondents focused their efforts on a narrower band of objectives.

Figure 5.3 shows how frequently *unintended outcomes* occurred for each set of objectives based on the type of project implemented. Although agriculture projects most frequently sought to achieve development outcomes, they were more likely to unintentionally benefit ISAF security and influence. This most often occurred when agriculture projects improved relationships with the local community and often drove better intelligence collection as a result of these relationships.[43] On the other hand, compensation projects led to unintentional negative outcomes for Afghan security and political institutions more than 20 percent of the time, whether by exacerbating local tensions between tribes or by fostering corruption generally through payments to contractors.[44] Notably, in our data set, economic projects and local security projects were the least likely to lead to unintended outcomes.

Provision of public services such as health care and educational access was frequently considered to have had an unintended adverse impact on Afghan security and political outcomes because of corruption but also because it created new institutions outside the local

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[43] Interview with soldier.

[44] Interviews with special operator and marine.

Figure 5.2
Frequency of Project Outcomes by Army, Marines, SOF
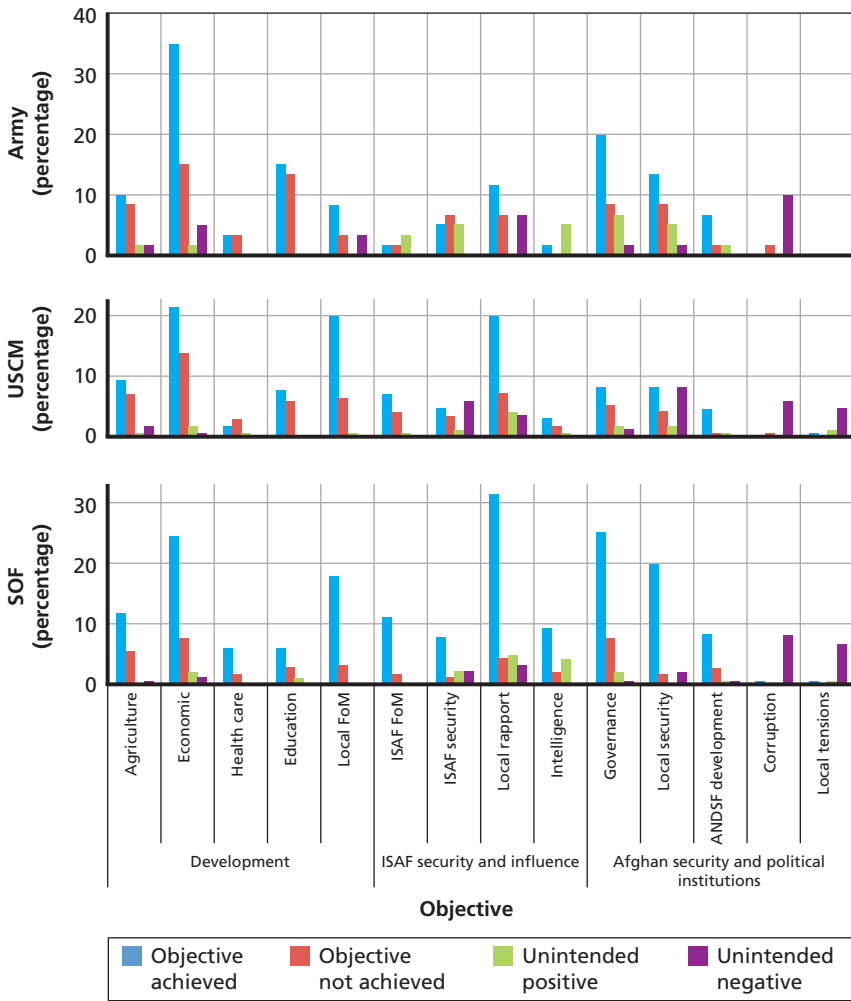
NOTE: The figure is analogous to Figure 5.1, though the top panel reports data for only 60 Army projects, the middle panel reports data for only the 169 Marine projects, and the bottom panel reports data for the 178 SOF projects. FoM = freedom of movement.

RAND *RR1508-5.2*

Figure 5.3
Unintended Outcomes Across RAND Project Types
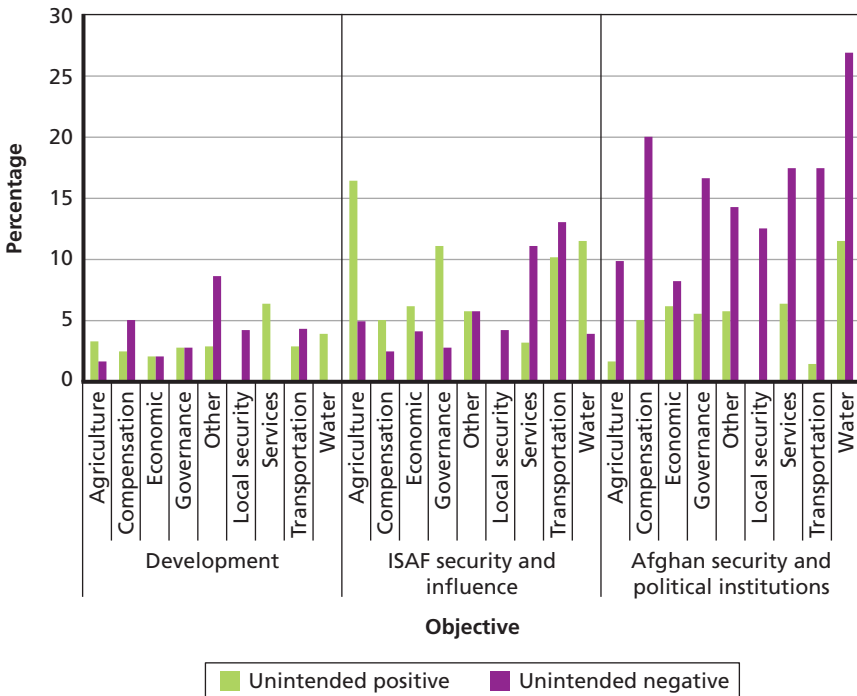
NOTE: The figure reports the frequency of unintended outcomes, and their variety (development, ISAF focused, Afghan government-focused), by project type.

RAND *RR1508-5.3*

Afghan governance structure.[45] Transportation projects led to unintended positive consequences for the coalition nearly 15 percent of the time, mostly because of what respondents pointed to as improvements in the coalition's freedom of movement. Water and irrigation projects were considered to have had an unintended impact on Afghan security and political outcomes nearly 40 percent of the time; nearly 30 percent considered such projects to have produced negative unintended outcomes. These outcomes include instances of corruption as well as Tali-

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[45] Interview with soldier.

ban intimidation of local leaders who participated in CERP-funded agriculture programs.[46]

We also examine the extent to which successful projects were more likely to achieve positive outcomes and whether projects that were unsuccessful on the whole were still able to achieve some desired outcomes. Figure 5.4 shows the distribution of outcomes in our sample, broken down into two panels. The top panel shows subsets of our sample that include projects that CERP implementers believed were successful overall, while the bottom panel shows subsets of the results of projects that CERP implementers believed were unsuccessful overall.

The differences between the two panels are clear. Projects viewed as largely successful by respondents were those that achieved most of their desired outcomes, particularly for efforts to foster economic growth, increase freedom of movement, and bolster Afghan governance and local security. However, a small percentage of successful projects had unintended negative consequences such as increased corruption, more local tensions, and worse local security. Failure to achieve desired economic, agricultural, and educational outcomes was strongly aligned with a respondents' belief that the project itself was unsuccessful. However, many unsuccessful projects were still able to achieve positive outcomes in terms of local rapport.

5.3. Theory of Change

This section focuses on the theory of change, or causal pathway, that CERP implementers pursued to achieve their desired objectives. Our analysis focuses on understanding the types of projects (Section 5.3.1) and individuals (Section 5.3.2) associated with different types of outcomes. We then examine how these factors relate to the intended outcomes of these implementers.

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[46] Interview with marine.

Figure 5.4
Distribution of Outcomes by Overall Project Effectiveness
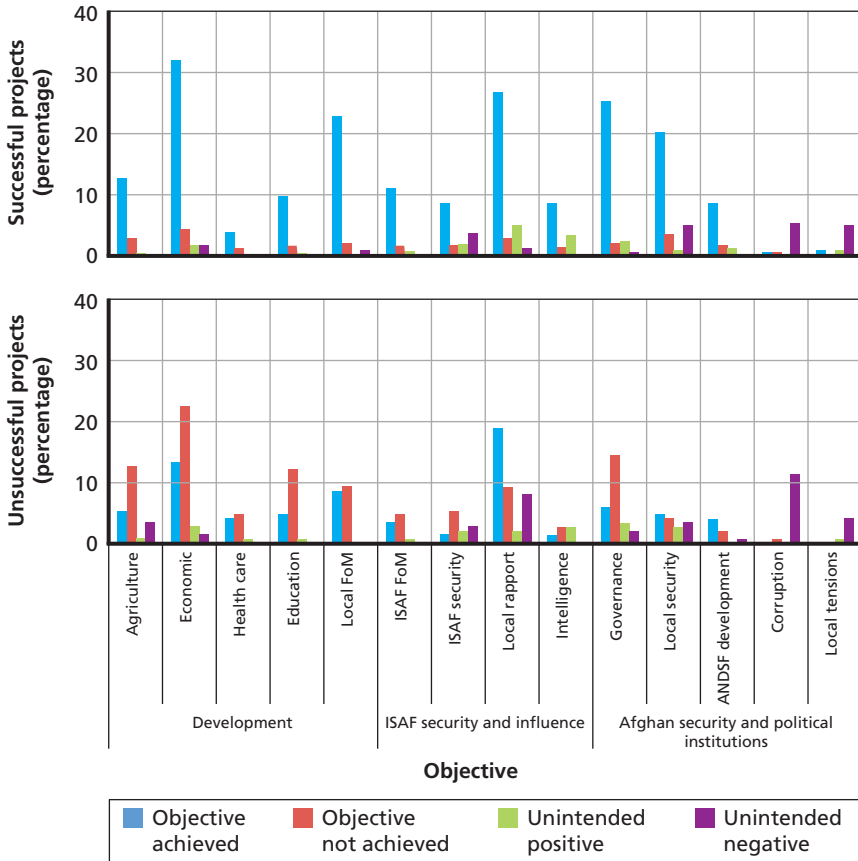
NOTE: This figure is analogous to Figure 5.1, although the top panel considers only the 162 "successful" projects and the bottom panel includes only the 128 "unsuccessful" projects. FoM = freedom of movement.

RAND *RR1508-5.4*

5.3.1. Project Type

An important decision facing the CERP implementer is the selection of projects appropriate for a desired outcome. A CERP implementer who wants to improve economic conditions in an agrarian area may choose an agricultural project to improve agricultural productivity or may instead select a transportation project that will provide short-

term employment for locals and reduce the cost of moving agricultural goods to market. The difference between these two choices for a CERP project reflects differences in implementers' theories of change.

The overall distribution of project types, organized into the nine simplified categories discussed in Chapter Four, is presented in Figure 5.5. Despite the difference in their areas of operation, there is no pervasive service bias in terms of the types of projects that operators selected to discuss, which we take as a rough proxy for the types of projects that they implemented. Exceptions to this observation are the overrepresentation of the Army in "rule of law" and "education" projects (the Army size sample was much larger) and its underrepresentation in the "condolence and hero payments" and "local security"

Figure 5.5
CERP Projects by Type
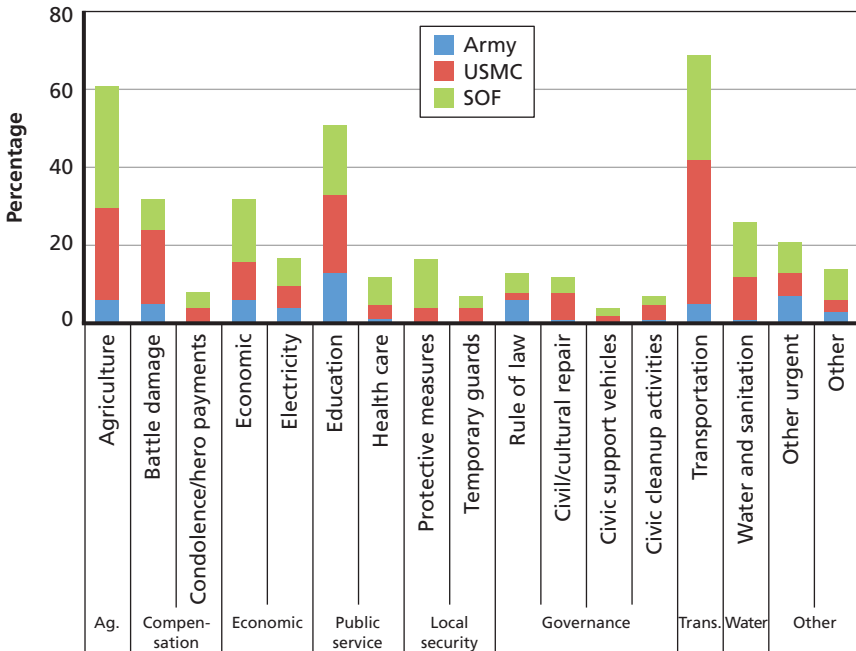
NOTE: The figure reports the total number of projects of each type included in our qualitative data.

project types. This difference may reflect a differing approach taken by the Army implementers included in our qualitative data collection, where more projects were implemented at the battalion or brigade level rather than at the company level or lower.

Most types of projects attempted to achieve a wide variety of objectives. Figure 5.6 shows how frequently respondents intended to achieve each set of outcomes based on the type of project implemented, regardless of whether the project was successful. For example, a project to build a local medical clinic might also seek to improve rapport with the local elders and, as a result, improve the security of ISAF forces based on an improved relationship with the local community. Simply because a project such as school construction would primarily affect development objectives did not mean that respondents did not also hope to improve their own security or build Afghan governance institutions. On average, each project intended to achieve at least two outcomes, with transportation projects in particular attempting to achieve nearly three outcomes.

Figure 5.6 shows several clear trends. First, each project type predictably aligned focus in terms of desired outcomes. Agriculture, economic programs, transportation, and public service–based projects predominantly focused on achieving development outcomes. Compensation projects focused on benefitting ISAF security and influence. Governance and local security projects focused on building effective Afghan security and political institutions. More informative, however, is the high prevalence of "softer" outcomes (e.g., building rapport, enhancing local governance, improving security) across the projects sampled. Economic programs, for instance, were also intended to benefit ISAF security and Afghan institutions roughly 40 percent of the time. In more than half of transportation projects sampled, an explicit goal was to benefit ISAF security or influence local leaders or the local population. Local security projects (e.g., supporting the ALP) benefited ISAF nearly half of the time they occurred, well beyond their intended benefit to overall Afghan security. Water projects were used to benefit ISAF nearly half of the time, but were less frequently used in an attempt to develop Afghan security and political institutions.

Figure 5.6
Intended Outcomes Across RAND Project Types
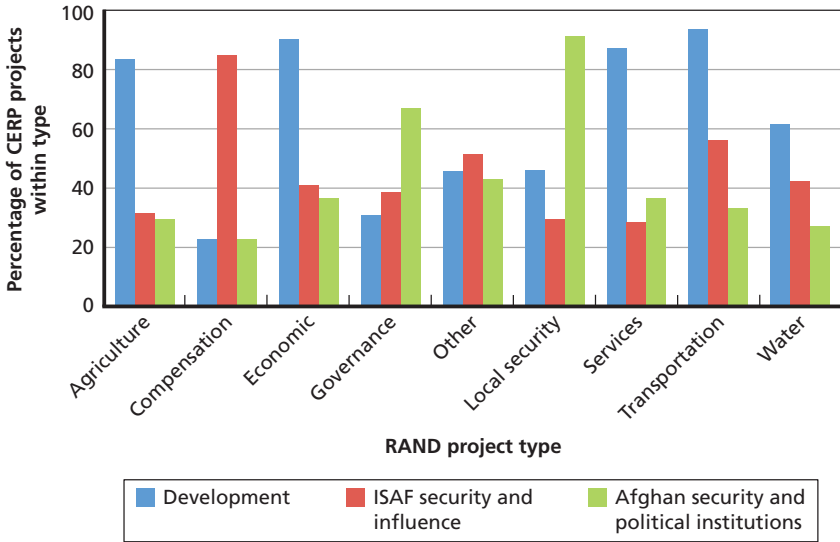
NOTE: The figure reports the types of outcomes—aggregated into three groups ("development," "ISAF security and influence," "Afghan security and political institutions") as defined in Table 5.2—that implementers tried to achieve.
RAND *RR1508-5.6*

5.3.2. Project Participants and Beneficiaries

Local involvement was reportedly a key element for many interviewed CERP implementers in achieving their desired outcomes. In one example, local Afghans approached the marines and asked for support in rebuilding a shrine dedicated to a local religious figure.[47] Seeing an opportunity to reinforce their relationship with a friendly tribe, the marines found a local contractor who used local labor to conduct the work under the supervision of the local elders. The involvement of locals at all stages of the project was highlighted by the interviewee as contributing to the many perceived successes of the project, including improved rapport, increased intelligence reporting, and ultimately in

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[47] This man was considered the equivalent of a founding father in the local area. The shrine itself was approximately 1,000 years old and was in poor repair.

improved stability.[48] Local involvement also frequently included government officials, as illustrated by an Army-implemented CERP school improvement project that used local contractors; the project was considered to have benefited both the youth of the district as well as the district governor, who hosted a public opening for the rehabilitated school.[49]

The MAAWS-A guidance for CERP emphasizes the importance of involving locals in project design and execution.[50] Commanders are encouraged to "evaluate how projects can add value to the *local community* in order to build capacity, promote peace and hope for future generations, and build trust and lasting support for the GIRoA" and to coordinate with "*local* GIRoA officials" to assess how the "proposed activity will create additional jobs for the *local* populace and if so, how many."[51] Specific guidance is provided for many of the project types in terms of what types of local actors should be involved and at what stage.

To gauge the level of involvement of different local populations, interviewees were asked to discuss the types of individuals that were either beneficiaries of the project (*beneficiaries*) or involved in its implementation (*participants*). These data allow us to assess how local involvement—either as a beneficiary or as a participant—is incorporated into the implementers' theory of change. The discussions of individuals involved in each project occurred before discussing outcomes because we wanted interviewees to consider the full range of potential beneficiaries before we discussed project objectives and outcomes.

These data are summarized in Figure 5.7, which illustrates the percentage of CERP projects involving different types of actors. Our data collection considered a total of seven different types of actors: the local community, local elders, representatives from either the district

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[48] Interview with marine.

[49] Interview with soldier.

[50] As reported in the previous chapter, interviewees identified local involvement as a "good practice."

[51] The three quotes are from USFOR-A, 2009, respectively, pp. 2, 26, and 48. Italics are ours.

or provincial government, contractors, the Afghan National Defense and Security Forces, and an other category to capture any remaining participants or beneficiaries.

Figure 5.7 compares the frequency with which each group of actors participated in projects as well as benefited from projects. Local communities were considered to be beneficiaries of most, but not all projects: They were identified as a beneficiary between 80 and 90 percent of all projects. These communities were also reportedly involved in project implementation, matching the overall intent of the CERP program to provide local economic benefit through employment. The second most commonly referenced beneficiaries were contractors involved in project implementation. Such contractors were predominantly local contractors or regional contractors working with local labor, although some outside contractors were used for projects deemed to be too difficult for local contractors to implement. Local elders, district governments, and the Afghan National Defense and Security Force were also commonly reported to be both beneficiaries and participants in CERP

Figure 5.7
Beneficiaries and Participants in CERP Projects
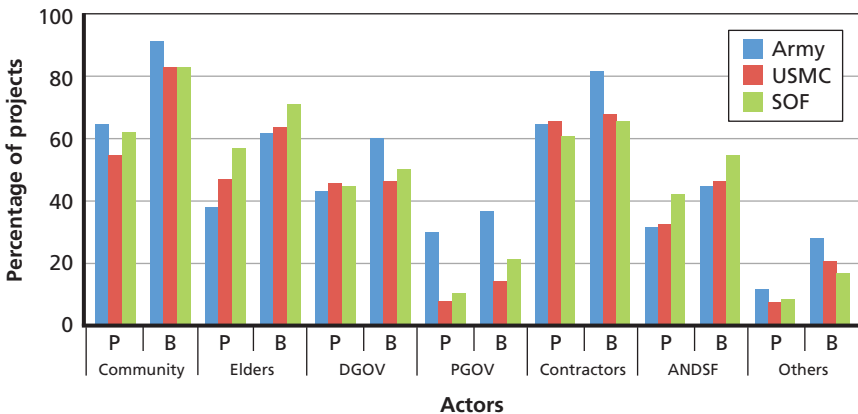
NOTE: The figure reports the percentage of projects—separated by the three interviewed communities—that included different actors as beneficiaries or participants. P = participants; B = beneficiaries; DGOV = district government; PGOV = provincial government.

projects. Few interviewees reported provincial leadership as playing a role, although the number was significantly higher for the Army, again suggesting a higher prevalence of operational- rather than tactical-level Army projects in our data set.

5.3.3. Depicting the Theory of Change

This final subsection examines how CERP implementers connect project type and project participants with the outcomes that they hope to achieve. We begin by examining the theory of change underlying just a single type of project—transportation projects—for illustrative purposes. This analysis is presented in Figure 5.8, which reports the involvement of local actors, the types of short-term outcomes that the projects intended to achieve by working through those actors, and the relationship of these short-term outcomes to longer-term outcomes typically associated with counterinsurgency efforts. The intensity of an

Figure 5.8
Theory of Change for Transportation Projects
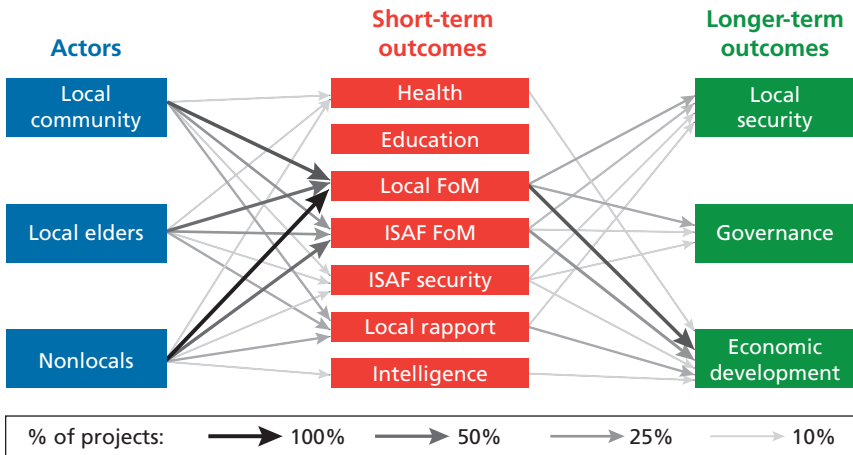
NOTE: The shading of the lines reports the overall propensity of a given pathway in our qualitative data on transportation projects (*N* = 69). As an example, the very dark line leading from "nonlocals" to "local FoM" indicates that nearly all transportation projects relied on nonlocals, in this case contractors from outside the immediate area, to implement the transportation projects that would increase freedom of movement for locals.

RAND *RR1508-5.8*

arrow reflects the frequency with which that pathway was mentioned by interviewees.

Three key results can be seen in Figure 5.8. The first is that improving local freedom of movement was the primary mechanism through which transportation projects were used to achieve each of the three longer-term counterinsurgency goals. This result can be seen by comparing the intensity of the arrows for each of the longer-term outcomes—in each case, local freedom of movement was the most commonly referenced short-term outcome. Thus, understanding the impact of these transportation projects on local freedom of movement is essential to assessing whether these programs are effective or not. The second result is the importance of nonlocals as either actors in achieving or beneficiaries from this increased local freedom of movement. The key implication of this result is that the analysis in Chapter Seven, which focuses on identifying the local results, will have difficulty in capturing some of these more global effects. A third result, which is again of importance for our analysis in Chapter Seven, is that, to the extent that transportation projects were effective in achieving their desired outcomes, we should be able to see evidence in both the three short-term outcomes—local freedom of movement, ISAF freedom of movement, and local rapport—and all three longer-term outcomes, although the effect should be larger for economic development.

A comparable analysis summarizing the implied theory of change across all projects is presented in Figure 5.9.[52] In addition to describing the tremendous variation in the theories of change reported across the 407 different projects described in our data set, this figure illustrates several key results of significant importance for our quantitative analysis in Chapter Seven. First, ISAF security was rarely mentioned as a short-term outcome, suggesting that SIGACTS or other proxies for violence against coalition forces are unlikely to exhibit a significant relationship with CERP activity.[53] Second, empirical measures capturing either changes in local freedom of movement or local rapport will likely prove the most effective at assessing CERP's effects. Finally, out-

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[52] Figures for the theory of change for other project types are provided in Appendix C.

[53] This is consistent with the analysis reported in both Chou, 2012, and Child, 2014.

Figure 5.9
Theory of Change Across All Projects
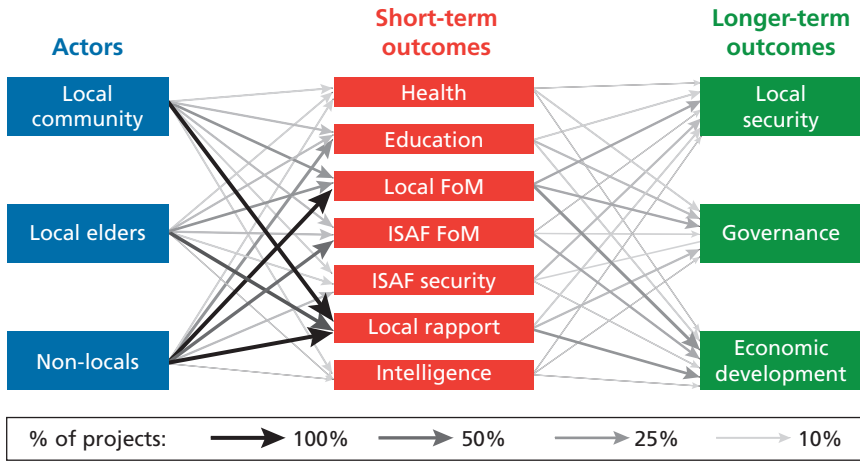
NOTE: See description in Figure 5.8.

RAND *RR1508-5.9*

come measures focused on economic development are most likely to be able to capture the benefits of increased local freedom of movement and rapport.

5.4. Overarching Perceptions of CERP

The majority of CERP implementers that we interviewed had a positive overall view of CERP and its value in counterinsurgency operations. This is demonstrated in Figure 5.10, which reports the result from a simple question posed to interviewees at the close of our CERP interviews: "Overall, did CERP help your mission, have no impact on your mission, hinder your mission, or do you not know?" Nearly 90 percent of the Army personnel interviewed reported that CERP helped their mission, with 80 percent of SOF personnel agreeing with this statement. However, only 60 percent of the marines interviewed agreed with this statement, and 30 percent of the marines indicated that CERP had hurt their mission.

Figure 5.10
Overall Perceptions of CERP
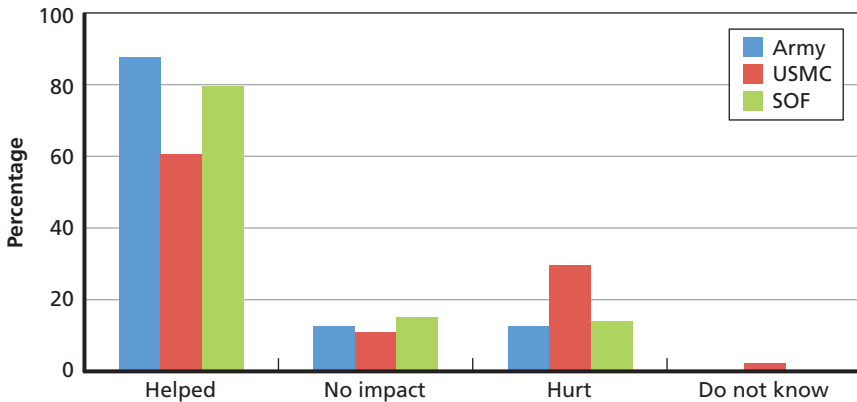
NOTE: This figure reports percentage of participants—separately for the three interviewed communities—who thought that CERP "helped," had "no impact," "hurt" their operations, or who "do not know."

RAND *RR1508-5.10*

In addition to asking about their overall perception of CERP, interviewees were also asked to discuss why they did or did not support CERP as a tool. The vast majority of the SOF community interviewed, some 80 percent of interviewees, indicated that CERP supported the VSO mission in Afghanistan. While SOF have access to a much wider range of operational funds than conventional units, CERP was reportedly "the only existing way for SOF elements to spend money effectively to manipulate a population . . . if you're a special ops element operating in remote area of Afghanistan you rarely have any other funding that you can use quickly and effectively in your area."[54]

Echoing this general sentiment, the most commonly referenced overall benefit of CERP was that it gave SOF a new tool for building rapport and gaining a toehold within a community.[55] CERP achieved this role through "quickly [addressing] grievances and problems in the

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[54] Interview with special operator. The same sentiment was echoed by other respondents who highlighted how CERP could be used much more quickly than other funding tools.

[55] Interview with special operators.

community,"[56] creating an "incentive to get people to the table,"[57] and "helped [SOF] to be more interactive with the villagers . . . which improved security, increased situational awareness in areas we didn't have intel on, helped with development, and helped the whole VSO mission."[58] This overall view was summarized by one SOF operator who reported that CERP:

> allowed us to gain trust, influence and basically work whatever we wanted to work in a very short amount of time. If we didn't have that, we would just be out there talking to them for our health. Without a way to influence or gain trust it would've been very difficult.[59]

Another operator summarized this view by concluding that,

> once I [built] the mosque and executed several other projects, I would get calls about where IEDs were, which saved the lives of soldiers . . . this was part of building good rapport with the villagers.[60]

The SOF community also indicated that CERP could play a valuable role in supporting the development of local Afghan institutions. The most common benefit in this vein was improving the connectivity of district governments to local communities, which was a central goal of the VSO/ALP program.[61] CERP projects implemented by the SOF community were often coordinated with district-level officials and thus gave "district governments a chance to show that they were doing something for the locals,"[62] "bolster the perception of the dis-

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[56] Interview with special operator.

[57] Interview with special operator.

[58] Interview with special operator.

[59] Interview with special operator.

[60] Interview with special operator.

[61] Interview with special operators.

[62] Interview with special operator.

trict government,"[63] and created an incentive for local communities to go to district-level shuras.[64] One team reported that they "made it so that they needed to go to the district governor to get CERP funds, so that individuals could "no longer hand your wish list to the American and undermine the local leader."[65] However, this approach sometimes backfired, with one operator reporting that a community no longer wanted a community center after the residents learned that Americans had built it,[66] and another reporting that CERP projects often had "too much of a U.S. face."[67] Several respondents indicated that CERP played an important direct role in the establishment of ALP, as CERP was used to pay ALP salaries;[68] CERP also reportedly enabled the ALP program by allowing SOF to make condolence payments to relatives of ALP members who were killed.[69]

Despite this overall support for CERP's role in their mission, many SOF operators saw significant weaknesses in the program overall. A commonly expressed concern was that, while small CERP projects could be very effective, large infrastructure projects were an inappropriate use of CERP.[70] Others expressed a concern that the use of CERP created an unhealthy dependency among communities, which made transition to Afghan control more difficult than it would otherwise have been.[71] Others noted that the restrictions placed on CERP made it too difficult to use effectively as part of counterinsurgency operations, reporting that CERP was helpful "as part of a direct action

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[63] Interview with special operator.

[64] Interview with special operator.

[65] Interview with special operator.

[66] Interview with special operator.

[67] Interview with special operator.

[68] Interview with special operator.

[69] Interview with special operator.

[70] Interview with special operators. One SOF operator dissented from this view, indicating that "if they gave us $500 million, I can only imagine what we can do in eight months . . . that's how Afghanistan works: violence and money."

[71] Interview with special operators.

mission . . . but that higher ups are really restricting us from being successful,"[72] and that CERP "would have been more helpful if it could have been used more flexibly."[73]

For at least one team, SOF operators pointed to CERP as being a crucial enabler for their efforts to establish a presence and a security "bubble" in a denied area:[74]

> I would do a cold call in village in shura with a bunch of elders. I'm taking down [the types of projects that] they want, and I respond no problem . . . We showed we were going to help out. However long the project took, I am in that village. It builds an instant rapport that gets us not shot at or blown up.

> And it enables us to help other villages, because I have stability in the area, and when I put the Afghan face on it, I help support [the development of local governance]. It really helped with the stabilization, with showing that the government cares about the district. Through gaining friends, that's security enough. They'd call when something suspicious was happening. They would call my interpreter and say there are squirrels with RPGs [rocket-propelled grenades]. It gained the trust with them, even though they don't have guys shooting people for me, they would call. That's from the villages where I put CERP.

The Marines, unlike the SOF community, were much more divided in their overall support for CERP. The 30 percent of marines that thought that CERP hindered their efforts offered a variety of explanations for their negative attitudes toward CERP. One group thought that CERP hampered their ability to interact and engage with locals as the existence of CERP meant that community leaders would only engage with marines to get projects.[75] While not necessarily bad

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[72] Interview with special operator. One team actually reported that the Civil Affairs team made it more difficult to use CERP in a way that was appropriate for the community.

[73] Interview with special operator.

[74] Interview with special operator.

[75] Interview with marines.

in itself, this hampered operations for several reasons: "Locals cared more about how much money you are going to give them than the actual project,"[76] elders would want projects just to "make them more powerful in the area,"[77] and would impede operations if units were unable or unwilling to spend CERP funds (with one marine reporting that "we'd have meetings with local leaders, and when we said we couldn't do anything with projects, they would not want to meet with us anymore").[78] Another group thought that CERP was having destabilizing social impacts on the communities where it was being implemented by rapidly changing power dynamics,[79] hindering Afghan governance efforts,[80] and fueling unstable economic conditions (e.g., inflation, dependence on U.S. financing).[81]

Even marines critical of CERP thought that it could be effective if used appropriately. Many of these marines thought that CERP could be beneficial, if used appropriately, and attributed CERP's challenges in Afghanistan to a lack of operational and strategic guidance on how CERP should be applied.[82]

One marine, indicating that CERP was useful as an operational tool but that it hindered the overall campaign, eloquently summarized the challenges facing the application of CERP:

> [CERP] can be extremely helpful in the short term, but as far as the campaign, it's an absolute impediment . . . while [CERP] is good in the short term—to make sure nobody gets killed, they are sugar pills—it's the placebo effect—it's not doing anything—they don't care about the projects, only the money. They're not

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[76] Interview with marine.

[77] Interview with marine.

[78] Interview with marine.

[79] Interview with marine.

[80] Interview with marines.

[81] Interview with marines.

[82] Interview with marines. There was disagreement on what the appropriate use of CERP was, with one marine indicating that it was only appropriate as an emergency tool and another indicating that is should only be used during the "build" phase of counterinsurgency.

learning to support the government. They're not going to keep loving us—when the money stops, they go back to killing . . . as it is executed and conceived of now it has no permanent or even semi-permanent effect.[83]

But the same respondent concluded by saying that CERP could be effective if the amount of money that the military had at its disposal could be constrained:

> CERP is fixable. The scale is wrong and it enforces bad behavior, creates false dependency, false security, and kills critical thinking for the military who need to think through other ways to win. But walking around money is absolutely necessary to set up an economy and the stability that will create a new normal . . . spending money on things that are already being made for the local community, that kind of greasing the local economy and good will, living off the people, buying blankets from the locals for the locals, giving Muslims money for their ceremonies, those things literally cost 100s of dollars—that's what is more appropriate for CERP . . . In a culturally appropriate context, money is the lubricant that makes things happen. I'm good with that. I'm good with giving a bad guy a couple of bucks not to kill marines, to put him in a "time out," but CERP is somehow constructed to make you feel that that's not something you can do.[84]

Despite the significant numbers of marines that thought that CERP hindered the mission, the majority of marines in our sample reported that they were supportive of CERP. Similar to the SOF community, a frequently reported net benefit of CERP was its value as a tool for building relationships or credibility with a community.[85] The marines also emphasized the value of CERP funds for compensation for damage caused, either by the marines themselves or by preexisting damaged caused by the Taliban or others: "It helped when we had to do

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[83] Interview with marine.

[84] Interview with marine.

