Foundations of the Islamic State

Management, Money, and Terror in Iraq, 2005–2010

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Preface

The group calling itself the Islamic State constitutes a dangerous challenge to numerous Middle Eastern countries and a terrorist threat to Western Europe and the United States. The level of danger might be new, but the group is not. The Islamic State is the successor organization to al-Qaʻida in Iraq (AQI) and subsequently the Islamic State of Iraq (ISI), and it has continued AQI's organizational, management, and financial practices. The fact that coalition forces, led by the United States; Awakening forces, reflecting the people of Iraq; and official security forces of the government of Iraq once successfully degraded the group suggests that it can be stopped again.

This report presents an analysis of foundations of the Islamic State, as reflected in more than 140 documents prepared by AQI and ISI. It represents the most comprehensive portrait available of the group, based on the group's own records. ISI organized itself for statehood as early as 2006. It used a bureaucratic management model based on that of core al-Qaʻida but replicated the model at different geographic levels. It also carefully demarcated the administrative boundaries of its jurisdiction. ISI paid its personnel a wage that would draw true believers rather than opportunists; trained and allocated its membership with an eye toward group effectiveness; raised revenues locally through diversified sources; and was able to maintain itself, albeit at much reduced strength, in the face of a withering counterterrorism and counterinsurgency strategy put in place by its opponents, starting in late 2006.

This report is a joint effort among the RAND Corporation, the Empirical Studies of Conflict Project at Princeton University, and the Combating Terrorism Center (CTC) at West Point. The CTC

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The group calling itself the Islamic State, which is based primarily in Iraq and Syria, presents a grave threat to the people and countries throughout the Middle East and a growing threat to nations outside that region. Despite the apparent surprise of the group's stunning take-over of Mosul, Iraq's second-largest city, in June 2014, the Islamic State is not new. Rather, the Islamic State is the successor of al-Qa'ida in Iraq (AQI) and the Islamic State of Iraq (ISI), which the United States, coalition partners, the government of Iraq, and the people of Iraq have fought since the coalition invasion of Iraq.

This report examines foundations of the Islamic State. Research was substantially completed in 2014, with selected updates in 2015. The report presents a comprehensive examination of the organization, territorial designs, management, personnel policies, and finances of AQI and ISI. The report draws from an examination of more than 140 recently declassified ISI documents, which are now available in their original and translated forms on the website of the Combating Ter-rorism Center (CTC) at West Point (www.ctc.usma.edu/isil-resources). The report also presents recommendations applicable to countering the Islamic State.

The Group's Own Words

Understanding clandestine organizations is difficult because they go to great lengths to shield their activities. However, running such an organization, especially one with the ambitions of the Islamic State,

requires a great deal of control and information, and that requires paperwork. Within the documents generated by the organization itself is highly detailed information about strategy, payrolls, personnel, revenues, and expenses—information that can be used not only to gain a greater understanding of the group but also to understand its weak points and thereby to combat it.

This study presents an analysis of a large number of Islamic State–related documents, one of the largest sets of such documents ever declassified at one time. The documents were declassified for this study by the United States Special Operations Command and released to the CTC. In an accompanying report, released in December 2014, the CTC published a guide to the source documents.[1]

A team of research assistants working at RAND and for the Empirical Studies of Conflict Project at Princeton University used these documents to develop multiple tabular data sets for quantitative analysis, as well as a geographic data set, including

- boundaries of proposed district-level "sectors" in Iraq that formed subnational jurisdictions in ISI
- individual-level data on the country of origin and qualifications of 499 ISI members who entered the country in 2004–2005, including 393 foreign members and 106 Iraqis
- individual-level data on member status and unit assignments for 1,149 active members and 1,159 who were killed or captured by coalition and Iraqi forces; these data were derived from what appear to be near-complete personnel records maintained by ISI administrative emirs in Ninewa governorate in late 2007 and early 2009
- individual-level salary data on 9,271 salary payments in various locations from 2005 to 2009
- transaction-level expenditure and revenue records for Anbar governorate in 2005–2006 and Ninewa governorate in 2008–2009,

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[1] Danielle F. Jung, Pat Ryan, Jacob N. Shapiro, Jon Wallace, and Pat Ryan, *Managing a Transnational Insurgency: The Islamic State of Iraq's "Paper Trail," 2005–2010*, Occasional Paper Series, Harmony Program, West Point, N.Y.: Combating Terrorism Center, West Point, December 15, 2014.

as well as several other locations and for the group as a whole for other short periods.

Although neither fully representative nor complete, these records paint a clear picture of ISI practices and standard operating procedures.

Relevance to Today

An analysis of the Islamic State predecessor groups is more than a historical recounting. It provides significant understanding of how ISI evolved into the present-day Islamic State. As with any organization, certain characteristics concerning how the organization is run are slow to change, including organizational culture, personnel policies, and administrative structure. Understanding the starting point is thus valuable for understanding the Islamic State. One would not expect Islamic State leadership to adopt an entirely new mode of organization upon moving into Syria and then expanding its territorial control in Iraq. Under the old model, which relied primarily on guerrilla warfare and terrorist tactics, the organization fought quite well against the U.S. and Iraqi armies and the Iraqi population for more than four years, from 2004 to 2008; maintained its internal cohesion and plotted its comeback during subsequent years of reduced activity, through 2012; and then claimed jurisdiction over Syria, as well as Iraq, with its April 2013 declaration of itself as the Islamic State of Iraq and al-Sham (ISIS; also known as the Islamic State of Iraq and Syria or the Islamic State of Iraq and the Levant [ISIL]), the immediate predecessor of the Islamic State. It makes little sense to expect the Islamic State to abandon the organizational principles that sustained it for more than a decade. Many senior Islamic State leaders were prominent in ISI, including the Islamic State leader Abu Bakr al-Baghdadi. He served on the group's governing council, known as the *shura* council, before succeeding the ISI emir Abu Umar al-Baghdadi in May 2010, after the emir's death in a U.S. airstrike. Abu Bakr al-Baghdadi appears in an ISI personnel roster, which was captured in northern Iraq in 2009, under his previous nom de guerre, Abu Du'a. A separate document, seized in a 2008

raid against ISI's number three, Abu Qaswarah, lists Abu Du'a as the top ISI leader in Mosul, the group's most important stronghold.

Several other prominent Islamic State leaders also appear in the same personnel records. Numerous recent news reports on the Islamic State illustrate how it has retained many of the same organizational structures, principles, and procedures. The Islamic State's current status in Sunni areas of Iraq, Syria, and other countries in many ways reflects the achievement of the long-held goals present in its internal documents, public statements, and press releases throughout the 2005–2010 period we examine.

Key Findings

ISI leadership consciously designed the organization not just to fight but also to build an Islamic state governed by the laws dictated by its strict Salafi-jihadi Islamist ideology. ISI was a vertically integrated organization with a central management structure and functional bureaus. It sought to replicate these structures at multiple lower geographic levels across territory. Each geographic unit that the organization controlled had substantial autonomy to pursue the group's strategic objectives in its jurisdiction but was required to send frequent reports to the group's leadership detailing operational activities, personnel matters, finances, and equipment. The central organization used these reports to inform decisions and provide strategic guidance to the varied elements of ISI.

Within this structure,

- In its original form as AQI, ISI adopted a bureaucratic model that looked remarkably similar to the ideal structure al-Qa'ida operatives described, but ISI replicated that structure at local levels to implement broad organizational control.
- By 2008, ISI had subdivided Iraq into specific sectors but was struggling to fill its design at the subnational level with personnel; roughly 30 percent of its sectors lacked the desired administrative personnel.

- ISI allocated human capital rationally, with the suicide-bomber corps dominated by foreigners (who were more likely than Iraqis to be fanatical believers in the group's religious ideology) and with intelligence and security personnel (where local knowledge was critical) dominated by its Iraqi members. However, the majority of foreign fighters were not suicide bombers. ISI vetted the foreigners upon their entering Iraq and had them fill specific tactical and administrative roles as well.
- The salaries and other compensation ISI paid to its members appear to have been designed for an environment where labor was plentiful and the organization needed to recruit loyal members and screen out opportunists. Yet even with such a screening process in place, its leadership faced substantial challenges managing trust within its ranks.
- ISI's monthly payroll consistently consumed the largest single portion of its revenues.
- There was significant personnel mobility within ISI. Turnover was high, and the group frequently reassigned members to different military units or back-office positions on an as-needed basis.
- ISI fundraising aimed to raise money locally, largely from criminal activities but also partly from activities that resembled state action, such as taxation. As with the present-day Islamic State, ISI demonstrated sophisticated financial management, efficiently reallocating money within governorates and throughout Iraq to support organizational objectives.
- ISI leadership sought substantial oversight of the group's finances and put in place detailed record-keeping requirements for tracking and auditing purposes.

Implications and Policy Recommendations

As noted above, the findings about ISI from 2005 to 2010 are relevant to combating the group today. Media reporting and analytic studies about the Islamic State indicate that the group's methods, organization, and intent have exhibited great continuity. In addition, many of

the current leaders and members have been with the group since its early days in Iraq. The implications of this study can be broken down into two categories: methodology and policy. We first start with methodology implications and then move on to policy implications.

Implications for Methodology

The main methodological finding for analysts and scholars of terrorist and insurgent organizations is simple: Systematic study of militant groups' internal records and media is necessary to gain the fullest possible understanding of how and why such groups as the Islamic State pose the threat they do. Greater collaboration between government analysts and social science researchers—including subject-matter experts, experts on methodology and theory, and linguists—on documents and media obtained from militant groups, and jihadist militant groups in particular, can be extremely productive for developing a richly grounded framework for understanding these organizations' strategies, finances, and behavior. Government analysts can gain from a strong conceptual framework—ideally supported by systematic and data-driven quantitative and qualitative analysis—with which to interpret and contextualize real-time information as they receive it. This is particularly true for developing useful ways of thinking about such groups as ISI, where strategic questions are of great importance and for which analysts may lack sufficient background knowledge and a clearly detailed intelligence picture. Social scientists, in turn, are likely to benefit from gaining detailed subject-matter knowledge based on primary sources of data that government analysts often use, as well as greater insight into how decisions get made, how operations are planned, and the rationales given to justify key decisions and actions at all levels of the policy and implementation cycles.

Increasing the priority of document exploitation can be an extremely valuable adjunct to other forms of collection and analysis on militant groups. Systematic document exploitation may be undervalued. An organization's internal documents may provide a rich portrait of how it works and what its weaknesses and strengths are while remaining sensitive to its complexity and internal heterogeneity. Document exploitation can also identify important nodes and techniques

of internal communications and transactions, as well as higher-level insight into an organization's plans and strategies. In the case of ISI, the documents show quite clearly an organization intent on building an Islamic state based on internal coherence and administrative capacity, even as it struggled to sustain itself militarily as the campaign against it escalated.

The usefulness of document exploitation should not be surprising. Societies have long understood the value of archives, and the operational value of documentation is substantial, albeit short-lived. To be maximally useful, however, document collections need to be analyzed on a large scale, so that the representativeness of documents is more discernible. Scholars need to be able to assess, with a reasonable amount of confidence, whether any given document is normal or a unique outlier and how that should affect their assessments and conclusions. Understanding the distribution of documents, as in the probability distribution, would shed light on how common are such documents as large-scale financial spreadsheets, personnel rosters, and reimbursement notes. Without knowledge of such a distribution, analysts cannot definitively conclude that the findings from a document analysis apply to the group as a whole over a long period or only to the specific faction of the group that generated those documents at the time they were generated. In addition, these collections need to include systematic tagging with relevant metadata to enable analysts to employ thoughtful sampling strategies and methodological approaches to maximize the data's analytical value for priority knowledge requirements.

There are substantial challenges to achieving these goals. Maintaining large-scale document collections is expensive, and consistently recording metadata at the collection point entails practical challenges in high-intensity operational environments. These challenges, however, are predictable, and, given the long-run value of understanding insurgent and terrorist organizations, future collection efforts should keep in mind these twin imperatives.

Systematic document exploitation also needs people with multiple skills. We have found that to get the most out of any document set, it is valuable to have practiced intelligence analysts, social scientists, trans-

lators, and military personnel with battlefield experience. This argues for carefully building analytic teams for document exploitation.

Implications for Policy

Any strategy against the Islamic State will require multiple lines of effort. Here we describe how our findings about AQI and ISI relate to four issues: organization and territorial control, countering the Islamic State's fighters, compensation policies, and financial policies.

Organization and Territorial Control

ISI's organization mirrored that of traditional, legitimate states and organizations in many respects, even if the group's ideas about territory and statehood, the rights of citizenship, and the provision of public goods were quite different from those of legitimate states. The combination of cognitive constraints on leadership, high turnover from warfighting, efforts to establish state-like services, and problems within the organization regarding the translation of management intent to member operations—the organization's agency problems—all point to great value to the organization in having formalized organizational structures and substantial amounts of paperwork and record-keeping. This could well apply to any nonstate group striving to establish a state. In the case of the Islamic State, the persistence of such structures—and their likely extension to affiliates in Libya, Egypt, Afghanistan, and elsewhere—creates substantial vulnerabilities.

In particular, the resulting documents create vulnerabilities as soon as a group faces an enemy whose military forces cannot be excluded from its territory. These documents reveal the group's size, its specific personnel, its sources of revenue, and its overall strategy—all information useful for combating it. Thus, when the Islamic State, or any similarly sized group, faces a highly competent military force, all the things it does to organize well become a vulnerability.

Exploiting the intelligence vulnerabilities of such an actor as the Islamic State requires substantial effort to fuse intelligence collection and analysis with counterterrorism and counterinsurgency operations. U.S.-led coalition forces were able to do this successfully from 2006 to 2011, most notably U.S. and British special operations task forces.

The commitment of resources to countering AQI and ISI was significant, however, compared with intelligence efforts against most terrorist organizations. An effective operational capability that is conducted by the current Iraqi security forces, and, in particular, Iraqi special operations forces, will require significant capacity-building on the analytical side, as well as substantial support from other parts of the U.S. government interagency community. Specific capabilities include financial investigations, which would be supported by the U.S. Department of Treasury and other parts of U.S. and coalition intelligence agencies. Criminal investigative capacity will also be necessary to counter Islamic State criminal-like activities, which provide a revenue stream and help the Islamic State control the Iraqi population in areas where it operates. Support from the U.S. Federal Bureau of Investigation and the U.S. Drug Enforcement Administration, or similar agencies from other countries, to the Iraqi government could help a great deal. On the intelligence-collection side, the vulnerability that stems from running a highly bureaucratic state suggests that when members of the group are targeted for capture, emphasis should not only be put on the leadership but also on personnel who maintain and store records, such as administrative emirs.

As with any state, the Islamic State has specific leaders. The history of operations against ISI shows that targeting leaders of its functional areas is one effective aspect of combating the group. In addition, the very threat of targeting at any level pushes the group underground and makes coordinating actions more difficult. However, the group's records show that it establishes a deep bench of personnel, so that attacking individual leaders alone will not lead to the Islamic State's destruction. Therefore, any counterpersonnel strategy should focus on eliminating entire layers of high-level and midlevel managers, such as an administrative emir and his administrative committee.

Countering the Islamic State's Fighters

Just as its predecessor did, the Islamic State draws its personnel from a diverse array of nationalities. Although no one, except, perhaps, the Islamic State's top leaders, has a precise estimate of the group's size, Islamic State membership has been estimated at anywhere from 9,000

to 200,000 throughout 2014 and 2015. In September 2014, a Central Intelligence Agency spokesperson said that the group had an estimated 20,000 to 31,500 fighters, and that about 15,000 foreign fighters from 80 countries, including 2,000 Westerners, had gone to Syria.[2] By early 2015, the U.S. intelligence community estimated that 20,000 foreign fighters from 90 countries have flowed into Syria since 2011, and more than 3,400 fighters from Western countries have gone to Syria and Iraq.[3] Many have joined the Islamic State.