[85] Interview with marines.

battle damage . . . if we killed someone. If we didn't do that we would have a lot more people pissed off at us."[86]Another benefit was the value that CERP played in establishing the Interim Security Critical Infrastructure, a local Afghan security force operational in Helmand that was funded by CERP.[87] Although supportive of CERP, many marines, like their SOF colleagues, were emphatic that CERP was effective only if used properly, with one marine indicating that "[if] used improperly, it can damage relations and damage careers."[88]

Although Army interviewees were overwhelming supportive of the value of CERP, they highlighted the limitations as well as the strengths of CERP in their responses. The most frequently mentioned benefit was the value of CERP as a tool for gaining access or influence within a community. CERP provided this tool by "[giving] commanders, and the U.S. government, leverage,"[89] "building a bank of good will,"[90] "shaping the environment . . . by allowing [operators] to leverage spending to change the environment,"[91] and "[providing] freedom of maneuver amongst the local national population."[92] A key difference between CERP and other funding sources was that it could be executed rapidly to "quickly provide jobs . . . an injection to the local economy." [93] Other overall benefits of CERP included compensating locals for damage caused, which "helps the local populace know we're not trying to destroy their homes or their livelihoods, and if something accidental happens, we're willing to reimburse";[94] enhanced coali-

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[86] Quote is from interview with a marine. However, others thought that compensation for battle damage was an inappropriate use of CERP funds.

[87] Interview with marines.

[88] Quote is from an interview with marine. Other discussions of CERP are provided via interviews with other marines.

[89] Interview with soldier.

[90] Interview with soldier.

[91] Interview with soldier.

[92] Interview with soldier.

[93] Interview with soldier.

[94] Interview with soldier.

tion force security through enhanced kinetic targeting;[95] supporting Afghan efforts to project good governance;[96] and reintegration efforts, for which CERP was reportedly particularly helpful.[97]

A common criticism of CERP activity among supportive Army personnel was that CERP was only effective when used properly.[98] One of these interviewees reported that he had never seen a CERP project used effectively;[99] another reported that commanders would use CERP to build what the commanders wanted and not necessarily what the communities wanted.[100] A related concern was that CERP was not appropriate for all communities.[101] Other challenges included the creation of "artificial economy" as a result of spending too much money,[102] the possible divergence of money to "malign influencers . . . that were bombing us,"[103] and hindering transition as CERP could not "build a sustainable economy."[104]

5.5. Summary

The analysis in this chapter was designed to provide qualitative evidence for our three core questions, namely: (1) "What types of effects were CERP projects designed to achieve?" (2) "How did implementers use CERP projects to achieve these effects?" and (3) "What are tactical operators' overall perspectives on the program?" Several key findings emerge from our analysis of the qualitative data.

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[95] Interview with soldier.

[96] Interview with soldier.

[97] Interview with soldier.

[98] Interview with soldiers.

[99] Interview with soldier.

[100] Interview with soldier.

[101] Interview with soldier.

[102] Interview with soldiers.

[103] Interview with soldier.

[104] Interview with soldier.

Each of ISAF's key "counterinsurgency outcomes"—security, governance, and development—were listed as outcomes for less than 25 percent of CERP projects. Improving local security, local governance, and local economic conditions was among the top four program objectives listed; the other prominent program objective was increased local rapport. However, less than 60 percent of projects listed any of the three counterinsurgency objectives, and only 1.5 percent mentioned all three.

Projects typically had several outcomes, often not directly related to the stated project type. The average project had at least two intended outcomes; typically including softer outcomes would be impossible to infer based on the project type or descriptions alone. Transportation projects, which had more than three intended outcomes on average, provide an important example. While each road project was intended to increase freedom of movement, one implementer hoped his road project would improve his relationship with local elders, while another implementer hoped a new paved surface would protect his forces from hidden IEDs. To this end, implementers were not afraid to express their belief that CERP should be used to improve their own operating environment. This most often occurred through efforts to build local rapport, as well as improve intelligence collection, increase coalition freedom of movement, and reduce the probability of an insurgent attack.

ISAF security, which has been the key result in most previous quantitative analyses of CERP, was rarely mentioned as an intended or unintended outcome. This result, which is consistent with a previous review of CERP CIDNE data,[105] suggests that analysis focusing on SIGACTS, which is a proxy for ISAF security, may provide misleading results.

Unintended outcomes from CERP projects were frequent, with 15 percent of projects negatively impacting local security, adding to corruption, or increasing tribal or ethnic tensions. While water projects had a slightly higher rate of unintended negative

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[105] Fischerkeller, 2011, p. 143.

outcomes (26 percent), the rate of unintended outcomes was relatively constant across project types (about 15 percent).

The Army, Marine, and SOF community used CERP differently to achieve their goals. While SOF respondents identified their targeted populations in very specific terms, usually located around one village or a portion of a district—consistent with their VSO/ALP mission, Army and Marine respondents tended to use CERP to influence larger population areas or larger portions of districts. Both the Army and Marines were more likely to report involving provincial government officials, while SOF focused on building rapport with local elders. Beyond this primary focus, SOF respondents worked to achieve a wider array of intended outcomes (e.g., local security, local governance, economic activity, freedom of movement), while the Army and Marines focused on a narrower set of intended outcomes, with a particular focus on improving local economic conditions.

Success in building infrastructure was not predictive of overall project success. Much of the discourse on CERP has focused on whether a school was successfully built, a road was properly constructed, or appropriate water infrastructure was developed. However, less than 50 percent of CERP projects reported success in improving agriculture, roads, the overall economic environment, health care, or education infrastructure.

Projects were much more effective in achieving softer outcomes, namely building rapport, freedom of movement for locals and coalition forces, and local governance and security. Efforts to improve these softer outcomes were reportedly successful about 75 to 80 percent of the time. Thus, these difficult-to-measure factors, typically involving a security or governance component, seem to be the primary benefit of CERP in the opinion of implementers.

Overall assessment of project success was only weakly correlated with the achievement of specified objectives. In particular, many projects considered failures increased local rapport with key stakeholders in the community or helped redress past wrongs with specific individuals. Success for CERP is difficult to measure based on any one outcome. Observed results differ by the type of project implemented and the environment in which implementers are operating.

The majority of CERP implementers that we interviewed—including 90 percent of the Army interviewees, 80 percent of SOF interviewees, and 60 percent of marine interviewees—had a positive overall view of CERP and its value in counterinsurgency operations. In discussing CERP's overall benefit, interviewees emphasized the value that CERP created in building rapport with local communities, reinforcing Afghan security and governance institutions, and compensating for damages caused during security operations. Importantly, most interviewees who thought that CERP hindered their counterinsurgency operations in Afghanistan also reported that CERP could be a useful tool if used appropriately.

Despite supporting the program, almost all operators indicated that implementation in Afghanistan was far from optimal and that significant changes to the program should be made. A frequent observation among respondents supportive of CERP was that it was only effective if implemented correctly. Indeed, even those operators indicating that CERP was essential to their mission reported that significant changes to the program should be made. The most frequent misuse of CERP, according to the respondents, was reportedly the size of the projects, with implementers often reporting that, with CERP, one could do "more with less."

The next chapter explores this last observation in much greater detail by drawing on interviews to discuss the types of challenges that CERP implementers encountered and how they addressed them.

Good Practices for Implementation

This chapter draws on the diverse experiences of the nearly 200 tactical implementers interviewed to identify good practices for implementation and highlight challenges faced in implementing CERP projects. The challenges and good practices are loosely grouped into three categories: (1) DoD administration of the program (e.g., implementers frequently said they lacked the expertise and training to manage CERP projects), (2) the setting of CERP projects, which were generally outside DoD's control (e.g., issues arising from implementing CERP in a hostile environment), and (3) challenges and good practices that overlap both DoD administration and the project setting (e.g., identifying and implementing projects that are acceptable to and sustainable by the community in which they are placed).

This chapter covers each of these categories, first identifying the challenges associated with each category, followed by a discussion of good practices used to address some of these issues. Our discussion of good practices largely focuses on issues related to the setting that personnel devised when administering the program, as the tactical implementers we interviewed were not responsible for DoD administration of the program.

While many of the challenges and good practices are shared among types of personnel, many are also specific to the context in which each group of personnel worked. SOF, for example, worked in more remote areas than either the Marines or Army and hence faced unique challenges. SOF and Marines had shorter rotation cycles than Army personnel, which, in turn, raised different administration issues

than those confronted by Army personnel. All three services encountered circumstances that led them to prioritize different types of projects and the special challenges associated with them. The good practices identified across these diverse experiences can offer insights for the execution of future programs similar to CERP.

6.1. Administration Challenges

Bureaucracy or administration was identified as a key challenge in our interviews among operators from all three communities. This section reviews the challenges related to DoD-mandated approval and funding processes, the training that CERP implementers received before the program, and the difficulties that were faced in transitioning projects across operational units.

6.1.1. Approval and Funding

Many implementers said that the paperwork required to document the CERP planning, approval, funding, and assessment processes took them away from their primary counterinsurgency duties and were often inefficient. Approval could be particularly difficult for larger projects. More than one-third of special operators interviewed, for example, indicated that obtaining approval for projects costing more than $5,000 (the preapproved amount for advance-draw bulk funds) was one of their biggest challenges. Special operators described the approval process for larger projects as "cumbersome" and not worth the effort for their relatively short deployments (usually around six months). This often led the teams to focus on smaller projects that could be done quickly without additional paperwork.[1] One implementer said, "We stayed away from the big CERP projects because it took so long to get the approval and get the money. By the time we [got] the money, so much time had passed."[2]

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[1] Interview with special operator.

[2] Interview with special operator.

An Army interviewee also noted how the approval thresholds inadvertently led to micromanaging by higher echelons of command. Because amounts more than the $5,000 threshold required approval at the two-star Regional Command level, the Regional Commands were de facto "basically micromanaging the whole program."[3] Additionally, the consequence of this threshold was that lower-level units were encouraged to split projects into multiple bulk funds or cash disbursements to get around the requirement of Regional Command–level approval.[4]

Marine interviewees cited problems both with funding levels and with approval processes for larger projects, with many contending the paperwork needed to document the CERP planning, approval, funding, and assessment processes was inefficient and took them away from primary counterinsurgency duties. Commenting on the approval process for CERP projects above the $5,000 bulk-draw level, one marine interviewee highlighted his "frustration with the paperwork battle" and reported that it would frequently take four to six months for projects to get approved. He also said that CERP was "like shooting a bullet that would kill guys six months later."[5]

Marines also claimed that several regulations were inflexible and adversely affected tactical operations.[6] The time spent in getting project approval, picking up the funds, and moving the funds into the field could take as long as 40 days for units that were often deployed as short as six months. One marine interviewee described these logistical challenges faced by Marine companies in executing CERP projects by deliberately enumerating what he described as a "seven-step approval process," which included a project request from the company commander; approvals from a sergeant, the executive officer, and commander at the battalion; approval at the Regional Command at Camp

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[3] Interview with soldier.

[4] Interview with soldier.

[5] Interview with marine.

[6] While it was recognized that these regulations were purposefully designed to reduce fraud, some marines reported that there was a perception that the centralized process was deliberately being used to slow the approval and spending process as transition neared.

Leatherneck; a trip for the company pay agent to Leatherneck to get the funds; and another trip for the pay agent to Leatherneck to clear the funds.[7]

SOF personnel noted similar problems in accessing CERP funds, which was compounded by their deployments to remote parts of Afghanistan far from the major installations where CERP funds were distributed. SOF team members who had to travel to disbursement sites could be away from their operating location for days or even weeks—absences that could affect the ability of SOF teams, which frequently had less than a dozen members, to execute their mission. For one of the SOF teams, this was reportedly the biggest challenge they faced in using CERP, as one SOF soldier was gone roughly one-third of the time in transit or at the battalion headquarters "drawing and clearing funds."[8]

The delays also affected the ability of the teams to pay Afghans in a timely fashion, which undermined their credibility with the Afghans, whose trust they were working to earn. One SOF interviewee offered a culvert project as an example. The team was to pay the villagers "as soon as the project was done . . . and give the Afghan district full credit for the project." However, the funds did not arrive until two weeks after the project was completed, and the team had to awkwardly hold the "ribbon cutting two weeks after the project had been finished."[9]

Legal obstacles were highlighted by several Army interviewees as another challenge facing CERP projects. Commenting on the limitation on the use of money, one interviewee said, "You couldn't typically buy stuff that you really needed."[10] Similarly, another noted that there was often a disconnect between the types of projects that commanders wanted to implement and what the unit's lawyers believed was permissible.[11] This disconnect reflected the inadequate training received

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[7]   Interview with marine.

[8]   Interview with special operator.

[9]   Interview with special operator.

[10]   Interview with soldier.

[11]   Interview with soldier.

by all personnel involved in the CERP pipeline, as there was a lack of clarity and understanding about CERP processes, including its uses, amounts, and authorities.[12]

A final challenge was that the DoD processes for CERP were reportedly evolving over time, which created uncertainty for implementers. One interviewee reported that "the rules for CERP seemed to change frequently: You'd identify a project and a source of money and the rules would change; CERP could get turned off before new funding streams would get turned on, so you'd leave guys hanging." This was a particular challenge for this interviewee, as he had used the funds to hire short-term security forces and, as a result of their challenges in accessing CERP funds, they were "worried about guys running around with guns who you can't pay."[13]

6.1.2. Training

Army, Marine, and SOF interviewees all cited problems with the training that was provided. The majority of respondents reported being given little or no training on CERP regulations and processes, including the projects and spending that were allowed.

Most marine respondents, for example, were either uncertain whether they received training on CERP or reported not receiving it. Those who did receive training generally considered it inadequate or a waste of time. One marine leader even labeled it counterproductive, saying the time spent training, up to 30 hours, could have been used to put marines through professional school. Marines described their Internet-based training as a course that they clicked through at their own pace. Because they had to take the course as they were preparing to deploy, a time of other pressing concerns, many described skipping through the course material as quickly as possible; even those who did not admit to passing through it quickly appeared to have retained little of the material presented.

SOF operators reported similar experiences with training. The most common CERP training for SOF was presented soon after arriv-

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[12] Interview with soldier.

[13] Interview with marine.

ing in the country: a PowerPoint briefing about the legal requirements for handling CERP money. Some described the presentation as helpful, some said it was "neither good or bad," but another called it "death by PowerPoint." Among 48 SOF interviewees who mentioned receiving training, 26 made an unsolicited comment regarding their training, with most of their comments being negative.

This lack of training negatively impacted CERP programming in several ways. The first was that there was typically a "lack of understanding of left and right lateral limits" on what was allowed under CERP, which led to confusion and project delays as commanders demanded what were ultimately impermissible projects. The second was that individuals involved in implementing projects were often inadequately prepared to accurately design and manage the project throughout its life cycle. One interviewee identified this lack of training as the key challenge, as "infantrymen, artillerymen, and cooks were often asked to manage millions of dollars worth of project portfolios with little or no experience in project management, construction, or finance."[14] Another similarly concluded that only engineer units typically had the appropriate training to execute many classes of CERP projects, but that other units often ended up taking the lead for these projects.[15]

6.1.3. Transitions

Another common challenge to Army, Marine, and SOF personnel was the need to complete projects or maintain them following the rotation of the unit that started the project. This was particularly vexing for Marine and SOF personnel, who would often rotate after just six or seven months.

Difficulties in executing long-term CERP projects, such as roads or schools, came from the relative lack of continuity at the tactical level for the Marines. Even when CERP paperwork was properly completed and updated with the latest project assessments, it was difficult for follow-on units to understand the original context of some projects.

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[14] Interview with soldier.

[15] Interview with soldier.

Project descriptions in databases generally were inadequate to convey the underlying context and the reason why the project was selected.

The cycle of deployment also shaped the ways in which CERP projects were conceived and implemented. Several marines noted that projects initiated near the end of their deployment tended to be rushed and were less likely to be sustainable. One said, "I think anything done right before [a unit redeploys] probably needs to be looked at very closely."[16]

SOF respondents noted that some projects, such as building a clinic or school, might require several rotations to complete. They also highlighted problems caused by lack of communication between incoming and outgoing units. New units with different development objectives might leave some ongoing projects unfinished. As one interviewee said, "When you have a different group of [SOF] guys with a different morale, drive and unit cohesion, it's going to be hard if they don't have the same mentality to fight that fight . . . each unit runs differently."[17]

While Army respondents did not deal with deployment cycles as short as those for Marines or SOF, they still confronted challenges related to the rotation of units. One, noting project details could be lost during this transition, said, "I think it's the same problem with other things because the people replacing the person don't get as intimate with the project as the originator. Little things fall by the wayside, particularly construction projects."[18]

Priority was rarely given to CERP during unit transitions, which were often only a few days. One interviewee indicated that the incoming unit was not "going to ask you about CERP projects, they're asking about who's going to shoot at them as they are concentrating on kinetic, lethal threats." It is not until weeks later that they realize that CERP is the main effort, and then it is too late for them to capture the expe-

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[16] Interview with marine.

[17] Interview with special operator.

[18] Interview with soldier.

rience of the unit that they replaced.[19] And the available documentation on CERP was reportedly insufficient to capture the nuance necessary to understand these projects if they were not discussed during the handover.[20]

SOF teams suggested several ways to reduce the impact of unit rotations for ongoing projects. First, they suggested the importance of an accurate accounting of projects during transition. As one special operator noted, "You want to know what they accomplished and what they didn't and why they didn't. Speaking with the previous and incoming [Civil Affairs] team leader about this history is important, too; make sure to get them up to speed."[21] Another noted, "I think the biggest challenge is getting them to understand why you're doing the project so they see the big picture."[22]

Teams should also address such nuances as project finances and contractors during transition. One member noted, "We handed the next team all of the requests that we paid. We gave them a stack of . . . bills that were paid and . . . ones that are due."[23] Another suggested discussing individual contractors: "If you're going in after a team, talk to the people you are replacing to figure out who is trustworthy and who to talk to for project recruitment."[24] To the extent possible, teams should seek to complete existing projects before transition. As one operator noted, "You don't want to hand over a project that's in development because [the incoming team doesn't] want to inherit an old project."[25]

Given that relatively short deployment cycles are an inevitable feature of complex, extended contingencies, guidance for transitioning

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[19] Interview with soldier.

[20] Interview with soldier.

[21] Interview with special operator.

[22] Interview with special operator.

[23] Interview with special operator.

[24] Interview with special operator.

[25] Interview with special operator.

projects across rotations should be part of any training curriculum and standard operating procedure.

6.2. Environmental Challenges

While DoD might be able to undertake some initiatives to smooth administration and transition issues, CERP-implementing personnel also encountered a variety of challenges that were outside the ability of commanders to control. These largely related to implementing CERP in hostile areas where intimidation and threats from the Taliban against contractors, workers, or local elders undermined CERP projects. The "Taliban intimidation factor," as one SOF respondent described it, limited the potential impact of even completed projects.[26] In other cases, difficulties in working with the beneficiary communities that were the project beneficiaries resulted in canceled projects, stolen money, or the diversion of resources to the Taliban or other insidious nongovernmental actor.

6.2.1. Security

Violence and intimidation against contractors was a particularly pervasive problem. In one case—the construction of a well—a SOF team "went through a number of contractors . . . one contractor would dig a couple of feet down, then the Taliban would intimidate them, and he would leave, and then we'd find another contractor who would dig a couple more feet down, and then the Taliban would come again, and this would go on a handful of times . . . so the project never was completed."[27] Similar challenges were frequently experienced by Marine and Army units, who worked in less remote but often more contested territory. An Army road project funded by CERP, for example, needed to pass through both friendly- and enemy-controlled areas. As a result, the implementation crew required security forces, which frequently were not available. The road was never finished. The Army interviewee

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[26] Interview with special operator.

[27] Interview with special operator.

told us, "I canceled it because the contractors were getting attacked."[28] In addition to keeping workers away from projects, supplies that had to be transported from outside the local area were in jeopardy of being targeted not only by the Taliban, but by would-be thieves.

Taliban intimidation and attacks forced the cancellation of several projects before they could be completed. One canal project was canceled when the Taliban attacked workers with long-range machine-gun fire.[29] In another, Taliban threats and intimidation caused local laborers to cease working on a bridge repair. As one SOF team member noted, "It doesn't matter what we can provide [to] workers financially if their family was dead."[30] Taliban attacks on a culvert and water canal upended these projects as well.[31] And in a particularly dramatic case, the Taliban burned a mosque that had been refurbished with CERP money to the ground and assaulted the mullahs that had been involved in the project. In this case, the Taliban warned the locals that "if they took anything else from the Americans or GIRoA officials, they would be kidnapped."[32]

Threats of violence also prohibited Afghans from seeing the full effects of cooperating with U.S. forces. One SOF respondent said the level of lethality in his area of operations was so high that his team could not deliver payments to workers' homes. The team set up a central payment location, but the respondent said, "it wasn't what the ideal would have been if we had a more conducive environment."[33]

There were also frequent reports that the Taliban were benefiting directly from the CERP projects, with contractors or communities making payments to the Taliban. Because projects were typically done publicly so the local governments could take credit, the projects became targets for Taliban intimidation. The costs could be high if the

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[28] Interview with soldier.

[29] Interview with special operator.

[30] Interview with special operator.

[31] Interview with special operators.

[32] Interview with special operator.

[33] Interview with special operator.

Taliban were not compensated, with one interviewee reporting that: "One time, we actually had some Taliban roll up to one of the work crews. They asked for the leader, and then killed him right on the spot. We were fairly sure this happened because they [the Taliban] hadn't received a payment."[34]

6.2.2. Difficulties with Local Elders

Though infrequent, a number of interviewees reported challenges in working with local communities. One recurring challenge was what interviewees typically described as "corruption," in which local elders would knowingly deceive (or attempt to deceive) the CERP implementers. In one project implemented by a SOF team, village elders accepted money from both U.S. and European units to dig the same well.[35] In another, village elders received payment for work that was never done.[36] And in several cases, interviewees reported that funds were not distributed to the individuals working but instead taken by the village elder or elders. For example, as one interviewee said, "The only person that benefited from the money was the elder of that village. Did the village get cleaned? Yes it did, but I don't think the 50 people that cleaned it got a dime."[37]

In some cases, approved projects would fail because local elders and residents withdrew their permission. In one case, local elders, fearing possible retribution from the Taliban in a relatively unsecure area, decided against their earlier wishes to have a team dig three wells.[38] In another, a project providing a microgrant for a sewing class with village women was canceled by village elders, reportedly because of the perceived challenges to the traditional power structure of empowering local women.[39]

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[34] Interview with marine.

[35] Interview with special operator.

[36] Interview with special operator.

[37] Interview with special operator.

[38] Interview with special operator.

[39] Interview with special operator.

6.3. Challenges Involving Both Administration and Environment

Several challenges that CERP teams faced involved both administrative practices and environmental characteristics. That is, they arose because of the setting within which CERP operated in Afghanistan but were challenges that DoD processes failed to mitigate or even possibly exacerbated. These included poor project planning, misunderstanding local needs and expectations, dealing with corrupt and inexperienced contractors, and creating dependency on CERP projects. We address each of these in the next subsections.

6.3.1. Project Design and Planning

Many interviewees reported that inadequate planning detracted from project success and effectiveness. While the challenges were primarily environmental because the projects were poorly designed for the given context, a lack of training and preparation among the CERP implementers was reportedly a key driver of these challenges.

Project failure was frequently attributed to poor advance planning. In one case, a team inadvertently built a road through local farmlands, stirring discontent among the affected farmers who had not supported the construction of the road.[40] In another, operators used Hesco barriers—earth-filled defensive barriers normally used for base security—to develop a makeshift bridge. When rains flooded the river, the barriers predictably collapsed. In a third case, a poultry-training project brought in diseased chickens that ultimately killed the village's livestock.[41]

Designing projects that would effectively empower the local government was a particular challenge. It was reportedly difficult to design projects that locals would credibly believe was coming from the local government, with one interviewee concluding that: "I don't think that anybody was fooled into believing that the project actually came from

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[40] Interview with special operator.

[41] Interview with special operator.

the local government."[42] There also was rarely a contingency plan for what do if a project faced challenges. Thus, when a plan to install solar panels fell through, the "government started to lose face" with the locals.[43] In another case, when poor security conditions led to the early termination of the construction of a local clinic, the local government was blamed. The interviewee involved in this clinic concluded that, "It's good when the government can do anything for the local population, but when it becomes unsuccessful, it's a pretty big loss."[44]

Designing projects that would have some elements of sustainability was also mentioned. One project provided tents to house a local school but failed to teach villagers to provide proper care; as a result, the tents were soon in tatters.[45] Similarly, a SOF project purchased dirt bikes for the ALP. The project helped improve government loyalty and recruitment for the ALP in the short term, but the absence of simple maintenance rendered the bikes useless within 12 months.[46]

6.3.2. Misunderstanding Local Needs and Expectations

A challenge closely related to planning is that projects sometimes misunderstood local capacity, needs, and expectations. Such failure to match wants with needs, interviewees noted, could lead to resentment and underuse.

This type of problem was common for school construction projects, particularly those involving schools for girls. Several interviewees indicated that the construction of girls' schools was more to satisfy coalition requirements rather than to meet any real need in the communities, with one interviewee reporting that he could not understand how the project was justifiable: "When the Afghans looked at it, they would ask: 'Why did you buy me a girl's school? Girls don't go to

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[42] Interview with marine.

[43] Interview with special operator.

[44] Interview with special operator.

[45] Interview with special operator.

[46] Interview with special operator.

school.'"[47] Education projects were also often not coordinated with the Ministry of Education; in one case, a $100,000 school with bathrooms, running water, and other amenities sat idle because no teachers were available to staff it.[48]

A lack of sufficient consultation with the intended beneficiaries, as was the case with girls' schools discussed above, was often the key driver of this challenge. One interviewee offered as an example of this challenge a women's center that few, if any, village women used. Reportedly, no women had asked for the project or were engaged in its implementation.

CERP implementers were reportedly overly focused on the technical requirements of projects, rather than on identifying and meeting the needs of communities. One interviewee observed that the technical aspects of a project, which were often emphasized in project design, were secondary in determining project success: "You can engineer your way technically out of a project, but you can't do that with social issues. It is a different culture; their priorities may not line up to what you think they should be."[49]

6.3.3. Dealing with Contractors
CERP projects often faltered because of challenges in working with contractors. Typically attributable to insufficient local contractors, CERP implementers would often have to either work with problematic local contractors or resort to contractors from outside the community, which could cause problems among targeted beneficiaries.

A central challenge was working with local contractors who were unknown and inexperienced. While the guidance for CERP was reportedly to "get the locals involved," these local contractors would frequently bid far more than the project should cost or make unreason-

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[47] Interview with soldier.

[48] Interview with special operator.

[49] Interview with soldier.

able demands. And vetting them was very difficult; the only rubric for exclusion was whether they had appeared in intelligence reporting.[50]

The requirement to obtain three bids for a CERP project was a related challenge, as there was often not a single contractor in the area qualified to undertake a project. Such complex projects as building clinics and roads frequently lacked skilled laborers to see them through, but hiring workers from outside areas could offend local laborers who might perceive such actions as disengagement with the community. Even smaller-scale projects such as building wells could lack sufficient contractors or laborers in remote areas.

6.3.4. Creating Dependency

Another key challenge was creating dependency among beneficiaries. One marine described this as the only downside of CERP: "The only unintended negative, as with any CERP project, was that once they get one project they want more; it builds dependency."[51] Interview respondents claimed that dependency led some Afghans to view coalition officials in their area as a source of funds rather than a partner in counterinsurgency or a facilitator of improved governance. One interviewee, for instance, concluded that "all we're to them is money now and not an ally for the future."[52]

Many interviewees discussed this idea of dependency. One interviewee recalled a project that used CERP money to pay for food at local council (*shura*) meetings, which was necessary because a previous program (the National Solidarity Program) did the same. The team representative complained that the "unintended negative is that you had to continue to do that, and I'm sure the team that replaced me had to do it as well since we did it, kind of perpetuating that circle."[53]

In many cases, this dependency was reportedly exacerbated by poorly designed projects. The cash-for-work projects were particularly

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[50] Interview with marine.

[51] Interview with marine.

[52] Interview with marine.

[53] Interview with special operator.

egregious: It paid locals to do things that they would have otherwise done. As an example, in a project for culvert repair, funds went for work that "would have been done [by Afghans] anyway."[54] The consequence was that, in the future, the locals would no longer be willing to do this work for free.

A marine summarized this dependency effect, concluding that CERP:

> created an entitlement for the Afghan people. For years, we have been providing [a] source of income that shouldn't have existed. It hinders the mission because the mission is to stabilize that country so it can operate on its own, but we have been pouring all this money into the country, and it has created a dependence on us. The point is to build capacity of the country so they would kick their own insurgents out. We can't build a sustainable government if they are dependent on our resources and not creating their own self-reliance, and they are beginning to have a sense of entitlement. We leave, and [the] whole thing will collapse.[55]

6.4. Good Practices in Response to Challenges

While Army, Marine, and SOF personnel encountered many challenges in implementing CERP projects, they also identified many ways that these challenges—including those in more difficult settings—could be overcome. Many of these practices can also be generalized to other settings. They pertain to identifying and meeting community needs, project management, and exploiting successes. We review these in the following sections.

Identifying and Meeting Local Needs

Several suggested practices focused on making CERP more decentralized and context-specific. Spending CERP in ways that account for

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[54] Interview with special operator.

[55] Interview with marine.

local context could, in the opinion of several interviewees, improve effectiveness and efficiency. As one marine said, "CERP goes wrong when someone is looking at a map several layers up and they don't take into consideration what the people on the ground are telling them." [56] The marines interviewed for this project generally believed that CERP required the same contextual planning and execution required for a patrol, a key leader engagement, or an offensive operation.

Interviewees indicated it was not that difficult to make CERP projects context-specific, but that it required engagement and a focus on the needs of the communities. The implementers needed to "listen to the community"; one interviewee dramatically described this by saying that "God gave us two ears and one mouth, we should be doing more listening than talking especially when in someone else's country."[57] Another concluded that implementers needed to "understand the environment, the people, pay attention, and figure out what they need, what can help them ultimately—you can't even pay attention to what's going to help me or us—it's got to be about them."[58]

Various approaches for effectively consulting local populations were offered. Some interviewees emphasized the importance of working directly with the population, with one concluding that there should be engagement with the people: "Talk to the people, that's the only way to do it, not the leaders or the religious leaders. Talk to the 15-year-old kid that's out there working and find out what he wants."[59] Others emphasized the importance of working with local leadership, with another interviewee indicating that the existing *shuras* are "supposed to figure out as a village what they need, this is making this responsible for their own development."[60] One interviewee recommended a hybrid approach, which captures what "is said at the village *shura* or initial meeting, and then actually going out a few times in the area that you

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[56] Interview with marine.

[57] Interview with soldier.

[58] Interview with soldier.

[59] Interview with special operator.

[60] Interview with special operator.

are targeting and see what they actually need."[61] Another interviewee suggested that implementers "make sure it's a local need" through this hybrid approach by ensuring that the people engaged "[include] local villagers and tribal officials."[62] Finally, one respondent cautioned, "Make sure you get the sense from the whole village what they need . . . [otherwise] an individual elder can shape the project to his liking that doesn't support the whole village."[63]

6.4.1. Selecting Projects

Good management of CERP projects often began with effective project selection. The interviewees offered a range of pragmatic and simple rules of thumb that could be used in selecting projects that would be easy to manage and thus more likely to be effective.

There was general consensus that smaller projects were more likely to succeed and more likely to achieve the desired objectives. One marine was emphatic in concluding not to "spend too much" and focus on smaller projects to ensure that implementers "only give what [they] need to give and not overdo it." Others suggested that larger projects, which were often requested by communities or more senior military commanders, should only be considered after smaller projects had been successful. A special operator said that this was particularly the case in rural areas, where projects needed to "start small." He continued, "If you start small, it will give you a chance to see what impacts your projects are having and a greater understanding of the population in the area. You can later progress to a larger project when you have a much better understanding of whether you're getting value for what you're doing."[64] A marine similarly concluded that resisting large projects would force the type of self-reliance that would help support long-term growth and development.[65]

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[61] Interview with special operator.

[62] Interview with special operator.

[63] Interview with special operator.

[64] Interview with special operator.

[65] Interview with marine.

A related suggestion was focusing on shorter projects that could be completed during a unit's deployment, which was typically more easily accomplished for smaller projects. Matching the time needed for project execution with the time that that unit would be deployed was particularly important, given the difficulty that units faced in transitioning projects. One interviewee concluded that, "realistically, the larger projects are going to take a longer time—with the smaller projects you get more bang for your buck and you can see [them through] front to back."[66]

Another suggestion was to avoid implementing projects far from where the team was based. This could increase the chance of project failure, as it would be difficult to observe the project and could create a security risk, with one interviewee concluding, "Don't overstretch your area by putting a CERP project far away and expect success since Taliban will destroy what you do, and you have to put in a freakin' CONOP [concept of operations] . . . to go all the way [there only to drive through] ten to 12 IEDs."[67]

Some interviewees emphasized the importance of sustainability. One interviewee said that he recommended "advising future team leaders to consider the life of the project and how it would be locally sustainable," while another recommended that implementers ask, "Who is going to sustain that? Who is going to take ownership?" during the planning process.[68] This may require considering the ability of the local population to provide staffing, needed maintenance, or the requisite infrastructure to support such items as electrically operated water pumps. Previous analyses of CERP have come to a similar conclusion; one interviewee noted that, "if a project requires specialized labor to maintain, has operating costs that exceed local revenue, or relies on imported technology to function," then it should not be considered.[69]

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[66] Interview with special operator.

[67] Interview with special operator.

[68] Interview with special operator.

[69] Weggeland, 2011.

The need to consider operational or counterinsurgency objectives in selecting projects was frequently mentioned. A refrain from many interviewees was that CERP could not just be about the money, with one respondent concluding that "you can't do a CERP project just to spend the money; money spent isn't a metric, it's instead who you targeted with that money and whether that project, at the end of the day, made the village more secure."[70] Another, citing a district governor who wanted five projects for his area, indicated that this operational perspective could help in project selection."[71] A related good practice in selecting operationally relevant projects was to examine root causes of instability and align projects accordingly by surveying "unmet population needs through conversation and meetings," then analyzing which projects would "impact root causes of the village instability."[72]

Above all, interviewees emphasized the importance of considering local security conditions, with some saying they decided against implementing any CERP projects in insecure locations. One special operator emphasized that "security has to be there first. If you can't secure it, it's twice as bad as having no project to have a project blown up in your face—that just advertises the Taliban's strength."[73] Another interviewee suggested that one way to get around this was by implementing "test projects" in highly threatening areas to assess how security would impact the project.[74]

6.4.2. Managing Projects

In addition to good practices for designing easier-to-manage projects, many interviewees provided examples of good practices for managing ongoing projects. Effective management required coordination from the very beginning. One Army interviewee highlighted the value of working with local needs before the contract goes to bid and holding

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[70] Interview with special operator.

[71] Interview with special operator.

[72] Interview with special operator.

[73] Interview with special operator.

[74] Interview with special operator.

a "good project kick-off meeting once that contract is awarded, to sit down with the contractor and ensure that there are clear expectations on both sides."[75]

Approaches for best managing the typically problematic contractors was oft discussed. Although several emphasized the value of getting as many bids as possible, which is a standard operating procedure, several reported that they had to train potential contractors on the bidding process for this to be effective. Others emphasized the importance of avoiding prepayment and establishing multiple milestones throughout the life of a project, tying disbursements to those milestones. One Army interviewee reported that, "by splitting up the payments, we have the ability to have a say in the project at all times, and we encountered bad work and that was overcome by not paying them."[76] A final good practice for working with the contractors was to maintain transparency vis-à-vis the community in dealings with contractors, perhaps by "providing open forums to pay contractors and facilitate the provincial and district leadership paying contractors in an open forum, as this transparency helped "show the people where the money is going."[77]

Interviewees from all three populations emphasized the importance of maintaining up-to-date local knowledge throughout the life of the project. Many highlighted that a key to understanding how the project will go required an understanding of the environment; one interviewee noted, "You need a deep understanding about the dynamics of the area you are in; to know who is affiliated with whom and where your money is going to end up. It's going to end up somewhere."[78] Another Army interviewee similarly concluded that local knowledge— "paying attention when you go into the markets, to the cost of food and blankets so you don't get ripped off too badly"—could help support effective ongoing engagement with contractors.[79] One approach to

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[75] Interview with soldier.

[76] Interview with soldier.

[77] Interview with soldier.

[78] Interview with soldier.

[79] Interview with soldier.

maintain this local knowledge was through communicating with local elders, with one interviewee noting that teams should "involve them every step; they really want to be involved, and that has to come first before everything else."[80]

Respondents indicated that this local knowledge could help maintain realistic expectations throughout the life cycle of CERP projects. One marine captured this perspective by explaining that it was important to have a "realistic value on wages and all that stuff," because an internal "centralized disbursing office," as he called it, was a must because it allowed "for more supervision on our end so no one would go crazy and hand out money, and it would shorten the paper trail."[81]

6.4.3. Exploiting Successes

Good practices for exploiting the successes of projects typically emphasized the importance of including locals in disseminating information about the program. One approach, which became a de facto standard operation procedure, was involving local influencers in the design and management of the program. These local influencers frequently included local government officials, with one indicating that "the local government's information operations systems were better suited to deliver the right message."[82] However, others emphasized the value of influential individuals outside of government, partially because these local officials were not always viewed favorably. One example was a project that involved repairing the gutters of a local businessman. This businessman would tell everyone about his good fortune, with a team member recalling that "he would take us everywhere after that."[83] Regardless of the specific individual, the idea was that the unit needed "to understand who the power players are in the town, the district, or

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[80] Interview with soldier.

[81] Interview with marine.

[82] Interview with soldier.

[83] Interview with special operator.

whatever" so that "they spread that word to the populace, good, bad, or indifferent."[84]

In addition to working with key individuals, a variety of other approaches were recommended to help spread the word about project activity. Special operators frequently used radio broadcasts to promote the success of a project. "We had a MISO [Military Information Support Operation] team that would send out radio messages on a regular basis about successful projects," recalled one participant. "People would regularly go visit projects we announced over the radio, so we found that worked out really well."[85] Another noted that the radio was particularly useful in getting the word out for projects conducted in isolated areas.[86] A number of teams successfully used opening ceremonies for recently completed development projects. One team brought in government ministers and invited people from a number of outlying villages to attend the opening of a new medical clinic.[87] Another team helped promote this word of mouth by selecting a project with a central location that would ensure a high level of visibility.[88]

While some units focused on leveraging projects to improve perceptions of their unit, and the coalition more broadly, others focused on using the projects to strengthen the credibility of local governments. To this end, one interviewee mentioned that the unit removed itself from grand openings of completed CERP projects so that the local government could get credit.[89] Another noted that "they were always trying to have an Afghan face on it so that when they put pictures out about the opening of a building, they tried to ensure that there were no Americans in it."[90]

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[84] Interview with soldier.

[85] Interview with special operator.

[86] Interview with special operator.

[87] Interview with special operator.

[88] Interview with special operator.

[89] Interview with soldier.

[90] Interview with soldier.

Others cautioned that, like other aspects of CERP projects, it was important to account for the local environment in promoting successes. One special operator simply cautioned, "[D]on't advertise the project in high-threat environments. In low-threat environments, advertise it as much as you want."[91] Another noted that publicity methods can depend on goals of the project, for example, to build rapport with the village or to build support and legitimacy for the Afghan government.[92]

6.5. Summary

This chapter was intended to achieve the fourth overall goal for our research: namely to identify the challenges influencing CERP's effectiveness and good practices for overcoming these challenges. Relying on the perspectives of the tactical implementers that we interviewed, we examined the challenges that reportedly hampered CERP's ability to be effective and the good practices for overcoming those challenges.

Restrictions and paperwork associated with DoD administration of CERP were criticized by implementers. Among challenges related to the administration of the program, the foremost was what implementers considered onerous bureaucracy and paperwork that were required for project planning, approval, funding, and assessment. Operators considered that such paperwork distracted them from other responsibilities, but acknowledged these processes were somewhat less problematic for very small projects. These challenges were exacerbated by inadequate training, which did not prepare implementers to take on these processes nor the actual selection, design, and management of projects.

The dynamic security environment presented major challenges. CERP implementers often highlighted the unique challenge faced in trying to implement CERP projects in denied areas. Executing projects amid Taliban violence and intimidation made it difficult to complete projects, as both contractors and locals would withdraw their

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[91] Interview with special operator.

[92] Interview with special operator.

support for the project. And in particularly insidious cases the CERP funds could become a revenue source for the Taliban. Although CERP may still be called upon as a tool to support operations in insecure areas, this suggests that CERP projects may not be advisable during clearance operations in denied areas but rather reserved for later stages of operations.

More realistic training—predeployment and in theater—could reportedly mitigate many implementation challenges. Each of the service communities interviewed (Marines, Army, and SOF) stressed that training for implementers was inadequate and that good practices for identifying local needs, selecting and managing projects, and exploiting project success were learned only through trial and error. While noting that no training could have fully prepared them for actual implementation of CERP, the operators indicated that training before deployment would allow them to learn what worked and what did not for other implementers. The suggestions proffered by interviewees for improving this training include professional officer education that incorporates the theory of money or aid in counterinsurgency and other campaigns, even after the end of the campaign in Afghanistan; predeployment training courses that focus on the legal requirements for CERP; alternate training materials could include vignettes from the field that address effective CERP planning and implementation; roleplaying that could be incorporated into CERP training; and a mobile CERP team that could move around from fielded unit to unit to provide follow-on training, answer questions, and provide real-time guidance.

Quantitative Assessment of CERP

This chapter uses quantitative data to explore the relationship of CERP activity with both longer-term, population-focused outcomes and shorter-term, coalition-focused outcomes. Our analysis of population-focused outcomes examines CERP's influence on population movements, economic activity, and agricultural activity. The comparable analysis of coalition-focused outcomes looks at intelligence about enemy activity, attacks involving coalition forces, and coalition freedom of movement.

Three key findings emerge from this quantitative analysis. The first is that localized CERP activity—with *localized* defined to be CERP activity within a district—exhibits a significant relationship with an array of both population- and coalition-focused outcomes. We find that overall CERP activity is associated with improvements in security and economic conditions for local populations and that large CERP projects are associated with improved agricultural outcomes. Additionally, CERP activity is associated with contemporaneous increases in intelligence collection, enemy engagements, and coalition freedom of movement, measured as both the average speed of coalition of vehicles and the maximum geographical extent of coalition forces. CERP activity is also correlated with long-term reductions in enemy attacks against coalition forces.

The second is that these results are robust to the empirical specification being employed. Building from our insight in Section 4.2 that areas with CERP differ from those without, our empirical approach focuses on comparing areas with CERP activity to other similar areas.

However, our analysis explores the sensitivity of results to assumptions about the effective range of CERP and the area included in the analysis. Overall, the estimated relationships are robust to specification, although the long-term reductions in enemy engagements associated with CERP activity are only marginally statistically significant in most specifications.

Finally, an analysis that disaggregates CERP activity by project type suggests that CERP activity is functioning as a proxy for the application of counterinsurgency effort rather than capturing the unique impact of CERP itself. This project type–specific analysis finds that most project types are associated with either improved population- or coalition-focused outcomes but not both. Thus, CERP activity seems to be separable into two different categories: CERP activity associated with coalition-kinetic operations (e.g., compensation payments, humanitarian assistance) and activity associated with development-focused operations (e.g., agriculture, economics, public services, transportation). This analysis also finds that water projects seem to have been ineffective, while local security and governance projects had only a weak effect.

Regardless, our quantitative analysis demonstrates that operations in which CERP is nested are effective in enhancing both population- and coalition-focused outcomes. These operations enhance, in the long term, the security and economic environment faced by the local population. And while it may not be possible to identify CERP's independent impact on contemporaneous operational outcomes, as both CERP and these operational outcomes measure overall coalition effort, we do find evidence that operations involving CERP do lead to long-term reductions in violent attacks against coalition forces.

The next section describes our empirical approach for analyzing the effects of CERP. Section 7.2 uses this approach to measure the overall impact of CERP activity using the available CERP administrative data. Section 7.3 explores the mechanisms for CERP's effects using both the CERP administrative data and our CERP interview data. Section 7.4 summarizes these findings and describes why these results suggest that it is impossible, using quantitative data, to identify the impact of CERP independent of the overall coalition effort.

7.1. Empirical Approach

This section describes our empirical approach in two subsections. The first describes the six quantitative data sets that we use for this analysis, and the second describes the empirical approach that we use for the quantitative analysis.

7.1.1. Outcome Data

We consider a total of six different quantitative data sources, summarized in Table 7.1, to explore CERP's effects.[1] We provide brief discussions of each data source and how it is used in the analysis in this chapter. Appendix B provides additional detail for each data source, including discussions of how the data are collected, summary statistics, and what the data measure.

LandScan, the first type of data, provides annual satellite-derived population estimates.[2] We use these data to calculate net immigration

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[1]   Other data sources that we did not include in this analysis—but that would be particularly useful for measuring changes in freedom of movement for locals—are mobile-phone-use data, data from Google Analytics, and data from the Ground Movement Target Indicator system (we thank a reviewer for these first two suggestions). Indeed, others have suggested that the Ground Movement Target Indicator, which was put to use in Afghanistan in November 2001 to track Taliban movements in coordination with Northern Alliance partners on the ground (James F. Dunnigan, *The Perfect Soldier: Special Operations, Commandos, and the Future of U.S. Warfare*, New York: Citadel Press, 2004, p. 238), could also be used to measure economic activity, by calculating the intensity of traffic in and around bazaars (Fischerkeller, 2011), or "track movement patterns" in an effort to better understand freedom of movement (Ben Connable, Jason H. Campbell, Bryce Loidolt, and Gail Fisher, *Assessing Freedom of Movement for Counterinsurgency Campaigns*, Santa Monica, Calif.: RAND Corporation, TR-1014-USFOR-A, 2012). Data on mobile-phone use and from Google Analytics were not available to the research team, and the Ground Movement Target Indicator, while available to the authors, required significant pre-processing, which was beyond the scope of this study to make the data amenable to our geospatial analytical approach.

[2]   LandScan is produced by Oak Ridge National Laboratory under contract with the National Geospatial-Intelligence Agency. The World Bank and Afghan Central Statistics Organization have raised concerns about the accuracy of these data. However, our analysis focuses on *within district* population changes through the inclusion of district fixed effects as discussed in Chapter Seven ("Empirical Strategy" section). Thus, our measure of population changes is based on changes in satellite-detected activity, and not assumptions about the population size at the district level.

or emigration for each square-kilometer grid square of Afghanistan. As both economic and security conditions drive internal migration in developing countries,[3] these data function as a proxy measure for overall changes in economic and security conditions.[4]

The Nightlights data measure the average quantity of light observable at night from space for each year.[5] Direct measures of economic activity at the subnational level are not consistently available for Afghanistan.[6] Thus, we follow previous authors in using Nightlights as a proxy measure for economic activity at a subnational level,[7] which provides data for each square-kilometer grid square of Afghanistan.

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[3]   For example, see Michael Todaro, "Internal Migration in Developing Countries: A Survey," in Richard A. Easterlin, ed., *Population and Economic Change in Developing Countries*, Chicago: University of Chicago Press, 1980, pp. 361–402; Andrew R. Morrison, "Violence or Economics: What Drives Internal Migration in Guatemala?" *Economic Development and Cultural Change*, Vol. 41, No. 4, July 1993, pp. 817–831; Pratikshya Bohra-Mishra and Douglas S. Massey, "Individual Decisions to Migrate During Civil Conflict," *Demography*, Vol. 48, No. 2, 2011, pp. 401–424; and Prakash Adhikari, "Conflict-Induced Displacement, Understanding the Causes of Flight," *American Journal of Political Science*, Vol. 57, No. 1, January 2013, pp. 82–89.

[4]   Although we believe that this is the first use of LandScan-calculated immigration and emigration in a program evaluation context, other studies have identified the value that these data could have for program evaluation (e.g., Budhendra Bhaduri, Edward Bright, Phillip Coleman, Marie L. Urban, "LandScan USA: A High-Resolution Geospatial and Temporal Modeling Approach for Population Distribution and Dynamics," *GeoJournal*, Vol. 69, 2007, pp. 103–117).

[5]   The Nightlights data are produced by the National Oceanic and Atmospheric Administration (NOAA), which uses nighttime satellite imagery collected by the U.S. Air Force's Defense Meteorological Satellite Program–Operational Linescan System.

[6]   Estimates of economic activity at the provincial level first became available in 2015 (Center for Law and Military Operations, "Performances of Year 1393, Plan and Programs of Year 1394," Kabul, Afghanistan, 2014a). While the National Risk and Vulnerability Assessments do provide subnational estimates of poverty rates, another common metric used for tracking changes in economic conditions, these data are not representative below the provincial-level and are therefore inappropriate for measuring the local impacts of CERP projects (Central Statistics Organization, "National Risk and Vulnerability Assessment 2011–12 [Afghanistan Living Condition Survey]," Kabul, Afghanistan, 2014b).

[7]   For example, see J. Vernon Henderson, Adam Storeygard, and David N. Weil, "Measuring Economic Growth from Outer Space," *American Economic Review*, Vol. 102, No. 2, 2012, pp. 994–1028; Stelios Michalopoulos and Elias Papaioannou, "Pre-Colonial Ethnic Institutions and Contemporary African Development," *Econometrica*, Vol. 81, No. 1, Janu-

Table 7.1
Summary of Quantitative Data Used

Data	Description	Δ Interpretation	Source
Population-focused			
LandScan	Local emigration and immigration	Changes in economic and security conditions as populations move to "better" areas	Oak Ridge National Laboratory
Nightlights	Ambient light	Changes in output of light at night	National Oceanic and Atmospheric Administration
NDVI	Agricultural land use	Intensive and extensive changes in land use	U.S. Geological Survey
Coalition-focused			
SIGACTS	ISAF engagements	Increases or decreases in ISAF-related violent or nonviolent engagements	ISAF
BFT	ISAF vehicular movement	Improvement or degradation in ISAF freedom of movement	Joint IED Defeat Organization
Intelligence	Intelligence reporting with locational information	Change in intensity of enemy activity	Air Force Research Labs

The Normalized Difference Vegetation Index (NDVI) is a satellite-derived estimate of vegetative density.[8] As detailed subnational data

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ary 2013, pp. 113–152; and Stelios Michalopoulos and Elias Papaioannou, "National Institutions and Subnational Development in Africa," *Quarterly Journal of Economics*, 2014, pp. 151–213. See Appendix B for additional references for analyses using these Nightlights data.

[8]   NDVI measures agricultural activity by detecting photosynthetic activity through the comparison of visible and near-infrared imagery data collected by the Landsat satellite series following the approach developed by Tucker (Compton Tucker, "Red and Photographic Infrared Linear Combinations for Monitoring Vegetation," *Remote Sensing of Environment*, Vol. 8, No. 2, 1979, pp. 127–150). NDVI is calculated as $\frac{\rho NIR - \rho red}{\rho NIR + \rho red}$, where ρNIR is the near-infrared reflectance and ρred is red reflectance (e.g., Mutlu Ozdogan and Garik Gutman, "A New Methodology to Map Irrigated Areas Using Multi-Temporal MODIS and Ancillary

on cropping patterns are not available for Afghanistan,[9] we instead use NDVI as a proxy for changes in cropping patterns.[10] Specifically, we use NDVI to estimate whether each 30 by 30–meter plot of land was

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Data: An Application Example in the Continental U.S.," *Remote Sensing of Environment*, Vol. 112, 2008, pp. 3520–3537).

[9] Detailed subnational data on cropping patterns are typically not available for countries in either the developed or developing world (e.g., Murali Krishna Gumma, Prasad S. Thenkabail, Aileen Maunahan, Saidul Islam, and Andrew Nelson, "Mapping Seasonal Rice Cropland Extent and Area in the High Cropping Intensity Environment of Bangladesh Using MODIS 500 m Data for the Year 2010," *ISPRS Journal of Photogrammetry and Remote Sensing*, Vol. 91, 2014, pp. 98–113; and J. C. White, M. A. Wulder, G. W. Hobart, J. E. Luther, T. Hermosilla, P. Griffiths, N. C. Coops, R. J. Hall, P. Hostert, A. Dyk, and L. Guindon, "Pixel-Based Image Compositing for Large-Area Dense Time Series Applications and Science," *Canadian Journal of Remote Sensing*, Vol. 40, No. 3, 2014, pp. 192–212). These data are particularly sparse in Afghanistan, where "in the last two decades, there has been no systematic collection and analysis of agricultural statistics" as a result of "internal war and insecurity" (Islamic Republic of Afghanistan, Central Statistics Organization, "Afghanistan Statistical Yearbook 2009–10," Kabul, Afghanistan, 2011). There are somewhat more detailed data on opium production, given the international focus on reducing the production of opiates, but the available data on cropping of opiates rely on survey data designed to be accurate at only the provincial level (see footnote 38 on page 61 of MCN/UNODC 2014).

[10] NDVI has been used in Afghanistan to map the spatial patterns of irrigation (Md. Shahriar Pervez, Michael Budde, and James Rowland, "Mapping Irrigated Areas in Afghanistan over the Past Decade Using MODIS NDVI," *Remote Sensing of Environment*, Vol. 149, 2014, pp. 155–165). Additionally, NDVI has been used in other countries to study the impacts of economic development (Andrew D. Foster and Mark R. Rosenzweig, "Economic Growth and the Rise of Forests," *Quarterly Journal of Economics*, Vol. 118, No. 2, 2003, pp. 601–637; and Ephraim Nkonya. Nicolas Gerber, Joachim von Braun, and Alex De Pinto, *Economics of Land Degradation: The Costs of Action Versus Inaction*," IFPRI Issue Brief 68, September 2011), agricultural technologies (Manda G. Cattaneo, Christine Yafuso, Chris Schmidt, Cho-ying Huang, Magfurar Rahman, Carl Olson, Christa Ellers-Kirk, Barron J. Orr, Stuart E. Marsh, Larry Antilla, Pierre Dutilleul, and Yves Carrière, "Farm-Scale Evaluation of the Impacts of Transgenic Cotton on Biodiversity, Pesticide Use, and Yield," *Proceedings of the National Academy of Sciences*, Vol. 103, No. 20, May 16, 2006, pp. 7574–7576), natural disasters (Sergio M. Vicente-Serrano, "Evaluating the Impact of Drought Using Remote Sensing in a Mediterranean, Semi-Arid Region," *Natural Hazards*, Vol. 40, 2007, pp. 173–208), and forestation programs (Hongjian Zhou, Anton Van Rompaey, and Jing'ai Wang, "Detecting the Impact of the 'Grain for Green' Program on the Mean Annual Vegetation Cover in the Shaanxi Province, China Using SPOT-VGT NDVI Data," *Land Use Policy*, Vol. 26, No. 4, September 2009, pp. 954–960).

cropped during a given year,[11] and then aggregate these plots to estimate the share of each square-kilometer grid square that was cropped during a given year.

SIGACTS data track violent incidents involving coalition forces.[12] While this does not allow us to measure the impact of CERP on the security environment faced by local nationals, it allows us to assess the relationship between CERP activity and attacks involving coalition forces.[13] We focus on incidents identified as either enemy action or explosive hazard in these data, which capture enemy initiated attacks against coalition forces.[14]

The BFT system collects real-time information on the location of coalition vehicles during missions. We use these data to calculate the geographic reach and the average speed of coalition vehicles,[15] which we use as a proxy for coalition freedom of movement. We calculate two

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[11] We calculate NDVI annually for Afghanistan using the red reflectance in band 3 and near-infrared reflectance in band 4 of the Landsat data. To capture all the irrigated agriculture along the rivers in the driest provinces, we used an NDVI threshold of 0.3 to assess whether a plot of land was cropped during that year.

[12] Coalition forces track coalition-led engagements with insurgents, insurgent attacks against coalition forces, IED attacks, and a subset of non-kinetic events (e.g., meetings between coalition forces and local leaders) in a centralized database known as CIDNE. These data report a variety of information for each event, including the time, precise location, type, casualties, and a description of what occurred. The CIDNE database also contains information on a limited number of events involving host-nation forces. Over time the number of reported SIGACTS involving host-nation forces has grown substantially as host-nation forces have improved their reporting mechanisms.

[13] Many previous studies have used SIGACTS to measure the effectiveness of CERP activity (e.g., Gorkowski, 2009; Berman, Shapiro, and Felter, 2011; Chou, 2013; Berman et al., 2013; Clark and Jackson 2013; Jackson and Clark, 2015).

[14] SIGACTS data are publicly available from U.S. CENTCOM as part of the Mandatory Declassification Review release. See US CENTCOM FOIA Library, "Root > 5 USC 552(a)(2)(D)Records> Current Folder: MDR 14-53," latest file date September 3, 2014.

[15] We calculate average vehicular speed using the vehicle "tracks" in the BFT data. Vehicles are tracked as a series of points, reflecting the fact that BFT transmitters report precise vehicular location in semiregular intervals. For each two sequential points, we calculate both the distance traveled and the time elapsed between those two points; both the distance and the time elapsed are attributed to the square-kilometer grid square in which the first point was located. We then calculate the average vehicular speed for each square-kilometer grid square by calculating the ratio of total vehicular-kilometers and total vehicular-hours.

additional variables from the BFT: total vehicular kilometers traveled and total vehicular hours spent in each square-kilometer grid square to serve as controls in our analysis for overall U.S. government activity in a given area.

The intelligence data are from the Air Force Research Laboratory, which collates information from the Department of Army Intelligence Information Services' Message Processing System.[16] The data collected in the Message Processing System includes a combination of human intelligence and signals intelligence, as reported in intelligence information reports, tactical reports, and other intelligence reporting formats.[17] Our analysis focuses on the total volume of intelligence in a given one-square-kilometer grid square, which reflects a combination of coalition collection capabilities in a given area, including increased freedom of movement and contacts within the local population and enemy activity. Thus, a positive correlation with the volume of intelligence reporting should be interpreted as an enhanced ability of the coalition to detect the insurgency in a given area, rather than simply an increase in intelligence or an increase in enemy activity.

7.1.2. Empirical Strategy

Our basic empirical model follows those considered in previous quantitative analyses in that we are interested in estimating

$$y = \beta CERP + \theta' X + \varepsilon$$

where
y = one of our six outcomes of interest (as just discussed)
$CERP$ = a measure of CERP activity

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[16] These data are collated by the Advanced Processing and Exploitation Center of the Activity-Based Analysis Branch at the Air Force Research Laboratory.

[17] Intelligence reports are geocoded based on locational information available in the textual description of the intelligence reports (e.g., reported Military Grid Reference System grid coordinates, names of villages or other areas of interest). Report-level records are collected at the daily level and include date, time, latitude, and longitude of the intelligence contained in report and text of the intelligence report.

θ = the estimated relationship of these control variables to the outcome of interest

X = control variables likely to influence either CERP activity or the outcome of interest

ε = stochastic error term.

Our analysis focuses on estimates of β, the relationship between CERP and the various outcomes of interest.[18]

Credible estimates of β, however, are complicated by a concern of endogeneity, that is, that the error term (ε) in the above statistical model is correlated with CERP activity. This is most likely to happen if some other contemporaneous factor or intrinsic characteristic of a particular geographical area is determining both CERP activity and the six observable outcomes.

Our identification strategy—that is, the empirical approach that we adopt to address this concern—has two key components. The first, which takes advantage of the many years of available historical data, is that we rely on panel data methods to estimate this statistical model. Thus, using i to indicate units of analysis (i.e., geographical areas) and t to indicate years, our analysis focuses on estimation of

$$y_{i,t} = \beta CERP_{i,t} + \theta' X_{i,t} + District_i + \eta_i + \delta_t + \varepsilon_{i,t}$$

where the inclusion of η_i and δ_t allow us to control for, respectively, intrinsic characteristics of a particular unit of geography or conditions specific to a given year. We include district fixed effects in all specifications; this allows us to control for GIRoA-specific (e.g., quality of district government) and unit-specific (e.g., comportment of forces) unobservable characteristics that could influence CERP's efficacy.[19] We implement this approach in a first-differenced framework in our analysis of the longer-term, population-focused outcomes, while our

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[18] See Section 3.3 for a review of this previous empirical work.

[19] We thank a reviewer for the suggestion of using unit comportment as an example of an important unobservable characteristic.

analysis of shorter-term outcomes uses a standard fixed effects panel data model.

The second component of our identification strategy is the use of a propensity-score approach that allows us to focus analysis on the control areas most similar to those with CERP activity. We use the inverse-probability weighting (IPW) estimator approach, a propensity-score matching approach,[20] with the probability that a location receives CERP programming modeled as a function of proximity to roads, terrain ruggedness, population density, and historical measures of each of our outcome variables.[21] See Chapter Four for an additional discussion of the results from this model, which is used to describe where CERP activity occurs.

We measure CERP activity—in this equation—using data from both the CERP administrative data (Chapter Four) and our CERP interview data (Chapter Five). For the CERP administrative data, we examine separately the influence of the number of CERP projects and dollars. In each case, as we have precise geographical information on where projects were purportedly implemented but not necessarily the beneficiary populations, we consider four different geographic definitions of CERP. The first geographical definition assumes that CERP

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[20] There are a multitude of other matching methods that could be used, but we use IPW as a result of its ubiquity in the program evaluation literature and its relative ease of use (e.g., Guido W. Imbens and Jeffrey M. Wooldridge, "Recent Developments in the Econometrics of Program Evaluation," *Journal of Economic Literature*, Vol. 47, No. 1, March 2009, pp. 5–86).

[21] Specifically, our propensity score model includes (1) log-distance to a major road, (2) log-distance to a minor road, (3) estimated population density (described earlier), (4) reported population in that location, (5) terrain ruggedness (calculated using the Topographic Position Index function based off of NASA-developed 30-meter Digital Elevation Map data), and (6) 2009 value of the various outcome variables of interest. As the IPW approach requires a binary outcome variable, our analysis requires dichotomizing a continuous treatment variable. Although this approach has been used in a variety of previous analyses (e.g., Richard A. Nielsen, Michael G. Findley, Zachary S. Davis, Tara Candland, and Daniel L. Nielson, "Foreign Aid Shocks as a Cause of Violent Armed Conflict," *American Journal of Political Science*, Vol. 5, No. 2, April 2011, pp. 219–232), estimation using this dichotomization does not guarantee balance among nonbinary treatment variables (e.g., Christian Fong, Chad Hazlett, and Kosuke Imai, "Covariate Balancing Propensity Score for General Treatment Regimes," December 8, 2015).

Figure 7.1
Comparison of Six Different Specifications of CERP Variable

1 kilometer

2 kilometers

3 kilometers

Density

Project area

Target population

Administrative data

Number of projects

1

2–10

11–50

51–200

> 200

Density

High

Low

Interview data

Project areas

Target population

Other data

Settlements

Roads

Hirat

Ghor Daykundi

Ghazni

Farah

Uruzgan

Zabul

Nimroz

Helmand Kandahar

RAND *RR1508-7.1*
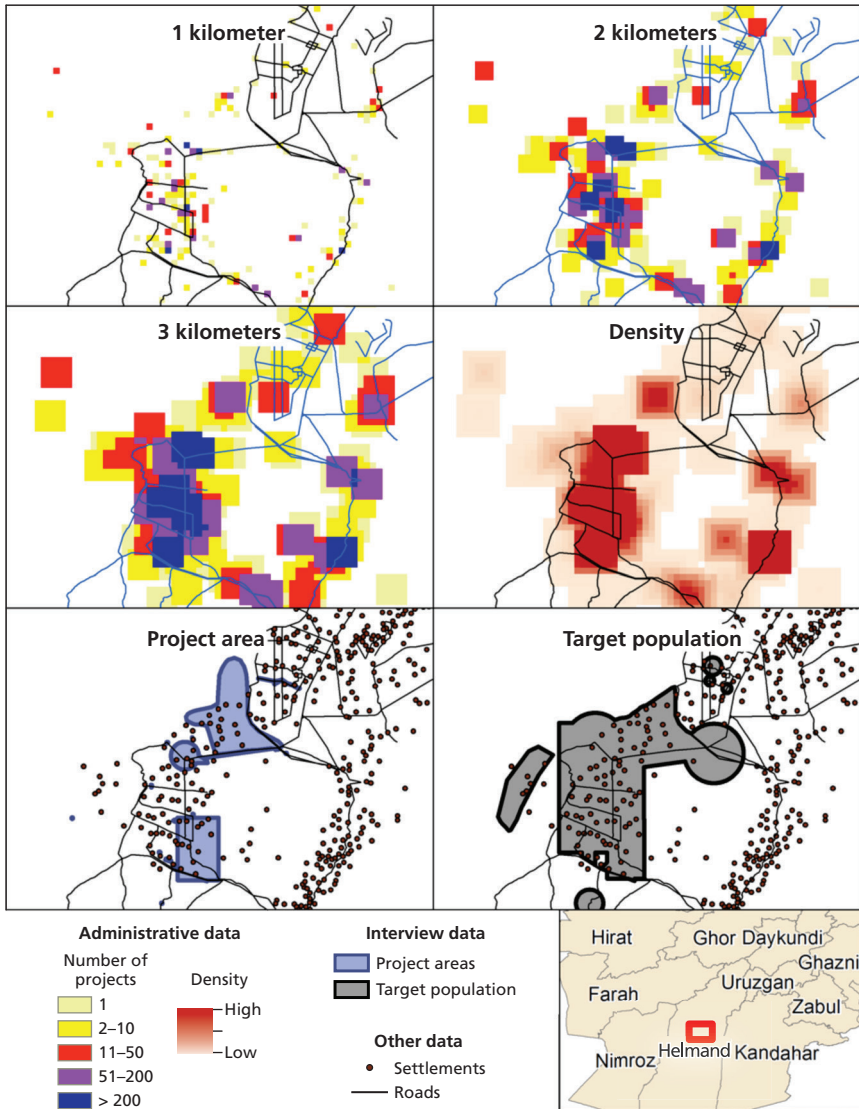
activity only affects conditions in the square-kilometer grid square where it was implemented; the second and third assume that that effect extends to grid squares within, respectively, one and two kilometers; and the fourth assumes that the effect stretches as far as three kilometers in every direction but diminishes with distance. These four different approaches are illustrated in the top four panels of Figure 7.1.

The CERP interview data are then used to provide two additional measures of CERP activity, also illustrated in Figure 7.1. In this case, our analysis focuses on comparing areas that were reported to be CERP project areas or areas where target populations resided. Our quantitative analysis using these data focuses on comparing areas that benefited from relevant CERP projects—the project area in particular—to other comparable areas. The CERP interviews also provide detailed information on the units' areas of operation, project intent, and perceived project impact, which will be used for refining our analysis in Section 7.3.

We include four control variables for which there are data available for each square-kilometer grid square of Afghanistan. The first two variables—distance to closest major road and density of secondary roads—control for proximity to transportation infrastructure, which capture both the development of that area and the ease with which coalition forces can access that area.[22] The third variable is the ruggedness of terrain, which has implications for both economic and security outcomes.[23] The final control variables are historical values—specifically, the value for either 2008 or 2009—based on the five outcome databases that exhibit annual variation and for which comprehensive historical data are available. We include a total of six additional control variables based on these data—population in 2008, Nightlights in

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[22] The roads data used for this were produced by the Afghanistan Information Management Service in 1998.

[23] Terrain ruggedness is calculated using the Advanced Spaceborne Thermal Emission and Reflection Radiometer Global Digital Elevation Model ("ASTER: Advanced Spaceborne Thermal Emission and Reflection Radiometer," web page, undated). Ruggedness is calculated using the "terrain" function (with terrain ruggedness index specification) of the "raster" package available in R (e.g., "Inside-R: A Community Site for R-Sponsored by Revolution Analytics," web page, undated).

2009, NDVI in 2009, SIGACTS in 2009, and BFT distance and time in 2009.

Our primary unit of analysis is square-kilometer grid squares, which has several advantages.[24] The first is that it allows us to explore the localized effects of CERP by comparing areas within districts with and without CERP activity. The second implication is that we have sufficient treatment areas (e.g., places where CERP projects were executed) and control areas (e.g., places without CERP activity) to allow the use of matching estimators, which is one of the two key components of our identification strategy as discussed.

The final component of our empirical specification parameter is the total geographic area that is included in the analysis. We consider a total of four different possible specifications. The first two focus on proximity to a known village, with one specification considering only square-kilometer grid squares with a known village and a second including all grid squares within a two-kilometer radius of a known village.[25] The third restricts analysis to all grid squares with an estimated population of at least 100 people in either the 2008 or 2014 LandScan data. The fourth restricts analysis to only square-kilometer grid squares that contain a market or bazaar. In each case, our analysis explores the relationship between CERP activity and the six outcome variables only within the specified areas—thus, our market-focused analysis compares changes in conditions in areas with markets and CERP activity to areas with markets and no (or less) CERP.[26]

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[24] Our analysis therefore differs from previous analyses of CERP that rely primarily on larger political aggregates (e.g., districts) for analysis. Note that this precision also allows us to mitigate concerns attributable to aggregation bias, for example, Simpson's Paradox, in which aggregation more often than not leads to either a loss of significance or a reversal in the point estimate (Edward H. Simpson, "The Interpretation of Interaction in Contingency Tables," *Journal of the Royal Statistical Society*, Vol. 13, No. 2, 1951, pp. 238–241).

[25] Our analysis is restricted to only areas within five kilometers of a known village. We use the settlement database developed by USAID's Measuring Impact of Stabilization Initiative, which provides information on 37,557 settlements with non-zero populations distributed across 35,129 square-kilometer grid squares, for selecting this sample.

[26] The Afghanistan Markets and Bazaars database, created by the National Geospatial-Intelligence Agency, provides precise locational information for nearly 15,000 unique markets and bazaars across Afghanistan. Early iterations of this database continued a crude cat-

7.2. Estimating the Aggregate Impact of CERP

This section explores the influence of CERP activity using the six available quantitative data sets and the available CERP administrative data. Our primary results are reported in Table 7.2, which explores the relationship of CERP activity with long-term counterinsurgency outcomes, and Table 7.3, which conducts a comparable analysis using coalition-focused operational outcomes. Tables 7.4 and 7.5 then examine the impact of project size on CERP's estimated impact. We conclude by exploring, in Figures 7.2–7.5, the robustness of these key results to assumptions about the effective range of CERP and the area included in the analysis. The mechanisms underlying the results reported in this section is the focus of the following section.

Throughout the analysis in this section, variables are specified in logarithmic terms so that point estimates should be interpreted as elasticities, but scaled by a factor of ten to ease interpretation of results. Thus, the upper-left value of 0.48 in Table 7.2 indicates that a 100-percent increase in the number of CERP projects is associated with a 5-percent increase in population in a given square-kilometer grid square. Analgously, the CERP activity variable is scaled by a factor of ten in Tables 7.3–7.5, so that the estimate of 0.42 in the upper-left of Table 7.3 indicates that CERP activity is associated with a 4.2-percent increase in intelligence reporting.

The analysis in Table 7.2 focuses on the long-term relationship between CERP activity and the three local national-focused counterinsurgency outcomes. We focus on the relationship between aggregate CERP activity in 2010–2013 and long-term changes in population, Nightlights, and NDVI. Our analysis focuses on two measures of CERP activity: the number of CERP projects and total CERP obligations. This table only considers the "two kilometers" specification of the CERP variable, which assumes that CERP's effect extends up to one kilometer from the reported project location. In addition to

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egorical variable describing total market activity based on the size of markets (e.g., number of stalls, number of vehicles). However, these data were not updated regularly given the large number of markets in the data.