Since 2012, the operating environment and the mission for ISI have dramatically changed, and it has rebalanced its activities to more-traditional military operations, using small arms, artillery, and maneuver in numbers. Under the new scale of operations, Iraqi and Syrian recruits appear to be playing an active role in planning and leading military operations because the Iraqi members are more educated and have more experience with traditional military affairs from their time in Saddam Hussein's military. Even with this reliance on local members, characteristic of other periods during the group's history, the Islamic State has a continuing need and use for foreigners. Furthermore, the combination of an ideological commitment to the pursuit of an Islamic caliphate and the group's sophisticated information operations—designed to attract young Muslims worldwide—suggests that the Islamic State will continue to attract foreign fighters.

The Islamic State's use of foreigners is a grave concern to Western policymakers and security services. Assuming that the Islamic State has continued to train foreigners in the manner that ISI did, it has probably developed a group of trained and hardened foreign fighters with unconventional skills that the Islamic State could direct against countries across and outside the Middle East. Therefore, greater effort will need to be dedicated to stopping the flow of foreign fighters. Exist-

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[2] Eyder Peralta, "CIA Doubles Its Estimate of Islamic State Fighters in Iraq and Syria," NPR.org, September 11, 2014; Mario Trujillo, "CIA: ISIS Has 20,000 to 31,500 Fighters," *The Hill*, September 11, 2014; Jim Sciutto, Jamie Crawford, and Chelsea J. Carter, "ISIS Can 'Muster' Between 20,000 and 31,500 Fighters, CIA Says," CNN.com, September 12, 2014.

[3] James R. Clapper, "Opening Statement to Worldwide Threat Assessment Hearing," Senate Armed Services Committee, Washington, D.C.: Office of the Director of National Intelligence, February 26, 2015.

ing efforts are clearly not working well: Foreign fighters are still flowing into Iraq and Syria at alarming rates, and the Islamic State has been linked to terrorist attacks in multiple countries outside the region. A European returnee from the Islamic State's operations in Syria was a key organizer of the attacks in Paris in November 2015.[4] Several enhanced efforts are needed. The first is enhancing border controls in transit countries—Turkey, most especially. The second is more effectively scrutinizing potential members from source countries. For liberal democracies, this will require difficult considerations about the trade-offs involved in balancing security concerns and the protection of civil liberties. Limiting the number of people who travel to the territory of the Islamic State also means stopping people from getting firsthand training and becoming integrated directly into fighter facilitation networks. Both of these efforts will be enhanced by a third effort: greater information-sharing among intelligence and law-enforcement organizations, both within and across countries. Here again, civil liberties requirements and values will need to be honored. However, it is likely that more sharing can take place because of various stovepipes among agencies that have not been fully overcome.

Taking Advantage of Compensation Policies

One of the biggest unknowns about the current structure of the Islamic State is how well it compensates its members. Reports on Islamic State compensation are frequently contradictory, and it is often difficult to validate or invalidate the reliability of the sources on which these reports are based. For example, numerous reports in the months after the group conquered Mosul indicated that the Islamic State paid salaries ranging from $400 to $1,000 per month. If true, this would be a dramatic break from the group's previous practices. However, evidence broadcast by the BBC in 2015 suggests that, in actuality, as with other practices, compensation has remained pretty much the same as it was under ISI. Salaries cited include $65 per month for a local fighter, an additional $43 for a wife, and $22 for each child, with foreign fighters

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[4] Andrew Higgins and Kimiko de Freytas-Tamuranov, "Paris Attacks Suspect Killed in Shootout Had Plotted Terror for 11 Months," *New York Times*, November 19, 2015.

receiving not a wage but food and housing. These sums are in line with what fighters received in Anbar in 2005 to 2006 and Mosul in 2008, adjusting somewhat for inflation.

This suggests that many fighters are not necessarily living well, and that the group is largely able to maintain morale through appeals to ideology, through victories, and through intimidation. When ISI was under great pressure, it missed or delayed salary payments. We recognize that there is great uncertainty at this point regarding salaries, but if we are right, this fact also suggests that causing a cutoff of salaries could harm morale, as could demonstrations that some leaders are receiving bonuses or are living extravagantly, ignoring Islamic State rules and ideology. This argues for a more active counterfinance strategy.

Countering Finances

As it did throughout the period of 2005 to 2010, the Islamic State today raises money through what can be characterized largely as criminal activities. Money-raising activities include oil-smuggling, sales of stolen goods, extortion, taxation, sales of looted antiquities, kidnapping for ransom, and even for a time taking a cut of the money that the Iraqi government sent to its employees in Islamic State territory. Donations appear to constitute only a small portion of revenues. And that is the key point: What has characterized the group throughout its history and what appears to characterize the group today is that it places a premium on local fundraising because that gives it maximum control. Local fundraising also allows the group to look more like a state. The group's taxation activities, including road tolls and export and import taxes, resemble what any state might do.

The Islamic State's internal fundraising capabilities mean that halting financial flows will likely remain challenging. But there are steps that the United States and coalition partners can take. Oil-smuggling has been dealt a blow by the coalition's destruction of oil infrastructure and the recapture of some oil fields, but it still brings in considerable revenue. In addition, the Islamic State controls other resources, including gas fields and phosphate mines.

Moving resources—such as oil, refined oil products, phosphates, or even antiquities—requires intermediaries and transport. To broaden the fight against such revenues, the coalition will need to identify the intermediaries and end purchasers and either target them or sanction them and their financial institutions. It is unlikely that the Islamic State is using formal financial institutions, but somewhere along the sales chain, a formal financial institution might be involved. Sanctioning intermediaries would mean blocking their access to the formal financial system and requiring formal financial institutions not to deal with them. Sanctioning a formal financial institution will cut that institution off from the international financial system. Such sanctions have been effective in the past, and, in this case, the United States should cast a wider net.

As for transport, oil, in particular, must move by trucks from Islamic State territory. These trucks will load at an oil field and, for larger trucks, will have to take specific roads. Given the amount of money the Islamic State is reportedly raising from oil sales, the coalition should elevate efforts to interdict oil transport. This could involve destroying loading points; destroying road entrances to oil fields or loading points; destroying the trucks themselves; or sending a very strong signal, backed with action, that driving an oil truck would be an extraordinarily risky occupation.

Finally, it may be the case that politicians or government officials—even of the anti–Islamic State coalition—are complicit in the oil trade. Any oil truck leaving Islamic State territory must pass through checkpoints or border crossings and should be noticed or recorded. Further investigation into how such trucks are able to get through checkpoints is merited, and the coalition should further address official complicity in the trade.

There may be little that the coalition can do regarding other Islamic State funding sources, or, in some cases, stopping such sources could have consequences that are negative for the counter–Islamic State effort. For example, the Islamic State's siphoning of potentially hundreds of millions of dollars per year from the salaries that the Iraqi government paid to its idled employees in Islamic State territory put the government in a bind. Ending payments to employees effec-

tively cut off money to the Islamic State. But that also contributed to a humanitarian problem, and it could have given the Islamic State a propaganda victory. The group could tell the largely Sunni recipients that the largely Shia government in Baghdad is abandoning them and that the Islamic State is their only alternative. Should the Iraqi government continue the payments, it would thereby fund the Islamic State's war effort. Likewise, short of conquering the territory that the Islamic State now holds, halting the group's taxation schemes would be extremely challenging.

Political Reconciliation as the Final Requirement

Local and regional military forces are taking the fight directly to the Islamic State. But these forces will need to become more effective if they are to defeat it. There is some question as to whether they could become effective enough to defeat the Islamic State even if Iraq receives substantially more foreign military assistance. As a result, there have been calls for the United States to provide resources to extragovernmental forces by going around the Iraqi government, as well as calls for the commitment of U.S. ground forces. Even if the effectiveness of Iraqi security forces increases, however, military action may be necessary but insufficient to defeat the Islamic State.

Any successful effort to defeat the Islamic State will need to involve a political accommodation in which Sunni communities feel that they have a reasonably secure future in both Iraq and Syria. The Islamic State draws support, or at least grudging acceptance, from aggrieved Sunnis in both countries. In some ways, the Islamic State is testing the limits to which any government can rule with brutality and without some degree of popular support. Discontent and rebellion have been met with extreme brutality, such as when the Islamic State massacred about 600 members of the Albu Nimr tribe in Anbar governorate, Iraq, in October 2014. But this resistance has continued in a variety of forms, including a clandestine assassination campaign against Islamic State personnel in Mosul in the summer of 2015. These Islamic State opponents will need to be essential in any effort to defeat the Islamic State and to ensure that the group does not reemerge as it did in 2013 and 2014. Historically, the group raised money in ways that created

friction with local Sunni elites. Moreover, the way it managed human resources and finances reflected an organization that lacked internal cohesion and did not fully trust its operatives. This suggests that external support for the group can be peeled off and that the group is subject to some degree of internal fracture. Although there is little chance that the Sunnis in Iraq, in particular, can ever return to the political dominance they enjoyed before the U.S.-led coalition invasion of 2003, some measure of political accommodation will be necessary to turn the Sunnis against the Islamic State. Without doing so, defeating the group will remain a distant goal.

All of this suggests that defeating the Islamic State will require persistence. One of the as yet unanswered questions is the staying power of the Islamic State. What happens if the Islamic State maintains its current level of threat and level of territorial control for several years, if not longer? A related question is whether the Islamic State is financially sustainable if current battle conditions are sustained indefinitely. So far, every indication suggests that it is: Just one year after declaring the caliphate, the Islamic State had more fighters and more territory, and the group may well have enough money to sustain its operations for years. Despite this, the record of counter-ISI operations from 2006 through 2010 shows that military action and political accommodation can work together to degrade the group substantially, if not defeat it. It is incumbent on regional leaders—with international help—to make that possible.

Acknowledgments

Introduction

Although U.S. and allied coalition forces easily overthrew the government of Saddam Hussein in Iraq in 2003, a vicious insurgency soon developed, and the most vicious insurgent was a Sunni Muslim Jordanian named Abu Musʿab al-Zarqawi. He aimed not only to expel the Americans and exterminate Shia Muslims—the majority of the Iraqi population—but to do this with the goal of establishing a Sunni Islamic government and spreading it into neighboring countries.[1]

Al-Zarqawi did not to live to see the results—an American attack killed him in the summer of 2006. But in October of that year, his group, the Base of Jihad in the Land of the Two Rivers, better known as al-Qaʿida in Iraq (AQI), led its allies in declaring a new entity, the Islamic State of Iraq (ISI).[2] Fewer than three months later, in early January 2007, the group's media wing released a document titled *Informing the People About the Birth of the Islamic State of Iraq*.[3] In it, the author drew parallels between the new ISI and the proto-state estab-

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[1] "The Al-Zarqawi Beliefs: 'Allah Has Permitted Us to Repay Them in Kind,'" *Irish Times*, September 24, 2004; Abu Musʿab al-Zarqawi, "Zarqawi Letter: February 2004 Coalition Provisional Authority English Translation of Terrorist Musab al Zarqawi Letter Obtained by United States Government in Iraq," U.S. Department of State, 2004.

[2] "The Base of Jihad" is a literal translation of the official full name of al-Qaʿida, Qaʿidat al-Jihad, adopted after the 2001 merger of al-Qaʿida and the Egyptian Islamic Jihad Group. Note that the Iraqi group (AQI) sometimes used an alternate name, al-Qaʿida Organization in the Land of the Two Rivers. Both formal AQI names avoided the use of the name Iraq.

[3] Our description of this book and its contents draws from Brian Fishman, *Fourth Generation Governance—Sheikh Tamimi Defends the Islamic State of Iraq*, West Point, N.Y.: Combating Terrorism Center, West Point, March 23, 2007.

lished by the Muslim prophet Muhammad when he fled from Mecca to Medina in the seventh century. These parallels immediately emphasized that the group was authentically Muslim, without the accretion of interpretation and innovation that the group claimed had crept into Islam since the religion's founding.

The author emphasized that ISI was different from a modern state: Its territory would not be well defined but would extend anywhere it could hold by force of arms, and all people within that territory would swear allegiance to the emir, the leader. The group might not provide the same services as a modern state, but it would improve both the religious and worldly conditions of its citizens, with specific services, including judicial processes, dispute resolution, collection of the Islamically required charity (*zakat*), the freeing of prisoners, and support for families of people killed in the group's service.[4]

The world now faces a seemingly new foe: the Islamic State, a violent group that rules territory in Iraq and Syria and has affiliates in territories that it has declared to be its provinces, or *wilayat*, around the greater Middle East. The group has displaced hundreds of thousands of people, enslaved others, beheaded still others, and claims to be the reestablishment of the Islamic caliphate grounded in early Islamic history.[5]

There is a clear line of descent from the AQI of 2004–2006, to the ISI of 2006–2013, to today's Islamic State. ISI was routed from most of Iraq by a combination of coalition forces, led by the United States, under the command of Multi-National Force–Iraq (MNF-I); local Sunni militias; and Iraqi security forces (ISF), particularly Iraqi Army units, from mid-2006 through early 2009. The group withdrew into a limited terrorist campaign in northern Iraq and maintained a supporting network in the Mosul area of Ninewa governorate that resembled a ruthlessly violent and effective organized-crime syndicate.

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[4]   Fishman, 2007, p. 7.

[5]   As explained more fully below, the Islamic State is also referred to as ISIS, for the Islamic State of Iraq and al-Sham or the Islamic State of Iraq and Syria; ISIL, for the Islamic State of Iraq and the Levant; or Daesh or Da'ish, an abbreviation of the Arabic for both names, al-Dawla al-Islamiyya fi al-'Iraq wa al-Sham. We refer to the group as the Islamic State, for ease of exposition and to reflect its expansive goals. In accordance with the rest of the world, we do not recognize it as an actual state, although it does conduct a variety of statelike activities.

As ISI developed this infrastructure, the United States was winnowing its military presence in Iraq in preparation for a full withdrawal in December 2011. Meanwhile, a bloody civil war in Syria broke out and divided much of the population and the armed groups, which formed along sectarian lines.

Leaders in ISI quietly sent fighters into Syria in 2011 to fight covertly under the alias of Jabhat al-Nusrah. Differences of opinion over strategy, tactics, and goals led to a split with the Jabhat al-Nusrah leadership, and ISI, in April 2013, began fighting directly under its own banner in Syria and changed its name to the Islamic State in Iraq and al-Sham (ISIS, also known as the Islamic State of Iraq and Syria, or the Islamic State of Iraq and the Levant [ISIL]). Following extensive anti-government protests in Iraq's Anbar governorate, from January 2013 to December 2013, which were met by an aggressive Iraqi government response, ISIL expanded in Iraq in force with the support of some local political organizations—including many of the same tribal organizations that had fought against it in 2006—and quickly overwhelmed Iraqi Army outposts in Fallujah and other cities. In June 2014, following the retreat of the Iraqi Army from Mosul and the group's conquest of that city, the group renamed itself the Islamic State and proclaimed a caliphate with the Islamic State leader Abu Bakr al-Baghdadi as the caliph of all Muslims.[6]

This report presents a comprehensive overview of the predecessors of the Islamic State, AQI and ISI, from 2005 to 2010, analyzing their organization and mechanisms of territorial control, their human capital policies, their compensation practices and career paths, and their financial practices. Research was substantially completed in 2014, with selected updates made in 2015.

There are two notable aspects to this report: an analysis of the group's internal documents and a historical recounting that reveals enormous detail relevant to the group of today.