Table 7.2
Relationship of CERP Activity with Population-Focused Outcomes

	Δ Population[a] (2014–2008)		Δ Nightlights[a] (2013–2009)		Δ Agriculture[a] (2014–2009)	
CERP variable[b]						
Number of projects	0.48*** (0.14)		0.14* (0.08)		0.00 (0.01)	
CERP obligations (U.S. $)		0.14*** (0.03)		0.05*** (0.01)		0.00 (0.00)
Controls[a]						
BFT—distance (2010–2013)	−0.01 (0.01)	−0.01 (0.01)	−0.01* (0.00)	−0.01* (0.00)	0.00 (0.00)	0.00 (0.00)
BFT—hours (2010–2013)	0.06*** (0.02)	0.06*** (0.02)	0.01** (0.01)	0.01** (0.01)	0.00 (0.00)	0.00 (0.00)
Population (2008)	−0.21*** (0.02)	−0.21*** (0.02)	0.01** (0.01)	0.01** (0.01)	0.00*** (0.00)	0.00*** (0.00)
Nightlights (2009)	0.13*** (0.03)	0.13*** (0.03)	−0.32*** (0.03)	−0.32*** (0.03)	0.00 (0.00)	0.00 (0.00)
NDVI (2009)	0.59*** (0.10)	0.59*** (0.10)	−0.02 (0.03)	−0.02 (0.03)	−0.13*** (0.01)	−0.13*** (0.01)
SIGACTS (2009)	0.03 (0.03)	0.03 (0.03)	0.01 (0.01)	0.01 (0.01)	0.00 (0.00)	0.00 (0.00)
Intelligence (2010)	0.10*** (0.02)	0.11*** (0.02)	0.01 (0.01)	0.01 (0.01)	0.00 (0.00)	0.00 (0.00)
BFT—distance (2009)	0.00 (0.01)	0.01 (0.01)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
BFT—time (2009)	0.01 (0.02)	0.01 (0.02)	0.01 (0.01)	0.01 (0.01)	0.00 (0.00)	0.00 (0.00)
Distance to major road	0.07*** (0.03)	0.08*** (0.03)	−0.06*** (0.02)	−0.06*** (0.02)	−0.01 (0.01)	−0.01 (0.01)
Road density	0.00*** (0.00)	0.00*** (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Terrain ruggedness	−0.04*** (0.01)	−0.04*** (0.01)	0.00 (0.00)	0.00 (0.00)	−0.01*** (0.00)	−0.01*** (0.00)
Matching?	Yes	Yes	Yes	Yes	Yes	Yes
District-fixed effects?	Yes	Yes	Yes	Yes	Yes	Yes

Table 7.2—Continued

	Δ Population[a] (2014–2008)		Δ Nightlights[a] (2013–2009)		Δ Agriculture[a] (2014–2009)	
R^2	0.23	0.25	0.35	0.35	0.51	0.51
N=[c]	53,688	53,688	53,688	53,688	53,688	53,688

NOTES: The analysis reports the relationship between the reported variables and changes in population, Nightlights, and agriculture from the earliest to the most recent time period (e.g., for population it compares changes from 2008 to 2014). Standard errors are reported in parentheses.
[a] Outcome and control variables are specified in logarithmic terms or log changes.
[b] CERP variables are specified in logarithmic terms, but divided by 10 to allow easier comparison of the point estimates in the table.
[c] Analysis includes all grid squares with a population of at least 100 people.
*, **, and *** indicate significance at, respectively, the 10-, 5-, and 1-percent level.

implementing this analysis in first-differences, which eliminates any location-specific fixed effects, we control for the overall presence of U.S. forces in 2010–2013 ("BFT—Distance," "BFT—Hours"), a variety of baseline conditions (population, nightlights, agricultural activity, attacks against coalition forces, intelligence collection, coalition freedom of movement), and terrain conditions (terrain ruggedness and proximity to transportation).

We find a statistically significant and meaningful relationship between CERP activity and both changes in population and overall changes in economic activity. Specifically, our estimates in Table 7.2 indicate that doubling the number of CERP projects is associated with a 5- and 2-percent (respectively) increase in population and economic activity. We also find that changes in population and economic activity are positively associated with total CERP obligations, although the elasticity is somewhat lower—doubling CERP obligations is associated with a 2-percent increase in population and a 1-percent increase in economic activity. However, we do not find evidence of a significant relationship with changes in agricultural activity overall.[27]

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[27] Several other statistically significant results are observed in Table 7.2. The most prominent are the negative coefficients on each of the lagged variables in Table 7.2, which provide evidence of the "regression to the mean" phenomenon characteristic of data with significant measurement error. We also find evidence that populations moved to areas with stronger agricultural and economic conditions, which is consistent with the importance of economic conditions as

Table 7.3
CERP Activity and Coalition-Focused Outcomes

	Intelligence Reports[a]		SIGACTS[a]		BFT—Speed[a]		BFT—Extent[a]	
CERP variable[b]								
Number of projects$_t$	0.42*** (0.14)		0.25** (0.10)		0.71*** (0.16)		0.49*** (0.06)	
Number of projects$_{t-1}$	−0.11 (0.09)		−0.26* (0.14)		−0.04 (0.17)		−0.01 (0.06)	
CERP obligations$_t$		0.02 (0.02)		0.00 (0.02)		0.13*** (0.03)		0.07*** (0.01)
CERP obligations$_{t-1}$		−0.02* (0.01)		−0.04** (0.02)		−0.01 (0.03)		0.00 (0.01)
BFT—time$_t$	0.12*** (0.01)	0.12*** (0.01)	0.18*** (0.02)	0.18*** (0.02)				
BFT—time$_{t-1}$	0.01 (0.02)	0.02 (0.02)	−0.01 (0.01)	−0.01 (0.01)	0.18*** (0.01)	0.18*** (0.01)	0.04*** (0.00)	0.04*** (0.00)
Controls[a]								
BFT—distance$_t$	−0.02** (0.01)	−0.02** (0.01)	−0.04*** (0.00)	−0.04*** (0.00)				
BFT—distance$_{t-1}$	0.00 (0.01)	0.00 (0.01)	−0.01 (0.01)	−0.01 (0.01)	−0.07*** (0.01)	-0.07*** (0.01)	−0.01 (0.00)	−0.01 (0.00)
Nightlights$_{t-1}$	0.03 (0.02)	0.03 (0.02)	0.01 (0.01)	0.01 (0.01)	0.07*** (0.02)	0.07*** (0.02)	0.03*** (0.01)	0.03*** (0.01)
NDVI$_{t-1}$	0.00 (0.05)	0.00 (0.05)	−0.06* (0.04)	−0.06* (0.04)	−0.26*** (0.08)	−0.25*** (0.08)	−0.13*** (0.04)	−0.12*** (0.04)
Intelligence$_{t-1}$	−0.09*** (0.02)	−0.09*** (0.02)						
SIGACTS$_{t-1}$	0.05*** (0.01)	0.05*** (0.01)	0.04*** (0.01)	0.04*** (0.01)	−0.07*** (0.02)	−0.07*** (0.02)	−0.01 (0.01)	0.00 (0.01)

Table 7.3—Continued

	Intelligence Reports[a]		SIGACTS[a]		BFT—Speed[a]		BFT—Extent[a]	
Baseline controls?[c]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Matching?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.09	0.09	0.12	0.12	0.14	0.14	0.21	0.21
N=[d]	210,672	210,672	263,340	263,340	263,340	263,340	263,340	263,340

NOTES: This table reports two specifications for each outcome variable—with the first (leftmost column of each pair) exploring the impact of the number of CERP projects and the second (rightmost column) exploring the impact of the quantity of CERP dollars obligated.
[a] Outcome and control variables are specified in logarithmic terms or log changes.
[b] CERP variables are specified in logarithmic terms, but divided by 10 to allow easier comparison of the point estimates in the table.
[c] Includes all controls from Table 7.2 except for the two BFT measures spanning 2010–2013.
[d] Analysis includes all grid squares with a population of at least 100 people.
*, **, and *** indicate significance at, respectively, the 10-, 5-, and 1-percent level.

Table 7.3 focuses on examining the association between CERP activity and both contemporaneous and subsequent coalition operational outcomes. Rather than focus on long-term outcomes, we aggregate data by year and focus analysis on estimation of

$$y_{i,t} = \beta_1 CERP_{i,t} + \beta_2 CERP_{i,t-1} + \theta' X_{i,t} + \eta_i + \delta_t + \varepsilon_{i,t}$$

using annual data from 2009 to 2014. Given the plausible short-term effect of CERP on operational outcomes, we use a fixed-effects panel data model for estimating Table 7.3 instead of the first-differenced cross-sectional framework employed in Table 7.2. This approach allows us to assess both the contemporaneous and lagged effect of CERP. As specified in Table 7.3, depending on the outcome variable, we use lagged and contemporaneous measures of the presence of coalition forces, economic activity, agricultural activity, intelligence reporting,

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a driver of internal migration. Our analysis also provides evidence that the quantity of transportation infrastructure is also associated with increased population and economic activity.

and SIGACTS; we also continue to use the IPW-matching estimator throughout all of our estimates.

The analysis in Table 7.3 provides evidence that CERP activity is contemporaneously, positively associated with intelligence reporting, SIGACTS, and coalition forces' freedom of movement. This is illustrated by the positive, and significant, estimated relationship between CERP activity and each of these outcomes. These data suggest that doubling CERP projects in a given year would increase intelligence reporting by 3.5 percent in that year, SIGACTS by 2.1 percent, the speed of coalition vehicles by 4 percent, and the geographic reach of coalition vehicles by 3 percent.[28] The analysis also indicates that doubling CERP spending would increase the average speed and geographic reach of coalition vehicles by 1 percent.

Although Table 7.3 provides evidence consistent with a significant operational impact—specifically that CERP increases the ability of coalition forces to move and to detect and engage the enemy—the positive relationship exhibited across all specifications suggests that the CERP activity variable may be acting as a proxy for contemporaneous counterinsurgency activities. Thus, although the analysis includes proxies for the presence of coalition forces—which are strongly statistically significant—and the fixed-effects panel data model controls for underlying conditions of each square-kilometer grid square, CERP activity itself may instead be capturing overall counterinsurgency behavior rather than a direct effect of CERP activity itself.

In addition to these contemporaneous results, the analysis also provides evidence that CERP activity may have longer-lasting attenuating effects on SIGACTS. This is demonstrated by the observed negative relationship between CERP activity and SIGACTS. Specifically, our analysis suggests that doubling the number of CERP projects would reduce SIGACTS by two percent in the following year and that doubling spending would reduce SIGACTS by 0.3 percent.

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[28] The estimate of the geographic reach of coalition vehicles assigns a value of "1" to all grid squares with at least some U.S. BFT activity. Estimates are done using a linear regression specification, although results are analogous using a probit specification.

Table 7.4
Small Versus Large Projects and Population-Focused Outcomes

	Δ Population[a] (2014–2008)	Δ Nightlights[a] (2013–2009)	Δ Agriculture[a] (2014–2009)
Dollars in obligations[b]			
Less than or equal to $5,000	0.13*** (0.05)	0.02 (0.02)	0.00 (0.00)
$5,000–$50,000	0.08* (0.04)	0.02 (0.01)	0.00 (0.00)
Greater than or equal to $50,000	0.08*** (0.03)	0.03* (0.02)	0.01** (0.00)
Baseline controls?[c]	Yes	Yes	Yes
Matching?	Yes	Yes	Yes
District-fixed effects?	Yes	Yes	Yes
R^2	0.21	0.35	0.51
N=[d]	53,688	53,688	53,688

NOTES: The analysis reports the relationship between the reported variables and changes in population, Nightlights, and agriculture from the earliest to the most recent time period (e.g., for population it compares changes from 2008 to 2014). Standard errors are reported in parentheses.
[a] Outcome and control variables are specified in logarithmic terms or log changes.
[b] CERP variables are specified in logarithmic terms, but divided by 10 to allow easier comparison of the point estimates in the table.
[c] Includes all controls from Table 7.2.
[d] Analysis includes all grid squares with a population of at least 100 people.
*, **, and *** indicate significance at, respectively, the 10-, 5-, and 1-percent level.

The tactical operators in our qualitative work emphasized the enhanced marginal effectiveness of smaller CERP projects. In Tables 7.4 and 7.5, we test for the relative effectiveness of small versus medium and large projects using these quantitative data. For this analysis, we define small as projects of $5,000 or less in total obligations, medium as projects of up to $50,000 in total obligations (but exclud-

Table 7.5
Small Versus Large Projects and Coalition-Focused Outcomes

Project Size	Period	Intelligence Reports[a]	SIGACTS[a]	BFT— Speed[a]	BFT—Extent[a]
Dollars in obligations[b]					
Less than or equal to $5,000	t	0.06** (0.03)	0.03 (0.02)	0.10** (0.04)	0.08*** (0.01)
	t-1	−0.01 (0.02)	−0.02 (0.02)	−0.04 (0.04)	−0.02 (0.02)
$5,000–$50,000	t	0.04 (0.04)	0.04 (0.04)	0.14*** (0.04)	0.08*** (0.02)
	t-1	0.01 (0.02)	−0.03* (0.02)	0.03 (0.04)	0.03** (0.01)
Greater than or equal to $50,000	t	−0.02 (0.03)	−0.01 (0.02)	0.06* (0.03)	0.02 (0.01)
	t-1	−0.04** (0.02)	−0.03 (0.02)	−0.02 (0.03)	−0.01 (0.01)
Baseline controls?[c]		Yes	Yes	Yes	Yes
Matching?		Yes	Yes	Yes	Yes
R^2		0.09	0.12	0.14	0.21
N=[d]		210,672	263,340	263,340	263,340

NOTE: Standard errors are reported in parentheses.
[a] Outcome and control variables are specified in logarithmic terms or log changes.
[b] CERP variables are specified in logarithmic terms, but divided by 10 to allow easier comparison of the point estimates in the table.
[c] Includes all controls from Table 7.3 except for the two BFT measures spanning 2010–2013.
[d] Analysis includes all grid squares with a population of at least 100 people.
*, **, and *** indicate significance at, respectively, the 10-, 5-, and 1-percent level.

ing the small projects), and large as projects of greater than $50,000 in obligations.[29]

The analysis in Table 7.4 provides no evidence that CERP spending on small projects is more effective than either medium or large projects. Specifically, in our analysis of population movements, we find no meaningful difference in dollars spent on small versus medium and large projects; CERP is estimated to increase immigration rates by 1.3, 0.8, and 0.8 percent, respectively, for small, medium, and large projects. For the Nightlights data, the point estimates for the projects of different sizes are positive and roughly equivalent, although only statistically significant for medium and large projects. And although the estimated effect is quite small, doubling obligations estimated to increase agricultural activity by only 0.1 percent, the only positive and the only significant relationship between CERP and agricultural activity is for the large projects.

The analysis in Table 7.5, which reports the results from an analogous analysis of operational outcomes, provides limited evidence that smaller CERP projects are more effective at achieving operational outcomes. The strongest evidence is in the analysis of intelligence collection; the only CERP projects exhibiting a positive association with intelligence collection are small projects. We also find evidence that spending on smaller CERP projects is associated with coalition freedom of movement, as assessed by both the speed and geographic reach of forces; however, this result is only observed contemporaneously, suggesting that this analysis may just be identifying that coalition forces need to be able to reach an area in order to distribute CERP resources. Our analysis of the lagged effect of SIGACTS, which suggested that CERP activity had a persistent attenuating effect on violence against coalition forces, is not attributable to any specific size of projects.

An examination of how our results are affected by assumptions about the effective range of CERP and the area included in the analysis can be seen in Figures 7.2–7.5. These figures report only the estimated

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[29] This approach is analogous to a previous analysis of CERP in Iraq, which demonstrated that CERP dollars spent on small projects (less than $50,000) have a larger impact on violence than dollars spent on large projects (more than $50,000) (Berman et al., 2013).

Figure 7.2
CERP Projects and Population-Focused Outcomes
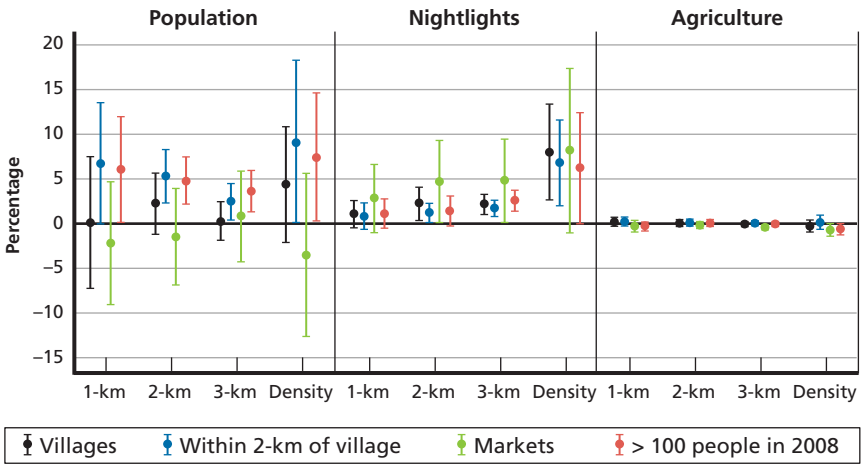
RAND *RR1508-7.2*

Figure 7.3
CERP Dollars and Population-Focused Outcomes
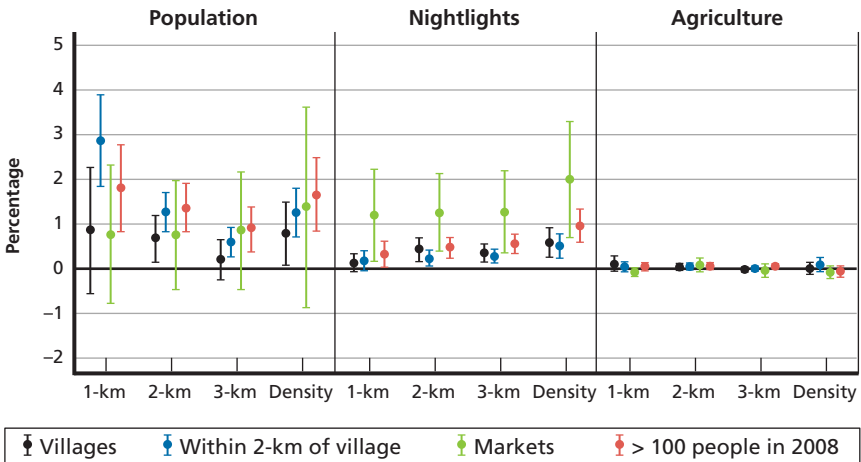
RAND *RR1508-7.3*

Figure 7.4
CERP Projects and Coalition-Focused Outcomes
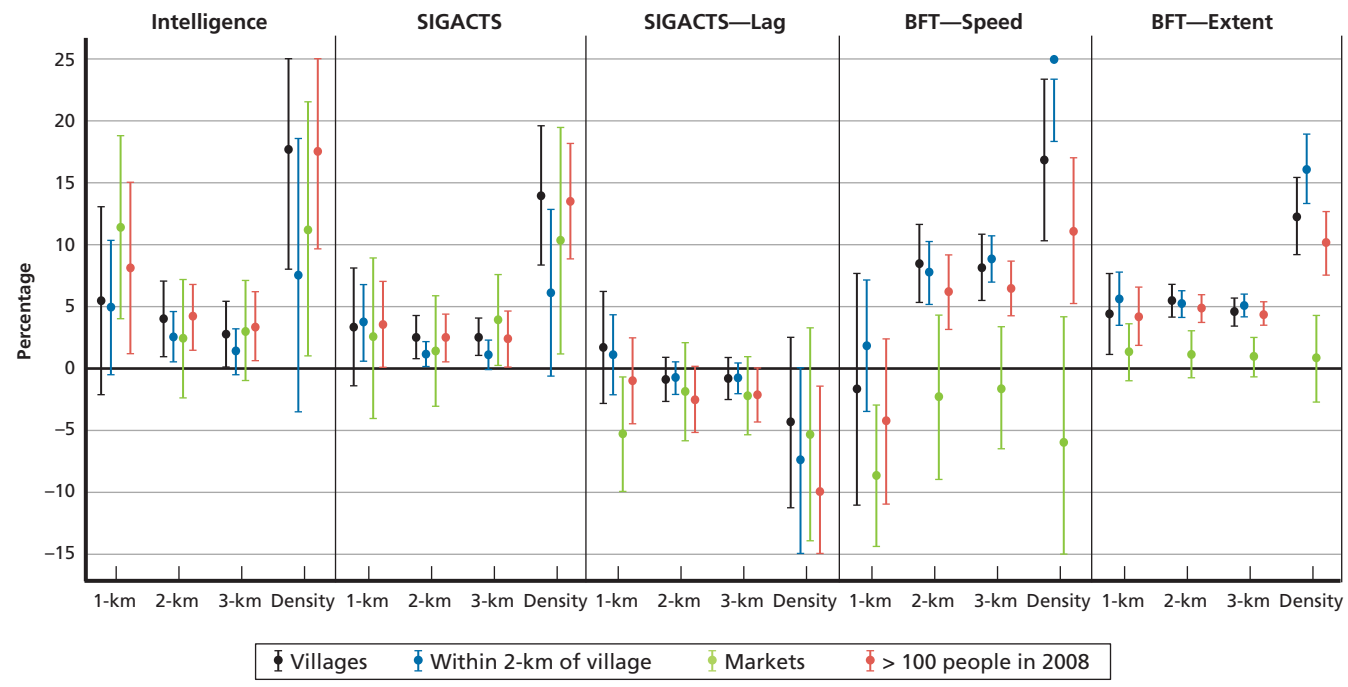
Figure 7.5
CERP Dollars and Coalition-Focused Outcomes
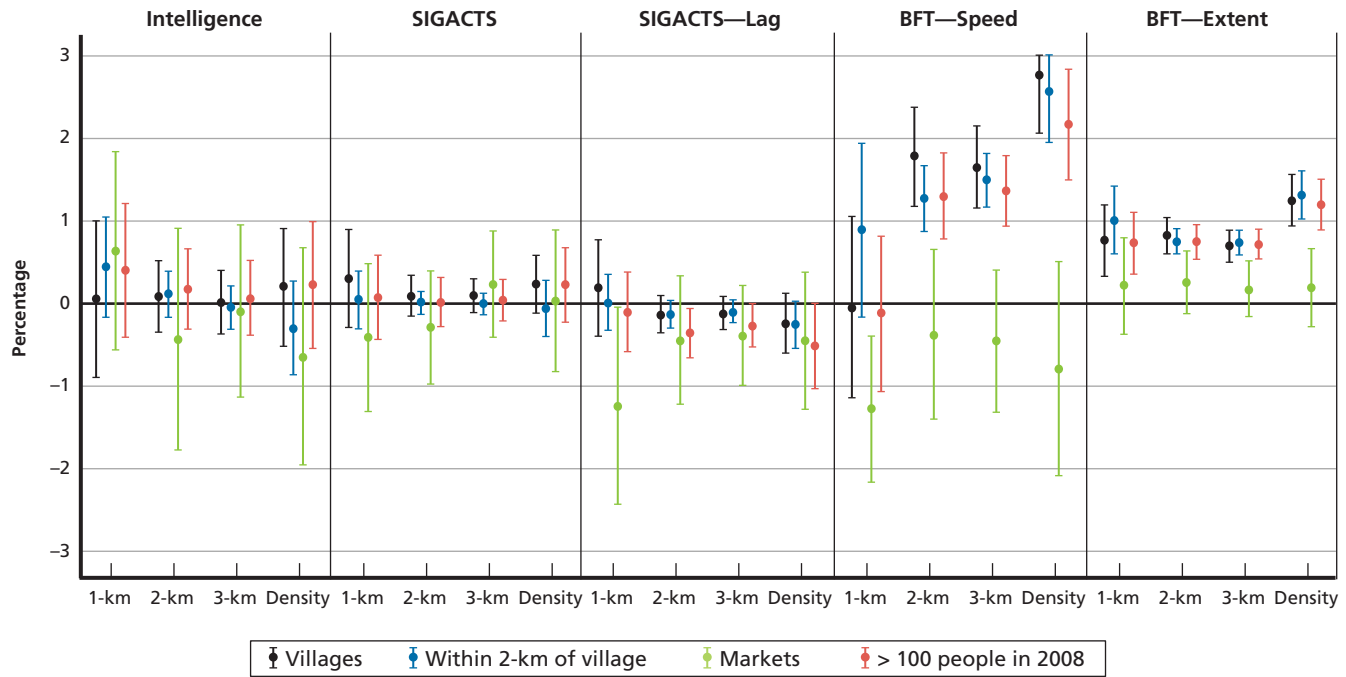
RAND *RR1508-7.5*

elasticity between CERP activity—either projects (Figures 7.2 and 7.4) or dollars (Figures 7.4 and 7.5)—and the specified outcome. So, in each case, the values indicate the percentage change in the specified outcome variable associated with doubling CERP activity, either dollars or projects.

As discussed in Section 7.1, we consider four possible definitions of the extent of CERP's geographical impact and explore four different specifications of the population for CERP's effect. The definitions of CERP's geographical impact, illustrated in the top four panels of Figure 7.1, assume that CERP (1) only affects the square-kilometer grid square where it was implemented, (2) affects the grid square in which it was implemented and adjoining grid squares in all eight directions, (3) affects grid squares up to three squares away, and (4) affects grid squares up to three squares away, although this effect diminishes exponentially with distance. The four different populations that we consider are (1) grid squares with villages, (2) grid squares adjoining a village (in all eight direction), (3) grid squares with markets, and (4) grid squares with at least 100 people in 2008. In Figures 7.2–7.5, we group our estimates by the definition of CERP's geographical range, with the estimates and 95-percent confidence intervals for the point estimates reported in different colors. For each variable, the results reported in Tables 7.2 and 7.3 are represented by second red bar from the left, which explores the relationship of CERP activity including the grid square where it was implemented and the neighboring squares in addition to all grid squares with a population of at least 100.

The results in Figure 7.2 and 7.3, which focus on the stability of the long-term results reported in Table 7.2, demonstrate the overall stability of the results observed earlier. In general, the results do not change significantly depending on the specification, although the precision of the results varies somewhat, as the sample sizes underlying each of these estimates differ.

The one exception to this stability is the market-focused analysis of population changes. The market-focused analysis—which restricts the regression analysis to the nearly 2,000 markets identified by the National Geospatial-Intelligence Agency—finds evidence that the benefits of CERP spending are accentuated for the Nightlights outcomes

in markets. This suggests that CERP activity can be particularly beneficial in supporting the development of markets, as CERP activity has roughly twice the impact in areas with markets compared with other areas. However, we do not find significant evidence for any impact of CERP activity on population changes.

While the results in Figure 7.4 and 7.5 again demonstrate the overall stability of the results for operational outcomes reported in Table 7.3, they also demonstrate two key differences. The first is that the long-term attenuating effect of CERP activity on SIGACTS is not robust across the different specifications. Only three of the 16-point estimates considered return significant results—with the results reported in Table 7.3 including one of those three significant results—indicating that there is not significant evidence that CERP activity reduces attacks against coalition forces in the long term.

The second is that the impact of CERP activity on coalition freedom of movement—the focus of the two rightmost panels in each of these figures—is large and positive in the vicinity of Afghan villages. As a specific example, our estimates for the relationship between the speed of coalition vehicles and CERP activity suggest that doubling the number of CERP projects is associated with a more than 15-percent increase in the average speed of vehicles near Afghan villages.

Building from this analysis, which establishes a clear association between CERP activity and both long-term counterinsurgency and shorter-term operational outcomes, the following section explores the possible mechanisms underlying this association.

7.3. Exploring the Mechanism of CERP's Influence

In this section, we explore the mechanisms underlying the correlations documented in Section 7.2. We use two different empirical approaches to examine these mechanisms. The first approach uses the data on project type available in CERP administrative data to examine whether the type of project type is predictive of the types of effects—for example, are agriculture projects more likely to affect agricultural outcomes. The

Table 7.6
Project Type and Population-Focused Outcomes

CERP variable[b]	Δ Population[a] (2014–2008)		Δ Nightlights[a] (2013–2009)		Δ Agriculture[a] (2014–2009)	
	Projects	Dollars	Projects	Dollars	Projects	Dollars
Project type						
Agriculture	0.25 (0.32)	0.06 (0.05)	0.05 (0.15)	0.00 (0.02)	0.01 (0.03)	0.00 (0.00)
Compensation payments	−0.68*** (0.25)	−0.13** (0.06)	−0.24 (0.16)	−0.03 (0.03)	−0.05 (0.03)	−0.01** (0.01)
Economics	0.61 (0.44)	0.07 (0.06)	−0.33 (0.21)	−0.02 (0.03)	−0.01 (0.04)	−0.01 (0.01)
Governance	0.07 (0.42)	0.05 (0.06)	0.21 (0.19)	0.00 (0.02)	−0.03 (0.04)	0.00 (0.00)
Humanitarian relief	−0.40 (0.45)	0.02 (0.07)	0.41 (0.41)	0.11* (0.06)	0.02 (0.05)	0.00 (0.01)
Local security	−0.31 (0.44)	0.02 (0.07)	−0.53** (0.22)	−0.07** (0.03)	−0.01 (0.04)	0.00 (0.01)
Public services	1.17*** (0.38)	0.15*** (0.04)	0.79*** (0.19)	0.06*** (0.02)	0.02 (0.05)	0.00 (0.00)
Transportation	0.65 (0.51)	0.06 (0.05)	0.04 (0.21)	0.03 (0.02)	0.03 (0.05)	0.01 (0.01)
Water	−0.47 (0.46)	−0.08 (0.08)	−0.30 (0.20)	−0.02 (0.03)	0.02 (0.04)	0.00 (0.01)
Baseline controls?[c]	Yes	Yes	Yes	Yes	Yes	Yes
Matching?	Yes	Yes	Yes	Yes	Yes	Yes
District-fixed effects?	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.23	0.23	0.36	0.36	0.51	0.51
N=[d]	53,688	53,688	53,688	53,688	53,688	53,688

NOTES: This table reports two specifications for each outcome variable—with the first (leftmost column of each pair) exploring the impact of the number of CERP projects and the second (rightmost column) exploring the impact of the quantity of CERP dollars obligated. Standard errors are reported in parentheses.
[a] Outcome and control variables are specified in logarithmic terms or log changes.
[b] CERP variables are specified in logarithmic terms, but divided by 10 to allow easier comparison of the point estimates in the table.
[c] Includes all controls from Table 7.2.
[d] Analysis includes all grid squares with a population of at least 100 people.
*, **, and *** indicate significance at, respectively, the 10-, 5-, and 1-percent level.

second uses our qualitative data on perceived project outcomes to conduct an analogous analysis.

The project-specific analysis using CERP administrative data is presented in Tables 7.6 and 7.7. In these tables, each column corresponds to the results from a single regression with nine different CERP variables, one for each of the nine aggregated project types (see Chapter Four for definitions). For each outcome variable (population, Nightlights, and agriculture), the table specifies the type of CERP variable being considered (projects or dollars). Each regression result includes the same control variables as reported in Tables 7.2 and 7.3.

The results in Table 7.6 suggest that the positive impact of CERP activity—in terms of both the number of projects and CERP obligations—are largely driven by a single project type: public services. CERP activity categorized as public services, which includes all spending on either education or health care (see Chapter Four for more details), is positively correlated with long-term changes in both population and Nightlights. However, each of the other development-focused types of projects—agriculture, economics, and transportation—exhibit positive, if not statistically significant, results.

This analysis also suggests that CERP spending on security-related activities, namely compensation payments for damages and local security, is associated with worse long-term population-focused outcomes. This suggests, despite the inclusion of controls for coalition force presence (e.g., BFT), that CERP is acting as a proxy for the presence of coalition forces. Not surprisingly, in areas where fighting rages, commanders make more compensation payments than in other areas. Therefore, it is not surprising that higher compensation payments are correlated with less security (i.e., more fighting).

Table 7.7 similarly suggests that the observed relationship between CERP and operational outcomes is driven by only a subset of the total projects. First, the strong and significant relationship between CERP activity and both intelligence reporting and SIGACTS is driven by two types of CERP projects: compensation payments and humanitarian relief. Conversely, more development-focused projects (i.e., agriculture, public services, water) are associated with reduced intelligence and SIGACTS. This result is consistent with the results from Table 7.6

Table 7.7
Project Type and Coalition-Focused Outcomes

	CERP variable[b]	Intelligence Reports[a]		SIGACTS[a]		BFT—Speed[a] (2013–2009)		BFT—Extent[a] (2014–2009)	
		Projects	Dollars	Projects	Dollars	Projects	Dollars	Projects	Dollars
Agriculture	CERP$_t^{Agriculture}$	0.08 (0.24)	−0.02 (0.03)	−0.34** (0.13)	−0.07*** (0.02)	0.37 (0.33)	0.09** (0.04)	0.24* (0.13)	0.04*** (0.02)
	CERP$_{t-1}^{Agriculture}$	−0.59*** (0.22)	−0.07*** (0.03)	−0.56*** (0.18)	−0.09*** (0.03)	0.19 (0.31)	0.03 (0.04)	0.12 (0.13)	0.01 (0.02)
Compensation payments (CP)	CERP$_t^{CP}$	1.50*** (0.31)	0.28*** (0.06)	0.87*** (0.18)	0.15*** (0.04)	−0.32 (0.32)	−0.07 (0.07)	0.00 (0.10)	0.01 (0.02)
	CERP$_{t-1}^{CP}$	0.41 (0.34)	0.07 (0.06)	0.21 (0.20)	0.04 (0.03)	−0.26 (0.30)	−0.04 (0.06)	−0.08 (0.14)	−0.02 (0.03)
Economics	CERP$_t^{Economics}$	0.29 (0.33)	0.05 (0.04)	0.56 (0.39)	0.07 (0.04)	1.17*** (0.41)	0.12* (0.06)	0.53*** (0.17)	0.06** (0.02)
	CERP$_{t-1}^{Economics}$	−0.16 (0.30)	−0.03 (0.03)	−0.01 (0.23)	0.01 (0.03)	−0.09 (0.45)	−0.06 (0.05)	0.07 (0.20)	0.00 (0.03)
Governance	CERP$_t^{Governance}$	0.23 (0.35)	0.01 (0.06)	0.49* (0.29)	0.05 (0.04)	−0.19 (0.52)	0.07 (0.07)	0.06 (0.20)	0.04 (0.02)
	CERP$_{t-1}^{Governance}$	0.41 (0.33)	0.02 (0.03)	0.22 (0.19)	0.00 (0.02)	0.00 (0.40)	0.03 (0.05)	0.14 (0.17)	0.02 (0.02)
Humanitarian relief (HR)	CERP$_t^{HR}$	0.78** (0.38)	0.17*** (0.06)	0.59** (0.25)	0.12*** (0.04)	0.12 (0.58)	0.02 (0.10)	0.12 (0.20)	0.03 (0.03)
	CERP$_{t-1}^{HR}$	0.39 (0.29)	0.06 (0.05)	0.37 (0.29)	0.06 (0.04)	−0.75 (0.56)	−0.14 (0.09)	0.05 (0.20)	−0.03 (0.03)
Local security	CERP$_t^{Local\ security}$	0.54 (0.37)	0.09* (0.05)	−0.45 (0.50)	−0.01 (0.05)	−0.73 (0.56)	−0.05 (0.07)	−0.52*** (0.18)	−0.03 (0.02)
	CERP$_{t-1}^{Local\ security}$	0.51 (0.39)	0.07 (0.05)	−0.56 (0.51)	−0.04 (0.06)	0.68 (0.59)	0.13* (0.08)	0.19 (0.20)	0.04 (0.03)

Project type

Table 7.7—Continued

		Intelligence Reports[a]		SIGACTS[a]		BFT—Speed[a] (2013–2009)		BFT—Extent[a] (2014–2009)	
	CERP variable[b]	Projects	Dollars	Projects	Dollars	Projects	Dollars	Projects	Dollars
Public services	CERP $_t^{Public\ services}$	−1.07*** (0.34)	−0.10*** (0.04)	−0.38 (0.24)	−0.03 (0.02)	−0.78* (0.44)	−0.06 (0.04)	−0.07 (0.17)	0.00 (0.02)
	CERP $_{t-1}^{Public\ services}$	0.03 (0.26)	−0.01 (0.03)	−0.31 (0.24)	−0.03* (0.02)	−0.13 (0.46)	−0.01 (0.04)	−0.12 (0.17)	0.00 (0.02)
Transportation	CERP $_t^{Transportation}$	0.27 (0.29)	−0.01 (0.02)	0.42* (0.22)	0.03 (0.02)	1.19*** (0.42)	0.14*** (0.04)	0.18 (0.20)	0.04** (0.02)
	CERP $_{t-1}^{Transportation}$	−0.08 (0.21)	−0.03 (0.02)	0.08 (0.18)	−0.01 (0.02)	0.31 (0.44)	0.06 (0.05)	−0.21 (0.17)	−0.01 (0.02)
Water	CERP $_t^{Water}$	−1.25*** (0.41)	−0.15*** (0.05)	−1.01*** (0.37)	−0.09** (0.04)	0.46 (0.50)	0.04 (0.06)	0.31 (0.22)	0.04 (0.03)
	CERP $_{t-1}^{Water}$	−0.97*** (0.27)	−0.08*** (0.03)	−0.39* (0.22)	−0.03 (0.03)	0.25 (0.55)	−0.03 (0.06)	0.06 (0.21)	−0.01 (0.03)
Baseline and panel controls?[c]		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Matching?		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R^2		0.09	0.09	0.12	0.12	0.13	0.13	0.2	0.2
N=[d]		210,672	210,672	263,340	263,340	263,340	263,340	263,340	263,340

(Project type is labeled along the left side spanning the Public services, Transportation, and Water rows.)

NOTE: This table reports two specifications for each outcome variable—with the first (leftmost column of each pair) exploring the impact of the number of CERP projects and the second (rightmost column) exploring the impact of the quantity of CERP dollars obligated. Standard errors are reported in parentheses.

[a] Outcome and control variables are specified in logarithmic terms or log changes.

[b] CERP variables are specified in logarithmic terms, but divided by 10 to allow easier comparison of the point estimates in the table.
[c] Includes all controls from Table 7.3.
[d] Analysis includes all grid squares with a population of at least 100 people.
*, **, and *** indicate significance at, respectively, the 10-, 5-, and 1-percent level.

in that CERP activity likely to be correlated with military operations is associated with increased intelligence and SIGACTS, while more development-focused CERP activity is negatively associated with these operational-focused outcomes.

The second key observation from Table 7.7 is that agriculture, economics, and transportation projects drive the observed relationship between CERP activity and coalition freedom of movement. This result may indicate that development-related CERP activity increases coalition freedom of movement. However, as we only observe a contemporaneous (and not a long-term) effect, this suggests that our results demonstrate only that development-related activity is more likely in areas with greater coalition freedom of movement.

The final result that emerges from both Tables 7.6 and 7.7 is that water projects were ineffective. These projects are negatively associated with coalition-focused outcomes, suggesting that they were nested with development-focused operations. However, they also exhibit a negative, if not statistically significant, association with population-focused outcomes.

The second component of the analysis in this section focuses on testing the mechanisms for CERP's effects suggested in our qualitative interviews. Specifically, we link perceived project outcomes from these interviews, as discussed in Chapter Five, to the quantitative outcome data and test whether there is empirical evidence supporting the perceptions of these operators.

This analysis, presented in Tables 7.8 and 7.9, uses a somewhat more restrictive empirical design than previous analyses. Specifically, we estimate an augmented version of our primary empirical specification,

$$y_{i,t} = \sum_{i=1}^{12} \alpha_i Perceive_i + \beta_1 CERP_{i,t}^{Projects} + \beta_2 CERP_{i,t}^{Dollars} + \theta' X_{i,t} + \eta_i + \delta_t + \varepsilon_{i,t}$$

where $Perceive_i$ are the 12 different types of outcomes that operators may have perceived to occur in an area. A square-kilometer grid square, our primary unit of analysis, is assigned a value of 1 if at least one operator indicated that that outcome had been achieved, and 0 otherwise. For the analysis of panel data in Table 7.9, we include $Perceive_{i,t}$ as

Table 7.8
Perceived Outcomes and Population-Focused Outcomes

		Δ Population[a] (2014–2008)		Δ Nightlights[a] (2013–2009)		Δ Agriculture[a] (2014–2009)	
		Target Population	Project	Target Population	Project	Target Population	Project
Development	Agriculture	−0.08 (0.14)	−0.17 (0.17)	0.00 (0.04)	−0.09 (0.06)	0.00 (0.01)	0.00 (0.01)
	Economic	−0.07 (0.09)	0.17 (0.20)	0.07 (0.08)	0.07 (0.07)	0.00 (0.01)	−0.01 (0.01)
	Health	−0.06 (0.15)	0.39 (0.30)	0.02 (0.06)	0.10 (0.13)	0.01 (0.02)	0.03 (0.03)
	Education	−0.06 (0.09)	0.01 (0.21)	0.00 (0.10)	−0.08 (0.07)	0.00 (0.01)	−0.03 (0.03)
	Local national FOM	−0.01 (0.08)	−0.05 (0.15)	0.00 (0.07)	0.03 (0.06)	0.01 (0.02)	−0.01 (0.02)
ISAF security and influence	ISAF FOM	0.00 (0.10)	−0.22** (0.09)	−0.09 (0.07)	−0.04 (0.07)	−0.01 (0.01)	0.01 (0.02)
	ISAF security	−0.05 (0.13)	−0.10 (0.18)	0.02 (0.07)	0.02 (0.07)	0.00 (0.01)	−0.03 (0.03)
	Local rapport	0.39*** (0.13)	0.31** (0.14)	0.05 (0.05)	0.08 (0.08)	−0.01 (0.01)	0.00 (0.01)
	Intelligence	−0.24** (0.12)	0.03 (0.18)	−0.06 (0.07)	−0.06 (0.09)	−0.01 (0.01)	0.00 (0.02)

Table 7.8—Continued

		Δ Population[a] (2014–2008)		Δ Nightlights[a] (2013–2009)		Δ Agriculture[a] (2014–2009)	
		Target Population	Project	Target Population	Project	Target Population	Project
Afghan security and political institutions	Governance	0.06 (0.07)	−0.05 (0.20)	0.00 (0.05)	0.01 (0.06)	0.02* (0.01)	0.02 (0.01)
	Local security	0.20* (0.11)	−0.05 (0.16)	0.02 (0.08)	−0.13** (0.05)	0.00 (0.01)	0.01 (0.02)
	ANDSF development	−0.29* (0.16)	−0.33* (0.19)	−0.10 (0.10)	0.12 (0.10)	0.01 (0.01)	0.03 (0.02)
Baseline controls?[b]		Yes	Yes	Yes	Yes	Yes	Yes
CERP projects and obligations controls?[c]		Yes	Yes	Yes	Yes	Yes	Yes
Matching?		Yes	Yes	Yes	Yes	Yes	Yes
District-fixed effects?		Yes	Yes	Yes	Yes	Yes	Yes
R^2		0.30	0.34	0.33	0.39	0.49	0.47
N=[d]		13,662	13,662	13,662	13,662	13,662	13,662

NOTES: Cells highlighted in orange are those predicted to be positive and statistically significant. Standard errors are reported in parentheses.
[a] Outcome and control variables are specified in logarithmic terms or log changes.
[b] Includes all controls from Table 7.2.
[c] Includes the log value of CERP activity in both dollars obligated and overall number of projects.
[d] Analysis includes all grid squares with a population of at least 100 people.
*, **, and *** indicate significance at, respectively, the 10-, 5-, and 1-percent level.

Table 7.9
Perceived Outcomes and Coalition-Focused Outcomes

		Intelligence Reports[a]		SIGACTS[a]		BFT–Speed[a]		BFT–Extent[a]	
		Target Population	Project	Target Population	Project	Target Population	Project	Target Population	Project
Development	Agriculture	0.08 (0.09)	0.19 (0.12)	0.09 (0.08)	0.35*** (0.12)	0.15 (0.15)	−0.03 (0.21)	0.04 (0.05)	0.03 (0.06)
	Economic	0.20** (0.09)	0.20* (0.11)	0.10*** (0.04)	0.11** (0.04)	0.00 (0.14)	0.25 (0.20)	0.01 (0.05)	0.09 (0.06)
	Health	−0.08 (0.09)	0.16 (0.17)	−0.06 (0.07)	0.12 (0.19)	0.34** (0.14)	−0.24 (0.33)	0.08 (0.05)	−0.13 (0.11)
	Education	−0.05 (0.10)	−0.29* (0.16)	0.00 (0.09)	−0.09 (0.13)	0.00 (0.16)	1.16*** (0.33)	−0.04 (0.06)	0.37*** (0.10)
	Local national FOM	0.19 (0.15)	−0.03 (0.16)	0.05 (0.06)	−0.13 (0.10)	−0.30* (0.16)	0.06 (0.25)	−0.04 (0.06)	0.08 (0.09)
ISAF security and influence	ISAF FoM	−0.08 (0.11)	0.20 (0.20)	0.04 (0.09)	0.18* (0.11)	0.09 (0.18)	0.21 (0.40)	0.07 (0.06)	0.07 (0.13)
	ISAF security	0.03 (0.07)	0.18 (0.19)	−0.02 (0.07)	0.10 (0.10)	0.03 (0.18)	−0.14 (0.35)	0.01 (0.07)	−0.07 (0.06)
	Local rapport	0.25** (0.10)	0.27** (0.13)	0.05 (0.06)	0.09 (0.12)	−0.10 (0.16)	−0.98*** (0.30)	−0.03 (0.06)	−0.32*** (0.09)
	Intelligence	−0.22* (0.12)	−0.54** (0.23)	−0.12 (0.08)	−0.27 (0.20)	−0.02 (0.26)	−0.34 (0.39)	−0.04 (0.08)	−0.14 (0.09)

Table 7.9—Continued

		Intelligence Reports[a]		SIGACTS[a]		BFT–Speed[a]		BFT–Extent[a]	
		Target Population	Project	Target Population	Project	Target Population	Project	Target Population	Project
Afghan security and political institutions	Governance	−0.05 (0.06)	−0.09 (0.17)	0.01 (0.04)	−0.09 (0.07)	−0.02 (0.10)	−0.36 (0.46)	−0.01 (0.03)	−0.13 (0.14)
	Local security	0.12 (0.13)	0.15 (0.15)	0.05 (0.05)	−0.01 (0.06)	0.19 (0.15)	−0.09 (0.35)	0.08 (0.06)	0.03 (0.10)
	ANDSF development	−0.13 (0.13)	−0.29 (0.20)	0.01 (0.07)	−0.12 (0.16)	−0.19 (0.17)	0.49 (0.42)	−0.04 (0.07)	0.08 (0.14)
Baseline controls?[b]		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CERP projects and obligations controls?[c]		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Matching?		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R^2		0.18	0.16	0.18	0.22	0.19	0.2	0.3	0.32
N=[d]		53,916	53,916	67,395	67,395	67,395	67,395	67,395	67,395

NOTES: Cells highlighted in orange are those predicted to be positive and statistically significant. Standard errors are reported in parentheses.
[a] Outcome and control variables are specified in logarithmic terms or log changes.
[b] Includes all controls from Table 7.2.
[c] Includes the log value of CERP activity in both dollars obligated and overall number of projects.
[d] Analysis includes all grid squares with a population of at least 100 people.
*, **, and *** indicate significance at, respectively, the 10-, 5-, and 1-percent level.

a possible time varying covariate. In defining this variable, we assume that the qualitative effects of CERP occurred during 2011 and 2012, and not in other years; thus, *Perceive$_{i,t}$* takes values of 0s in all cases for 2010, 2013, and 2014, but a value of 1 in 2011 and 2012 if at least one operator indicated that outcome. Everything else is analogous to our previous empirical specifications, although all specifications now include both the total number of projects and the total quantity of dollars as controls.

The results presented in Tables 7.8 and 7.9 represent a total of eight different regressions, with the columns corresponding to either the project area or the target populations believed to have experienced the outcomes specified in the rows. Cells highlighted in orange are those predicted to be positive and statistically significant. As an example, if CERP projects do have economic benefits, then we should be able to see a positive association with both changes in population and changes in Nightlights (Table 7.8), but no impacts on operational outcomes (Table 7.9). We note that the inclusion of other controls for CERP in this analysis ensures that this analysis is relatively restricted.

The analysis in both Tables 7.8 and 7.9 found no consistent evidence that perceived CERP project outcomes are correlated with measurable outcomes. For the analysis of counterinsurgency outcomes in Table 7.8, the only consistent and significant result is the relationship between local rapport and population changes. And in Table 7.9, while we find that increased local rapport is associated with increased intelligence reporting, we find that the areas that have less measurable intelligence reporting are those where projects were reported to have increased intelligence gathering.

These results suggest that the primary mechanism through which CERP influences counterinsurgency operations is by enabling counterinsurgency operations. We do not find quantitative evidence to validate the perceived tacit outcomes reported in our interviews. Despite the inclusion of a diverse range of controls for counterinsurgency activities, we still find evidence that perceptions of enhanced local rapport are correlated with improved counterinsurgency success.

7.4. Summary of Key Results

This chapter used quantitative data to explore the relationship of CERP activity with both long-term, population-focused counterinsurgency outcomes and shorter-term, coalition-focused operational outcomes. Four key results emerged from this analysis.

Cumulative CERP activity is associated with improved security and economic conditions for local populations. CERP activity, measured in terms of the number of projects and dollars obligated in 2010–2013, is associated with long-term increases in measures of local immigration and economic activity; we observe no overall relationship between CERP and agricultural activity. CERP's relationship with economic activity is particularly pronounced in markets, suggesting that CERP activity can support the development of markets.

CERP activity is associated with short-term increases in intelligence collection, enemy engagements, and coalition freedom of movement. Intelligence collection, coalition engagements with enemy elements, and coalition freedom of movement are each positively associated with CERP activity during a given year.

CERP is also associated with long-term reductions in enemy engagements. While associated with increased attacks involving coalition forces in the year of spending, CERP activity is correlated with a reduction in attacks the following year.[30] However, CERP does not exhibit a significant relationship with either intelligence collection or freedom of movement in subsequent years.

Project size mediates CERP's relationships, although in different ways for different outcomes. Large CERP projects drive the observed relationship with economic activity, and large projects are associated with significant increases in agricultural activity (although we find no evidence of a significant relationship with overall CERP

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[30] This dual result for the relationship between CERP activity and attacks involving coalition forces is consistent with previous analyses exploring this relationship (compared with Gorkowski, 2009; Berman, Shapiro, and Felter, 2011; Chou, 2012; Berman et al., 2013; Clark and Jackson, 2013; Jackson and Clark, 2015).

activity).[31] Conversely, small- and medium-sized projects drive the observed relationship with intelligence collection, enemy engagements, and coalition freedom of movement. However, CERP's relationship with population changes is independent of project size.

Our analysis suggests that quantitative measures of CERP function as a proxy for overall counterinsurgency activity. CERP spending on compensation payments, local security, and humanitarian assistance seem to function as a proxy for coalition-kinetic military operations, while spending on agriculture, public services, transportation, and water functions as a proxy for development-focused military operations. On net, the implication is that quantitative analyses cannot credibly identify the impact of CERP independent of overall counterinsurgency efforts.

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[31] We define small, medium, and large CERP projects as projects with, respectively, less than $5,000, $5,000–$50,000, and more than $50,000 in obligations. This approach is analogous to a previous analysis of CERP in Iraq (Berman et al., 2013).

Conclusions and Policy Implications

There is widespread support among commanders for CERP's value during stability operations, although the program is often criticized for difficulties of using it in practice. With the hopes of guiding future similar programs, this final chapter discusses what we know about CERP and its effects, the types of challenges that any future CERP program must overcome, insights from our analysis for improving CERP, and CERP's potential value for several different classes of overseas contingency operations. We conclude by describing additional steps that DoD can take to prepare CERP for future contingency operations.

8.1. What Do We Know About CERP?

Our assessment aimed to characterize the tactical effects and effectiveness of CERP based on interviews with implementers and quantitative data from Afghanistan, augmented where possible by other perspectives on CERP. We found:

Operations involving CERP improve local economic conditions and local security. Our quantitative assessment of CERP using available administrative data provided evidence that there were statistically significant improvements in local economic conditions and local security in areas where CERP was used.

CERP was also associated with increased intelligence collection, coalition freedom of movement, and enemy engagements. The component of our quantitative analysis examining coalition-focused outcomes also found that areas with CERP experienced long-

term reductions in enemy engagements. The latter finding suggests that operations involving CERP were more effective in degrading enemy capabilities; alternatively, it could indicate that CERP projects were used more in areas where enemy engagements were declining for other reasons.

Our quantitative analysis suggests that measures of CERP-funded activities function as a proxy for overall military activity. CERP spending on compensation payments, local security, and humanitarian assistance seems to function as a proxy for coalition-kinetic military operations, while spending on agriculture, public services, transportation, and water functions as a proxy for development-focused operations. On net, quantitative analyses cannot credibly identify the impact of CERP independently of overall military efforts.

Implementers overwhelmingly supported CERP. Although operators told us they used CERP for widely different purposes predicated on different theories of change and expressed a variety of concerns about the program, the vast majority of implementers felt that CERP supported their efforts.

Softer outcomes (e.g., local rapport) were more important to implementers than completing projects. CERP spending was much more effective in building rapport, enhancing freedom of movement for locals and coalition forces, and improving local governance and security than building infrastructure. We find evidence for this conclusion in both our qualitative data, in which softer outcomes were reportedly successful some 75 to 80 percent of the time as compared with less than 50 percent of the time for the success of infrastructure projects, and our quantitative data, which show that projects reported to have succeeded in improving local rapport are associated with enhanced counterinsurgency and operational outcomes.

Although the majority of implementers thought CERP was valuable, almost all operators said that implementation of projects in Afghanistan was far from optimal and that significant changes to the program should be made. Interviewees supportive of CERP emphasized its particular value in building rapport with local communities, reinforcing Afghan security and governance institutions, and compensating for damages caused during security operations.

Nearly all respondents, both those supportive and not supportive of CERP, indicated that CERP could be a valuable tool if implemented "correctly."

8.2. Central Challenges

CERP was hampered by several challenges. Despite the concerted efforts of CERP managers to improve how the program operated in Afghanistan and Iraq, commanders encountered most of the same difficulties in employing the program. These persistent difficulties suggest that future CERP-like programs will likely face similar challenges.

DoD administration of CERP remained an ongoing challenge. Maintaining accurate information and following established guidelines for the design of projects, distribution of project-related resources, and oversight of the projects are necessary to ensure that CERP projects are effective and the use of funds meets statutory requirements. However, DoD faced a constant tension in conducting oversight of CERP. Operators frequently cited CERP-related bureaucracy and paperwork as a central challenge endemic to project planning, approval, funding, and assessment. Operators believed the bureaucratic controls distracted them from other responsibilities; these processes were somewhat less problematic for very small projects. While such challenges may be mitigated if CERP is implemented in the future on a significantly smaller scale than it was in Iraq and Afghanistan, DoD needs to establish implementation mechanisms that guarantee that administration of CERP on the battlefield goes smoothly while ensuring appropriate financial and other controls.

CERP projects may not be advisable during clearance operations in denied areas but should be primarily reserved for later stages of operations. Interviewees noted the great challenges of implementing CERP in hostile or denied environments. Intimidation and threats from the Taliban against contractors, workers, or local elders undermined these teams' efforts. Although CERP may still be called on as a tool to support operations in insecure areas, implementers should be aware that CERP can have unintended negative side effects,

including providing a source of funding to enemy forces, and should plan accordingly.

A mix of administrative practices and environmental characteristics posed several challenges. Challenges arose because of the context in which CERP was implemented, but which DoD processes were not prepared to mitigate. These challenges included inadequate processes for (1) planning and executing projects, with a particular focus on having appropriate processes for handling projects that were terminated early by the team or the community; (2) dealing with inexperienced and potentially corrupt contractors; (3) managing local needs and expectations; and (4) mitigating a variety of potentially deleterious side effects including local inflation and a growing dependency of communities on CERP projects. In some cases, the continuing relationship between U.S. forces and the community depended on the continued flow of CERP dollars to the community.

Many implementation challenges could be mitigated by better, more realistic training predeployment and in theater. Although interviewees noted that no training could have fully prepared them for actual implementation of CERP, improvements could be made. Suggestions included professional officer education that incorporates the theory of aid in counterinsurgency and other campaigns, even after the end of the campaign in Afghanistan; predeployment training courses that focus on the legal requirements for CERP; alternate training materials that include vignettes from the field that address effective CERP planning and implementation; incorporating role playing into CERP training; and a mobile CERP team that moves from fielded unit to unit to provide follow-on training, answer questions, and provide real-time guidance.

8.3. CERP's Applicability to Future Contingency Operations

For fiscal year 2008, DoD requested the extension of CERP, or a CERP-like authority, to all contingency operations. The intent of this "Global CERP" was to "[build] on the effectiveness of this tool in cur-

rent theater of operations."[1] It was reportedly one of the top three priorities of the Secretary of Defense.[2] Although Congress rejected the extension of CERP to all operational theaters at that time, the value of a CERP-like program to enable future U.S. contingency operations is a matter of significant importance.

While this report provides clear evidence of CERP's value in supporting counterinsurgency operations, the focus of U.S. operational activity in 2010–2013, our data collection and interviews also provide insight into the potential value of a CERP-like capability for several classes of military operations.[3] In the following sections we provide brief assessments, based on our analysis and data, of the value of CERP for foreign internal defense, combating terrorism, and foreign humanitarian assistance.

8.3.1. Foreign Internal Defense

CERP is likely to be of significant value to future foreign internal defense operations, demonstrated by the experience in both Afghanistan and the Philippines. In Afghanistan, CERP played both a direct and indirect role in supporting local security forces established and trained by the SOF community and the Marines. First, having a CERP-like authority to hire "Temporary Contract Guards for Critical Infrastructure" provided these forces with the ability to

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[1]   Robert Wilkie, Acting Assistant Secretary of Defense for Legislative Affairs, "Snowflake Response—List for Congressional Members, #061306-21," memorandum to Secretary of Defense Donald Rumsfeld, June 27, 2005 [note that authors believe that there is a typographical error in the date on this memorandum and that the data are actually June 27, 2006].

[2]   Paschal, 2011; and "Appendix A, Department of Defense Legislation for Fiscal Year 2008, FY 2008 Department of Defense Appropriations Act," *Army Lawyer*, January 2008, pp. 114–121.

[3]   Joint Chiefs of Staff, "Joint Publication 3-0, Joint Operations," August 11, 2011, defines the following 13 different types of military operations: (1) stability operations; (2) civil support; (3) foreign humanitarian assistance; (4) recovery; (5) noncombatant evacuation; (6) peace operations; (7) combating weapons of mass destruction; (8) chemical, biological, radiological, and nuclear consequence management; (9) foreign internal defense; (10) counterdrug operations; (11) combating terrorism; (12) counterinsurgency; and (13) homeland defense.

quickly fund local defense forces as other sources of funding were being explored.[4] Indeed, local security forces established by both SOF and the Marines—the ALP and Interim Security Critical Infrastructure, respectively—were initially funded using CERP dollars.[5] The importance of CERP in enabling the SOF and Marines to establish these forces was highlighted by many of the interviewees, even though the RAND questionnaire protocol included no specific questions targeted toward use on behalf of these local defense forces.[6]

CERP also played an indirect role in supporting the establishment of local forces. All three interviewed communities, as described in Chapter Five, emphasized the value of CERP in gaining access to and building rapport with communities.[7] For the SOF community, this was proscribed in operational guidance, which advised that:

> The situation may exist where a [SOF team] will focus on development, rather than security, as the first priority of work and lever-

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[4] By 2012 "temporary" was defined to be "90 days or less," although the definition of "temporary" was not defined in prior years (USFOR-A, 2012).

[5] Headquarters, Combined Joint Special Operations Task Force–Afghanistan [CJSOTF-A], "Village Stability Operations and Afghan Local Police: Bottom-up Counterinsurgency," Bagram Airbase, Afghanistan, April 1, 2011, reports that:

> Currently, ALP are being paid by CJSOTF-A elements using CERP funds. The use of CERP funds is authorized by CFSOCC-A [Combined Forces Special Operations Component Command–Afghanistan] FRAGO 53, ALP Implementation Plan, and is intended to be a temporary measure until ALP candidates are enrolled in the MoI [Afghan Ministry of Interior] pay system. CERP is authorized to pay members their initial signing bonus equivalent to one full month's salary, monthly salary, and a monthly food stipend.

For more information on Interim Security Critical Infrastructure, see Dean Davis, "Marines, Afghans Come Together for a Way Forward in Marjah," NATO-OTAN Afghanistan Resolute Support website, 2010.

[6] For example, SOF063, MC002, MC023, MC025, MC036, MC045, and MC072.

[7] Note that SOF also used CERP in the development of other pre-ALP local defense forces in a sort of "quid pro quo" fashion with the communities supporting the programs (e.g., Rajiv Chandrasekaran, "U.S. Training Afghan Villagers to Fight the Taliban," *Washington Post*, April 27, 2010).

age the Commander's Emergency Response Program (CERP) for development projects.[8]

Our limited assessment of the use of CERP in the Philippines, discussed in Appendix C, provides an analogous result: SOF operators with experience in OEF-P overwhelmingly reported that CERP provided a valuable tool for gaining access to and placement in areas and populations of interest and thus enabled foreign internal defense operations.[9] SOF interviewees in Afghanistan also highlighted the importance of the condolence payments to ALP guardians who were killed or wounded in action, as a way of maintaining the morale of these forces.[10]

In future foreign internal defense operations, CERP is likely to be an important enabler in three different ways. First, CERP can serve as an important tool for gaining placement in and access to communities where the United States intends to establish and develop local defense forces. Second, CERP can serve as a short- or medium-term mechanism for funding local defense forces during the beginning of operations involving foreign internal defense, as was done for the local security forces established by both SOF and the Marines. Third, the compensation-payment mechanism allowable under CERP can be an important enabler for maintaining these forces, by providing both economic opportunity to the communities generating these forces and compensation payments to fallen fighters.

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[8] CJSOTF-A, 2011.

[9] By "CERP" in this sentence, we are referring to the humanitarian assistance and civil military operations (HA/CMO) activities analogous to CERP that were implemented in the Philippines. As discussed in Appendix C, in OEF-P, CERP funding was used indirectly to fund these activities, as the $2 million appropriation for CERP in OEF-P was used to fill funding gaps in high-priority, centrally managed Civil Affairs projects. Only two of the 15 personnel interviewed believed that CERP was ineffective. Further evidence for the value of CERP-like activity in the Philippines is offered by the Deputy Chairman of the Moro Islamic Liberation Front rebel group, Khaled Musa, who described these activities as "more lethal than brute force." (Joint Special Operations Task Force—Philippines, *Joint Special Operations Task Force—Philippines*, overview briefing, version 2, February 2008, slide 28.)

[10] For example, SOF039.

8.3.2. Combating Terrorism

CERP is unlikely to be effective in operations focused on combating terrorism, although it can serve as an enabler for operations where combating terrorism is nested within broader stability operations. A limited amount of CERP activity in Afghanistan—estimated at less than 1 percent of all projects and less than $1 million in total obligations—was explicitly directed toward supporting the U.S. mission to combat terrorism.[11] Although primarily used for condolence payments and battle-damage repair directly associated with the U.S. operations to combat terrorism, a small amount of these resources was spent on a range of other CERP projects, including health care, education, electricity, and urgent humanitarian relief.

While our quantitative and qualitative analysis suggests that CERP can support intelligence gathering, one general officer indicated the use of CERP in combating terrorism-focused theaters without ground forces may actually have negative unintended effects, as without a "long-term [U.S.] presence and continued engagement, you're just throwing money away, because if [CERP is] not linked or tied to the actual government," then problems can begin to arise, including providing a potential funding source for the enemy.[12] This conclusion is supported by our qualitative interviews as well, as interviewees consistently highlighted the value of CERP in deepening relationships with communities as CERP's primary value.

8.3.3. Foreign Humanitarian Assistance

CERP can be an important tool in foreign humanitarian assistance missions in challenging security environments if clear processes for coordination with the Department of State and USAID were established in advance. CERP's usefulness for stability operations, from the perspective of USAID, was its ability to respond rapidly to unfolding crises, especially those in challenging security environments. Although USAID's Office of U.S. Foreign Disaster Assistance provides a rapid procurement capability for these crises, insecure envi-

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[11] Authors' estimates based on DoD Quarterly CERP Reports for FYs 2004–2014.

[12] Interview with general officer.

ronments can impede USAID monitoring and oversight of operations as it "poses a risk to both partners and beneficiaries."[13] Thus, in response to a humanitarian crisis in insecure environments, the rapid procurement that is possible under CERP is reportedly a capability that could be significantly valuable to USAID efforts.[14]

Keeping CERP under the control of DoD to maintain those unique authorities, while integrating USAID into planning and execution, could result in a powerful U.S. capability for responding to emerging crises.[15]

8.4. Insights for Improving CERP

Our tactically focused analysis suggests that any future CERP or a CERP-like program should differ in several substantive ways from CERP as it was used in Afghanistan. Changes include improvements in the structure of the program, the preparation of military personnel involved in the program, and the overall integration of CERP into U.S. government efforts.

Restrict CERP to small-dollar-value projects. Many of the operators we interviewed indicated that CERP was one of the few DoD capabilities with which it was truly possible to do more with less. Small projects were easier to implement, monitor, and control, and were typically perceived as being more effective than larger projects. Larger projects were more likely to induce negative secondary effects, including local inflation or corruption, or unfulfilled expectations. Larger projects were often much slower to be implemented than smaller projects. Our quantitative analysis, echoing an analogous literature that studied CERP in Iraq, provides some evidence that smaller projects—namely projects less than $50,000—are more effective at achieving short-term, coalition-focused operational outcomes. However, we did not find evi-

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[13] USAID, "Monitoring USAID Activities in High-Threat Environments: Iraq," Office of U.S. Foreign Disaster Assistance, undated.

[14] Interview with senior USAID official.

[15] Interview with USAID official and Parker, 2013.

dence that smaller projects were associated to any greater degree with achieving long-term counterinsurgency goals.

Develop processes that ensure that CERP projects are effectively transitioned to incoming units. The transition of incomplete projects from one unit to the next often created significant problems for the incoming units. Requiring that units complete all projects that they begin would be one approach to mitigate this challenge, although this restriction may impede CERP's effectiveness. Alternatively, DoD may consider modifying deployment cycles if CERP is being used, ensuring that CERP-focused personnel have sufficiently long overlap to transition projects even if it means that they deploy out of sync with the rest of their unit.[16] Partnerships with USAID or another U.S. civilian agency may also help mitigate this challenge.

Ensure that all relevant units have personnel with appropriate training and experience to execute CERP. While the SOF community was able to rely on the expertise of civil affairs teams in executing CERP in Afghanistan, these teams were often few and far between, even for the SOF community.[17] While the Marines had access to a civil affairs capability within their reserves, the conventional Army's 85th Civil Affairs Brigade was not created quickly enough to provide the Army with an equivalent capability. Developing an enduring civil affairs–like capability—and integrating these individuals in predeployment courses, Joint Combined Exchange Training, and other training exercises—is likely to be necessary to effectively use CERP in future operations. Selecting a small number of officers or noncommissioned officers to receive extensive CERP-related training may be one effective approach for building this enduring capability.

If a CERP-like capability is to be added to the U.S. military's toolkit for future contingencies, the word *emergency* should probably be dropped from the title. Our study indicates that CERP-like

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[16] We anticipate that lengthening overlap of limited number of personnel, and particularly those focused on non-kinetic effects, may have secondary effects, although that is beyond the scope of this analysis to assess.

[17] The units deploying out of U.S Army Special Operations Command's 95th Civil Affairs Brigade currently spend more time overseas than almost any other DoD unit.

resources can be carefully used as an element in counterinsurgency and similar operations as long as the scale, design, and duration of projects is appropriate, officers and service personnel running the program are trained, and effective oversight is maintained. If all these elements are in place, however, the program is not an *emergency* program, and the name should reflect that fact.

Create a more formal role for USAID and civilian authorities in the implementation of CERP. Both military and civilian personnel highlighted the value of USAID involvement in the implementation of CERP. Although there was often fruitful collaboration at the local level between USAID and DoD personnel in the design and execution of CERP, this collaboration was constrained by operational and other constraints. Designing mechanisms to ensure USAID participation and advice in all, or nearly all, CERP projects would improve CERP's effectiveness. As simply encouraging coordination with USAID is apparently insufficient,[18] new operational designs—for example, providing training to relevant USAID personnel in working with the military, including USAID "foreign service limited" officers as a new class of tactical enablers—should be considered and evaluated.[19] These operational designs will also facilitate the implementation of CERP when DoD forces are under Chief of Mission authority, as commanders will have a natural partner among U.S. civilian agencies.

8.5. Preparing CERP for Future Contingency Operations

CERP, or a CERP-like capability, is likely to be a component of a diverse range of future U.S. stability operations. This capability may be specifically requested by ground commanders, as was the experience in OEF-P. Or, as was reportedly the case for discussions surrounding

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[18] The MAAWS guidance for CERP encouraged coordination with USAID in the design and implementation of CERP projects (e.g., USFOR-A, 2012).

[19] For a discussion of USAID foreign service limited personnel in Afghanistan, see Gorbon Lubold, "A Death in the Family," *Foreign Policy*, September 6, 2013.

counter–Islamic State efforts, senior policy officials may advocate for adapting CERP to meet tomorrow's asymmetric threats.[20]

To prepare CERP for future contingency operations, DoD should consider two related efforts.

1. Conduct a DoD-wide, senior-level review of CERP focused on preparing for future contingency operations. Effectively preparing CERP for a diverse set of future contingency operations requires capturing a broader set of views and experiences with CERP than those captured in this report. While our analysis provides clear evidence for CERP's effectiveness as a component of tactical operations, our analysis was restricted to stability operations in Afghanistan in 2010–2013. Although many of these findings are broadly applicable to future counterinsurgency-focused and foreign internal defense operations, our analysis captures neither the role that CERP played in the combating terrorism mission nor the ways in which CERP nested into the strategic goals of the United States.

A senior-level review of this variety would have at least three major components. The first would be a DoD-wide data call for contributions from all personnel who executed CERP at the battalion level or above in Iraq or Afghanistan, with a focus on understanding how CERP impacted their ability to effectively execute counterterrorism, counter drug, foreign internal defense, humanitarian assistance, and counterinsurgency operations.[21] This would be augmented with a similar data call focused on experiences with financial management of CERP operations. Third, following a centralized review of key observations in terms of the challenges and benefits of CERP from these responses, DoD would convene a series of senior-level meetings to develop senior-level guidance on the use of CERP in future contingency operations. The deliverable at the end of this process would be inputs for the development of revised MAAWS guidance applicable for tactical and strategic commanders across a broad array of future operations.

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[20] Authors' conversations with OSD personnel.

[21] Note that this could build from the work of Bowen and Collier, 2012, who did a similar data call, although it was focused for only reconstruction efforts and only for Iraq.

2. Assess the role of CERP in contributing to U.S. strategic goals in Iraq and Afghanistan. A complement to the DoD internal review of CERP and its applicability to future contingency operations would be inclusion of CERP in a new review of the whole-of-government approach to stability operations. Our analytical approach—which focused on assessing CERP's value as a component of tactical operations—was deliberately designed to provide inference on CERP's independent value to U.S. operations. However, this approach does not allow us to provide clear insights on CERP's contributions to U.S. strategic goals or how CERP's effects influenced and were influenced by other development- and stability-focused operations executed by U.S. civilian agencies.

DoD should consider coordinating with USAID, the U.S. Department of State, and other agencies of the U.S. government to conduct a holistic assessment of how the diversity of U.S. capabilities supported U.S. stability operations. This assessment, which might follow a similar approach as that for the DoD internal review but for a much broader audience and range of programming, would be particularly beneficial in preparing for the application of CERP to future contingency operations when DoD personnel were under the authority of a U.S. ambassador.

CERP Data

This appendix describes the administrative CERP databases that we use to support our overview of CERP activity in Afghanistan (Chapter Four) and quantitative analysis of CERP (Chapter Seven). The first section of this appendix describes the DoD Quarterly CERP Reports and CIDNE database that we rely on for this analysis. The second summarizes the key limitations in using these data.

A.1. CERP Administrative Databases

The only complete source of information on CERP activity is the DoD Quarterly CERP Reports, which are financial reports submitted to the U.S. Congress quarterly and at the close of each fiscal year.[1] These data, which are prepared by DoD agencies (including USFOR-A and U.S. Central Command) and maintained by Headquarters, Department of the Army, include project type; province where the project was implemented; textual descriptions of the project; the completion or anticipated completion data of the project; and the resources committed, obligated, and disbursed for the project as of the close of the fiscal year.[2] A summary of total CERP activity at the provincial level, the

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[1] These financial reports are compiled and archived in the Army Budget Office.

[2] For larger projects—that is, those with total obligations larger than $500,000, which were redesignated as the AIF projects in 2011—additional information is reported on the plan for transitioning the project to GIRoA, a detailed justification for the project, and the number of beneficiaries.

maximum geographical precision available in these data, is reported in Table A.1 for fiscal years 2004 to 2014.