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[6] For a useful overview, see Cole Bunzel, *From Paper State to Caliphate: The Ideology of the Islamic State*, Washington, D.C.: Brookings Institution, U.S. Relations with the Islamic World, Center for Middle East Public Policy, Analysis Paper No. 19, March 2015.

The Group's Own Words

First, the report provides an analysis of the Islamic State predecessors, based on more than 140 of their own internal documents, captured and found throughout Iraq.[7] Documents captured by U.S. and Iraqi forces during the Iraq War offer a unique opportunity to understand the organization. These documents went into the U.S. Department of Defense's Harmony database. For this report, we identified useful documents and worked with the Combating Terrorism Center (CTC) at West Point to declassify them, providing a window into how ISI organized, operated, and financed itself. CTC has posted documents on its Harmony Program website, making them available to analysts and researchers worldwide.[8] In addition, a CTC report presents an overview of what the documents reveal about ISI.[9]

For example, the documents show that even as early as the 2005 to 2006 period, the group was highly organized and bureaucratic. It also expected members to take religious obligation seriously. But during this period, when the Islamic State was still largely clandestine, it valued a lower profile, as this document captured in western Anbar governorate shows:

> In the name of God the merciful and the compassionate
>
> Some instructions to the beloved brothers, we expect compliance with it, those who fail will be held accountable.

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[7]   We have chosen to use the translations produced by linguists supporting U.S. and coalition forces during the Iraq war—even when these translations are sometimes difficult to fully understand—for two reasons. First, it will give the reader a sense of what U.S. analysts had to work with to understand AQI and ISI during the war. Second, many of the documents were hard to comprehend in the original language, and in some cases it would be difficult to improve on even a spotty translation.

[8]   These documents are accessible online. See "ISIL, Syria and Iraq Resources," database of declassified documents, Combating Terrorism Center, 2015.

[9]   Danielle F. Jung, Jacob N. Shapiro, Jon Wallace, and Pat Ryan, *Managing a Transnational Insurgency: The Islamic State in Iraq's "Paper Trail," 2005–2010*, West Point, N.Y.: Combating Terrorism Center, West Point, 2014.

1- All problems should be addressed to the Amir according to the chronology; problems should not be discussed in public in front of people.

2- Speed limit in villages should be 50; while in public roads should not exceed 120.[10]

3- Vehicle driver is the person in charge in terms of cleaning and maintenance.

4- Emphasis on group prayer and remembrance [morning and evening] and to follow the norms for the cause of victory.

5- Sleeping after dawn's prayer is strictly forbidden, this period should be utilized to recite the Quran and remembrance and then to start their work.

6- Security procedure should be followed; weapons must be concealed and should not be exposed in public, appearance in public place for no reason is forbidden.[11]

Continuity

The second notable aspect is that our analysis of the Islamic State's predecessor groups is more than a historical recounting. This report provides enormous detail on the group of today. As with any organization, certain characteristics concerning how the organization is run are likely very slow to change, including organizational culture, personnel policies, and administrative structure. Understanding the starting point is thus valuable for understanding the Islamic State. One would not expect the leadership to adopt an entirely new mode of organization upon moving into Syria and then expanding in Iraq. Under the old model, the organization fought quite well against the U.S. and Iraqi armies and the Iraqi population for more than four years (from

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[10] Presumably, this was in terms of kilometers per hour.

[11] Harmony document MNFA-2007-000566; see "ISIL, Syria and Iraq Resources," 2015.

2004 to 2008), maintained its internal cohesion and plotted its comeback during subsequent years of reduced activity (through 2012), and then claimed jurisdiction over Syria and Iraq as the group declared itself ISIS (in April 2013). It makes little sense to expect the group to suddenly abandon a model that had served it so well.

Many Islamic State leaders were prominent in ISI, including the Islamic State leader Abu Bakr al-Baghdadi, who took over ISI in May 2010, after serving on the group's governing council, known as the *shura* council. We believe that al-Baghdadi also appears in a personnel-tracking spreadsheet from Mosul in 2009 under his previous nom de guerre, Abu Du'a, and was listed in another document as the emir, or top leader, of ISI's Mosul sector, which was then, as now, its most important sector in Iraq. Five other prominent Islamic State leaders also appear in the same tracking sheet: Abu Louay, also known as Abu Ali and Abdul Wahid Khutnayer Ahma; Abu Mohamed, also known as Bashar Ismail al-Hamdani; Abu Nabil, also known as Wissam Abed Zaid al-Zubeidi; Abu Abdul Salem, also known as Abu Mohammed al-Sweidawi; and Abu Maysara, also known as Ahmed Abdul Kader al-Jazza.[12]

The Plan of This Report

This report uses a sample of more than 140 documents from AQI and its successor, ISI, from 2005 to 2010, to study five aspects of the militant organization:

1. organization, territorial aspirations, and management
2. human capital
3. compensation
4. career paths
5. financing.

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[12] Harmony document NMEC-2009-633789; see "ISIL, Syria and Iraq Resources," 2015.

The lessons we draw have both practical and academic implications. On the policy side, the Islamic State is one of the largest current threats to stability in the Middle East. A great deal of evidence suggests that the Islamic State shares most of the management practices and organizational techniques of AQI and ISI.[13] The report thus provides valuable insights to policymakers tasked with constructing strategies to counter the Islamic State and to analysts seeking to understand the conditions under which the Islamic State might achieve its goals.

On the academic side, the Islamic State and its predecessor organizations are one example of an increasingly important class of militant organization: those that exploit disorder within one country to advance territorial goals supported by transnational personnel or resource flows. By outlining the organizational challenges these groups faced and solutions they adopted, this report helps delineate the conditions under which they can operate and survive.

We show that ISI was a vertically integrated organization that followed what is known in the management literature as an "*M*-form" (multidivisional form) hierarchy, in which a central management structure with functional bureaus is replicated at multiple lower geographic levels.[14] In organizations of this type, each geographic unit has substantial autonomy, and differences between them—such as adjudicating disputes over resources—are handled by the central organization.[15]

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[13] Gregor Aisch, Joe Burgess, C. J. Chivers, Alicia Parlapiano, Sergio Peçanha, Archie Tse, Derek Watkins, and Karen Yourish, "How ISIS Works," *New York Times*, September 15, 2014; Patrick B. Johnston and Benjamin Bahney, "Hitting ISIS Where It Hurts: Disrupt ISIS's Cash Flow in Iraq," *New York Times*, August 13, 2014b; and Hannah Allam, "Records Show How Iraqi Extremists Withstood U.S. Anti-Terror Efforts," *McClatchy News*, June 23, 2014.

[14] For more on the *M*-forms, see Alfred D. Chandler, *Strategy and Structure: Chapters in the History of the American Industrial Enterprise*, Cambridge, Mass.: MIT Press, 1969; and Oliver E. Williamson, *Markets and Hierarchies: Analysis and Antitrust Implications*, New York: Free Press, 1975. An example of these organizational models applied to insurgent groups is Patrick B. Johnston, "The Geography of Insurgent Organization and Its Consequences for Civil Wars: Evidence from Liberia and Sierra Leone," *Security Studies*, Vol. 17, No. 1, 2008.

[15] Bahney, Shatz, et al. provide a view of AQI's management practices in Anbar governorate in 2007 (Benjamin Bahney, Howard J. Shatz, Carroll Ganier, Renny McPherson,

Within this structure,

- In its original form as AQI, ISI adopted a bureaucratic model that looked remarkably similar to the ideal structure al-Qaʻida operatives described, but ISI replicated that structure at local levels to implement broad organizational control.
- By 2008, ISI had subdivided Iraq into specific sectors but was struggling to fill its design at the subnational level with personnel; roughly 30 percent of its sectors lacked the desired administrative personnel.
- ISI allocated human capital rationally, with the suicide-bomber corps dominated by foreigners (who were more likely than Iraqis to be fanatical believers in the group's religious ideology) and with intelligence and security personnel (where local knowledge was critical) dominated by its Iraqi members. However, the majority of foreign fighters were not suicide bombers. ISI vetted the foreigners upon entering Iraq and had them fill specific tactical and administrative roles as well.
- The salaries and other compensation ISI paid to its members appear to have been designed for an environment where labor was plentiful and the organization needed to recruit loyal members and screen out opportunists. Yet even with such a screening process in place, its leadership faced substantial challenges managing trust within its ranks.
- ISI's monthly payroll consistently consumed the largest single portion of its revenues.
- There was significant personnel mobility within ISI. Turnover was high, and the group frequently reassigned members to different military units or back-office positions on an as-needed basis.

- ISI fundraising aimed to raise money locally, largely from criminal activities but also partly from activities that resembled state action, such as taxation. As with the present-day Islamic State, ISI demonstrated sophisticated financial management, efficiently reallocating money within governorates and throughout Iraq to support organizational objectives.
- ISI leadership sought substantial oversight of the group's finances and put in place detailed record-keeping requirements for tracking and auditing purposes.

The remainder of this report proceeds as follows: Chapter Two provides an overview of the insurgent environment in Iraq from 2005 to 2010, with a particular focus on conditions in the governorates for which we have ISI documents. Chapter Three offers an overview of the organizational economics of insurgency and terrorism, discussing the management challenges for ISI and laying out expectations for what we will see in subsequent chapters. Chapter Four shows how ISI was organized and shares details of its plans for a state within the territory of Iraq. Chapter Five outlines the human capital of ISI members. The chapter provides strong evidence that ISI members were drawn from populations with outside opportunities for work; a lack of options for employment was not the reason members joined. Chapter Six analyzes ISI's compensation practices, with a view toward assessing relations between management and operatives. Chapter Seven tracks the career trajectories of a subset of ISI members and builds on Chapter Six by showing how compensation for specific members changed over time. Chapter Eight assesses ISI financing practices at the governorate and subgovernorate levels, mostly in Anbar governorate, from 2005 to 2006, and in Ninewa governorate, from 2008 to 2009. Chapter Nine expands on the treatment of finances by discussing the organization's general treasury at the top level and reallocation across governorates, as well as specific financial control practices. Chapter Ten concludes with implications for policymakers responsible for combating terrorist and insurgent groups, including the group calling itself the Islamic State, which now controls parts of Syria and Iraq, as well as for analysts of terrorism and insurgency. Appendix A discusses the challenges of

analyzing captured documents, known as document exploitation, and the specific documents used in this report. Appendix B provides two examples of other research efforts on covert and clandestine organizations. Appendix C provides the list of documents from which we drew salary data.

CHAPTER TWO

The Islamic State of Iraq and the Iraq War

The Salafi-jihadi organization ISI evolved from AQI, officially formed by al-Zarqawi in October 2004. ISI was Salafi in that it adhered to an ideological strain in Sunni Islam that seeks to emulate, as purer, the thinking and practices of the prophet Muhammad and the earliest generations of Muslims. It was jihadi in that it believed that violent struggle against non-Muslims and Muslims it judged to be apostate is an important religious duty. Although ISI originated as one of many Sunni insurgent groups operating throughout Iraq in the wake of the invasion by coalition forces in March 2003, the group rapidly increased its capability and influence from 2004 through 2005 and emerged as the dominant insurgent organization operating in the country by early 2006. Composed of both foreign fighters and local Iraqis, ISI had a relatively hierarchical command structure, complex and bureaucratic administrative processes, and diverse sources of funding.

   The group actually went by two subtly different names: the Islamic State *of* Iraq and the Islamic State *in* Iraq. The *of Iraq* group was meant to be a haven for Iraq's Sunnis as the Kurdish population in the northeast achieved greater autonomy and the Shia population in the center and south solidified control in territories where it held the majority. The *in Iraq* group was meant to serve as a state for all Muslims (or at least those considered Muslims by the group's leaders, which would exclude the Shia), regardless of modern borders: "On balance, the Islamic ele-

ment prevailed over the Iraqi in the group's propaganda, even though the Islamic State of Iraq remained the more official name."[1]

This chapter provides the background and context for our analysis of ISI. The chapter begins by reviewing the broad trends in the conflict: putting the formation of the Iraqi insurgency in context, highlighting the rise of ISI, and outlining the formation of the anti-ISI Awakening movement. We discuss the relevant socioeconomic conditions in Iraq, which affected ISI's organizational structure and financing activities. The chapter concludes with a detailed examination of the operational environment in the four governorates for which we have substantive documents and data—Anbar, Diyala, Salah al-Din, and Ninewa. This discussion focuses on variations across time and space that help to put our data in context by explaining the operational constraints the group was under throughout the course of the conflict.

Throughout this chapter, we refer to the group as ISI for purposes of clarity, although we occasionally refer to the group as AQI for events before the time it became ISI, if we believe that would improve clarity. It is important to note that the group's original core of foreign fighters and leadership came from al-Zarqawi's group Jama'at al-Tawhid wal-Jihad, which was formed in Jordan in the late 1990s. ISI operated under several different names during the course of its insurgency in Iraq, such as Jama'at al-Tawhid wal-Jihad, AQI, and the Mujahidin Shura Council (MSC).

The Iraq War

After the United States and its partners that composed the coalition forces invaded Iraq in March 2003 and deposed Saddam Hussein's government in April, a power vacuum rapidly emerged. Several analysts assert that this created a "security dilemma" dynamic, which pitted three groups loosely aligned around ethnosectarian identities

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[1]   This paragraph is drawn from Bunzel, 2015. The final quotation is from p. 18. Throughout this report, we refer to the group as the Islamic State *of* Iraq because when the group's names appear on the documents we use, it usually appears as Dawlah al-'Iraq al-Islamiyya, or Islamic State of Iraq.

against each other to achieve political control—Sunni Arabs, Shia Arabs, and Kurds.[2] The Sunnis, who ultimately lost the most in the wake of the coalition invasion, came to form the core of an insurgency that included an "amalgam of former Baathists, nationalists, Salafi jihadists, and criminals."[3] Although Sunnis represented a minority in terms of Iraq's population, they had enjoyed near-exclusive political control for decades.[4] U.S.-led decisions to disband the Iraqi Army, enact far-reaching laws barring members of Saddam Hussein's Ba'ath party from participation in the military or government (known as de-Ba'athification), and reshape Iraq's government as a democracy overturned this system, giving the majority Shia population the dominant position in the national government.[5] In addition, the Kurdish minority was given an increased role in the political process, gaining status as the "kingmaker" at the national level and solidifying its de facto autonomy in much of northern Iraq.[6]

A multitude of Sunni insurgent groups, including ISI, rapidly took advantage of the Sunni population's political dispossession to mobilize large portions of the Sunni population against the coalition forces and the Iraqi government. Some commentators have described the early period of the insurgency in 2004 and 2005 as a "composite insurgency" that had no discernible leadership.[7] These militant groups

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[2] For more on the security dilemma, see Barry Posen, "The Security Dilemma and Ethnic Conflict," *Survival*, Vol. 35, No. 1, Spring 1993. See also James Fearon, "Iraq's Civil War," *Foreign Affairs*, Vol. 86, No. 2, March/April 2007; and Chaim Kaufmann, "A Security Dilemma: Ethnic Partitioning in Iraq," *Harvard International Review*, Vol. 28, No. 4, 2007.

[3] Bahney, Shatz, et al., 2010.

[4] Michael Eisenstadt and Jeffrey White, *Assessing Iraq's Sunni Arab Insurgency*, Washington, D.C.: Washington Institute for Near East Policy, Policy Focus No. 50, December 2005.

[5] See Dale C. Kuehl, *Unfinished Business: The Sons of Iraq and Political Reconciliation*, Carlisle, Pa.: U.S. Army War College, Strategy Research Paper, March 2010; and M. J. Kirdar, *Al Qaeda in Iraq*, Washington, D.C.: Center for Strategic and International Studies, AQAM Futures Project Case Study Series, June 2011.