The second source of data is the CIDNE database, which, among other things, was the CERP project management database. CIDNE provides precise locational information on where projects were implemented,[3] project goals, military and local national personnel involved in the project, and detailed descriptions of purchases made using CERP funds.[4]

In order to develop a comprehensive and accurate measure of local CERP activity, we combine these two administrative databases. The DoD Quarterly CERP Report data are not amenable to analyzing the localized effects of CERP due to their lack of precise locational information. And while the CIDNE database provides precise locational information on CERP projects—specifically, the military grid reference system coordinates corresponding to where projects were implemented—the CIDNE database is an unusable source for empirical analysis by itself as it contains many duplicate or erroneous projects.[5]

A.2. Challenges Using Administrative Data for Analyses of CERP

Analyses using these CERP administrative data face at least three challenges. The first is the difficulty of isolating when CERP funds are disbursed. This challenge is illustrated in Figure A.1 as the differ-

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[3] Specifically, projects are required to report the military grid reference system coordinates of where projects implemented.

[4] The MAAWS-A delineates information to be included in this database. Note that the data in CIDNE are provided in three separate data worksheets—"Main," "Obligations," and "Locations"—that must be combined in order to support analysis about CERP.

[5] In some cases, the location provided reportedly corresponds to the location of the base where the funds are being drawn (RAND conversations with CIDNE data engineers). Duplicate projects are common, although not necessarily detectable in any systematic way, as the individual entering a CERP project into CIDNE would often just start a new project if a mistake was made in filling out the form. Author conversation with OSD personnel.

Table A.1
Provincial-Level CERP Activity, 2004–2014

Province	Obligations ($1,000s)—Number of Projects in Parentheses										
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Badakhshan	$0 (0)	$0 (0)	$0 (0)	$7 (1)	$0 (0)	$0 (0)	$0 (0)	$1,700 (25)	$350 (9)	$25 (6)	$4 (2)
Badghis	$190 (1)	$23 (5)	$0 (0)	$0 (0)	$4,900 (7)	$220 (2)	$1,800 (58)	$1,400 (257)	$920 (233)	$290 (14)	$0 (0)
Baghlan	$0 (0)	$0 (0)	$71 (6)	$0 (0)	$1,000 (9)	$110 (6)	$510 (42)	$2,600 (143)	$2,700 (98)	$310 (20)	$62 (11)
Balkh	$470 (22)	$75 (2)	$460 (15)	$910 (16)	$890 (11)	$110 (5)	$1,400 (73)	$9,700 (96)	$5,900 (38)	$1,300 (29)	$57 (4)
Bamyan	$210 (34)	$860 (68)	$2,500 (27)	$3,600 (47)	$3,200 (22)	$28,000 (29)	$1,800 (55)	$3,700 (88)	$18 (1)	$0 (0)	$0 (0)
Daykundi	$150 (1)	$0 (0)	$0 (0)	$0 (0)	$0 (0)	$10 (1)	$2,200 (68)	$4,400 (78)	$210 (43)	$10 (2)	$0 (0)
Farah	$490 (18)	$2,100 (193)	$1,800 (36)	$3,900 (36)	$3,100 (75)	$9,400 (124)	$7,300 (280)	$9,500 (424)	$490 (103)	$710 (50)	$0 (0)
Faryab	$25 (1)	$0 (0)	$0 (0)	$2 (1)	$500 (11)	$0 (0)	$620 (48)	$4,000 (105)	$3,000 (125)	$9 (4)	$0 (0)
Ghazni	$1,500 (165)	$3,100 (176)	$4,500 (66)	$16,000 (147)	$18,000 (96)	$25,000 (79)	$16,000 (89)	$12,000 (489)	$5,800 (288)	$6,100 (129)	$8 (3)

Table A.1—Continued

Province	Obligations ($1,000s)—Number of Projects in Parentheses										
Ghor	$360 (1)	$360 (9)	$0 (0)	$0 (0)	$67 (3)	$0 (0)	$0 (0)	$210 (8)	$840 (29)	$170 (27)	$39 (1)
Helmand	$1,300 (18)	$7,900 (118)	$3,300 (33)	$260 (6)	$2,300 (58)	$1,300 (50)	$34,000 (2,484)	$80,000 (8,146)	$9,200 (2,085)	$8,600 (202)	$170 (56)
Herat	$380 (61)	$4,200 (89)	$680 (24)	$2,300 (84)	$3,200 (54)	$3,500 (44)	$5,700 (319)	$17,000 (377)	$2,200 (174)	$8,800 (100)	$60 (6)
Jowzjan	$23 (1)	$25 (1)	$0 (0)	$26 (1)	$120 (3)	$3 (1)	$0 (0)	$790 (24)	$2,300 (25)	$240 (14)	$0 (0)
Kabul	$1,800 (41)	$46,000 (173)	$3,900 (70)	$4,200 (107)	$10,000 (104)	$8,400 (84)	$31,000 (201)	$47,000 (253)	$13,000 (79)	$5,300 (56)	$2,800 (34)
Kandahar	$3,900 (150)	$8,700 (209)	$15,000 (79)	$2,100 (81)	$9,000 (130)	$15,000 (150)	$160,000 (945)	$120,000 (7,094)	$13,000 (3,137)	$3,500 (701)	$110 (63)
Kapisa	$500 (8)	$510 (21)	$5,600 (32)	$5,200 (64)	$4,800 (38)	$50,000 (50)	$1,500 (68)	$2,700 (87)	$790 (72)	$38 (17)	$10 (5)
Khost	$820 (142)	$4,600 (222)	$6,200 (116)	$25,000 (127)	$72,000 (173)	$11,000 (141)	$2,900 (184)	$4,500 (334)	$2,900 (196)	$160 (27)	$10 (6)
Kunar	$1,300 (170)	$6,100 (191)	$7,100 (67)	$13,000 (120)	$77,000 (181)	$19,000 (136)	$6,100 (641)	$5,800 (846)	$2,200 (449)	$490 (56)	$130 (30)
Kunduz	$0 (0)	$99 (4)	$6 (2)	$150 (4)	$830 (6)	$120 (2)	$200 (50)	$8,100 (121)	$12,000 (123)	$1,700 (87)	$0 (0)

Table A.1—Continued

Province	Obligations ($1,000s)—Number of Projects in Parentheses										
Laghman	$210 (2)	$1,200 (38)	$2,100 (42)	$3,600 (52)	$21,000 (61)	$33,000 (102)	$3,500 (403)	$4,400 (435)	$1,600 (119)	$300 (9)	$3 (2)
Logar	$79 (6)	$520 (12)	$860 (14)	$2,400 (27)	$15,000 (38)	$36,000 (72)	$4,200 (291)	$6,500 (330)	$2,800 (211)	$400 (146)	$260 (63)
Nangarhar	$1,300 (189)	$3,100 (101)	$4,900 (52)	$14,000 (70)	$40,000 (103)	$59,000 (204)	$6,900 (444)	$5,000 (682)	$2,100 (253)	$210 (87)	$11 (6)
Nimruz	$350 (2)	$0 (0)	$0 (0)	$0 (0)	$16 (2)	$130 (3)	$300 (118)	$3,600 (250)	$1,100 (59)	$450 (3)	$51 (12)
Nuristan	$60 (8)	$2,900 (24)	$110,000 (31)	$3,500 (89)	$20,000 (114)	$13,000 (70)	$1,200 (74)	$100 (12)	$210 (5)	$1 (1)	$0 (0)
Paktia	$390 (36)	$5,400 (83)	$2,200 (77)	$4,300 (59)	$35,000 (142)	$42,000 (148)	$3,900 (231)	$6,600 (378)	$2,200 (395)	$290 (103)	$28 (17)
Paktika	$1,700 (84)	$11,000 (329)	$5,800 (96)	$42,000 (198)	$28,000 (284)	$25,000 (106)	$8,700 (266)	$6,800 (482)	$530 (101)	$1,300 (138)	$8 (1)
Panjshir	$0 (0)	$5,300 (21)	$2,200 (38)	$5,500 (49)	$17,000 (68)	$27,000 (50)	$3,800 (120)	$1,700 (110)	$530 (4)	$0 (0)	$0 (0)
Parwan	$1,000 (72)	$8,300 (133)	$12,000 (157)	$29,000 (242)	$51,000 (408)	$78,000 (324)	$4,700 (122)	$12,000 (315)	$21,000 (47)	$150 (5)	$2,200 (203)
Samangan	$25 (1)	$280 (2)	$0 (0)	$60 (1)	$340 (2)	$0 (0)	$86 (3)	$3 (5)	$180 (1)	$280 (12)	$0 (0)

Table A.1—Continued

Province	Obligations ($1,000s)—Number of Projects in Parentheses										
Sar-e Pol	$25 (1)	$0 (0)	$0 (0)	$0 (0)	$250 (6)	$0 (0)	$1,300 (1)	$640 (22)	$380 (17)	$32 (6)	$0 (0)
Takhar	$0 (0)	$0 (0)	$0 (0)	$0 (0)	$63 (3)	$0 (0)	$35 (7)	$290 (27)	$4 (5)	$10 (2)	$0 (0)
Uruzgan	$2,100 (59)	$4,900 (173)	$4,700 (103)	$340 (29)	$280 (11)	$24,000 (45)	$2,300 (149)	$10,000 (664)	$1,400 (368)	$620 (101)	$4 (2)
Wardak	$640 (3)	$500 (36)	$1,700 (22)	$74 (2)	$2,000 (25)	$11,000 (56)	$5,900 (190)	$5,200 (246)	$2,100 (121)	$1,100 (85)	$470 (29)
Zabul	$2,600 (165)	$8,000 (322)	$5,900 (101)	$1,200 (63)	$9,600 (104)	$11,000 (89)	$6,500 (280)	$12,000 (634)	$2,600 (231)	$540 (55)	$0 (0)

SOURCE: Authors' estimates based on DoD Quarterly CERP Reports.
NOTE: The reports for 2004–2009 frequently aggregated smaller projects, so that the number of projects in 2004–2009 and 2010–2014 are not directly comparable.

ence between total obligations and disbursements.[6] While a reported 99 percent of obligated funds were disbursed before the projects closed, on average, only 31 percent of funds obligated were disbursed within the same fiscal year.[7] These DoD Quarterly CERP Reports therefore understate total disbursements, as they only provide a snapshot at the close of the fiscal year of the total amount of project funds disbursed as of that date. Although these data also contain the "completion or anticipated completion data of the project," this seems to be only notional for projects with nondisbursed funds—for example, all FY 2009 projects with nondisbursed funds at the close of the fiscal year (524 of the 2,218 projects) reported an end date of October 30, 2009.[8] As a result, our analysis of CERP spending focuses on obligations rather than disbursements, as discussed in Chapter Four.

A second challenge, which is illustrated through the apparent "dramatic increase" in the number of projects between 2009 and 2010, is that project-level reporting has evolved over CERP's history. This reflects a change in data-reporting practices, rather than a true change in the number of projects executed. From 2004 to 2009, multiple projects funded from the same bulk draw of funds received a single entry in the DoD Quarterly CERP Report data, while each unique project received a separate entry in the 2010–2014 data.[9] An important example is condolence payments, in which separate payments were clustered into a single entry for data before 2009—for example, one project in FY 2009 for $10,000 was described as "Condolence Payments (4 Pay-

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[6] Note that this figure is similar to Figure 1 in Special Inspector General for Afghanistan Reconstruction (2015d). However, our estimates using official DoD congressional data provide different results, indicating that Figure 1 in this Special Inspector General for Afghanistan Reconstruction fact sheet is inaccurate.

[7] A total of $2.26 billion of the $2.28 billion in obligated CERP funds for FY 2004–2014 were disbursed (Special Inspector General for Afghanistan Reconstruction, 2015d, p. 5).

[8] An analogous phenomenon is observed in the data for other fiscal years, although the specific "other data" varies—for example, for FY 2008, the end date for projects with non-disbursed funds is October 1, 2007 (first day of the fiscal year). In some cases, specific projects with non-disbursed funds seem to have a "non-default" end date, but this is not widespread.

[9] In 2010, clusters of projects funded from a single bulk draw were assigned a single document reference number and, in later years, each project was assigned a unique number.

Figure A.1
Data on CERP Activity
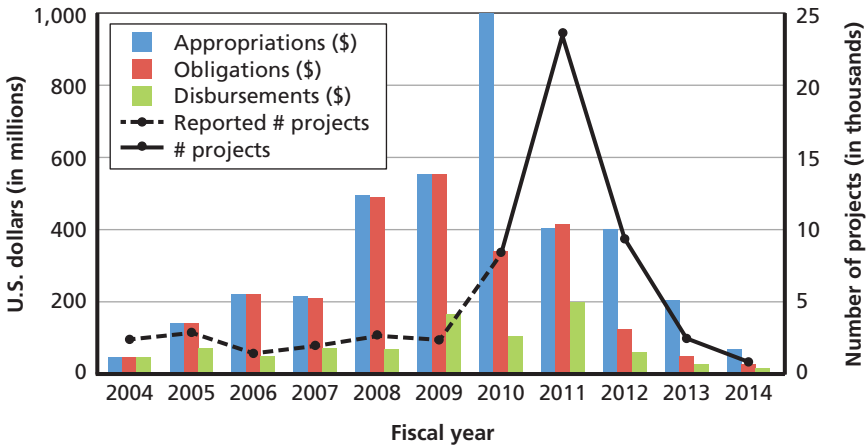
NOTES: Data on appropriations are same as in Figure 2.1. Remaining data are from
the DoD Quarterly CERP Reports for FYs 2004–2014.
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ments of $2500.00).” In many cases, that level of specificity on the
number of projects was not provided. As we focus on CERP activity in
2010–2013, this challenge does not impact our analysis.

The third challenge is that precise geographical information is only
available for a subset of total CERP activity. Seventy percent of projects
in the DoD Quarterly CERP Reports can be linked to CIDNE[10] and

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[10] Linking is done based on the CERP Document Reference Numbers (DRNs), some-
times referred to as Standard Finance System reference numbers, General Fund Enterprise
Business System Standard Reference Numbers, or Resource Manager Tracking Numbers.
CIDNE contains information on approximately 40,000 unique Document Reference Num-
bers; we are able to match 37,000 of these to Document Reference Numbers in the DoD
Quarterly CERP Reports. The authors make several corrections to the data to facilitate the
linking of the databases. First, four Document Reference Numbers were duplicated in dif-
ferent years; we drop these from the analysis for matching. Second, for FY 2010 (and a few
in other years) there are a large number of “unique” projects in the DoD Quarterly CERP
Reports that link to a single Document Reference Number with an added suffix—specifi-
cally, with an underscore followed by a number (e.g., “_01”, “_02”). We have removed the
subscores and the suffixed number, although we kept the projects as unique entries, as they
are often of different types.

90 percent of the total linked projects also contain geographical information.[11] Thus, we are able to link only 63 percent of CERP projects in the DoD Quarterly CERP Reports, accounting for approximately 53 percent of total CERP obligations, to the precise locational data in the CIDNE database. Our linked database is more comprehensive for 2010–2013, although precise geographical information is still available for only 77 percent of CERP projects and 55 percent of CERP obligations during this period. Our quantitative analysis of CERP therefore relies on data on a subset of projects.

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[11] Precise geographical information is attached by linking information available in CIDNE's "Obligation" and "Location" tables (based on the value in the ReportKey field). Approximately 36,000 of the total 40,000 unique DRNs in the "Obligation" table are linkable in this way with many DRNs linked to more than one location.

Quantitative Data Used for Assessing CERP

This appendix describes the quantitative data sets used for assessing CERP. These six data sets, illustrated in Table 7.1, can be divided into two groups. We use the first three—LandScan, Nightlights, and the NDVI—to measure changes in conditions for local nationals. Specifically, we use these three data sets to assess the long-term success of CERP in achieving counterinsurgency goals of improved economic conditions and security for local nationals. Thus, our analysis for each of these focuses on long-term changes.

The second set of data sets—the SIGACTS database, BFT, and the intelligence database—measure the operational performance of coalition forces. Our analyses of these data sets focus on assessing the short- and medium-term impact of CERP activity.

B.1. LandScan

Internal migration in developing countries is driven by economic and security conditions. Economic drivers of internal migration—for example, differences in wages, unemployment rates—are often reported as the primary driver for internal migration.[1] However, violence has also been shown to play an important role in influencing internal migra-

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[1] Todaro reports that the "overwhelming conclusion of almost all migration studies, both descriptive and econometric, is that people migrate primarily for economic reasons" (Todaro, 1980, p. 377).

tion, particularly in countries experiencing political violence.[2] Recent studies of internal migration in countries experiencing civil conflict found that internal migration decisions are driven by economic conditions and the prevalence of violence.[3]

Drawing on this existing research, we use internal migration to measure overall changes in the local economic and security environment. Our estimates of internal migration rely on the population estimates available in the annual LandScan data, produced by the Oak Ridge National Laboratory.[4] There has been advocacy to use LandScan population estimates to measure program effectiveness.[5] In fact, authors at LandScan's Oak Ridge National Laboratory have specifically indicated that LandScan data are ideal for "[tracking] the living conditions of citizens in Afghanistan and Iraq as U.S. troops withdraw."[6]

LandScan data provide population estimates for each square kilometer of Afghanistan using a composite of satellite-derived data sources and census data. The LandScan algorithm uses satellite data sources to "disaggregate census counts within an administrative boundary."[7] Although the population model used for this disaggregation process varies by country, disaggregation is reportedly implemented based on satellite imagery on settlement patterns, building characteristics, land cover, and terrain characteristics.[8]

Our estimates of internal migration from the LandScan data, presented in Figure B.1, illustrate the two components of the LandScan algorithm. The role of census data in these population estimates is illustrated by the significant district-level changes in estimated popu-

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[2] For example, Morrison, 1993; and Bohra-Mishra and Massey, 2011.

[3] For example, Adhikari, 2013.

[4] Note that LandScan is produced under contract with the National Geospatial-Intelligence Agency.
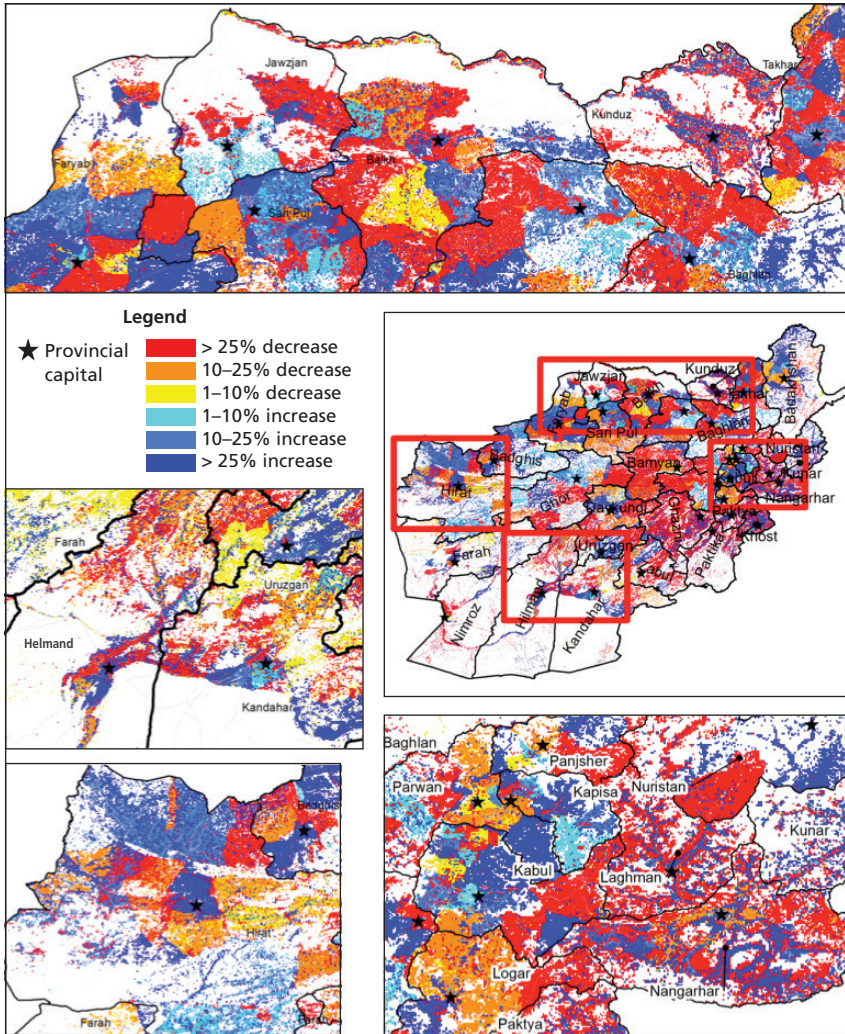
[5] For example, Bhaduri et al., 2007.

[6] Morgan McCorkle, "LandScan Looks to the Future: Satellite Imagery Has the Potential for a Range of Uses," Oak Ridge National Laboratory, undated.

[7] Oak Ridge National Laboratory, "LandScan Documentation," web page, undated.

[8] Oak Ridge National Laboratory, undated.

Figure B.1
Estimated Changes in Population, 2008–2014

SOURCE: Authors' estimates based on LandScan data.

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lations; this can be seen clearly in Balkh province in the top panel of
Figure B.1, as there are significant decreases across several of the dis-

tricts (whose outlines are clearly discernable in the population data). As our analysis focuses on estimates that include district-fixed effects, we remove any aggregate changes at the district level and focus within district changes.

Although we do not have access to the specific population model being used for Afghanistan, we anticipate that observable changes in settlement patterns and building characteristics play an important role in explaining changes in estimated population over time. Thus, to the extent that CERP projects resulted in the development of fixed infrastructure that is observable from space, this may create a mechanical relationship between CERP activity and estimated population changes. However, we believe that if CERP activity is correlated with expansions or improvements in building infrastructure, then this is consistent with the improvements in economic and security conditions that we are hoping to capture with internal migration.

B.2. Nightlights

Direct measures of economic activity, in particular changes in economic activity required for our analysis, are typically not available at the local level for either developed or developing countries.[9] The situation is even more challenging in Afghanistan, where estimates of economic activity at the provincial level first became available only in 2015.[10] While the National Risk and Vulnerability Assessments do provide subnational estimates of poverty rates, another common metric used for tracking changes in economic conditions, these data are not representative below the provincial level and are therefore inappropriate for measuring the local impacts of CERP projects.[11]

Our assessment of the impact of CERP on economic activity relies on a proxy for economic activity: the quantity of light observable

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[9]   Henderson, Storeygard, and Weil, 2012.

[10]   Provincial-level gross domestic product was first estimated for solar year 1393 (roughly March 2014–March 2015). Center for Law and Military Operations, 2014a.

[11]   Center for Law and Military Operations, 2014b.

at night from outer space, often referred to euphemistically as "Night-lights." Nightlights data are produced by the National Oceanic and Atmospheric Administration based on nighttime satellite imagery collected by the U.S. Air Force's Defense Meteorological Satellite Program–Operational Linescan System.[12] The Nightlights data, available annually from 1992 to 2013, reflect a compilation of all data collected during a year between 20:00 and 21:30 local time.[13] Data are available for each 30 arc-second area, which corresponds to approximately one square kilometer.

Nightlights data have begun to see widespread use as a proxy measure for economic activity at a subnational level.[14] These data have been used to measure both subnational income growth and subnational variation in economic performance.[15] Previous studies, among others, have used Nightlights to detect rural electrification;[16] understand the geographic distribution of economic activity;[17] and explore the relationship between population, ambient light production, electrification, and economic activity.[18]

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[12] For a general discussion, see Center for Remote Imaging, Sensing, and Processing, "DMSP (Defence Meteorological Satellite Program," web page, undated.

[13] See Brian Min, Kwawu Mensan Gaba, Ousmane Fall Sarr, and Alassane Agalassou, "Detection of Rural Electrification in Africa Using DMSP-OLS Night Lights Imagery," *International Journal of Remote Sensing*, Vol. 34, No. 22, September 2003, pp. 8118–8141, for a description of these data. Data are available for download (National Centers for Environmental Information, "Version 4 DMSP-OLS Nighttime Lights Time Series," web page, undated), and these download files provide additional details on the approach used for compiling a year's data.

[14] Henderson, Storeygard, and Weil, 2012, also discuss how Nightlights can be useful for improving measures of national-level GDP.

[15] Henderson, Storeygard, and Weil, 2012; Michalopoulos and Papaioannou, 2013, 2014.

[16] Min et al., 2013.

[17] For example, see Tilottama Ghosh, Sharolyn Anderson, Rebecca L. Powell, Paul C. Sutton, and Christopher D. Elvidge, "Estimation of Mexico's Informal Economy and Remittances Using Nighttime Imagery," *Remote Sensing*, Vol. 1, 2009, pp. 418–444, 2009.

[18] For example, see Christopher Elvidge, Kimberly E. Baugh, Eric A. Kihn, Herbert W. Kroehl, and Ethan R. Davis, "Mapping of City Lights Using DMSP Operational Linescan System Data," *Photogrammetric Engineering and Remote Sensing*, Vol. 63, No. 3, June 1997,

Figure B.2 shows our estimate of the change in economic activity by comparing the available Nightlights data for 2009 with the data for 2013 at the square-kilometer level, which is the highest resolution of available data.[19] Increases in economic activity are indicated by increasingly dark hues of blue; reductions in economic activity are shown in hues of yellow and red; the four "zooms" (for the north, east, southwest, and west) report roads and provincial capitals.

The variation in changes in nightlights is the focus of our economic-focused quantitative analysis. This figure illustrates several of the challenges that our empirical analysis faces in using these data as a measure of economic activity. First, increases in economic activity are strongly associated with the presence of major coalition military installations. As examples, the significant increase in economic activity in Balkh (northern Afghanistan panel) is the location of Camp Marmal, where ISAF's Regional Command–North was housed; the significant increase in Parwan (eastern Afghanistan panel) is the location of the Bagram Air Field; the increase in Helmand (southern Afghanistan panel) is near Camp Leatherneck, where the Marines and Regional Command–Southwest were based rather than where Marines personnel were necessarily implementing CERP projects; and the increase in Herat (western Afghanistan panel) is the location of Shindand Air Base, the location of Regional Command–West. In other words, measuring the economic impacts of CERP relative to the economic effects of all non-CERP spending by the coalition will create signal-to-noise challenges for our empirical analysis.

The second related challenge is that the vast majority of Afghanistan, as illustrated in Figure B.2, has seen no change in Nightlights activity between 2009 and 2013. This largely reflects the fact that areas outside of urban and semiurban regions tend to have no visible light because of a lack of sources of electricity. The vast majority of the area of Afghanistan—99.1 percent to be precise—had no reported Night-

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pp. 727–734. See Henderson, Storeygard, and Weil, 2012; and Michalopoulos and Papaioannou, 2013, for a more-extensive review.

[19]   Luminosity is measured on a scale from 0 to 63, with higher numbers representing higher levels of illumination.

Figure B.2
**Changes in Economic Activity, 2009–2013 (as Measured by Nightlights)**
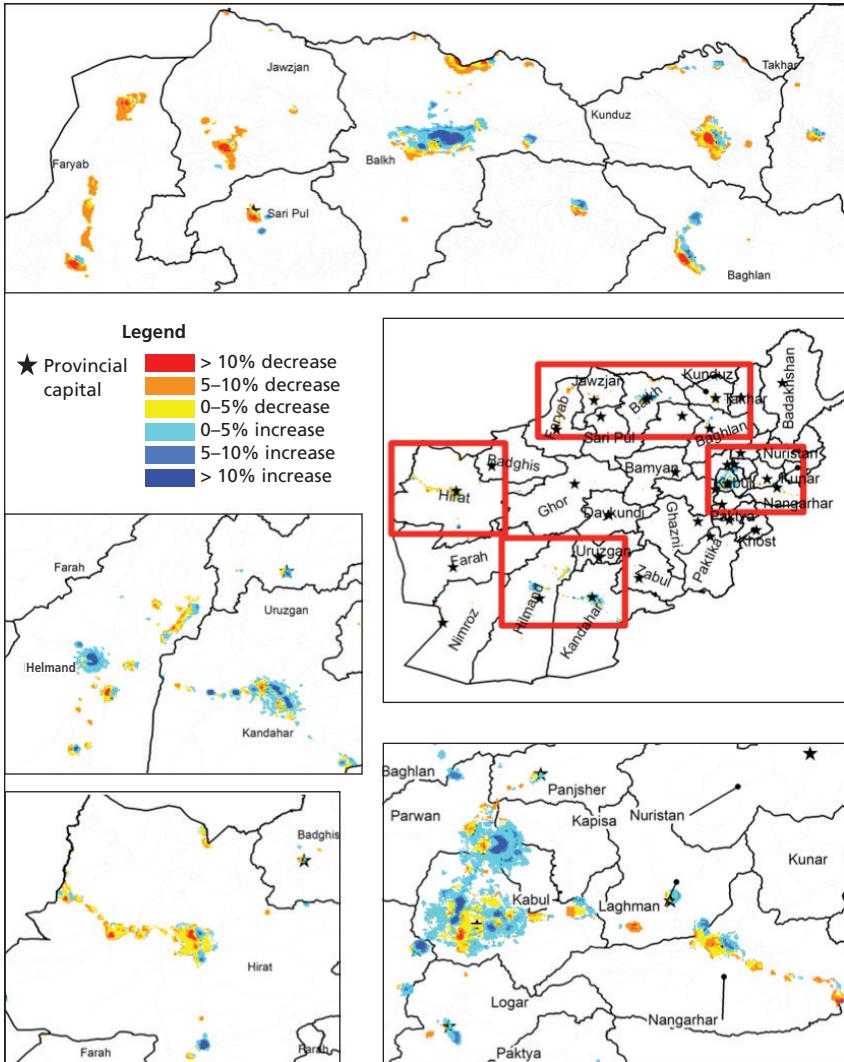
SOURCE: Authors' estimates based on Nightlights data.

lights in 2009.[20] Thus, detecting the effect of CERP projects in rural areas may be problematic.

A significant variation in Nightlights can be used for our analysis. Figure B.3 provides summary statistics for the more than 19,000 one-kilometer-square land parcels that have detectable Nightlights data for 2009 or 2013; the left panel reports the distribution of these data in 2009, and the right panel reports the distribution of the change between 2009 and 2013. The left panel suggests that these data are roughly normally distributed though somewhat "bottom-censored," as there are relatively few observations with a value of four (compared with five) and almost none with a value fewer than four; Henderson

Figure B.3
Distribution of 2009 Nightlights and 2013–2009 Change in Nightlights
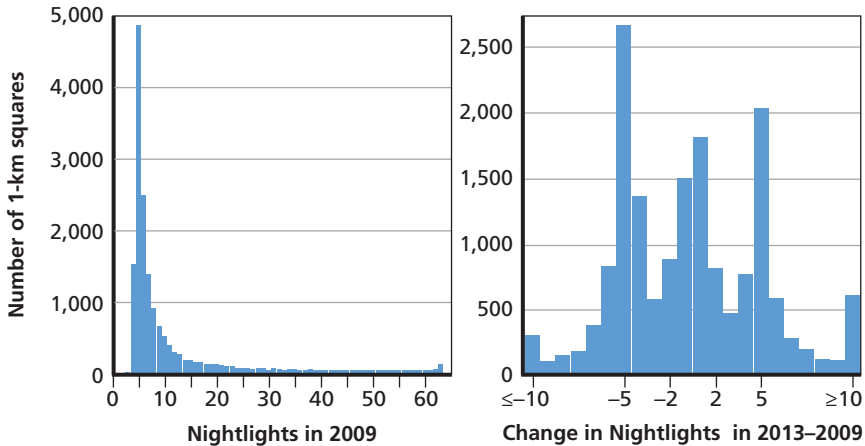
SOURCE: Authors' estimates based on National Oceanic and Atmospheric Administration Nightlights data.

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[20] Authors' calculations. Note that this is comparable to values for other poor developing countries such as Madagascar (99.7 percent) and Mozambique (99.5 percent), although much higher than that for other large agrarian middle-income or rich countries such as Brazil (94.0 percent) or Canada (93.9 percent) (Henderson, Storeygard, and Weil, 2012).

et al. reported a similar phenomenon, which was attributable to "low-density, low-income pixels."[21]

This bottom censoring causes significant problems in using these data for empirical analysis. This is demonstrated by the "clumping" that can be seen at the value of "5" in the left panel and the values of "–5" and "5" in the right panel. Ninety percent of the one-kilometer squares exhibiting an increase by five units were zero in 2009—that is, Nightlights for that one-kilometer increase from zero to five; analogously, 90 percent of the area with a five-unit decrease shifted from five in 2009 to zero in 2013. Thus, in our analysis, we remove all observations that shifted from zero to five or from five to zero to eliminate this potential source of measurement error.

B.3. Normalized Difference Vegetation Index

Detailed subnational data on cropping patterns are typically not available for countries in either the developed or developing world.[22] These data are particularly sparse in Afghanistan, where "in the last two decades, there has been no systematic collection and analysis of agricultural statistics" as a result of "internal war and insecurity."[23] There are somewhat more-detailed data on opium production, given the international focus on reducing the production of opiates, but the available data on cropping of opiates relies on survey data designed to be accurate at only the provincial level.[24]

Our analysis relies on changes in satellite-observable vegetation density as a proxy for changes in agricultural activity. We measure vegetation density using NDVI by comparing visible and near-

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[21] There is little indication of the top-censoring reported by Henderson, Storeygard, and Weil, 2012, which reflects the limited number of economically active areas in Afghanistan.

[22] For example, see Gumma et al., 2014; and White et al., 2014.

[23] Islamic Republic of Afghanistan, Central Statistics Organization, 2011, p. 15.

[24] See footnote 38 (p. 61) of United Nations Office on Drugs and Crime and the Islamic Republic of Afghanistan Ministry of Counter Narcotics, *Afghanistan Opium Survey 2014: Cultivation and Production*," Kabul, Afghanistan, and Vienna, Austria, November 2014.

infrared imagery data collected by the Landsat satellite series.[25] The Landsat satellite series, which collects imagery data with 30-by-30–meter resolution,[26] allows us to estimate the vegetation density on each 30-by-30–meter "pixel" of land in Afghanistan.[27] Based on the 20–35 Landsat images available per year for each area,[28] each pixel was assigned a value of 1 if it met our NDVI threshold and a value of 0 otherwise.[29] For comparability with the other data available for our analysis, these data were then aggregated into the 30-arc second grids, roughly one-kilometer squares to link with the other geospatial data sets.

NDVI data have seen widespread use as a measure of agricultural activity. This includes research focusing on the developed world and countries throughout the developing world.[30] In Afghanistan, this

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[25] We follow the approach developed by Tucker, 1979. To be specific, NDVI is calculated as $\frac{\rho NIR - \rho red}{\rho NIR + \rho red}$, where ρNIR is the near-infrared reflectance and ρred is red reflectance (e.g., Ozdogan and Gutman, 2008). In our case, red reflectance corresponds to the band 3 in the Landsat data and near infrared reflectance corresponds to band 4.

[26] Landsat historical data are available beginning in 1972.

[27] The total data set includes more than 1.5 billion total pixels for each year from 2009 to 2014.

[28] Afghanistan is covered by a total of 48 Landsat "scenes." Our analysis combined data from both the Landsat 5 and 7 series satellites, corresponding to roughly one image every two weeks. Imagery from the Landsat 7 satellite was available for all of the study period from January 2009 to December 2014, and imagery from the Landsat 5 satellite was available from January 2009 to November 2015. Although Landsat imagery is captured once every two weeks, cloud cover on some days results in unusable imagery, leaving gaps of more than two weeks between images in some parts of Afghanistan. The annual cultivated area calculation, however, takes these temporal gaps into account, as it is based on the entire year's worth of data. Landsat data are available for download from U.S. Geological Survey, "EarthExplorer," web page, undated.

[29] We used an NDVI threshold of 0.3 to capture all the irrigated agriculture along the rivers in the driest provinces. Note that NDVI values range from –1 to 1, although land surfaces normally have values ranging between 0 and 1.

[30] As examples, NDVI has been used to measure irrigation patterns in the United States (e.g., Ozdogan and Gutman, 2008), Tajikistan (Prasad S. Thenkabail and Zhuoting Wu, "An Automated Cropland Classification Algorithm (ACCA) for Tajikistan by Combining Landsat, MODIS, and Secondary Data," *Remote Sensing*, Vol. 4, No. 10, 2012, pp. 2890–2918), and Mozambique (Fernando Sedano, Pieter Kempeneers, and George Hurtt, "A Kalman

approach has been previously used to map the spatial patterns of irrigation as part of an effort to develop tools for rapidly assessing changes in food security.[31] In the economics and policy literature, NDVI has been primarily used to study the ecological impacts of economic development.[32] In the evaluation literature, NDVI has been used to study the impact of the introduction of new agricultural technologies, natural disasters, and forestation programs.[33]

Figure B.4 shows our estimate of the change in agricultural activity by comparing the NDVI data for 2009 and 2013. This figure shows changes in the density of vegetation for each one-kilometer square in Afghanistan. For each one-kilometer grid square, it reports absolute changes in the percentage of parcels of land with vegetation from 2009 to 2013. As an example, a "25-percent increase" in this figure indicates that the share of land used for agriculture in that one-kilometer grid square had increase by 25 percentage points: for example, from 5 percent in 2009 to 30 percent in 2013, or from 60 to 85 percent. Increases in agricultural activity are indicated by increasingly dark hues of blue and reductions in agricultural activity by hues of yellow and red; the four "zooms"—for the north, east, southwest, and west—report roads and provincial capitals.