[6] Kuehl, 2010.

[7] Eisenstadt and White, 2005; and Seth Jones and Martin Libicki, *How Terrorist Groups End: Lessons for Countering al Qa'ida*, Santa Monica, Calif.: RAND Corporation, MG-741-1-RC, 2008.

built their interactions on a "loose network of deep-seated familial, tribal, and local loyalties."[8] However, over the course of the first two years, the Saddam loyalists rapidly lost influence and more-extreme, Salafi-jihadist elements of the insurgency began to assert greater control. The broader movement came to be dominated by a few large Salafi groups, especially ISI.[9]

The predecessor to ISI, AQI, was officially formed in October 2004, when Abu Mus'ab al-Zarqawi aligned his group, Jama'at al-Tawhid wal-Jihad, with the larger al-Qa'ida movement.[10] Jama'at al-Tawhid wal-Jihad originated in Jordan during the late 1990s and then grew significantly in Afghanistan, under the supervision of al-Zarqawi and the funding of Usama Bin Ladin.[11] The group was composed largely of recruits from the greater Levant countries, including Jordan, Lebanon, Syria, and the Palestinian territories. It grew to nearly 3,000 members under al-Zarqawi, before the October 2001 U.S. airstrikes in Afghanistan in response to the 9/11 attacks.[12] After the U.S. invasion of Afghanistan, al-Zarqawi relocated to Iran and then moved again to Syria, Lebanon, and, ultimately, northern Iraq, where he formed an alliance with the Kurdish Islamist group Ansar al-Islam.[13] While in Iraq, however, al-Zarqawi traveled frequently throughout the Sunni Triangle area around Baghdad, deepening his network, recruiting fighters, and establishing bases.[14] Al-Zarqawi's expansion of his weapon- and fighter-smuggling networks made him the default conduit for most, if not all, foreign fighters flowing into Iraq in anticipation of the U.S.-led

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[8]   Bahney, Shatz, et al., 2010, p. 13.

[9]   International Crisis Group, *In Their Own Words: Reading the Iraqi Insurgency*, Amman, Middle East Report No. 50, 2006.

[10]   Kirdar, 2011.

[11]   Kirdar, 2011.

[12]   Mary Anne Weaver, "The Short, Violent Life of Abu Musab al-Zarqawi," *The Atlantic*, July/August 2006.

[13]   Gary Gambill, "Abu Musab al-Zarqawi: A Biographical Sketch," *Jamestown Terrorism Monitor*, Vol. 2, No. 24, December 2004; and Weaver, 2006.

[14]   Weaver, 2006.

invasion. In essence, he became the default emir of Islamist militants in Iraq.[15]

After the coalition invasion, AQI rapidly emerged as the most capable and ruthless militant group operating in Iraq. As Brian Fishman wrote, "AQI was brutal and imperious, but its successful attacks against U.S. forces, Shia militias, and the Iraqi government were useful. Zarqawi's attacks . . . were welcomed by other Sunni insurgents."[16] Al-Zarqawi directed a bloody campaign aimed at weakening coalition forces; deterring Iraqi cooperation through attacks on military, government, and tribal leaders who worked with coalition forces; achieving a psychological effect through high-profile spectacular attacks, kidnappings, and beheadings; and fomenting sectarian conflict through a deliberate campaign that targeted Shia across Iraq.[17] Using this multipronged strategy, AQI grafted its movement to the rising Sunni insurgency, mobilizing large portions of the Sunni population to support AQI's cause and prosecuting a violent campaign against coalition forces and ISF.

AQI initially centered its activities in Anbar governorate, an expansive area in the western Iraqi desert and home to a majority-Sunni population with a long history of resistance to central government control. Al-Zarqawi based the group in Fallujah, a major city nestled along the Euphrates River Valley, which also served as one of the main routes for AQI's expanding foreign-fighter facilitation network. The group quickly took control of the city through a violent campaign of attacks and intimidation, pushing aside the tribal sheiks who traditionally ruled throughout the governorate, and maintained a sanctuary in the city until coalition forces launched a major operation to clear it in November and December 2004.[18] After the loss of Fallujah, the group headquartered its Anbar operations near the provincial

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[15] Gambill, 2004.

[16] Brian Fishman, *Dysfunction and Decline: Lessons Learned from Inside al-Qaʻida in Iraq*, Harmony Project, West Point, N.Y.: Combating Terrorism Center, March 16, 2009, p. 2.

[17] Kirdar, 2011.

[18] Bing West, *No True Glory: A Frontline Account of the Battle for Fallujah*, New York: Bantam Dell, 2005.

capital of Ramadi. One of the primary sets of financial documents analyzed in this report was captured in nearby Julaybah, a town just east of Ramadi. These records provide a snapshot of the group's internal communications and record keeping from June 2005 through October 2006.[19]

Despite friction with the local Sunni population and other insurgent groups, AQI maintained significant operational capability in Anbar, and much of the rest of Iraq, throughout 2006. In parallel to the group's consolidation in Anbar, it established military and administrative structures in each of the country's Sunni-controlled governorates and Baghdad, the national capital and Iraq's most populous city.

Although this report does not focus on ISI's activities in Baghdad specifically, the capital city clearly played a key role in the Iraq war and the Sunni insurgency. Home to an ethnically mixed population of more than 7 million, and the clear center of national-level politics, AQI early on recognized Baghdad as critical to its overall success, and it focused increasing attention on the city and its surrounding suburban "belts," beginning in 2005.[20]

In February 2006, AQI conducted one of its most successful attacks of the entire conflict, targeting the symbolic al-Askari Shrine in Samarra, the third-holiest religious site in Shia Islam.[21] As al-Zarqawi intended, this attack ignited a wave of sectarian violence across the country, especially in Baghdad. Within weeks of the bombing, an escalating cycle of tit-for-tat sectarian murders and attacks had engulfed the country, making all-out civil war between Sunni and Shia groups increasingly likely.[22] This sectarian violence continued to

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[19] The data include three transactions from November 1, 2006, and one transaction from November 2, 2006.

[20] For more on ISI's strategy and operations in and around Baghdad, see Jennifer Griffin, "Zarqawi Map Aided Successes Against Iraqi Insurgency," *Fox News*, November 21, 2007; and Michael Duffy and Mark Kukis, "The Surge at Year One," *Time*, January 31, 2008.

[21] Carter Malkasian, "Counterinsurgency in Iraq: May 2003–January 2007," in Daniel Marston and Carter Malkasian, eds., *Counterinsurgency in Modern Warfare*, New York: Osprey Publishing, 2008. For more on the al-Askari Shrine, see "History of the Shrine of Imam Ali Al-Naqi and Imam Hasan Al-Askari," Al-Islam.org, n.d.

[22] Fearon, 2007.

escalate throughout 2006 and into early 2007, especially in mixed parts of Iraq, such as Baghdad and Diyala governorate, often prompting Sunni groups in these areas to turn to ISI for protection against such Shia militias as Jaysh al-Mahdi.

In Anbar, however, which was largely unaffected by the growing sectarian violence, opposition to AQI mounted in 2006, as the group increasingly targeted Sunni tribal leaders and rivals.[23] In June 2006, al-Zarqawi was killed by a coalition airstrike, and his successor, Abu Ayyub al-Masri, an Egyptian national also known as Abu Hamza al-Muhajir, moved to strengthen AQI's position by laying claim to territory in the guise of a new emirate under an Iraqi leader, something al-Zarqawi had wanted. In October 2006, al-Masri declared the establishment of the Islamic State of Iraq, with Hamid Dawud Khalil al-Zawi, also known as Abu Umar al-Baghdadi, as emir and al-Masri acting as minister of war.[24]

Even after the death of al-Zarqawi, ISI maintained the ability to conduct violent attacks in much of Anbar and across most other parts of Iraq throughout 2006. Although the group's popular support was beginning to erode in Anbar, ISI still enjoyed de facto control in the predominately Sunni governorates to the north and west of Baghdad, largely because of the ongoing sectarian violence in Baghdad, Diyala, and Salah al-Din, as well as the failure of coalition forces and ISF to effectively weaken the group. Nationwide, violent attacks continued to grow during 2006 and into the first half of 2007, illustrating ISI's continued ability to project violence across much of the country (Figure 2.1).

Beginning in late 2006, however, an interrelated set of changes on the ground in Iraq began to turn the tide against ISI. First, the formation of the Sunni Awakening movement in Anbar began to rapidly undercut ISI's support in the governorate, especially in Ramadi. Building on previous tribal attempts to realign with coalition forces against ISI, there was finally a breakthrough with the formation of a coalition

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[23] Fishman, 2009.

[24] Christopher M. Blanchard, *Al Qaeda: Statements and Evolving Ideology*, Washington, D.C.: Congressional Research Service, updated July 2007.

Figure 2.1
Nationwide Levels of Violent Attacks, 2004 to 2008
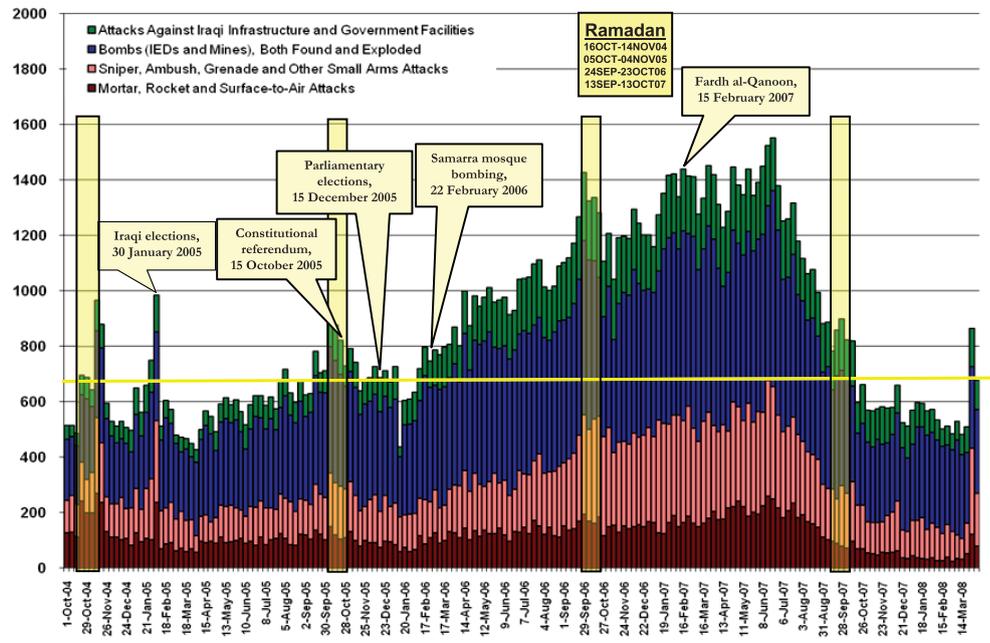
SOURCE: David Petraeus, MNF-I commander briefing to Congress, Washington, D.C., April 8, 2008a.
NOTE: IEDs = improvised explosive devices.
RAND *RR1192-2.1*

of 17 tribal sheiks into the Sahwat al-Anbar (the Anbar Awakening) in September of 2006.[25] Throughout late 2006 and early 2007, this group partnered effectively with the coalition unit based in Ramadi (1st Brigade, 1st Armored Division), led by COL Sean MacFarland, to reestablish security in the city and aggressively target ISI.[26] As the Awakening forces proved effective against ISI, they were successfully integrated into the formal ISF structure, serving as Iraqi Police forces and eventually receiving pay from the Iraqi government.[27] Based on the initial success in Ramadi, other tribal groups across Anbar began to join the burgeoning Awakening movement, dramatically undercutting ISI's popular support and operational capability across the governorate.

Second, coalition leaders finally acknowledged that their previous strategy in Iraq was not working, and the George W. Bush administration ordered a "new way forward."[28] Building on the initial successes seen in Anbar, and in a significant reversal of previous coalition strategies, this new plan provided additional U.S. combat forces and "put a premium on protecting the Iraqi population[,] . . . on the theory that improved security would provide Iraqi political leaders with the breathing space they needed to try political reconciliation."[29] The strategy, popularly known as the "surge," also placed heavy emphasis on integrating this population-centric counterinsurgency campaign with continued "counter-terror operations against Al-Qaida and insurgent organizations."[30]

In response to increased pressure in Anbar governorate, primarily because of the effects of additional coalition surge forces and the growing Awakening movement, ISI was forced to shift its base of operations from Anbar to the north and east, primarily into Diyala, Salah al-Din,

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[25] Austin Long, "The Anbar Awakening," *Survival*, Vol. 50, No. 2, April–May 2008.

[26] Niel Smith and Sean MacFarland, "Anbar Awakens: The Tipping Point," *Military Review*, March–April 2008.

[27] N. Smith and MacFarland, 2008.

[28] White House, "Fact Sheet: The New Way Forward in Iraq," January 2007.

[29] George W. Bush, "Transcript: President Bush Addresses Nation on Iraq War," January 10, 2007.

[30] White House, 2007.

and Ninewa governorates.[31] While Anbar enjoyed the beginning of a steady decline in violent activity in late 2006, there were corresponding increases in attacks in these other governorates as ISI sought to gain control and influence through militant activity against coalition forces and ISF, as well as other tribal and militant groups that resisted ISI's incursion (Figure 2.2). Although each of these areas had some preexisting Sunni insurgent activity, the level and intensity of violence increased significantly as ISI shifted greater attention and resources to Diyala and Salah al-Din in late 2006, and then subsequently to Ninewa and Mosul in late 2007.

Throughout 2006, ISI significantly stepped up violent attacks across Diyala governorate, targeting the Shia minority to stoke sectarian tensions and aggressively coercing other Sunni tribal and militant groups in an effort to consolidate control. By the end of the year, ISI controlled or exerted influence over most of Diyala. The group gained strength throughout early 2007, aided by a complete failure of the Diyala provincial government to function, limited coalition presence, and a largely ineffective ISF organization. Reports from spring of 2007 indicated that ISI had taken de facto control of the capital city of Baqubah and "entrenched itself across the southern portion of the province."[32] The documents from Diyala that we analyze in this report were captured by coalition forces during the summer of 2007 and provide valuable insight into ISI's structure, administrative processes, and financing operations in the governorate near the peak of the group's capability and influence there.

During the same period, ISI made significant gains in neighboring Salah al-Din governorate, a majority Sunni governorate with long-standing insurgent activity against both coalition forces and ISF. With several pockets of Shia-controlled territory (such as in Balad and Ad Dujayl), Salah al-Din had some of the same potential for sectarian conflict as Diyala and faced the similar challenges of ineffective provincial-

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[31] Stephen Biddle, Jeffrey A. Friedman, and Jacob N. Shapiro, "Testing the Surge: Why Did Violence Decline in Iraq in 2007?" *International Security*, Vol. 37, No. 1, 2012.

[32] Eric Hamilton, "Expanding Security in Diyala," Institute for the Study of War, August 2008b.

Figure 2.2
Trends in Combat Violence, by Governorate, 2005 to 2008
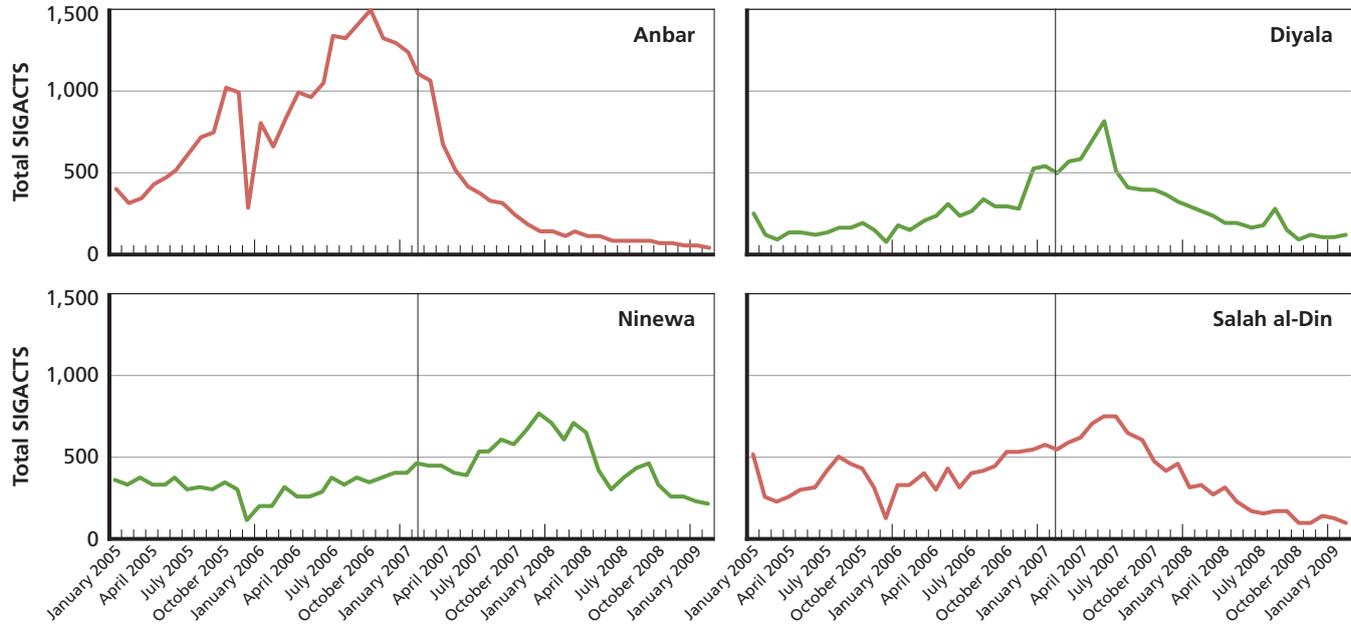
NOTES: Governorates shown are those with substantial financial data. The vertical lines mark the start of the surge. SIGACT = significant activity.
RAND *RR1192-2.2*

level governance, weak and unmotivated ISF, and too few coalition forces to effectively control the large expanse of territory. ISI established safe-haven zones north of the Tigris River that allowed for the free flow of weapons and fighters between Anbar, Diyala, and Ninewa.[33] Additionally, ISI stepped up its militant operations across the governorate, conducting the spectacular attack against the al-Askari Shrine in the governorate's capital city of Samarra in February 2006, which ignited a national wave of sectarian violence, as well as several other complex suicide attacks against ISF and coalition forces in urban areas and Highway 1, the critical, primary line of communication for coalition forces north of Baghdad.[34] In this report, we analyze a set of detailed ISI personnel records captured in Salah al-Din in July 2007, at the peak of ISI's control of the governorate. These records shed light on the group's composition, capabilities, and administrative procedures.

As ISI continued to increase violent attacks and consolidate control over territory in Diyala and Salah al-Din, signs of friction between the group and the local populations began to emerge, just as they had previously in Anbar. By the spring of 2007, several Sunni militant groups in Diyala had begun to fight back against ISI, led initially by fighters from the 1920s Revolution Brigades.[35] In July 2007, one of the first organized anti-ISI groups, the Baqubah Guardians, emerged in Diyala.[36] Similar events were unfolding in Salah al-Din as well, with several tribal groups turning against ISI and partnering with coalition elements in an alliance of convenience. In Duluiyah, previously a hotbed of the Sunni insurgency in Salah al-Din, leaders from the Jabouri tribe aligned with coalition forces in May 2007 and quickly

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[33] Kimberly Kagan, "The Battle for Diyala," Iraq Report IV, *The Weekly Standard*, 2007a.

[34] Richard A. Oppel Jr., "Iraq Reports Capture of Senior Al Qaeda Figure," *New York Times*, September 3, 2006.

[35] John Ward Anderson and Salih Dehima, "Offensive Targets Al-Qaeda In Iraq," *Washington Post*, July 20, 2007. For more on the 1920s Revolution Brigades, see Martha Crenshaw, "1920s Revolution Brigades," Mapping Militant Organizations, Stanford University Center of International Security and Cooperation, 2010.

[36] "Al-Qaeda in Iraq," *Jane's World Insurgency and Terrorism*, October 2013, p. 7.

began to turn the tide against ISI.[37] As various grassroots anti-ISI groups began to form across the country, following in the footsteps of the Anbar Awakening, coalition leaders pushed the Iraqi government to create an official reconciliation program and to integrate these elements into ISF, resulting in the formation of the Sons of Iraq (SOI) program.[38] By the end of 2007, there were more than 91,000 Iraqis, mostly Sunnis, who had officially joined the program.[39] The combination of this anti-ISI Awakening movement and the coalition surge operations severely degraded ISI, denying it sanctuary in most of Iraq (Figure 2.3). ISI suffered dramatic losses across the country from late 2006 through early 2008.

Under growing pressure from coalition forces, ISF, and SOI elements across most of Iraq, ISI was forced to retreat further north, to Ninewa governorate, which had always played a key role in the Sunni insurgency as a transit point for foreign fighters and as a major source of ISI financing.[40] Located astride the Arab-Kurd sectarian fault line and home to many former regime leaders, Ninewa's complex ethnosectarian dynamics allowed ISI to maintain significant Sunni popular support and develop de facto control over much of the governorate, including Iraq's second-largest city, Mosul, by late 2007.[41] During the final months of 2007, violent attacks were higher in Ninewa than in any other governorate. Al-Masri, the ISI leader, was reportedly based in or around Mosul, along with most of the group's other top leaders, including Abu Qaswarah, also known as Mohamed Moumou, ISI's

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[37] Bill Roggio, "Iraq Report: The Salahadin Awakening Forms," *The Long War Journal*, May 21, 2007b.

[38] Kuehl, 2010.

[39] David Petraeus, *Report to Congress on the Situation in Iraq: Testimony Before the Senate Armed Services Committee*, Washington, D.C., April 8–9, 2008b.

[40] Michael R. Gordon, "Pushed Out of Baghdad Area, Insurgents Seek Hub in North," *New York Times*, December 5, 2007.

[41] Michael Knights, "Al-Qa'ida in Iraq: Lessons from the Mosul Security Operation," *CTC Sentinel*, Vol. 1, No. 7, June 2008a.

Figure 2.3
The Coalition's Assessments of ISI Strength

December 2006

March 2008
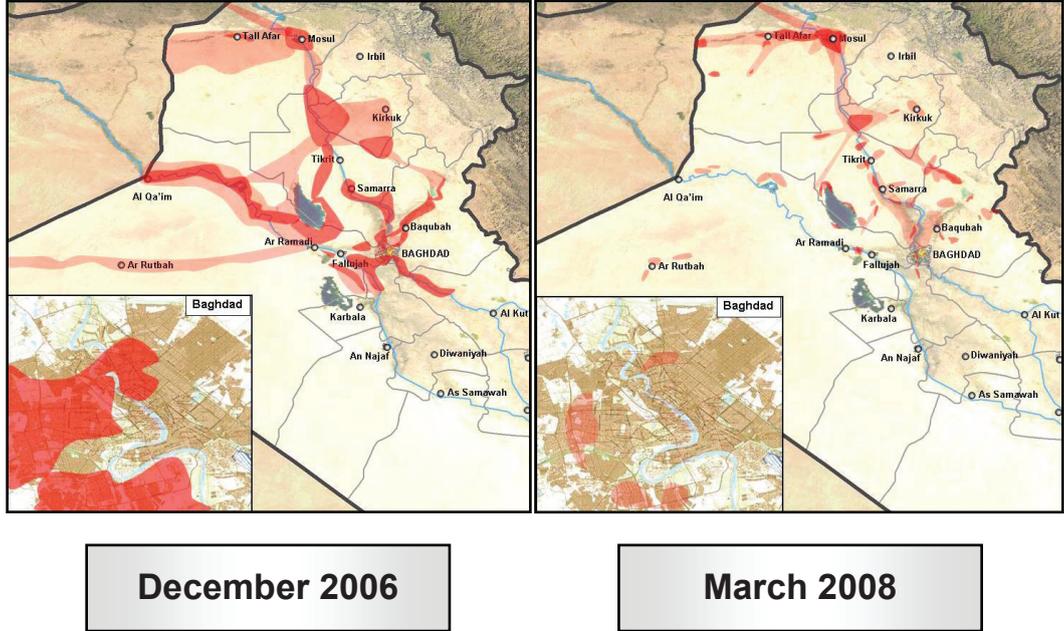
SOURCE: Petraeus, 2008a.

RAND *RR1192-2.3*

third in command in 2008 and the day-to-day operational leader for the entire ISI.[42]

With very limited coalition presence in the governorate and an ineffective ISF, the situation continued to deteriorate in Mosul during early 2008. By March, between one-half and two-thirds of all attacks in Iraq occurred in Ninewa, primarily centered in Mosul.[43] Recognizing this dynamic, coalition forces sent additional forces to Ninewa in early 2008 and began to reverse ISI's gains, capturing or killing a multitude of ISI senior leaders throughout mid and late 2008 and significantly degrading the group's operational capacity.[44] Several of the key documents analyzed in this report were captured by coalition forces during these operations against ISI in Mosul. For example, coalition forces captured Yasin Sabah Salih Jubayyir, ISI's security emir for northern Iraq, in December 2007, and they recovered documents containing a full roster of all ISI members in the region.[45] As coalition forces exploited these documents, they were able to both better understand ISI's organization and conduct follow-on operations against other top leaders. By early 2009, primarily because of increasingly effective joint counterterrorism operations, ISI was severely weakened in Ninewa, although the group maintained limited finance, media, and military capabilities throughout the governorate.

By the end of 2010, ISI survived principally in northern Iraq but retained a capability to conduct spectacular attacks across much of the country.[46] The group carried out several vehicle-borne explosive strikes against targets across the country in the second half of 2009 and in the first half of 2010. Despite the deaths of ISI's two top leaders, al-Masri and al-Baghdadi, in a joint U.S. and Iraqi raid in April 2010 in the

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[42] Gordon, 2007. For more background on Abu Qaswarah, see Ernesto Londono, "No. 2 Leader of Al-Qaeda in Iraq Killed," *Washington Post*, October 16, 2008.

[43] Greg Smith, operational briefing, Multi-National Force–Iraq, March 2, 2008.

[44] Eric Hamilton, "The Fight for Mosul," Iraq Report VIII, *The Weekly Standard*, 2008c.

[45] MNF-I, "Coalition Forces Target Foreign Terrorist Facilitators, 11 Detained," press release A071213a, December 13, 2007c.

[46] Bahney, Shatz, et al., 2010.

Tikrit area, the group was able to continue operations, name new leaders, and launch a new campaign against ISF.[47]

The Operational Environment

Having traced the key events of the Iraq war related to ISI, we now turn to an examination of the unique conditions driving the insurgency in the four governorates for which we have substantive data. While there were many important similarities across the operational environments in Anbar, Diyala, Salah al-Din, and Ninewa, there were also notable differences. Our analysis of both quantitative data on attacks, as captured by the MNF-I SIGACTS III Database,[48] and qualitative data captured with ISI leaders confirms that there was a large degree of heterogeneity in ISI's operational environment across both time and space.[49] It is vital to understand these variations to effectively analyze the broader trends of ISI's evolution, explain why ISI operated differently in each governorate, and place each of the captured documents we analyze in this study in context.

Table 2.1 provides an overview of the key differences between the operating environments in the four governorates across four factors: (1) geographic and demographic conditions, (2) the legitimacy and capacity of the Iraqi government and ISF, (3) ISI's capability and

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[47] Michael Roddy, "Qaeda Confirms Deaths of Leaders in Iraq: Statement," Reuters, April 25, 2010; Aseel Kami and Michael Christie, "Al Qaeda's Iraq Network Replaces Slain Leaders," Reuters, May 16, 2010; Liz Sly, "Top Two Al-Qaeda in Iraq Leaders Are Dead, Officials Say," *Los Angeles Times*, April 20, 2010.

[48] Empirical Studies of Conflict Project, n.d.

[49] Unclassified SIGACTS data, drawn from the MNF-I SIGACTS III Database, were provided to the Empirical Studies of Conflict (ESOC) Project in 2008 and 2009. These data provide the location, date, time, and type of attack incidents but do not include any information pertaining to the coalition units involved, coalition casualties, or battle damage incurred. We filtered the data to remove the attacks we identified as being directed at civilians or other insurgent groups, leaving us with a sample of 168,730 attack incidents.

Table 2.1
Characteristics of Local ISI Operating Environments, 2005 to 2010

Location	Geographic and Demographic Conditions	Legitimacy and Capacity of Iraqi Government and ISF	ISI Capability and Popular Support	Economic Situation and ISI Financing
Anbar	• Predominately Sunni Arab (approximately 90 percent) • Robust tribal structure, history of "resistance" • Euphrates River Valley serves as foreign-fighter hub	• Weak provincial government • National government illegitimate • Shia Iraqi Army not legitimate; Iraqi Police intimidated	• Original ISI base • ISI consolidates control, despite tribal opposition (2004–2005) • SOI severely degrades ISI (2006–2007)	• Historical smuggling economy • AQI finance operations severely weakened post-SOI
Diyala	• Mixed population (60 percent Sunni, 20 percent Shia, 20 percent Kurd) • Ethnosectarian tensions • Complex terrain facilitates safe haven	• Minority Shia control; ineffective provincial government • Sectarian ISF exacerbate tension	• Diverse mix of militant actors • ISI consolidates control (2006–2007) • Rise of SOI undercuts ISI	• Major agricultural center • ISI has limited financing capacity in region
Salah al-Din	• Mostly Sunni (approximately 70 percent), some Shia (approximately 15 percent) • Legitimate tribal system • Transit hub for both coalition forces and ISI	• Limited provincial governance capacity • Most ISF underresourced and intimidated	• Significant popular support for Sunni resistance • ISI maintains strong influence until SOI forms (late 2007)	• Primarily agricultural economy • ISI fails to collect significant revenue from Salah al-Din, operates at a loss
Ninewa	• Arab-Kurd fault line (60 percent Sunni Arab, 30 percent Kurd) • Heavy population of former regime leaders • Strategic hub for smuggling fighters, weapons, money	• Minority Kurds control provincial government • Kurdish and Shia ISF seen as illegitimate • Sunni Arab Iraqi Police heavily intimidated	• ISI maintains significant support throughout • ISI enjoys de facto control (2007–2008) • Coalition forces heavily target ISI (late 2008)	• Major national trade hub • Primary financing center for ISI, especially by early 2007 • Extensive racketeering and protection scams

SOURCE: ESOC ethnicity data set (Empirical Studies of Conflict Project, n.d.).

popular support, and (4) the economic situation and ISI's finance operations.[50]

In the remainder of this section, we expand on these differences to help explain corresponding variations across time and space in ISI's organizational structure, mobilization strategies, financing operations, and military capabilities from governorate to governorate.