There are strengths and limitations in using changes in NDVI to measure potential CERP-driven changes in agricultural production. The potential strength of this approach is illustrated in Figure B.5, which focuses on the change in agricultural production between 2009 and 2013 in Helmand province. The Marines spent some $25 million across more than 1,000 unique agriculture projects in Helmand in FYs 2010–2012,[34] demonstrating both intensive (increased production within one-kilometer grid squares) and extensive (new pro-

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Filter-Based Method to Generate Continuous Time Series of Medium-Resolution NDVI Images," *Remote Sensing*, Vol. 6, No. 12, 2014, pp. 12381–12408), among many others.

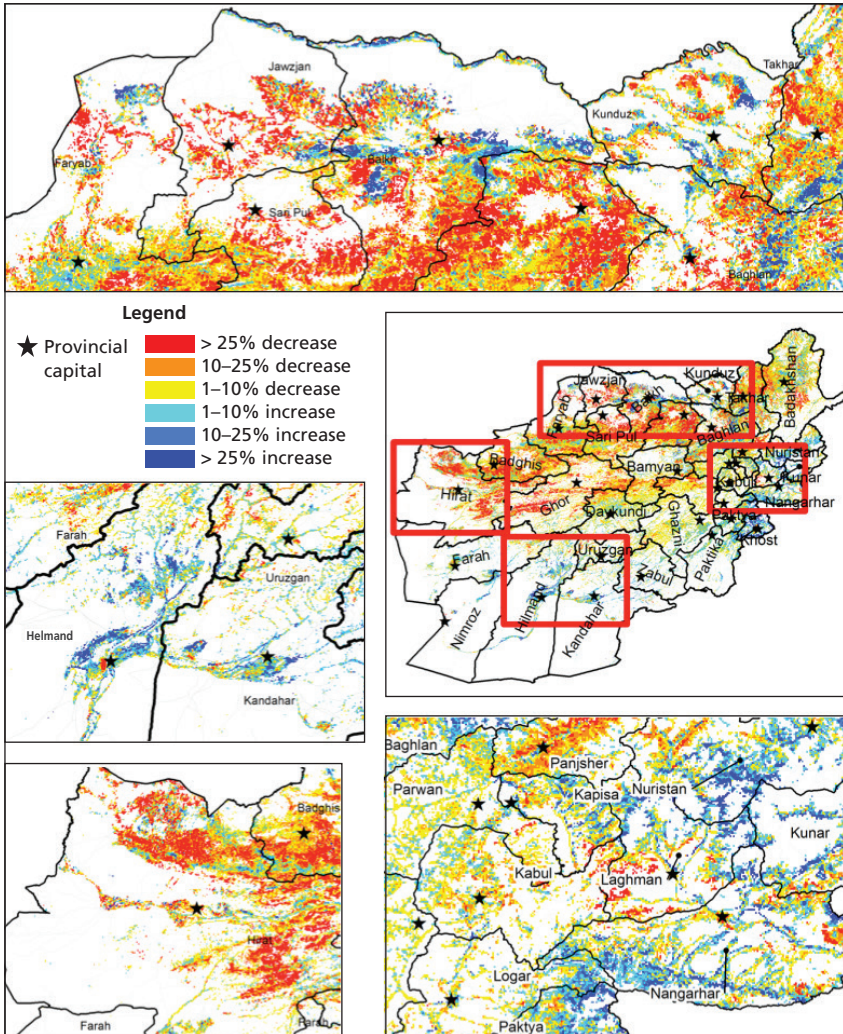[31] Pervez, Budde, and Rowland, 2014.

[32] For example, Foster and Rosenzweig, 2003; and Nkonya et al., 2011.

[33] For example, Cattaneo et al., 2006; Vicente-Serrano, 2007; and Zhou, Van Rompaey, and Wang, 2009.

[34] DoD Quarterly CERP Reports.

Figure B.4
Changes in One-Kilometer NDVI Aggregates, 2009–2013

SOURCE: Authors' estimates based on Landsat NDVI products as described in the text.
NOTE: A percentage change corresponds to the absolute percentage of potential
pixels that change between "1" and "0."

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duction in areas where no or limited production previously occurred) increases in agricultural production from 2009. The intensive increases in production are shown in blue along the roads; all of these areas had significant agricultural production in 2009 but experienced increases between 2009 and 2013. The extensive increases are the areas of deep blue to the northeast of the center of the maps in Figure B.5; these were areas of limited organized agricultural production that experienced significant increases in production from 2009 to 2014. Figure B.5 also demonstrates that some areas saw decreased agricultural production. In particular, the areas in the southeast of Nad-e-Ali and the Arghandab River valley connecting Helmand and Arghandab, which saw significant instability in 2009–2013, also saw decreased agricultural production. Our empirical work focuses on the extent of CERP projects compared with other factors (e.g., USAID spent some $360 million on development programs in Helmand and Kandahar during this period). [35]

Another characteristic of these data is that they capture both changes in irrigated and rain-fed agricultural activity.[36] Thus, they capture both anthropomorphic changes in vegetation (e.g., increases in production to Helmand to the west of the provincial capital of Lashkar Gah as illustrated in Figure 6.3) and natural changes in vegetation (e.g., decreases in vegetation in the mountains of southern Sari Pol province). The strength of these data, therefore, is that they capture potential changes in both irrigated and rain-fed agriculture. The weakness is that natural changes in vegetation will become a source of measurement error that will increase the difficulty of finding significant estimates in our empirical work.

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[35] USAID's Afghanistan Vouchers for Increased Productive Agriculture was tasked with spending $360 million on agricultural development activities in Helmand and Kandahar during FYs 2009 and 2010. USAID, Office of the Inspector General, *Audit of USAID/ Afghanistan's Afghanistan Vouchers for Increased Productive Agriculture (AVIPA) Program*, Manila, Philippines, April 20, 2010, Audit Report No. 5-306-10-008-P.

[36] Irrigated crops are reported to account for some 80 percent of all food production in Afghanistan (Pervez, Budde, and Rowland, 2014), but many potential target areas for CERP projects are poorer areas that rely on rain-fed agriculture.

Figure B.5
**Change in NDVI in Helmand Province**
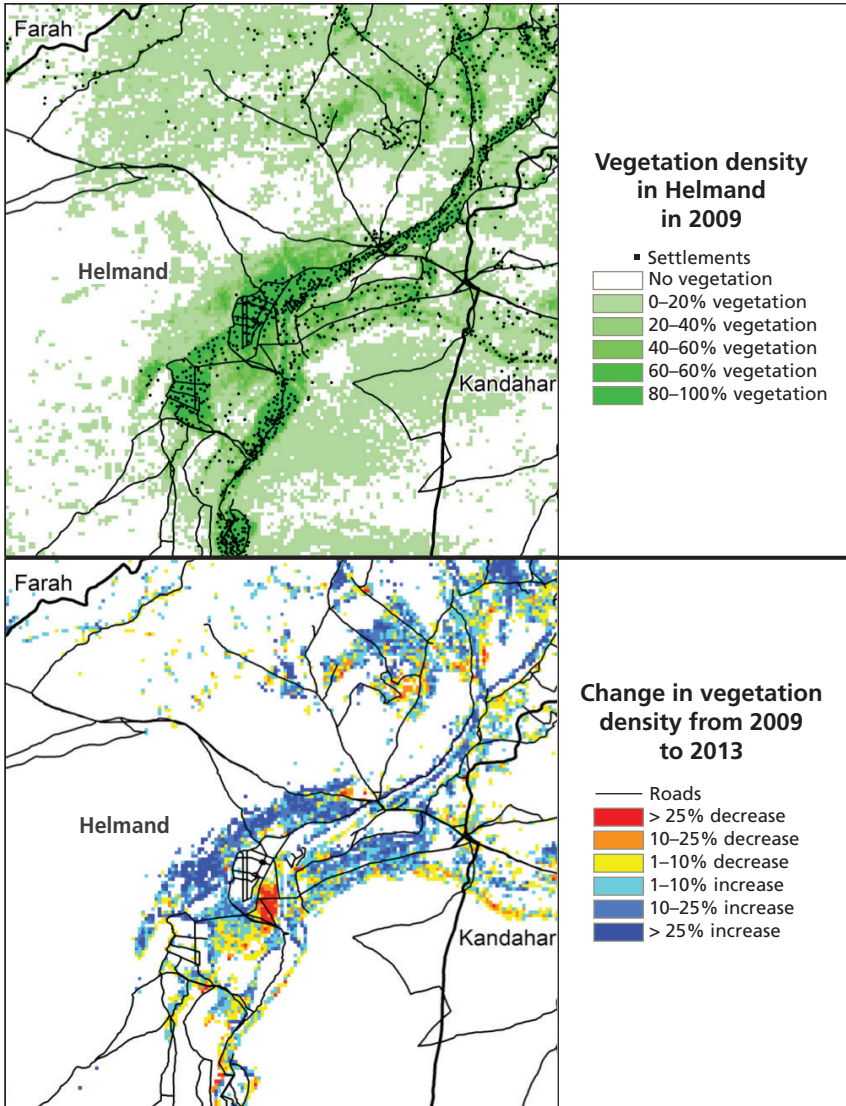
SOURCE: Authors' estimates based on LandScan NDVI products as described in
the text.

A final challenge in using the NDVI data to measure the effectiveness of CERP projects is that Afghanistan experienced a secular decrease in vegetation density, as measured by NDVI, between 2009 and 2013. This is illustrated in Figure B.6, which reports the distribution of 2009 to 2013 changes. Although these data are roughly normally distributed (ignoring the clump at zero), the average one-square kilometer saw a reduction in vegetative density by 5 percentage points.[37] Thus, our empirical methods must include appropriate controls to "take out" this secular change in studying the potential impacts of CERP.

Figure B.6
Distribution of 2009–2013 Changes in NDVI
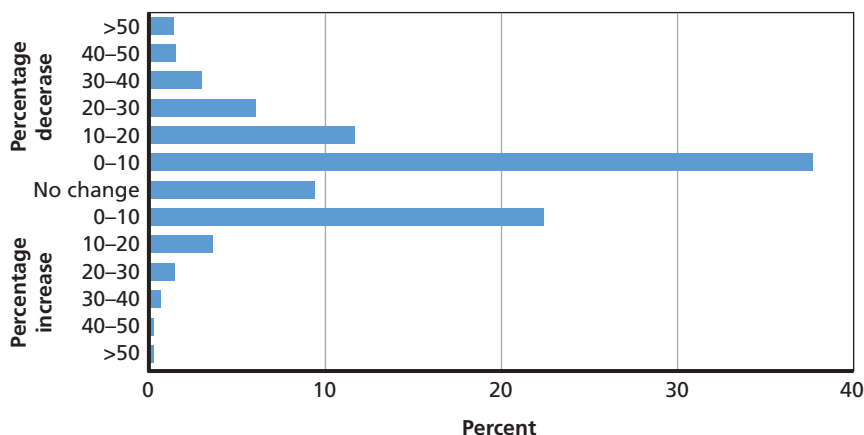
SOURCE: Authors' estimates based on Landsat NDVI products as described in the text.
NOTE: Analysis restricted to areas within three kilometers of a known settlement.
RAND *RR1508-B.6*

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[37] This result holds true whether analysis is restricted to only agriculture near settlements or includes all available data.

B.4. SIGACTS

Assessing changes in the local security environment in Afghanistan is fraught with a lack of systematically collected data on violence against local nationals. Available data capture only a fraction of security incidents with fatalities.[38] There are no known data sets of Taliban or other types of intimidation.[39]

Attacks involving coalition forces in Afghanistan are tracked systematically as part of the SIGACTS database. While this database does not allow us to measure the impact of CERP on the security environment faced by local nationals, it allows us to assess the relationship between CERP activity and attacks involving coalition forces.[40]

Coalition forces track coalition-led engagements with insurgents, insurgent attacks against coalition forces, IED attacks, and a subset of nonkinetic events (e.g., meetings between coalition forces and local leaders) in CIDNE.[41] These data report a variety of information for each event, including the time, precise location, type, casualties, and a description of what occurred. The SIGACTS data for Afghanistan includes information for nearly 400,000 events from 2001 to 2015.[42]

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[38] Total conflict-related casualties in Afghanistan are estimated at nearly 200,000 for the entire conflict (see Watson Institute for International and Public Affairs at Brown University, "Afghan Civilians," March 2015). However, the Worldwide Incidents Tracking System database, which "catalogues all publicly known, premeditated, politically motivated violence directed at police, military, government, and civilians 'outside of war-like settings'" based on reports in the media provides 3,599 incidents of violence with locational information during 2005–2009 (Child, 2014).

[39] Data on intimidation have been collected intermittently (e.g., SOF teams reported frequency of local intimidation as part of the Combined Forces Special Operations Component Command–Afghanistan's RAND-supported assessment of the VSO/ALP program).

[40] Many studies have used SIGACTS to measure the effectiveness of CERP activity (e.g., Gorkowski, 2009; Berman, Shapiro, and Felter, 2011; Chou, 2012; Berman et al., 2013; Clark and Jackson, 2013; Jackson and Clark, 2015).

[41] The CIDNE database also contains information on a limited number of events involving host-nation forces. Over time, the number of reported SIGACTS involving host-nation forces has grown substantially as host-nation forces have improved their reporting mechanisms.

[42] SIGACTS data are publicly available as part of the MDR 14-53 release (US CENTCOM FOIA Library, 2014).

Figure B.7
Geographical Distribution of SIGACTS
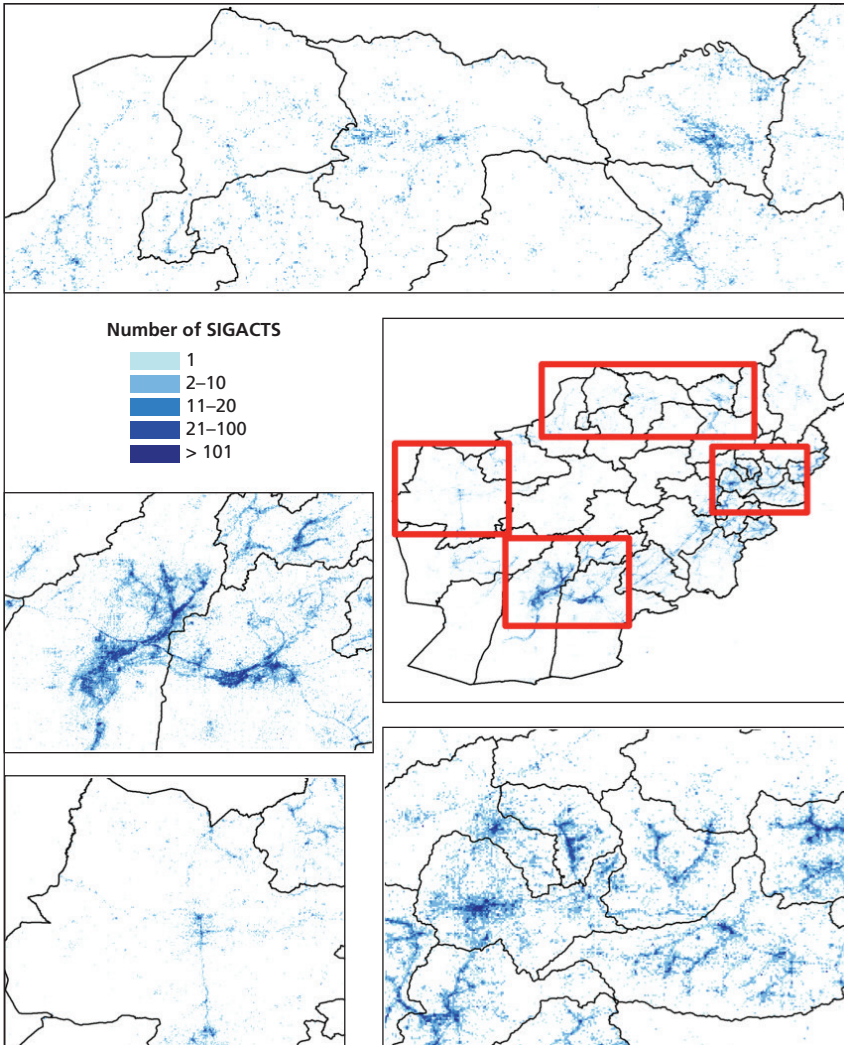
Our analysis follows previous analyses in focusing on two types of SIGACTS, "Enemy Action" and "Explosive Hazard."[43] The geographic distribution of SIGACTS is reported in Figure B.7, which displays the total number of SIGACTS for each square-kilometer grid square in Afghanistan in 2010–2013. SIGACTS are relatively geographically disbursed, although heavily concentrated in Helmand and Kandahar. SIGACTS tend to be in the vicinity of major transportation networks, although they are also found in significant numbers in rural areas that experience an active counterinsurgency campaign (e.g., in the province of Uruzgan to the north of Kandahar).

B.5. Blue Force Tracker

To assess the extent to which projects affected coalition freedom of movement, we use data from the BFT, which collects real-time information on the location of coalition vehicles during missions. This allows us to calculate both the geographic reach and the average speed of coalition vehicles.[44]

We calculate average vehicular speed using the vehicle "tracks" in the BFT data collated by the Joint IED Defeat Organization.[45] Vehicles are tracked as a series of points, reflecting the fact that BFT transmitters report precise vehicular locations in semiregular intervals. For each two sequential points, we calculate both the distance traveled and the time elapsed between those two points; both the distance and the time elapsed are assigned to the square-kilometer grid square in which the first point was located. We then calculate the average vehicular speed for each square-kilometer grid square by calculating the ratio of total vehicular kilometers and total vehicular hours. Our analysis in

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[43] For example, see Berman, Shapiro, and Felter, 2011. Note that military analysts use a similar approach.

[44] BFT can also be used for tracking movement of airborne vehicles but does not capture dismounted operations.

[45] BFT transmitters are not used on all missions. We are not aware of any analyses that examine how missions with and without BFT transmission data might differ.

this annex focused on averages across years to match the available data on CERP activity, although a similar approach could, in practice, be used for any interval of time.[46]

We calculate two additional variables from the BFT to serve as controls in our analysis for overall U.S. government activity in a given area. The first is the total vehicular kilometers traveled and the second is the total vehicular hours spent in a given one-square-kilometer grid square. Summary statistics for the second of these two control variables is provided in Figure B.8, which captures the total time spent by coalition vehicles across different areas of Afghanistan. Although total vehicular hours only fell by one-third between 2010 and 2013,[47] the geographic reach of coalition forces fell by nearly two-thirds as measured by the number of one-square-kilometer grid squares with BFT data.[48]

The two variables that will be the key outcome variables for estimating the impact of CERP activity on coalition freedom of movement are changes in the average velocity of coalition vehicles and changes in the geographic reach of coalition vehicles (Figure B.9). Changes in average velocity are assessed by comparing the average velocity for the entire year with the previous year, while changes in geographic reach compare the maximum extent of vehicles in each of the years.

B.6. Intelligence Data

We use intelligence data collated by the Air Force Research Laboratory, which extracts information from the Department of Army Intelligence Information Services' Message Processing System, to exam-

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[46] We use BFT data for land or ground vehicles. However, these data, in practice, seem to contain information on both airborne and satellite platforms, as the average point-to-point speed for several vehicles is too fast for ground vehicles. For our analysis, we remove any data points with implied velocities of more than 100 kilometers per hour.

[47] Total vehicular hours was 9.7 million in 2010, 9.2 million in 2011, 8.1 million in 2012, and 6.5 million in 2013.

[48] The number of grid-squares with BFT data was approximately 139,000 in 2010, 96,000 in 2011, 111,000 in 2012, and 51,000 in 2013.

Figure B.8
Total Vehicular Hours per Year
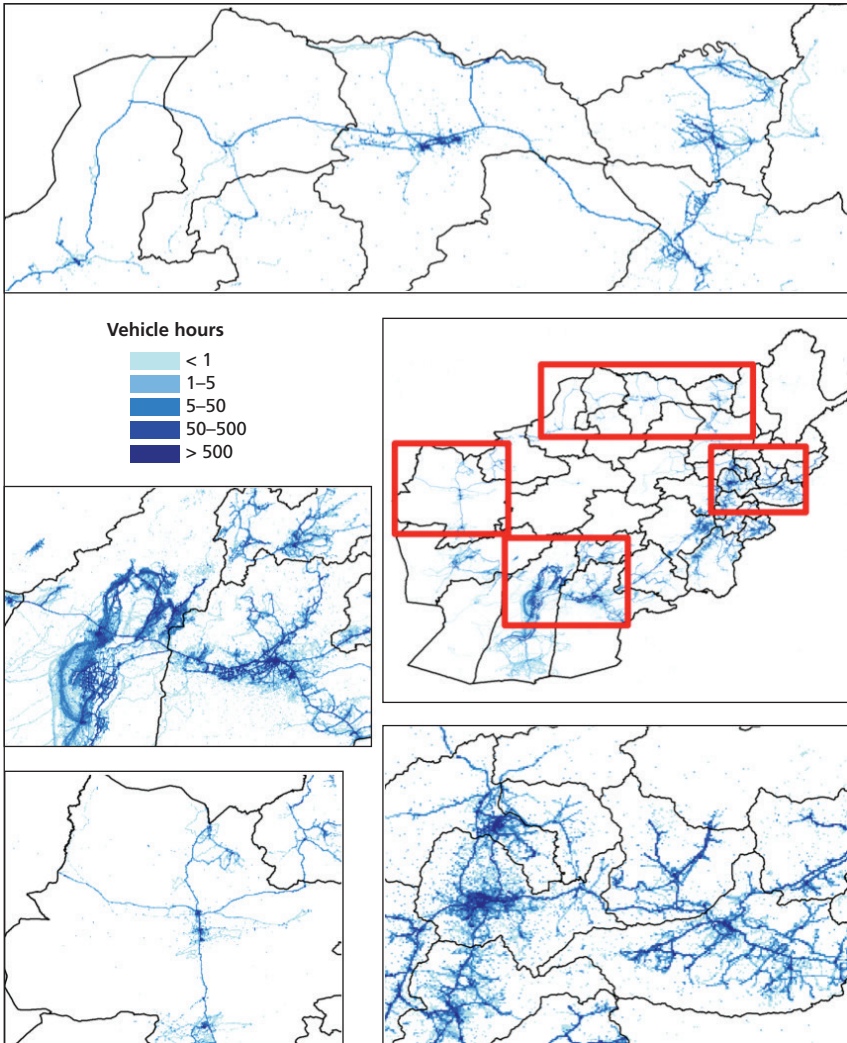
Figure B.9
Average Vehicular Speed

ine the impact of CERP activity on intelligence reporting.[49] The data collected in the Message Processing System include a combinat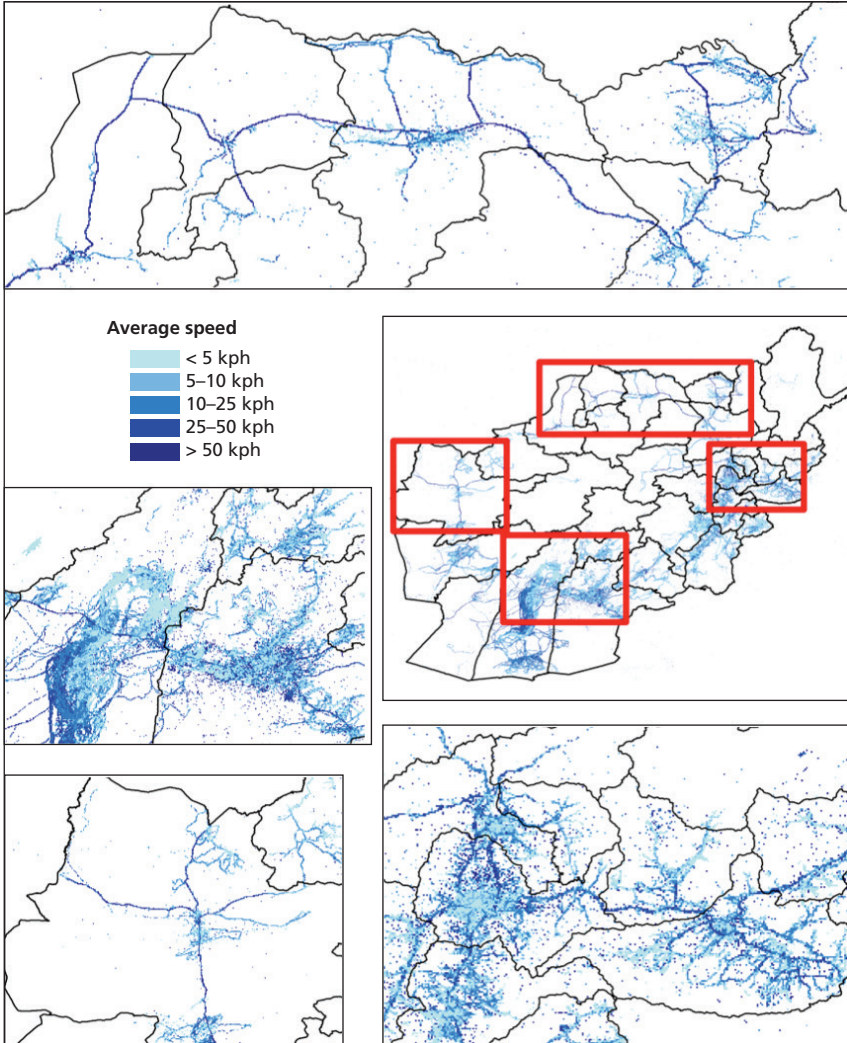ion of human intelligence and signals intelligence, as reported in intelligence information reports, tactical reports, and other intelligence reporting formats. Intelligence reports are geocoded based on locational information available in the description of the intelligence reports (e.g., reported military grid-reference system coordinates, names of villages or other areas of interest). Report-level records are collected daily and include the date, time, latitude, and longitude of the intelligence report.[50]

Our analysis focuses on the total volume of intelligence in a given one-square-kilometer grid square. Intelligence collecting reflects a combination of collection capabilities in a given area, from increased freedom of movement and contacts within the local population to enemy activity. Thus, estimates of a "positive" association with the volume of intelligence reporting should be interpreted as an enhanced ability of the coalition to detect the insurgency in a given area, rather than simply an increase in intelligence or an increase in enemy activity.

The geographic distribution of intelligence reporting in 2010–2013 is reported in Figure B.10. The distribution of intelligence reporting is similar to that observed for the SIGACTS data, although they are much less geographically concentrated. These data, while also having large concentrations of reporting in the vicinity of Helmand and Kandahar, have greater coverage in the east and along the Pakistani border, where U.S. forces were actively contesting insurgent forces.

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[49] These data are collated by the Advanced Processing and Exploitation Center of the Activity-Based Analysis Branch at the Air Force Research Laboratory.

[50] Data are available beginning in June 2010.

Figure B.10
Volume of Intelligence Reporting

Intelligence reports
1
1–25
25–50
50–100
> 100
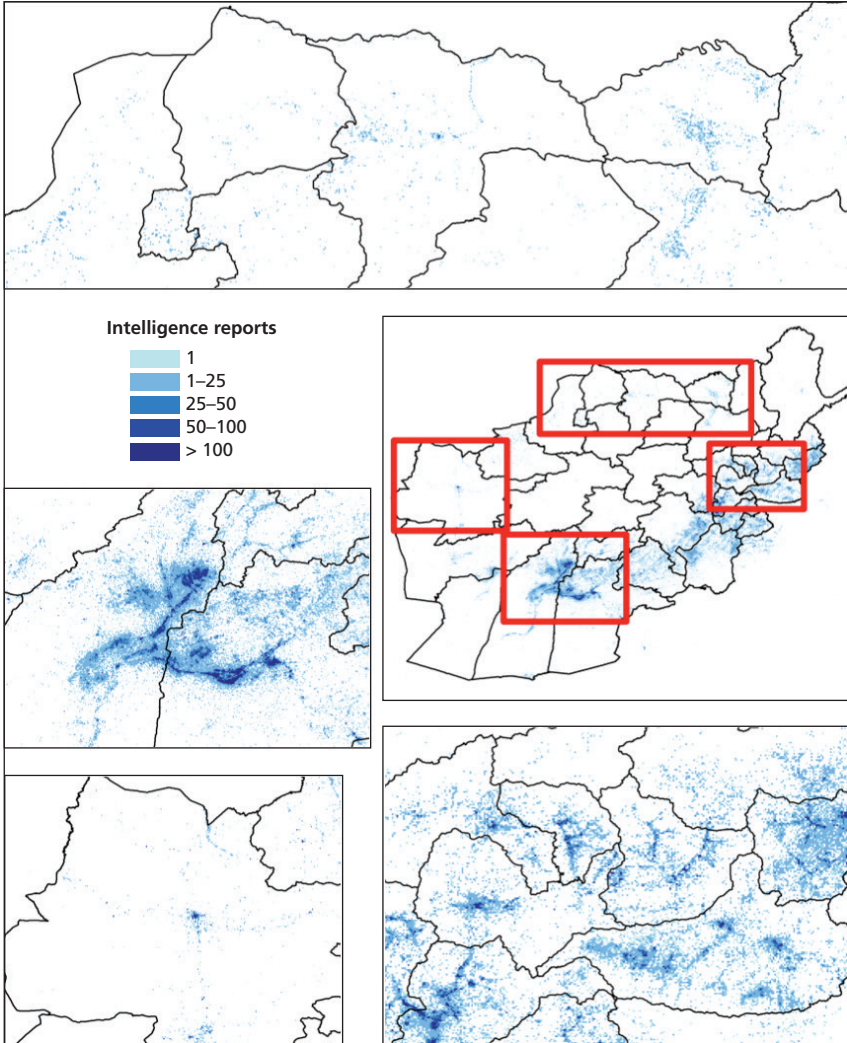
Geographical Component of Interview Data

The focus of the second half of Section 7.3 relies on geographic information provided by the interviewees, who provided three types of geographical information related to their CERP projects: (1) the area of operations of the unit, (2) the location where projects were implemented, and (3) the area where intended beneficiaries (target populations) were located. In each case, interviewees were asked to illustrate this information using satellite maps of the district or province where those individuals had deployed.[1]

The analysis in Section 7.3 uses all three types of geographical information. The first, information on units' area of operations, is used to define the geographical areas included in the analysis. The intent is to restrict quantitative analysis to areas of greatest comparability by focusing analysis on areas where interviewees operated.[2] These data are illustrated in Figure C.1. For the Army, these areas of operation are focused primarily in what was then Regional Command–South and Regional Command–East. However, two of the interviewees were involved in the use of CERP in the north and west (large operational areas in both

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[1] This information was represented using dots to indicate a specific location where a project (e.g., well) was implemented; lines (straight or otherwise) refer to where road, bridge, or other public infrastructure was implemented; and polygons correspond to the area where a project was implemented.

[2] A second, practical concern underlying the collection of data on areas of operation was that asking about the areas of operations, the first geographic question asked of interviewees, would hopefully enhance the accuracy of subsequent locational data collected during the interviews.

Figure C.1
Areas of Operation of CERP Interviewees
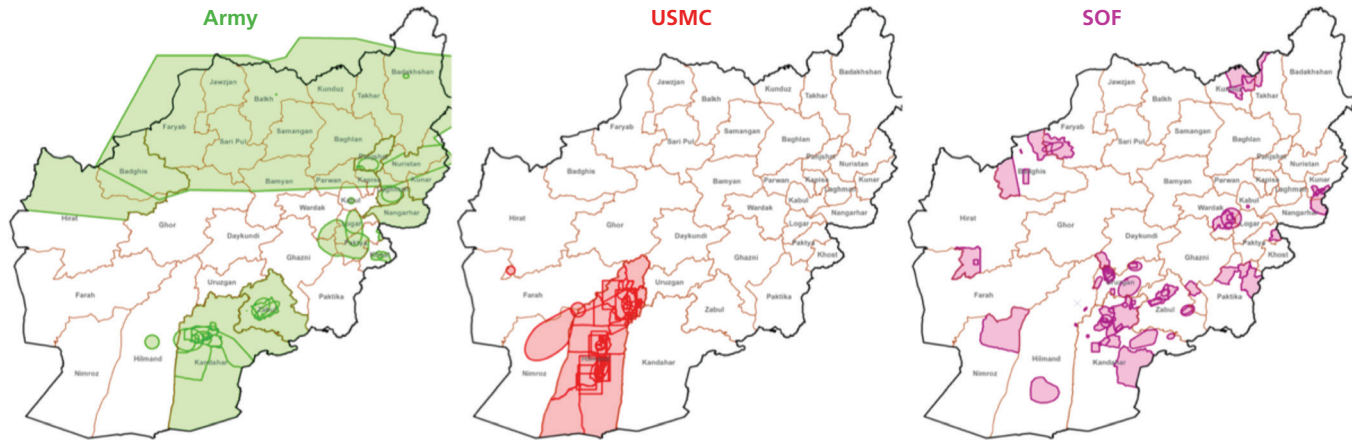
SOURCE: RAND qualitative interviews.
NOTE: This figure reports the interviewees' self-described areas of operations exactly—thus, while no areas outside of Afghanistan were within the Army's areas of operations, the left-panel illustrates the reporting error in our map-generation process.

RAND *RR1508-C.1*

cases).[3] For the Marines, the areas of operation were almost entirely in the provinces of Helmand and Nimruz, part of Regional Command–Southwest, although one marine did report a project undertaken along the Herat/Farah border. The SOF community—involved in the VSO/ALP program, in which small teams embedded in rural Afghan villages with the intent of enhancing security, governance, and economic development—had areas of operation distributed throughout Afghanistan. However, the majority of VSO CERP projects were in Regional Command–S, where VSO was focused in 2010–2012.

The remaining two types of geographical information were used to identify areas that experienced the reported benefits of CERP activity. Project-location information is provided in Figure C.2. For the Army, projects are primarily single points or small circles, with the majority of projects in Regional Command–South (Kandahar and Zabul), a dozen projects in Regional Command–E, and a handful of projects in Helmand and the north. For the Marines, the project locational data are analogous although limited to the province of Helmand, where the marines were deployed. For the SOF community, the project areas are almost entirely single points or polygons, largely reflecting the SOF community's detailed understanding of its operational environment. For each of the three sample populations, the project areas with larger polygons tended to reflect respondents farther from the tactical level.

Target populations for the Army, Marines, and SOF interviews are reported in Figure C.3. Army CERP target populations included in our data focus on the population areas of Kandahar and Zabul in the south and, to a more limited degree, in eastern provinces. For the Marines, the vast majority of target populations were in the major population areas of the Helmand River valley, the center and south of Helmand, and the problematic areas in northern Helmand. The data for the SOF community provide the richest source of geographical variation in projects, with target populations across Afghanistan.

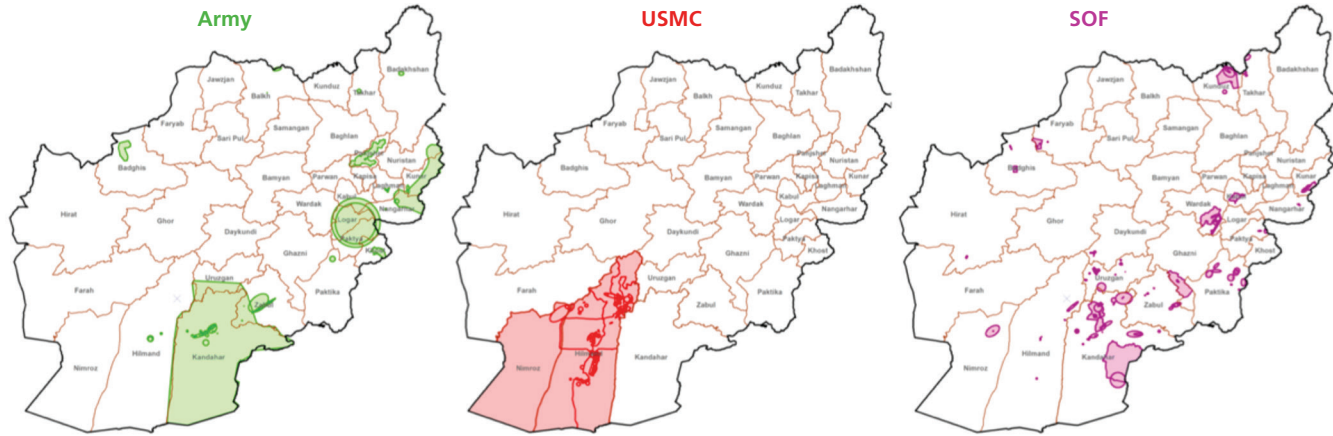[3] The analysis in Section 7.3 excludes all areas of operation more than 1,000 square kilometers.