ISI and the Awakening in Anbar Governorate, 2005 to 2006

From the beginning of the Sunni insurgency in Iraq, Anbar governorate played a critical role. With a predominately Sunni population and a long history of opposition to central-government control from Baghdad, the region was ideal for ISI to establish a foothold and develop a safe haven from which to operate and expand the group. Given the strong position of leading tribal sheiks in the region and their control of critical trade routes through the desert, the Iraqi government consistently struggled to assert control in the governorate. According to David Kilcullen, the tribes in Anbar constituted a "competing power center for the formal institutions of the Iraqi state and form a parallel hierarchy that overlaps the structures and political allegiances of formal government at every level."[51] Even during the days of Saddam Hussein's rule, weaknesses in his internal position forced him to cede increasing amounts of power to tribal leaders to maintain their support, especially during the Iran-Iraq War (1980–1988) and after the 1991 Gulf War.[52]

After the coalition invasion in 2003, the central government's control and legitimacy in Anbar continued to decline. The majority of Anbar's Sunni residents felt increasingly disenfranchised, resulting in growing resentment and extremely low voter turnout (reportedly as low as 2 percent) for the country's first parliamentary and provincial

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[50] These criteria were partially drawn from the Manwaring paradigm, which was developed to assess the likelihood of success of a particular counterinsurgency campaign. For more, see Max G. Manwaring and John T. Fishel, "Insurgency and Counter-Insurgency: Toward a New Analytical Approach," *Small Wars & Insurgencies*, Vol. 3, No. 3, 1992.

[51] David J. Kilcullen, "Field Notes on Iraq's Tribal Revolt Against Al-Qa'ida," *CTC Sentinel*, Vol. 1, No. 11, 2008.

[52] Long, 2008.

elections in January 2005, which the Sunnis formally boycotted.[53] At the provincial level, there was no effective formal governance structure and very limited provision of basic public services, with the majority of Anbar citizens seeing the growing Sunni insurgency as the most legitimate force on the ground. As jihadist forces, led by ISI, began to gain greater control throughout 2004 and into early 2005, more-moderate tribal leaders were pushed aside or assassinated, creating an escalating cycle of violence and instability.

In addition, the U.S. decision to disband the Iraqi Army after the 2003 invasion reinforced the significant power vacuum in Anbar. For the most part, the formal ISF in the governorate were ineffective and seen as illegitimate by the local population. Since the reconstituted Iraqi Army was viewed as a Shia-dominated force, it was unable to earn the trust of the Anbar people and thus was largely ineffective in conducting counterinsurgency operations.[54] The local Iraqi Police were poorly equipped and trained, and they struggled to fill their ranks, largely because of intimidation by ISI and other Sunni militant groups.[55]

Throughout 2004, al-Zarqawi and his group successfully established operational capability in Anbar and ratcheted up the level of violence, primarily focused on Fallujah. In October 2004, he formally pledged allegiance to al-Qaʻida and formed AQI, basing the group in Fallujah and taking de facto control of most of the city. In April, with Operation Vigilant Resolve, and again in November 2004, with Operational Phantom Fury, coalition forces conducted major clearance operations in Fallujah, which temporarily pushed ISI from the city, but also resulted in significant deaths of civilians and damage to property, alienating most of the local population.[56] Capitalizing on this local resentment and anger toward coalition forces in the wake of

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[53] Liam Anderson and Gareth Stansfield, "The Implications for Federalism in Iraq: Toward a Five-Region Model," *Publius*, Vol. 35, No. 3, 2005.

[54] Alfred B. Connable, interview, in Timothy S. McWilliams and Kurtis P. Wheeler, eds., *Al Anbar Awakening: Volume I, American Perspectives—U.S. Marines and Counterinsurgency in Iraq, 2004–2009*, Quantico, Va.: Marine Corps University Press, 2009.

[55] Long, 2008.

[56] West, 2005.

these heavy-handed operations, ISI continued to consolidate control and influence across Anbar governorate throughout 2005, focusing on high-profile and coordinated suicide attacks, targeting ISF, coalition forces, and any local leaders who refused to support ISI's control of the governorate.

Despite their growing operational success and effective consolidation of much of the Sunni insurgency, al-Zarqawi and ISI were the targets of criticism within Anbar from fairly early on, primarily centered on the fact that they were a foreign element unrepresentative of Sunni or Iraqi national aspirations.[57] According to Fishman, "Zarqawi's strategy was fundamentally designed to assert control over Sunni groups and replace tribal loyalty and Iraqi nationalism with an ideological commitment to Salafi-jihadist goals."[58] Thus, it was clear almost from the start that there would be significant tension between local Sunni leaders and ISI that would have to be carefully managed if ISI was to be successful. However, al-Zarqawi and his cadre of key lieutenants either failed to realize this or chose to ignore it.

From 2004 through early 2006, there were four significant attempts by Sunni tribes in Anbar to "realign" with coalition forces against the increasingly repressive ISI.[59] Although each of these attempts failed, primarily because of ISI's extremely aggressive response each time, they clearly signaled a growing divide between ISI and the local population. ISI's strategy and actions also caused tension and disagreement with several of the other prominent Sunni jihadist groups across the country. As early as 2003, reports began to emerge of infighting between the groups. Beginning that year, fighters from the 1920 Revolution Brigades, one of Iraq's more prominent Sunni insurgent groups, had complained to al-Zarqawi directly about murderous attacks on Iraqi civilians. Another telling example was an incident in Taji, located in Salah al-Din governorate, in 2005: AQI fighters gunned down two members

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[57]   Bahney, Shatz, et al., 2010.

[58]   Fishman, 2009.

[59]   Biddle, Friedman, and Shapiro, 2012.

of Jaysh al-Islami, also known as the Islamic Army in Iraq, another important Sunni insurgent group, after an ideological dispute.[60]

In a 2005 letter, al-Qaʻida's then–deputy leader Ayman al-Zawahiri underscored to al-Zarqawi the need to accommodate the local population to retain the critical public support necessary to establish a territorial foothold for an emirate.[61] In an effort to demonstrate a semblance of unity, in January 2006, AQI declared the formation of the MSC, nominally an umbrella of Iraqi Sunni jihadist groups, with AQI as a member.[62] However, the MSC was part of a transitional phase intended to foster an Islamic state in Iraq—a goal al-Zarqawi shared with al-Qaʻida's senior leadership. At least three core al-Qaʻida senior leaders—Sayf al-ʻAdl, al-Zawahiri, and ʻAtiyyat Allah al-Libi—wrote al-Zarqawi between 2004 and his death in June 2006, encouraging him to establish an Islamic state in Iraq.[63] Al-Zarqawi himself referred to the MSC as "the starting point for an Islamic state," and, in April 2006, less than two months before he was killed by a U.S. airstrike, al-Zarqawi revealed his intention to declare an Islamic state "within the next three months."[64] Core al-Qaʻida's leadership in Pakistan continued to support the Islamic state project after al-Zarqawi's death. In al-Zawahiri's eulogy of al-Zarqawi, he reiterated his support for an Islamic state in Iraq. Al-Zawahiri wrote, "Know that the community of Islam has put its hopes on you, and that it is necessary for you to establish the Islamic State in Iraq, then to make your way toward captive Jerusalem and restore the caliphate."[65]

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[60] Sabrina Tavernise and Dexter Filkins, "Local Insurgents Tell of Clashes with Al Qaeda's Forces in Iraq," *New York Times*, January 12, 2006. For more on Jaysh al-Islami, see Daniel Cassman, "Islamic Army in Iraq," Mapping Militant Organizations, Stanford University Center of International Security and Cooperation, 2010.

[61] Office of the Director of National Intelligence, "Letter from al-Zawahiri to al-Zarqawi," news release No. 2-05, October 11, 2005.

[62] Brian Fishman, "After Zarqawi: The Dilemmas and Future of Al Qaeda in Iraq," *The Washington Quarterly*, Vol. 29, No. 4, 2006, p. 26.

[63] Bunzel, 2015, pp. 15–16.

[64] Bunzel, 2015, p. 16.

[65] Bunzel, 2015, p. 16.

Foreshadowing its envisioned role in the Islamic state, after establishing the MSC but before declaring ISI, AQI continued to assert itself as the dominant jihadist organization both in the MSC and in all of Iraq. Having blunted the tribes' initial resistance efforts, AQI enjoyed significant control throughout early 2006 and was considered by coalition forces the "dominant organization of influence in Anbar province, surpassing the nationalist insurgents, the Government of Iraq, and [coalition forces] in its ability to control the day-to-day life of the average Sunni."[66]

This dynamic began to change beginning in late summer of 2006. In September 2006, a coalition of 17 tribal sheiks, led by Sheik Sattar Abu Risha, announced the formation of the Anbar Awakening.[67] Sattar was a relatively minor sheikh who engaged in smuggling and highway robbery. He first tried to organize the tribes against AQI in 2005 because the group had moved in on his business interests.[68] As the 2006 Awakening movement began to gain traction throughout Anbar, starting primarily in Ramadi, there were significant synergistic effects with the coalition change of strategy.[69] Coalition forces adopted a more population-centric counterinsurgency doctrine, with a greater focus on protecting the population from ISI. With the renewed focus on protecting the Iraqi population and the surge of additional combat forces into Anbar in early 2007, coalition forces finally had sufficient capacity and resources to protect the tribes willing to fight against ISI. As more and more local Anbar citizens joined ISF, they were aligned with coalition units that were able to protect them and eventually operated jointly to effectively target AQI across the governorate. Once again, AQI launched a violent counterattack against the Awakening during late 2006 and into 2007, but this time it was much less effective. ISI focused attacks on the tribes and ISF, but they successfully held together in the face of this pressure.

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[66] Connable, 2009.

[67] Bahney, Shatz, et al., 2010.

[68] Long, 2008.

[69] Biddle, Friedman, and Shapiro, 2012.

On October 12, 2006, just one month after the start of the Awakening movement, AQI declared the formation of the Islamic State of Iraq. Based in the provincial capital of Ramadi, ISI outlined a strategy to address broad sectarian political grievances among Sunnis in Iraq—including Sunni tribes and other Sunni militant groups in Anbar governorate—under the banner of its Salafi-jihadist ideology.[70] Numerous influential voices of the global jihadist movement celebrated ISI's declaration, while others lamented it. But within Iraq, the timing of the ISI declaration was poor: AQI's strict sharia law and brutal violent enforcement of it had already alienated Anbar's Sunni population. Among most Sunni, the declaration of the Islamic state tended to exacerbate rather than repair existing tensions. As the Awakening movement continued to gain momentum throughout 2007, ISI's popular support and legitimacy continued to decline. Awakening forces, partnered with coalition forces, engaged in a fierce campaign that targeted key nodes up and down the ISI hierarchy and denied it safe haven through most of the governorate, including in key cities closest to Baghdad, Ramadi, and Fallujah. Overall violence in the governorate decreased dramatically (Figure 2.4).

ISI Sanctuary in Diyala and Salah al-Din Governorates, 2006 to 2007
Throughout 2006, Sunni tribal groups and coalition forces increasingly challenged ISI across Anbar, resulting in a much less permissive environment for the group. At the same time, and partly in response to this growing pressure, ISI began to relocate many of its personnel to the east, with a particular focus on the Diyala and Salah al-Din governorates. This shift accelerated in early 2007 because of the Awakening and the coalition surge. Given Diyala's contentious ethnosectarian dynamics and largely ineffective local government, the region offered an excellent opportunity for ISI to reestablish safe haven. Although Diyala directly borders Baghdad, the Iraqi government had struggled to maintain effective control of the governorate since 2004.[71] After the Sunni Arab boycott of the January 2005 national and provincial elec-

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[70] Fishman, 2007.

[71] Kagan, 2007a.

Figure 2.4
Trends in Combat Violence in Anbar, 2005 to 2008
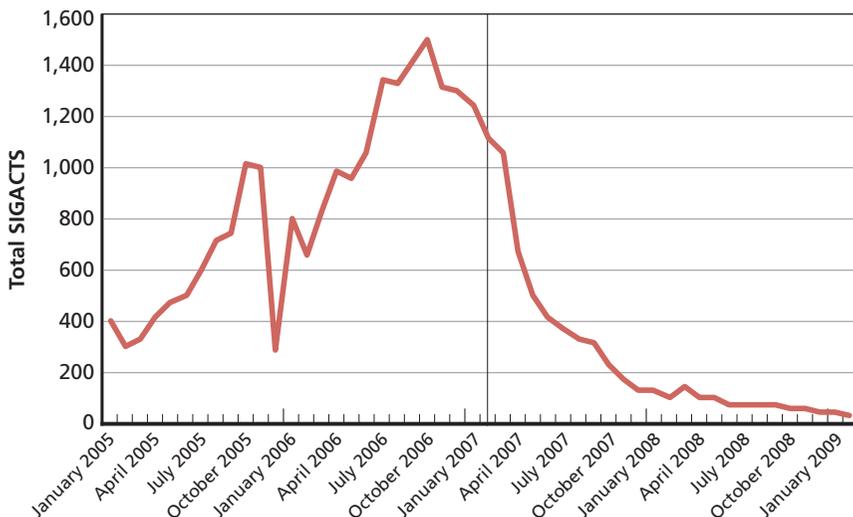
SOURCE: MNF-I SIGACTS III Database (Empirical Studies of Conflict Project, n.d.).
NOTE: The vertical line marks the start of the surge.
RAND *RR1192-2.4*

tions, the minority Shia attained a disproportionate role in provincial politics—earning control of the provincial council, appointing a Shia governor, and creating a Shia-led and primarily Shia-manned police force.[72] These sectarian tensions were only exacerbated in the wake of ISI's February 2006 bombing of the al-Askari Shrine in Samarra (in Salah al-Din governorate), resulting in increased Sunni-Shia fighting across the governorate and intense sectarian cleansing by both Shia police forces and Sunni militant groups throughout 2006–2007.

With the provincial council paralyzed by sectarian battles for political control and the Shia-dominated ISF seen as largely illegitimate, the local government in Diyala enjoyed very little popular support. Beginning in September 2006, the local government was no longer able to distribute food to Diyala's population; by October, it

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[72] Michael Knights, "Pursuing Al-Qa'ida into Diyala Province," *CTC Sentinel*, Vol. 1, No. 9, August 2008b, pp. 4–7.

could no longer distribute fuel.[73] Also in October, the Diyala provincial government ceased meeting and effectively ceded control of the governorate to militant groups fighting for influence. By the end of the year, the provincial government had spent only 2 percent of its 2006 capital investment budget.[74] ISI capitalized on this political and security vacuum to establish greater control in the governorate. In many areas in late 2006, ISI successfully evicted the Shia police forces, which were understaffed and not locally recruited.[75] By the end of 2006, ISI—not the government of Iraq—controlled Baqubah, the provincial capital, and much of the rest of the governorate.[76] Violent incidents were steadily mounting (Figure 2.5).

A similar dynamic was playing out in neighboring Salah al-Din governorate, as ISI increasingly shifted fighters, funding, and resources to the predominately Sunni governorate. Located directly north of Baghdad and straddling the Tigris River, Salah al-Din had a long history as a center of Sunni resistance after the coalition invasion in 2003. Site of Saddam's birth city of Tikrit, the important Baiji oil refinery, and the al-Askari Shrine, the governorate was a logical place for ISI to reassert itself. Given its central location between Anbar (to the west), Baghdad (to the south), and Diyala (to the east), Salah al-Din was an ideal transit hub for ISI leaders and fighters, and it offered significant opportunity for safe haven in the large, ungoverned desert areas northeast of the Tigris River and southwest of Highway 1. The majority-Sunni population had little tolerance for the Shia-controlled central government, and there was significant popular support for the insurgency, which ISI was able to effectively capitalize on as it shifted focus to the governorate. With an ineffective and largely illegitimate provincial government and weak ISF, of which many members were Shia or Kurds deployed from other parts of Iraq, ISI was able to make rapid gains across the governorate.

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[73] Kimberly Kagan, "Securing Diyala," Iraq Report VII, *The Weekly Standard*, 2007b.

[74] Kagan, 2007b.

[75] Knights, 2008b.