**Figure C.2
Project Locations**

SOURCE: RAND qualitative interviews data set.

RAND *RR1508-C.2*

Figure C.3
Target Populations

SOURCE: RAND qualitative interviews data set.

CERP and Humanitarian Assistance/Civil Military Operations in OEF-Philippines

U.S operations in OEF-P differed substantively from OIF and OEF–Afghanistan in that U.S. military forces were barred from directly participating in kinetic action. SOF that were involved in this substantially smaller effort—in scale, scope, and intensity—were engaged exclusively in combat support, combat advising, and HA/CMO. They relied on these activities to achieve U.S. national security aims, working with and through host-nation security forces and institutions.[1]

In this appendix, we examine the reported importance of HA/CMO activities, which were reported to be comparable with CERP, to operations conducted in OEF-P. CERP funds were not used directly to finance HA/CMO in support of OEF-P.[2] However, because of significant similarities between CERP and OEF-P HA/CMO authorities, resources, and activities, the majority of SOF personnel operating at the company level and below reported that HA/CMO and CERP were effectively indistinguishable.[3]

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[1] The deployed strength averaged roughly 600 personnel over the course of the conflict (interview with special operator; JSOTF-P, 2008).

[2] As discussed in Section 2.8, the $2 million in CERP funds made available to OEF-P were used to fill funding gaps in high-priority centrally managed Civil Affairs projects (interview with special operator).

[3] The majority of respondents who served at the company level and below thought that they were spending CERP funds, when in fact they were spending operational funds under 10 U.S. Code 401 authorities (see United States Code, 2015).

This appendix provides insight into the potential value of CERP to future "light footprint" (i.e., relying on a small number of military and civilian professionals), less-direct stability, foreign internal defense, and counterinsurgency operations. We held structured interviews with 15 current and former commissioned and noncommissioned officers from the U.S. Army Special Forces and Civil Affairs communities with OEF-P deployment experience.[4] Three of these individuals had direct experience managing OEF-P CERP at the battalion level; they discussed CERP in that context, and the remaining 12 described their experiences with HA/CMO activities in OEF-P. Interview questions were designed to gather factual information from respondents' firsthand OEF-P CERP-related experiences and to solicit respondents' opinions regarding the effectiveness of CERP in the context of Philippines and the potential utility of CERP moving forward. These interviews were augmented with secondary materials relevant for a discussion of CERP and HA/CMO in OEF-P.

D.1. Reported Effectiveness of HA/CMO for OEF-P Operations

Interviewees were unanimous in reporting that a CERP-like capability was valuable for supporting operations such as those conducted in OEF-P. The primary value of CERP-like capabilities, which they believed should be maintained for future operations, was to allow lower-level commanders to shape the local environment by implementing humanitarian and reconstruction activities.

Interviewees disagreed significantly in their assessment of the effectiveness of HA/CMO in OEF-P. Individuals deployed at the battalion or brigade level overwhelmingly believed that HA/CMO produced positive operational or strategic mission impact. Interviewees who had deployed to OEF-P at the detachment level were somewhat

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[4] The respondent sample encompassed an array of individual backgrounds, including leaders from nearly every echelon whose collective firsthand OEF-P deployment experience covered all but two years of the OEF-P time line, from 2001 to 2013.

more skeptical of the overall impact of HA/CMO. They reported that HA/CMO activities were useful for gaining access and placement to an area or population of interest, which enabled other activities and facilitated future interactions, but did not believe that HA/CMO produced a net-positive higher-order mission impact.

HA/CMO was reportedly successful during the two major phases of OEF-P.[5] The first period spans 2001 through the first quarter of 2007, encompassing U.S. support to a series of host-nation combat offensives against al Qaeda–affiliated extremist elements, beginning with the first major deployment of U.S. military advisers in January 2002 and ending with the conclusion of Operation Ultimatum I in the first quarter of 2007.[6] The second period covers lower-intensity steady-state security efforts beginning with the mid-2007 "humanitarian offensive," during which the United States and the Philippines shifted focus from combat support to targeted HA/CMO operations.[7]

During the first phase, the primary focus was on using 10 U.S. Code 401 authorities to implement preplanned larger-scale HA/CMO projects approved by the U.S. Department of State and Combatant Command.[8] A project highlighted by several interviewees as particularly effective was the Basilan circumferential road, which was designed to link more villages to the national road network, thereby increasing the incomes of the local population by linking agricultural production to markets.[9] Although our interviewees were unable to provide specific examples, 10 U.S. Code 401 authorities allowed subordinate company- and detachment-level SOF elements the ability to fund smaller projects without prior approval as long as the project cost did not exceed a Combatant Commander–determined threshold, which

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[5] These phases are defined by this report's authors.

[6] JSOTF-P, 2008, slide 4.

[7] JSOTF-P, 2008.

[8] United States Code, Title 10, Section 401, Humanitarian and Civic Assistance Provided in Conjunction with Military Operations, as amended through July 15, 2015.

[9] This project was actually funded with operational funds and justified as a force-protection measure supporting the movement of military forces (interview with special operator).

averaged around $2,500.[10] During this time, the HA/CMO approach was also defined by its conditional nature, requiring the beneficiary or beneficiaries to pledge a certain investment in resources and effort, and to assume responsibility for keeping up the project in the future before the project would be initiated.[11]

SOF's "humanitarian offensive" in the second phase of OEF-P used targeted HA/CMO activities to deny insurgents safe havens, mobility, and resources by expanding the influence of host-nation forces and agencies outward from established areas of friendly control through engagement with the local population. HA/CMO activities were divided into three categories. The first was small-scale discretionary projects—including but not limited to wells, school refurbishment, road construction, and rainwater collection—analogous to the smaller projects in the first phase of operations.[12] High dollar–value development projects, such as major road, water distribution, and electrical power infrastructure construction, were the second class of projects.[13] A third class of HA/CMO operations involved direct-service provision to local nationals in the form of single-day events providing medical treatment, animal care, or light repairs of facilities and infrastructure.[14] The primary purpose of these projects was to engage a target population or geographical area in order to gain initial access to or maintain a relationship with that population.[15]

The ability of HA/CMO to restrict the freedom of movement of enemy elements is illustrated by the Tugas-Danag Road Construction Project and deep-well projects on the islands of Panglima-Tahil and Pangutaran. Although the road-construction project was ostensibly

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[10] Interviews with special operators.

[11] Interviews with special operators.

[12] Interview with special operator.

[13] These larger projects were prioritized at the brigade level.

[14] These are typically referred to as engineering, medical, dental, and veterinary civic-action programs events. Company commanders were authorized to approve detachment-nominated engineering, medical, dental, and veterinary civic-action programs. Typical turnaround from nomination to execution was 30 days. Interview with special operator.

[15] Petit, 2010, p. 12.

to improve aggregate economic welfare by linking "goods to market," the detachment implementing this project intended to restrict the Abu Sayyaf Group's freedom of movement by stimulating the expansion of human settlements across critical enemy routes.[16] The deep-wells project similarly satisfied a humanitarian need by providing a new source of drinking water to island inhabitants that depended on rain-fed water sources but at the same time substantially expanded surveillance and paved the way for the eventual establishment of small military garrisons under the control of the Armed Forces of the Philippines in these islands that had served as key transit nodes for narcotics, arms, and militants since 2007.[17]

In addition to the views of our interviewees, there is anecdotal evidence suggesting that HA/CMO efforts reduced the influence and capability of insurgents and violent extremists in western Mindanao and the Sulu Archipelago. In 2007, Moro Islamic Liberation Front deputy chairman Khaled Musa described HA/CMO conducted by U.S. and Philippine forces as "more lethal than brute force."[18]

D.2. Administration Challenges

Similar to the experience with CERP in OEF–Afghanistan, interviewees identified several challenges related to HA/CMO program administration. The first challenge highlighted by many respondents was a feeling of pressure to spend HA/CMO-related resources. This challenge was reported to have resulted from the focus on project counts and expenditure rates in reporting to higher-echelon authorities.[19] Tac-

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[16] It is believed that Abu Sayyaf Group militants used a limited number of routes to transit municipal boundaries from safe havens to attack targets. A road between Tugas and Danag was anticipated to increase the probability of detecting Abu Sayyaf Group operations (JSOTF-P, 2008, slide 21; interview with special operator).

[17] Interviews with special operators.

[18] JSOTF-P, 2008, slide 28.

[19] The pressure was exerted at the detachment level via bimonthly "fusion" meetings, where senior detachment representatives updated the company commander on HA/CMO activities.

tical operators reported that a combination of a cumbersome turn-in process for unspent funds and the perception that returning money would reduce future resources pushed operators to spend all the money at their disposal.[20] This pressure to spend is reported to have reduced the efficacy of HA/CMO, as operators focused on short-term, routine-, or activity-based HA/CMO planning and execution at the expense of longer-term coherence. This created a form of interteam competition wherein volume was encouraged at the expense of coherence and sustainability.

A second challenge was a lack of sufficient training to effectively execute HA/CMO. Despite the fact that SOF personnel deployed in support of OEF-P were specially selected, personnel reportedly lacked sufficient knowledge in the execution of foreign aid and development projects and the local political, social, and economic landscape.[21] Consequently, SOF personnel tended to base HA/CMO decisions on overly simplistic heuristics and general principles drawn from the counter-insurgency doctrine of the time, rather than on the specifics of the problem at hand. The lack of local knowledge made U.S. personnel vulnerable to manipulation, most notably in the form of overcharging by local contractors, who had accumulated significant resource and information advantages by virtue of long-standing business relationships with U.S. forces and agencies over time.[22]

A final challenge was the disruptive effect that HA/CMO capability can have on how U.S. forces engage with local national populations. A specific example referenced by several interviewees was the disproportionate influence that Civil Affairs teams often wielded with the local national populations, as these teams were allocated significantly larger amounts of funds. While the formal role of Civil Affairs teams

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[20] Operators use the phrase "use it or lose it" to describe incentives created by the cumbersome turn-in process for unspent funds and the likelihood that returning money will reduce future resources (interview with special operator).

[21] SOF operators highlighted the tension that they face in maintaining perishable combat skills, which are critical across the operational spectrum, along with the range of other skills (e.g., language, aid, development) that they need to execute operations (interviews with special operators).

[22] Interviews with special operators.

in OEF-P was to support the SOF teams, who had authority over the planning and execution of assistance activities, host-nation personnel sometimes circumvented the embedded teams and dealt directly with the supporting Civil Affairs teams.[23]

D.3. Challenges of Administration and the Environment

The central challenge comprising both administrative and environmental components was a lack of continuity caused by the deployment cycles of U.S. personnel.[24] Nine-month unit rotations, common in the second phase of OEF-P operations, were problematic because of their brevity and lack of synchronization with the annual budget cycle.[25] Additionally, SOF units were not consistently deployed to the same areas; only two of the 11 SOF companies aligned to the USPACOM AOR consistently deployed to OEF-P.[26] One officer recounted the alarming level of HA/CMO incoherence he discovered upon taking company command in OEF-P. With few exceptions, the outgoing headquarters staff, detachment, and Civil Affairs personnel were unable to provide detailed justifications for HA/CMO project activities conducted during the previous rotation. This lack of continuity created an opportunity for host-nation actors to exploit HA/CMO activities for personal gain.

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[23] Interview with special operator.

[24] This was cited by all respondents as a major problem. A lack of established knowledge-management policies and procedures was reported to have exacerbated this challenge.

[25] Examples include the JSOTF-P Commander's 60-day CERP execution window and one noncommissioned officer's five-week deadline for designing a 911-equivalent emergency-communications system using IED reporting funds (interviews with special operators).

[26] 1st Special Forces Group (Airborne) and two West Coast 19th Special Forces Group (Airborne) companies. The number of active Special Forces companies increased from nine to 12 when a fourth battalion was added in 2011. The two companies more or less dedicated to OEF-P were A Company and B Company, 1st Battalion, 1st Special Forces Group (Airborne). C/1/1 is the designated USPACOM in-extremis force, and the 2nd, 3rd, and 4th Battalion companies deployed to both USPACOM and CENTCOM, often as task-organized composite units consisting of detachments drawn from different companies, battalions, and/or groups (interview with special operator).

The second challenge was the difficulty in transferring ownership of humanitarian projects, and thus sustainment responsibilities, to host-nation beneficiaries. One respondent described the landscape of Sulu province as littered with "the ruins of past [HA/CMO] projects stamped with team logos."[27] Two factors were reported to have created difficulty for transitioning projects to host-nation beneficiaries. The first was that these host-nation beneficiaries typically lacked the means to sustain humanitarian projects initiated by the United States.[28] A second was the inability of either commanders or local communities— that is, below the provincial—to establish formal agreements to ensure that the host nation would maintain the project.[29]

D.4. Good Practices

Interviewees highlighted two of the better practices for implementing HA/CMO. The first was interagency coordination with the chief of mission and counterparts in USAID, the U.S. Department of Justice, the Central Intelligence Agency, and host-nation and international nongovernmental organizations. Relationship building was especially critical, as it gave DoD an ability to influence non–DoD HA/CMO operations; the total resources for DoD HA/CMO operations in OEF-P were relatively limited.[30]

A second good practice was the establishment of formal partnerships with host-nation governmental and nongovernmental organizations. While establishing sustainability plans was frequently a challenge, one SOF team was able to effectively coordinate with a local

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[27] Interview with special operator.

[28] Interview with special operator.

[29] Task force commanders were only authorized to propose and sign nonbinding MOUs or memorandums of agreement (MOAs) (interview with special operator).

[30] At the height of OEF-P, annual USAID foreign assistance spending in the Philippines averaged between $50 million and $60 million, with up to 60 percent of funds spent in Mindanao and the Sulu Archipelago. By comparison, annual DoD foreign-assistance spending fluctuated between $5 million and $15 million over the course of the operation.

nongovernmental organization (Gawad Kalinga Community Development Foundation) to sponsor and manage projects designed to improve the economic productivity and self-reliance of local communities. In addition to providing much-needed agricultural assistance to at-risk communities, the partnership between the government of the Philippines and the Gawad Kalinga Community Development Foundation was an effective vehicle for boosting the image and legitimacy of the Armed Forces and the government of the Philippines.[31]

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[31] Interview with special operator.

CERP in Operation Moshtarak

[C]ounterinsurgency was all about 'wasta' (clout) and CERP was one of the primary mechanisms that enabled you to build wasta with the people.

—Civil Affairs Enlisted, Marines

CERP has to be understood as one of the key non-kinetic ingredients that can fuse together successful Intelligence Operations, Information Operations, Civil-Military Operations and Kinetic Operations.

—Civil Affairs Officer, Marines

This appendix examines CERP's roles in Marjah district, Helmand province, during Operation Moshtarak in spring, summer, and fall 2010. It provides a qualitative, narrative-based examination of how CERP was used, why CERP was used, the perceived effectiveness that implementers had of CERP, and the factors that affected the implementation and impacts of CERP.

Operation Moshtarak, the U.S. military's first foray into Marjah, provides a valuable case study for understanding CERP. The operation experienced all three key stages of counterinsurgency—clearing, holding, and building—and thus provides a case study of how CERP's use may or may not differ across these stages. Additionally, CERP and

Civil Affairs officers and enlisted personnel in the Marines were fully integrated into all phases of military operations.

This analysis draws primarily on interviews with 13 marines who participated in Operation Moshtarak. These individuals were not selected randomly but are representative of marines who were willing to speak, without attribution, about their experiences with CERP in this operation. The Regional Command–Southwest Regional Combat Team and four battalions, 1/6, 3/6, 2/6, and 2/9, were represented. Eleven of these 13 marines were officers and included captains, majors, lieutenant colonels, and colonels.

The goal of these interviews was to assess how CERP was used in support of counterinsurgency during the operation. Revealing the intent of CERP implementers in turn informed the design of the CERP assessment approach. RAND analysts asked interviewees to discuss what types of projects were selected, how they were selected, the effects of these projects, and the complications that the interviewees faced in implementing these projects.

This appendix is divided into four sections. The first section introduces Operation Moshtarak. The following two sections discuss the use of CERP by the Marines during the first and second stages of Operation Moshtarak, respectively. The fourth section concludes by discussing the implications of this case study for analyses of CERP.

E.1. Overview of Operation Moshtarak

By 2009, the security situation in Afghanistan had worsened. Insurgents had expanded their activities in much of the south and east. In December 2009, President Obama announced a surge of 30,000 new troops in support of ISAF. The first wave of that increase was designed to deliver a decisive blow to the Taliban-controlled area around Marjah, a town in Helmand province. Marjah had long been a hub for insurgent activity and narcotics trafficking, representing an important stronghold for insurgents in southern Afghanistan and an area of particular strategic concern for the coalition. Previous clearing operations were conducted in the area, but successes were not sustained, and insurgents

regained control. When it began in early 2010, Operation Moshtarak was a combined joint ISAF effort that was expected to mark a turning point in ISAF's counterinsurgency campaign in Helmand and, more broadly, Afghanistan.

In 2010, the operation would go beyond simply clearing enemy forces from the area.[1] Commenting on Operation Moshtarak, the North Atlantic Treaty Organization's senior civilian representative in Afghanistan, Ambassador Mark Sedwill, said

> The success of the operation will not be in the military phase. It will be over the next weeks and months as the people feel the benefits of better governance, of economic opportunities and of operating under the legitimate authorities of Afghanistan—it's about the Afghan Government exercising its sovereignty.[2]

Operation Moshtarak's objective was to retake Marjah by force, employing a counterinsurgency strategy to clear and hold terrain, then make progress in building stability with a view to ultimately transfer authority for security and governance to GIRoA. To accomplish this, the operation involved a large multinational counterinsurgency force. In all, the operation began with approximately 15,000 troops from several nations, including the United States, Britain, Afghanistan, Denmark, and Estonia.[3] Before the operation began, the coalition widely advertised its plan in an attempt to help separate the population from insurgents and limit civilian casualties. As many as 200 families left

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[1] Previously, Marjah had proven particularly difficult to clear and hold due in part to the networks of canals and bridges that restricted the ability of armored vehicles to provide support and were ideal places to hide IEDs.

[2] Afghanistan Resolute Support, "Governance at Forefront of Operation Moshtarak," undated.

[3] This number of troops made Operation Moshtarak the largest ISAF joint offensive to date in Afghanistan. Among the American units were two Marine battalions from the 6th Marine Regiment (1/6 and 3/6), a U.S. Army battalion charged with establishing a cordon in the northeast, and some Special Operations units. The Afghans deployed 4,400 Afghan National Army and Afghan National Civil Order Police. British troops included elements of the Royal Welsh, Grenadier Guards, and Scots Guards (Afghanistan Resolute Support, "British, Afghan Forces Prepare Ground for Major Helmand Offensive," undated).

the area, while others followed instructions to take cover inside their houses.[4] Taliban forces, in contrast, spent the period of warning burying hundreds of IEDs around the area.

One of the key design features of Moshtarak was that Civil Affairs personnel in the Marines were fully integrated into all phases of military operations, including the decisive kinetic operations. The influence and social momentum yielded by Civil Affairs teams made CERP a critical tool in the counterinsurgency fight. As such, when the assault kicked off, Civil Affairs detachments from the 1/6 and 3/6 Battalions accompanied the first waves of combat infantry units during their helicopter insertion into Marjah on February 13, 2010, allowing the Marines to synchronize kinetic and nonkinetic lines of operation. One of our respondents reported that the use of Marines from Civil Affairs directly affected the postcombat environment, as it enabled U.S. forces to win the trust and confidence of locals even while seizing combat initiative.

E.2. Early Operations

Three operational battalions spent some $8 million in CERP dollars during the first five months of Operation Moshtarak.[5] Substantial additional amounts of spending were "in the queue" at the end of their deployment. The Civil Affairs Marines were encouraged by the Regional Command team and Civil Affairs group to maintain a "high velocity of spending" with a particular focus in supporting local

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[4]   Afghanistan Resolute Support, "Central Helmand Residents Encouraged to Remain in Homes," Lashkar Gah, Afghanistan: ISAF Joint Command-Afghanistan, February 9, 2010, 2010-02-CA-040.

[5]   The clearing phase of Operation Moshtarak began in Marjah on February 13, 2010. Three units were involved in this phase: (1) 1st Battalion, 6th Marines (1/6), which was inserted into the city near Koru Chareh bazaar via assault helicopters; (2) 3rd Battalion, 6th Marines (3/6), which assumed a blocking position in the northern sectors of Marjah; and (3) elements of 1st Battalion, 3rd Marines (1/3) which took a position on the northeast corner of Marjah to interdict a major supply route running into the city. Marines from Civil Affairs from 1/6 and 3/6 accompanied the first waves of combat infantry units during their helicopter insertion and were fully integrated into all subsequent phases of the operation.

commerce, local freedom of movement (e.g., roads, small bridges), and canal clearing. The guiding principle underlying CERP during this operation was that "where they could get economic growth, security [would] improve." In the view of many of the marines we interviewed, the use of CERP was essential to the success of counterinsurgency in Marjah. CERP enhanced operational tempo and helped the marines establish trust and confidence with the locals; in the words of one CERP implementer, it allowed them to be "faster than the insurgents."

During the clear phase of operations, CERP projects focused on compensating local residents for battle damage and to provide condolence payments.[6] Efforts were initially focused around commercial centers, which were both important population centers as well as areas of significant kinetic activity during the early stages of the operation. As local residents began returning to the area after the first few days of fighting, marines initiated contact with storeowners that had reoccupied their shops in the bazaar and made payments on the spot to compensate these storeowners for physical damage to stores, spoiled foodstuffs, stolen inventory, and looting caused by both the Taliban and friendly Afghan forces.[7] In some areas of Marjah, the security environment improved rapidly and residents began to approach the Civil Affairs group headquarters directly with battle-damage claims.[8] This stood in contrast to the initial days of the operation, when interviewees indicated that the local populace had been reluctant to work with the marines because of Taliban intimidation (through the delivery of night letters) of the initial recipients of payments for battle damage.

These early projects were seen as essential to developing a relationship with the local population and maintaining operational momen-

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[6] NATO-ISAF Post-Operations Emergency Relief Funds were reportedly used in the same fashion by one of the operational Marine battalions.

[7] One of the battalions worked with a local power broker to help identify whose property in the bazaar had been damaged and help assess the extent of the damage caused by the fighting. This individual was both a local landowner and tribal leader who controlled most of the property in the local commercial center.

[8] The 1/6 Marines reported that this transition occurred following the second week of operations. However, the 3/6 Marines continued to experience a kinetic environment through at least the sixth week.

tum during clearing operations. One interviewed marine summarized this value in saying that,

> [g]oing in with ground forces was instrumental to the success of our mission because it enabled us to seize on combat momentum by allowing [Civil Affairs] Marines to witness what we broke and be there to respond with battle damage payments.

CERP spending targeting the commercial centers was perceived as particularly beneficial, as it created a foothold from which they could identify and interact with property owners and village elders. However, in some areas, the Marines were unable to attract community support for cash-for-work projects because of ongoing Taliban intimidation.[9]

As Operation Moshtarak transitioned into the hold phase, the Marines began to implement slightly larger CERP projects that "could impact the village instead of just individuals." Cash-for-work projects were frequently used. Although several early projects were unsuccessful (e.g., a trash pick-up program did not attract the targeted population; "20–30 year old Afghan men did not want to [pick up trash]"),[10] local officials were consulted in the design of subsequent programs. This consultation led to the implementation of CERP-funded canal-cleaning projects, which would involve some 1,000 Afghan adult males in dredging canals only six weeks after the assault.[11] The canal clearing was reportedly "one of the best CERP tools" used by the 1/6.[12]

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[9]   This was the experience of the 1/3 Marines, who were using Post-Operations Emergency Relief Funds instead of CERP funds, although they were using it for the same purposes.

[10]   This project did succeed in attracting approximately 50 youth who participated in the project.

[11]   The Marines funded the canal-clearing projects as a series of Quick Impact Projects. Because Quick Impact Projects had a capped dollar amount, the Marines funded the clearing of a series of 19 one-kilometer segments of canal as 19 different Quick Impact Projects. Funding this project with Quick Impact Projects, which had a simpler authorization process than types of CERP funds that could be used for bigger projects, allowed the Marines to implement this project almost immediately after their insertion.

[12]   Despite the tactical-level success of this use of CERP, 1/6's higher headquarters ended the ability to implement canal-clearing projects as a cash-for-work program as headquarters judged using CERP Quick Impact Projects to clear canals one kilometer at a time to be

The Marines also began to implement a series of small infrastructure projects during this hold phase. These included the refurbishment of a mosque, which was implemented in consultation with local elites. Marines hired locals to attach speakers to the outside of a mosque near the Loy Chareh bazaar to help disseminate calls to prayer to the immediate surroundings.[13] Again in consultation with local elders, the Marines also began the implementation of small infrastructure projects in a local bazaar.[14] These projects included the construction of a restroom in the bazaar and,[15] in consultation with local shop owners, the purchase of solar panels to produce electricity for the market.[16]

Overall, the Marines viewed these small infrastructure and cash-for-work projects as successful in providing economic opportunities for locals and broadening support for the Marines' anti-Taliban efforts. However, the Marines faced a variety of challenges in implementing these projects, including difficulty finding local manpower for the

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project stacking. Marine Expeditionary Force headquarters instructed the battalion that the implementation of a series of related Quick Impact Projects, whether in one area or across a diverse geographic region, would need to be considered under the time-consuming procedures associated with larger CERP projects, including higher-echelon review and transparency, if the total dollar amount of the combined projects exceeded the threshold for Quick Impact Projects. Thus, cash-for-work canal clearing using CERP, which was judged to be one of the best ways to use CERP in the eyes of the practitioners, was no longer feasible.

[13] Shortly thereafter, the Taliban took down the speakers and 1/6 Human Intelligence Exploitation Teams received reports that the Taliban were upset by the mosque speaker project.

[14] This bazaar was also perceived as an important Taliban foothold; the Marines found 17 IEDs there during the early stages of the operation.

[15] The public restroom was completed in May at a cost of approximately $3,000. The marines involved in the project, however, ultimately questioned its impact, as the bathroom remained locked and unavailable for a period after its completion. The Marines were uncertain about how heavily the bathroom was used by the local population.

[16] The Marines contracted a member of the community to travel to a bazaar on the Afghan-Pakistani border to purchase these solar panels. This effort provided electricity to five separate buildings in the vicinity of the market. The enterprising individual who had coordinated the purchase of these solar panels proved to be a great asset to the Marines' Human Intelligence Exploitation Teams, facilitating a Civil Affairs–Intel fusion that was beneficial for 3/6's counterinsurgency effort in Marjah.

projects and ongoing Taliban intimidation and attacks,[17] despite the Afghan National Defense and Security Forces providing a security perimeter.

As the security environment continued to improve, the Marines shifted into the build phase of operations and began to use CERP funds for larger infrastructure projects. One marine reported that, "[while we] could barely give money away [on the 10th day of the assault], . . . by day 60, there was better security and there were lines of Afghans looking for money." The focus of this build phase was the enhancement of education infrastructure, with two of the three battalions refurbishing and enhancing existing school infrastructure.[18] Unlike previous CERP projects, locals played only a limited role in the decision to use CERP funds to rehabilitate these schools.[19]

The marines reported substantial difficulties in rehabilitating these schools. These included a more-complicated process for using CERP to fund the work, as the marines had to solicit competitive bids to complete the work and accept the possibility that the winning bidder would use workers from outside the area to undertake the project.[20] They also faced significant challenges in making these schools functional, as they could not initially find teachers to staff the schools. However, students

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[17] An initial lack of success in these small infrastructure projects was often attributed to Taliban intimidation. One marine concluded that "nobody showed up because they were afraid of the Taliban murder and intimidation campaign." Taliban intimidation included posting letters at the bazaar warning that they would kill shop owners if they sold goods to Americans and delivering a girls' head to the front entrance of one company's combat outpost.

[18] In early to mid-March, Brigadier General Lawrence Nicholson, Commanding General of the 2nd Marine Expeditionary Brigade, directed that the elements of 1/6 operating near the district center and Loy Chareh bazaar refurbish and reopen the school complex in that area. The 3/6 focused their efforts on the rehabilitation of the Yellow School that had served as a patrol base for 3/6 during early stages of the operations. This school had glassless windows, holes in the roof, and a football field–sized courtyard filled with craters and ruts (Dan Lamothe, "Firefights Frequent for Marines in Schoolhouse," *Marine Corps Times*, May 30, 2010).

[19] These projects were instead U.S. directed. One respondent reported that the focus on schools reflected an intent by the commanders to create a local anti-Taliban symbol.

[20] Mathew Green, "Doubts Grow About U.S. Progress in Afghanistan," *Financial Times*, June 25, 2010.

began to use these schools consistently in later months.[21] Intelligence reporting indicated that the school's rehabilitation was having the intended effect in disrupting Taliban operations.[22]

By the end of this first phase of operations, the Marines were attempting still-larger road building and improvement projects.[23] However, the expansion into larger projects was more a consequence of improvements in the security environment than the success of previous CERP projects.[24]

E.3. Second Phase of Operations

A second phase of Operation Moshtarak began in July 2010, as new battalions rotated in to relieve the existing forces.[25] To ensure continuity with previous operations, there was a three-week overlap between battalion commanders. Reportedly, the intent was to use CERP to maintain operational momentum across the transition.[26] An estimated

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[21] Andrew Johnston, "District Governor Rallies Students in Marjah as Attendance Spikes," December 8, 2010.

[22] The battalion received an intelligence report that 100 Taliban fighters were gathering at a nearby mosque and planning to attack and retake control of this school (Lamothe, 2010).

[23] Improving and building roads included leveling them and resurfacing them with gravel.

[24] Violence levels in central Marjah had attenuated to the point where then–Afghanistan President Hamid Karzai, U.S. Secretary of State Hillary Clinton, CENTCOM commander General David Petraeus, and RCT-7 commander Colonel Randy Newman walked around near Loy Chareh bazaar without flak and Kevlar.

[25] This transition coincided with the beginning of the summer Taliban fighting seasons, with July and August the most kinetic time period in Marjah since the initial assault.

[26] Given the renewed kinetic environment, the reported goal of these recently arrived battalions was first to expand the area of Marine control within central Marjah and then to transition these areas to the hold phase. This goal was described as follows:

> [W]e were really only in the hold phase inside the security bubbles established around our combat outposts, the bazaars, and the other areas under our influence. For example, 200 meters outside 'the wire' we were getting into firefights. So our goal was to create a greater level of stability by expanding those security bubbles, which essentially meant that the battalion was pursuing simultaneous clear and hold missions. (Interview with marine)

$20 million in CERP was dispersed during this second phase of Operation Moshtarak.[27]

Immediately after arriving, projects continued to focus on developing local bazaars because despite "good security in the bazaars, the population was still under threat in their homes outside the main commercial areas, and this fueled their perceptions of instability and a lack of security". Thus, the Marines began a series of programs to enhance security.

One approach focused on using CERP to establish new and strengthen existing local security infrastructure. This included the establishment of community police stations in each bazaar and community and the expansion of a local security force—the Interim Security Critical for Infrastructure—using CERP funds.[28]

In order to expand their security influence to more distant areas, these battalions used CERP to improve the quality of key roads. These transportation projects reportedly had many benefits, including the creation of jobs for locals, supporting IED prevention by maintaining constant surveillance near roads, increased intelligence flow, and enhanced freedom of movement for the Marines and local nationals.[29]

School projects also continued through the Marjah area of operations, with the Marines focusing on improving existing infrastructure and developing more innovative ways to get children into school.[30] This included the establishment of temporary "tent" schools, which reportedly began to hold classes almost immediately, and funding teachers at schools using CERP dollars. Existing CERP regulations did not

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[27] Authors' conversations with marines from Regional Combat Team headquarters.

[28] Specifically, the Marines used CERP to pay the salaries of personnel from the Marine-established local security force, the Interim Security Critical Infrastructure, directly. CERP has been used explicitly to support the salaries of local forces throughout Afghanistan.

[29] One marine indicated, however, that the Taliban frequently targeted road rehabilitation projects.

[30] The Marines worked to enhance the security around schools. For example, upon arriving in northern Marjah, marines from 2/9 discovered that there were no students attending the Yellow School that 3/6 had refurbished. After repositioning the forces in the area and expanding the security zone around the school, marines stated that approximately 100 students were attending the school by the end of the deployment.

permit CERP to be used for funding salaries of municipal employees, but a waiver was granted because no functional government existed within Marjah. As a result of these efforts, a reported 1,000 students were enrolled in one battalion's CERP-funded educational initiatives.

A final approach for distributing funds during this period relied on local leaders to select projects. A council of local elders would meet weekly to discuss and recommend projects to the battalion leadership that could be funded through CERP. However, the projects typically recommended by the council were large in scope, including road development and the establishment of an agricultural center; few of these projects were ever funded.

E.4. Implications of Case Study for Assessment

This case study, in addition to illustrating the progression of CERP activity in one small geographical area, provides several insights into CERP's effectiveness. First, implementers often designed CERP projects to support building rapport with communities in their area of operations. Implementers admitted that many CERP projects, while succeeding in facilitating access and establishing rapport, often failed to be sustainable over the long term (e.g., schools without the means to pay teachers; dams or wells that disrupted traditional water arrangements). Thus, while CERP projects play an important role in supporting tactical operations, they are not necessarily suited to supporting medium- and long-term counterinsurgency goals.

Second, SIGACTS is probably not the best outcome variable for measuring the success of CERP projects. Many respondents indicated that increases in SIGACTS were often associated with successful CERP projects, as local insurgents either used the new infrastructure as a target or tried to contest the success of the Marines.

Third, individual CERP implementers are likely to use similar projects for very different goals. A rigorous quantitative assessment model should have a mechanism for understanding how and why CERP projects are undertaken to provide grounding for assessing effectiveness.

Fourth, understanding the timing of individual projects is important to understanding their successes. CERP implementers use CERP projects in different ways to achieve a variety of immediate, short-, medium-, and long-term goals. Some CERP projects are undertaken to reward areas for past cooperation, others to establish local rapport. Some projects (e.g., cash-for-work) are all about the present; others will not yield any benefits for months and have short-term disruptive effects (e.g., major construction projects with outside contractors and labor). While CERP implementers use projects to support counterinsurgency outcomes, a longer time frame and a diversity of unobserved factors affect the success of counterinsurgency in a given area, complicating the assessment of the effects of CERP taken in isolation.

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This report examines the use of the Commander's Emergency Response Program (CERP) in Afghanistan. It explores the effectiveness of CERP in supporting tactical operations in Afghanistan during the counterinsurgency-focused 2010–2013 time frame using qualitative and quantitative methods and describes CERP's origins, history, and existing research on the effectiveness of CERP in Iraq and Afghanistan.

The qualitative component of this analysis provides an assessment of CERP from the perspective of its implementers, drawing on interviews with nearly 200 military officers and noncommissioned officers who designed and implemented CERP projects. These data provide a fine-grain view of the program on the ground, examining projects its implementers thought were successful and those viewed as unsuccessful. Our intent is to understand how and why tactical and operational units used CERP and whether the program achieved its intended effects in the local areas where it was used.

The quantitative analysis explores the relationship of CERP activity with both population- and coalition-focused outcomes. Our analysis of population-focused outcomes studies population movements, economic activity, and agricultural activity. The comparable analysis of coalition-focused outcomes focuses on intelligence about enemy activity, attacks involving coalition forces, and coalition freedom of movement. This analysis uses geospatial analytic methods, in which CERP administrative data and detailed data from 400 CERP projects collected in our qualitative data set are linked to outcomes based on highly granular locational information. The inclusion of data on the disposition of U.S. forces allows us to compare the impact of U.S. operations with CERP to those without.