[76] Kagan, 2007b; and Kagan, "Expanding Security in Diyala," Iraq Report X, *The Weekly Standard*, 2008.

Figure 2.5
Trends in Combat Violence in Diyala, 2005 to 2008
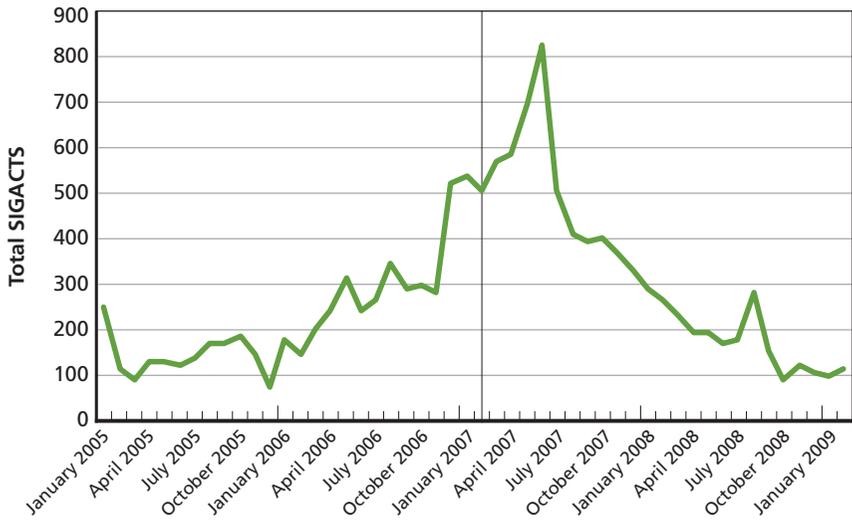
SOURCE: MNF-I SIGACTS III Database (Empirical Studies of Conflict Project, n.d.).
NOTE: The vertical line marks the start of the surge.
RAND *RR1192-2.5*

As ISI leadership shifted focus to Salah al-Din, there was an increase in overall attacks throughout 2006 and a series of complex, spectacular attacks conducted by foreign fighters who were being sent into the governorate (Figure 2.6).[77] For example, the February 2006 bombing of the al-Askari Shrine was conducted by an ISI cell that was led by an Iraqi ISI commander and included several foreign fighters, including a Tunisian who was later captured by coalition forces.[78] This attack was followed by a series of bold assaults on ISF checkpoints and government buildings, primarily conducted by cells of ISI foreign fighters. By mid-2006, Salah al-Din was the second most violent gov-

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[77] Jacob N. Shapiro, Eli Berman, Luke N. Condra, and Joseph H. Felter, "Empirical Study of Conflict Project's Iraq War Dataset (ESOC-I)," Version 3, Empirical Studies of Conflict Project, Princeton, N.J.: Princeton University, 2014.

[78] Pierre Bairin and Mohammed Tawfeeq, "Military: Mastermind of Samarra Mosque Bombing Killed," CNN.com, August 6, 2007.

Figure 2.6
Trends in Combat Violence in Salah al-Din, 2005 to 2008
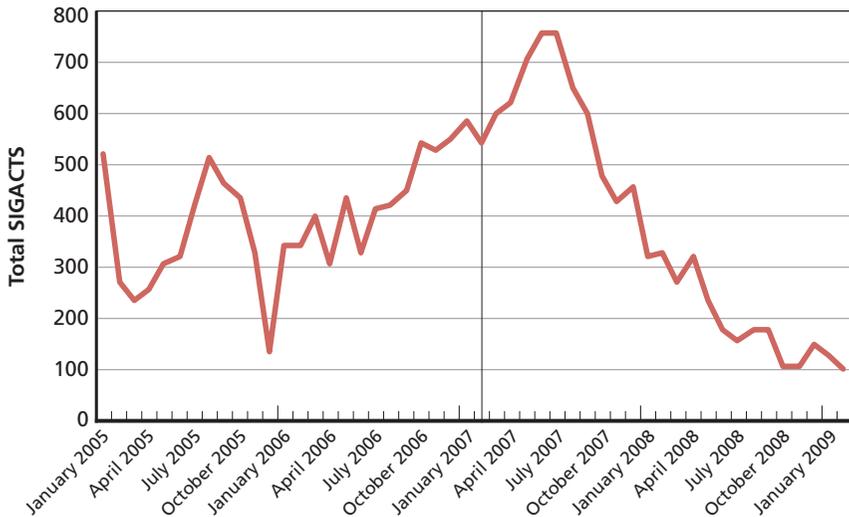
SOURCE: MNF-I SIGACTS III Database (Empirical Studies of Conflict Project, n.d.).
NOTE: The vertical line marks the start of the surge.
RAND *RR1192-2.6*

ernorate in Iraq (behind Anbar), and ISI continued to enjoy significant popular support.[79]

By the end of 2006, ISI controlled or exerted influence over much of Salah al-Din. Mirroring the effective strategy employed in Diyala, ISI also attempted to stoke sectarian violence in Salah al-Din, conducting a series of kidnappings and murders of Shia workers from the majority-Shia town of Balad in October 2006. After the bodies were discovered, there were several days of riots and sectarian violence.[80] Throughout early 2007, violent attacks continued to mount across the governorate, mirroring the spike occurring in Diyala, as ISI increasingly asserted itself against rival Sunni militant groups, ISF, and coalition forces. Although the temporal patterns of violence in Diyala and

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[79] Shapiro et al., 2014.

[80] MNF-I, "IA, CF Units Clear Jabouri Peninsula of Terrorists," press release 20070217-12, Multi-National Division–North Public Affairs Office, February 17, 2007a.

Salah al-Din were similar, Salah al-Din experienced higher levels of violence. From February 2004 through February 2009, coalition forces recorded more than 21,000 total SIGACTS and 10,000 IED attacks in Salah al-Din, while they reported 14,800 total SIGACTS and more than 7,000 IED attacks in Diyala.[81]

Beginning in early 2007, however, coalition forces attempted to build on the successes of the Anbar Awakening movement and engage more directly with Sunni tribal leaders and more-moderate Sunni militant groups throughout Diyala and Salah al-Din. In parallel, coalition forces launched a series of large-scale security and clearance operations in both areas during the summer of 2007 to regain control. In Diyala, this strategy showed rapid results; the influx of approximately 10,000 coalition forces troops, as part of Operation Arrowhead Ripper, combined with deliberate tribal engagement and reconciliation efforts, began to pay off in the summer of 2007, resulting in reduced violence and the formation of the Baqubah Guardians in July.[82] These initial events paved the way for a broader reconciliation effort in Diyala, culminating in a meeting in August 2007, where 18 leading sheiks swore and signed a reconciliation agreement.[83] Several weeks later, more than 100 tribal leaders from the Diyala River Valley met and swore to "cooperate and support each other in fighting terrorism in [their] tribes."[84] Between December 2007 and May 2008, SOI membership in Diyala grew to almost 10,000.[85]

Similar efforts were under way in Salah al-Din, where coalition forces increased the number of forces operating in the governorate to pressure ISI and better support the nascent SOI groups. By mid-2007, there were reports of Sunni tribes joining forces with local Iraqi Police

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[81] SIGACTS data are from Shapiro et al., 2014.

[82] Kagan, 2008; and Kagan, 2007b.

[83] MNF-I, "Tribal Leaders Continue Reconciliation Efforts Across Diyala," press release, Multi-National Division–North Public Affairs Office, August 4, 2007b.

[84] Kagan, 2007b.

[85] Kirky Rider, "Fierce Thrasher Helps Displaced Families Return Home," *The Desert Raider*, Vol. 1, No. 10, 2008.

elements to fight against ISI in Duluiyah, a former ISI stronghold.[86] In May, several tribal leaders met in Taji, a key city at the southern end of Salah al-Din governorate, and announced the establishment of an alliance among several tribes to combat ISI in their area. Throughout the rest of the year, several more groups were formed across the governorate, including in Balad, Samarra, Tarmiyah, and Baiji, resulting in reduced operational capacity for ISI and a dramatic decrease in violent attacks. Just as the Awakening had dramatic effects in Anbar, the SOI programs in Diyala and Salah al-Din helped to drive ISI from sanctuaries, free coalition forces and ISF combat power to pursue enemy fighters, and offer short-term employment to jump-start local economies.[87]

ISI Strategic Retreat to Ninewa Governorate, 2007 to 2010

With ISI under significant pressure in Anbar, Diyala, and Salah al-Din, the group began to shift its center of gravity to northern Iraq. Beginning in 2007, most of ISI's senior leaders and much of its operational capacity shifted to Ninewa governorate, which had always been a stronghold of the Sunni insurgency and served as a strategic hub for the group's finance and foreign-fighter facilitation activities.[88] Mosul rapidly became the de facto headquarters of the remnants of ISI throughout 2007. The governorate's complex ethnosectarian dynamics enabled ISI to retain support there even in the face of the spreading SOI movement in most other parts of Iraq.[89] In addition, Mosul's close proximity to one of the primary routes for smuggling fighters and equipment into Iraq from Syria enabled ISI to maintain consistent access to critical military resources.[90] With a limited coalition presence in the governorate and a provincial government viewed as illegitimate by the majority

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[86] Roggio, 2007b.

[87] Multi-National Division–North Public Affairs, "Operation Raider Reaper Concludes with Tribal Reconciliation," December 31, 2007.

[88] Brian Fishman, "Redefining the Islamic State: The Fall and Rise of Al-Qaeda in Iraq," New America Foundation, August 2011.

[89] Knights, 2008a.

[90] Fishman, 2011.

Sunni population, Ninewa was the best option for ISI to attempt to reassert itself.

Because of Ninewa's ethnosectarian mix, there had been a long-standing political struggle in the governorate. The divide between Arabs and Kurds in Ninewa had been a problem since the fall of Saddam's regime, when Kurdish Peshmerga forces attempted to enter Mosul after Iraqi Army forces were defeated by coalition forces.[91] Although coalition leaders were able to negotiate a delicate truce, ethnic tensions remained high from that point forward. Despite the fact that the Kurds represent a minority in Mosul and in the governorate, they were able to secure control of the provincial government because of the Sunni Arab boycott of the 2005 parliamentary and provincial elections. Once in control of the governorship and the provincial council, the Kurds continued to alienate the majority-Sunni Arab population, failing to deliver basic services or security to the governorate's Arab areas.[92] With both the national and provincial governments viewed as illegitimate by the Sunni population, ISI stepped into this void and began to assert itself across the governorate.

The disposition of ISF in Ninewa further reinforced the friction between Arabs and Kurds. On the eastern edge of the governorate, the Kurdistan Regional Government maintained a highly trained military element, the Peshmerga, which it had used in the past to surge into cities as it determined necessary.[93] This occurred in Mosul in November 2004, after several hundred insurgents stormed police stations across the city, forcing almost all of Mosul's 5,000 police officers to flee and cede control of the city to the militants.[94] In the wake of the attack, Kurdistan security forces pushed into the eastern half of Mosul, and

[91] Sam Dagher, "Fractures in Iraq City as Kurds and Baghdad Vie," *New York Times*, October 28, 2008b.

[92] Sam Dagher, "Tensions Stoked Between Iraqi Kurds and Sunnis," *New York Times*, May 18, 2009.

[93] Dagher, 2008b.

[94] Edward Wong, "Insurgents Attack Fiercely in North, Storming Police Stations in Mosul," *New York Times*, November 12, 2004.

never left.[95] Although the units were formally integrated into the official ISF command structure, they were still viewed by the city's Sunni residents as Peshmerga. In the city's western half, most of the ISF units were Shia-led and also viewed as illegitimate. Despite many attempts to bolster the capacity of the Iraqi Police in the city, through better training and recruiting drives, the force had proven completely ineffective against ISI and other Sunni groups.[96]

As coalition operations cleared ISI-controlled areas in Anbar, Baghdad, Diyala, and Salah al-Din from late 2005 through 2007, the group was pushed further north along the Tigris River Valley, toward Mosul. By November 2007, it was clear that ISI had migrated further north, where attacks were higher than anywhere else in the country (Figure 2.7).[97] During this time, al-Masri, the ISI leader, is known to have transited Mosul twice.[98] ISI's operational leader, Abu Qaswarah, was based in Mosul. He directed nationwide operations for the group from a safe house in the city's northwest quadrant, until he was killed by coalition forces in October 2008.[99]

By fall 2007, ISI had dramatically increased its violent attacks in Ninewa governorate. There, in contrast to other parts of the country, reported militant incidents increased to 662 in November 2007 and peaked at 762 in December, remaining above 700 in January and March 2008 (710 and 708, respectively). They began to drop off in spring 2008.[100] One particularly horrific ISI attack in late January 2008 killed or wounded more than 300 Iraqis and flattened an entire

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[95] Thanassis Cambanis, "In Mosul, Kurdish Militia Helps Keep Order," *Boston Globe*, November 18, 2004.

[96] Anthony Cordesman, *Iraqi Security Forces: A Strategy for Success*, Westport, Conn.: Praeger Security International, 2006.

[97] Mark Hertling, Department of Defense news briefing, video teleconference from Iraq, November 19, 2007.

[98] Gordon, 2007.

[99] Bill Roggio, "Al Qaeda in Iraq's Second in Command Was Swedish Citizen," *The Long War Journal*, October 16, 2008.

[100] Shapiro et al., 2014.

Figure 2.7
Trends in Combat Violence in Ninewa, 2005 to 2008

SOURCE: MNF-I SIGACTS III Database (Empirical Studies of Conflict Project, n.d.).
NOTE: The vertical line marks the start of the surge.
RAND RR1192-2.7

neighborhood.[101] The following day, the Ninewa provincial police chief was killed, by a suicide bomber, while inspecting the carnage.[102] ISI still enjoyed popular support among much of Mosul's Sunni population, and the group's supply line of fighters and weapons from Syria remained intact.

Starting in early 2008, however, coalition forces began to adjust and sent reinforcements to Ninewa to put more pressure on ISI. The coalition's attempts to stand up an SOI presence in the governorate were never very successful, in large part because of long-standing tensions between the Kurds and key Sunni Arab tribal leaders. In contrast, coalition forces were able to slowly bolster ISF capacity through joint

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[101] Sam Dagher, "Al Qaeda Goes North: Police Chief Killed in Mosul," *Christian Science Monitor*, January 25, 2008a.

[102] Dagher, 2008a.

operations and ratchet up the pressure on ISI leadership through a delib-
erate counterterrorism targeting campaign across the governorate.[103]

According to coalition press briefings, 161 ISI leaders were
killed or detained between January 2005 and May 2006 (primarily
in Anbar, which was the group's headquarters at the time).[104] As part
of the surge, coalition forces dramatically increased the pace of these
counterterrorism operations throughout 2007 and 2008—especially
in Diyala, Salah al-Din, and Ninewa—which put significant pres-
sure on the entire ISI network and degraded its operational capabili-
ty.[105] During the period from April 2007 through May 2008, coali-
tion forces conducted 396 targeted operations against ISI leaders.[106]
During this period, the frequency of counterterrorism operations, all
focused against top ISI leadership targets, increased at a steady pace,
from 13 events in May 2007 to a peak of 53 events in March 2008
(Figure 2.8).

Informed by a more comprehensive and nuanced understanding
of ISI, coalition targeting operations became increasingly effective and
precise.[107] As Table 2.2 shows, operations were focused on ISI leaders,
military and security personnel, and support personnel and were con-
ducted primarily outside the capital city of Baghdad.

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[103] Eric Hamilton, "The Fight for Mosul: March 2003–March 2008," Institute for the Study
of War, April 2008a.

[104] Rick Lynch, weekly press briefing, Multi-National Force–Iraq, May 4, 2006.

[105] Patrick Ryan, *The Efficacy of Leadership Targeting Against Al Qaeda in Iraq*, master's
research project, Washington, D.C.: Georgetown University, May 2013.

[106] Every month during that period, MNF-I leadership released a detailed "operational
update" brief that captured key statistics related to coalition leadership's targeting efforts
against ISI. For each month, the brief outlined the total number of targeting events against
the group, along with several valuable details related to each event, including target name,
target hierarchy level, target functional role, targeting event location, targeting method, and
target nationality. For more, see Ryan, 2013.

[107] Christopher Lamb and Evan Munsing, *Secret Weapon: High-Value Target Teams as an
Organizational Innovation*, Washington, D.C.: Institute for National Strategic Studies,
National Defense University, Strategic Perspectives 4, 2011.

Figure 2.8
**Coalition Forces Reported High-Value Targeting Operations Against ISI,
2007 to 2008**
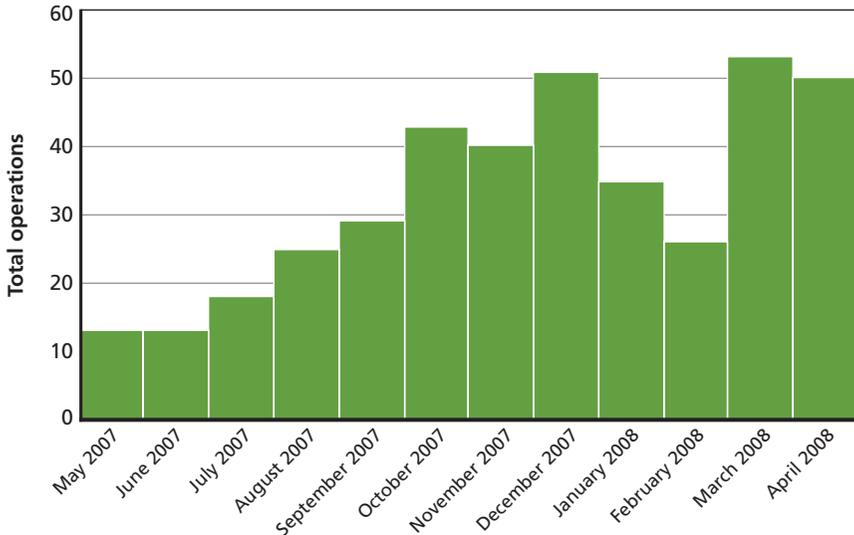
SOURCE: Ryan Leadership Targeting Database 2013 (Ryan, 2013), based on monthly
MNF-I press briefings.
RAND *RR1192-2.8*

By late 2008, largely attributable to these coalition counterter-
rorism operations, ISI's operational capacity in Ninewa governorate, as
well as the rest of Iraq, was severely disrupted, and violent attack levels
were much lower. In addition, the election of a Sunni Arab governor
and a Sunni-controlled provincial council in January 2009 helped to
reduce some of the popular support for ISI among Ninewa's Sunni
population, who saw a glimmer of hope for a more representative gov-
ernment for the first time since the coalition invasion.[108] Despite this

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[108]Campbell Robertson and Stephen Farrell, "Iraqi Sunnis Turn to Politics and Renew
Strength," *New York Times*, April 17, 2009.

Table 2.2
Coalition High-Value Targeting Operations Against ISI, 2007 to 2008

Month	All Positions	Outside Baghdad	All Locations		
			Emirs	Military and Security	Support
May 2007	13	13	4	3	6
June 2007	13	10	3	7	3
July 2007	18	9	2	5	11
August 2007	25	22	4	4	1
September 2007	29	22	7	8	13
October 2007	43	30	3	5	28
November 2007	40	36	6	6	23
December 2007	51	48	8	12	23
January 2008	35	30	8	10	12
February 2008	26	24	8	8	9
March 2008	53	49	4	5	0
April 2008	50	47	1	2	3

SOURCES: Ryan Leadership Targeting Database 2013 (Ryan, 2013), based on monthly MNF-I press briefings.

NOTES: The category "emir" refers to people classified as emirs. The category "military and security" refers to people assigned to military, intelligence, or security roles. The category "support" refers to people in administrative, media, facilitator, and sharia roles.

progress, ISI retained operational capacity in Ninewa throughout 2009 and continued to conduct media and financing operations within the governorate. In a prescient statement, the U.S. spokesperson in Iraq, MG David Perkins, explained ISI's maneuver in early 2009: "For [ISI] to win, they have to take Baghdad. To survive, they have to hold on to

Mosul."[109] By 2010, ISI had been pushed out of Baghdad and much of the rest of Iraq, but it had held enough of Mosul to survive.[110]

Conclusion

This chapter highlights the fact that ISI fought different wars in different parts of Iraq. Each area presented unique dynamics. No single region represents the entirety of the war at any point in time.

The analysis in this chapter has two implications for interpreting our data:

1. Most of our documents come from a period when ISI was under tremendous pressure. It had lost its local allies in most places and was facing a seasoned U.S. and coalition military assisted by increasingly capable Iraqi forces.
2. ISI's ongoing use of documents in such settings reflects the high value it put on record keeping and using bureaucratic tools to achieve control over the organization.

In some ways, the situation in Syria and Iraq today is much easier operationally for the Islamic State than the period under study was for ISI. We would therefore expect even more record keeping and organizational formality, given the easier security situation.

The historical record in this chapter also highlights the elements that were needed to combat ISI. Coalition forces alone could not counter the group, nor could local tribal forces, nor could ISF alone. Instead, it took all three forces working together to bring the group near defeat. The population turned against the group and actively fought back. An improved ISF working in concert with local forces and coalition forces improved the counter-ISI effort. And a new coali-

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[109] Tim Cocks, "U.S. Says Troops May Have to Stay in Iraq's Mosul," Reuters, May 1, 2009.

[110] Fishman, 2011; and Rod Nordland, "Exceptions to Iraq Deadline Are Proposed," *New York Times*, April 27, 2009.

tion strategy proved effective in bringing these elements together. By 2010, what remained was for the Iraqi government to continue building the professionalism of ISF, for it to work toward the further inclusion of Iraq's Sunnis in governance, for it to continue to pacify Mosul and build trust among the local population, and for coalition forces to continue to work closely with the Iraqi government, ISF, and the population to seal these gains. Unfortunately, none of this took place.

The Organizational Economics of Insurgency and Terrorism

The imperatives of ISI's goals, including committing terrorist acts, combating coalition forces, engaging in an insurgency, killing Shia, and establishing a new Islamic state, required it to maintain detailed records, even though doing so elevated the risk it faced from its opponents. This chapter analyzes ISI's core organizational tasks and operational environment from the perspective of organizational economics. Fitting ISI's activities into this perspective can provide not only a greater understanding of its activities but also insights into when lessons learned from studying ISI can be applied and when they cannot.

ISI faced many of the same managerial challenges as less violent organizations, but it did so in a uniquely challenging operational environment. The nature of that environment created strong pressures for hierarchy and paperwork, revealing that ISI's administrative practices were often quite mundane.

Insurgent organizations such as ISI need to complete a range of tasks in a particularly challenging environment. First, and perhaps foremost, they need to manage the production of violence. This entails various subtasks. These include making sure that violence is used in ways that advance the group's political goals, because hitting the wrong targets in the wrong way can be damaging to the cause, and making the most of its resources, a task that requires both minimizing the misallocation of group funds and tracking where money is being spent so

that it can be reallocated when necessary.[1] Second, insurgent organizations need to bring in revenue to fund ongoing operations. Third, they need to pay their members.

Each of these tasks has an analogue in nonviolent organizations.[2] Business firms manage the production of key outputs to maximize an objective, usually profit. In standard firms, this task involves setting production quotas within each market, ensuring a certain level of quality, distributing the proceeds from sales to various production and research and development units, and auditing employees to prevent graft and corruption. For ISI, managing production meant setting up a structure to help ensure that the right kinds of violence were employed within each area at the right intensity, given local political conditions, as well as organizing finances in such a manner that leaders could reallocate resources and monitor unit commanders' spending.

But business firms are not a suitable analogue for the ways in which insurgent groups raise revenues. Whereas businesses can raise money by selling goods and services, insurgent groups' main product—political violence—is not readily marketable. What they can do is raise money in the same ways that charities, organized-crime groups, and even states do. Like charities, they can publicize the work they do and then solicit contributions from individuals and governments sympathetic to their goals. Like organized-crime groups, they can exploit their relative advantage in producing violence to run protection rackets, extort, and steal goods for resale.[3] Like states, they can tax business activity and the population and fine people for violations of whatever legal code they put

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[1] For evidence on the issue of hitting the right targets, see Luke N. Condra and Jacob N. Shapiro, "Who Takes the Blame? The Strategic Effects of Collateral Damage," *American Journal of Political Science*, Vol. 56, No. 1, 2012. For a broader discussion of the phenomenon, see Shapiro, 2013.

[2] For the similarities between organized crime and state-building, see Charles Tilly, "War Making and State Making as Organized Crime," in Peter B. Evans, Dietrich Rueschemeyer, and Theda Skocpol, eds., *Bringing the State Back In*, Cambridge, UK: Cambridge University Press, 1985.

[3] Ahmad Salama, "Kidnapping and Construction: Al-Qaeda Turns to Big Business, Mafia Style," *Niqash*, April 6, 2011; "Iraqis' 'Cruel Dilemma': Pay Qaeda Tax or Pay the Price," Agence France-Presse, September 14, 2011.

into effect. Insurgent groups can also run businesses that sell normal goods, like both charities and organized crime groups, although the extent to which AQI or ISI did so in Iraq is unclear.

On the expenditures side, all firms set their compensation and employment policies to balance multiple objectives. Firms need to attract the right talent, motivate their employees to work hard, maintain morale and a sense of equity within their workforces, and send signals about how workers should allocate their time. In labor markets in which there are large numbers of employers and potential workers, all of this has to happen in such a manner that workers' compensation matches the marginal product of their labor, at least in expectation.[4] ISI also had to achieve multiple objectives with its compensation policy, including

- attracting talented people to work in a high-risk environment
- screening for skills and unobservable human capital
- motivating employees to work hard and take risks
- maintaining morale.

Insurgent organizations such as ISI face a unique environment in many ways. Most important, their leaders and middle managers are continually targeted by government forces and other nongovernmental opponents. Unlike most organizations, ISI therefore had to deal with frequent death or capture of its middle- and upper-level ranks. ISI was also fairly heterogeneous, at least compared with other insurgent groups in Iraq, with many members flowing in from dozens of countries.[5] ISI could not rely, to the same extent, on preestablished social networks to ensure the trustworthiness of personnel and communicate a shared understanding of current conditions. Compared with nonviolent organizations, the group also faced an unusually heavy cost for

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[4]   Such markets with large numbers of buyers and sellers are referred to in the social science literature as "thick." In labor markets, this means high levels of supply and demand from multiple employers.

[5]   See Chapter Five of this report, as well as Joseph Felter and Brian Fishman, *Al-Qaʿida's Foreign Fighters in Iraq: A First Look at the Sinjar Records*, West Point, N.Y.: Combating Terrorism Center, West Point, 2007.

maintaining records. Every document could potentially be captured by counterinsurgents and provide leads that would enable the targeting of workers, managers, and supply depots.

Critically, these environmental conditions pushed in opposite directions in terms of management practices. Frequent unplanned turnover and a diverse membership meant that it was hard for the leadership team to maintain a picture of what was going on in the organization without writing a great deal. The act of committing organizational matters to written files, however, was effectively a tax on future operating potential, because it increased the probability of security breaches in all future periods. The group resolved this trade-off in a particular way, and the documents we analyze are the result of that. The simple fact that the group's choice involved a fair amount of record keeping, albeit less than one would see in the typical business firm, is a critical piece of evidence about just how hard it is to manage an insurgency and establish parallel governance structures.

ISI leaders fully recognized the desirability of monitoring members. One of our documents, a letter from As'ad recommending Anas, also known as Abu 'Abdallah, for a position as a high-level ISI administrator, indicates that one of the key initiatives that Anas would propose upon becoming an administrator was a full ISI census, to be undertaken by ISI administrators.[6] Presumably, such a census would collect and store detailed, personally identifying information about ISI operatives at all levels of the organization, which could be used against ISI by hostile intelligence and security services. It is unclear whether Anas or any other ISI administrator ever conducted the envisioned census, but the decision to undertake an organizationwide census would have required ISI's leaders to accept significant operational security risks in exchange for better situational awareness through more-granular information about the composition of their organization.

In the next section, we discuss insurgent management challenges. Following that, we outline how rebel groups finance operations. We then discuss the issues an insurgent compensation scheme must address. Each section begins by describing the tasks for the organiza-

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[6]   Harmony document NMEC-2009-634370; see "ISIL, Syria and Iraq Resources," 2015.

tion in that domain, then outlines the specifics of the task environment in Iraq, and finishes by describing what we should expect in that domain, given those specifics.

Management

Tasks

ISI had three basic managerial tasks in Iraq:

- control group members' use of violence
- maximize the value of group resources
- develop management capacity across diverse territories.

The first of these tasks may seem surprising given ISI's reputation; this was the group, after all, that pioneered the beheading video with the 2004 murder of the American contractor Nicholas Berg. Yet the group actually had frequent political problems stemming from members' excessive violence, both against civilian targets and against other militant groups. Excessive violence against civilians played a large role in motivating the Anbar Awakening and clearly concerned ISI leaders.[7] In fact, there is a February 2006 letter that appears to be from a member of the group's *shura* council to a commander in Ramadi, Abu Usamah; the letter directed the commander: "Stop the killing of people unless they are spying, military, or police officers. . . . [F]ind a secure method because if we continue using the same method, people will start fighting us in the streets."[8] Conflicts with local indigenous insurgent groups, such as Ansar al-Sunnah and the Islamic Army in Iraq, were often stoked by the unsanctioned actions of local fighters, similar to the dynamics reportedly underlying gang

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[7]   For richer discussions of the role of excess violence by ISI in stoking the Awakening, see Shapiro, 2013, Chapter Four; and Biddle, Friedman, and Shapiro, 2012.

[8]   Harmony document IZ-060316-02; see "ISIL, Syria and Iraq Resources," 2015. The letter is unsigned but was found with a situation report to that member, noting limitations on the killing of Sunni police and asking permission to kill eight individuals.

wars in Chicago.[9] These conflicts distracted ISI from its core task of fighting the Iraqi government and coalition forces and helped turn local sentiment against the group.

The second task—to maximize the value of group resources—required controlling graft and corruption, as well as allocating people and money to the locations where they could do the most good. The extent to which the group allocated resources over space changed dramatically through the course of the war. In 2005 and early 2006, the group was making a great deal of money in Anbar governorate, the seat of its power at that time. Anbar's leaders then reallocated some of this money throughout Iraq, including to Mosul, the border sections, and Basra.[10] But by late 2008, the ISI organization had all but collapsed, and most of its members had retreated to northern Iraq, so what revenue there was in Mosul was basically what was available for the entire organization. This dynamic substantially simplified the allocation problem. What did not change over time was the extent of disagreements and conflicts over how money was being spent. Throughout its history, ISI had problems with operatives who did not want to work as hard as leaders would like, who spent money in ways more-senior leaders found wasteful, and who had to deal with other organizations that did not share the group's priorities.[11]

The third task of developing management capacity across territory and bureaucracies was a necessary step toward forming a state. This task entailed little in the way of managerial complications but did require building the structures that could eventually manage territory, including raising revenue, providing some modicum of governance, and organizing local personnel.

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[9]   On conflicts between ISI and other groups, see, for example, the internal correspondence about the Battle of Amariyah, first documented in Fishman, 2009, pp. 10–20. On costly conflicts between gangs initiated by unsanctioned actions, see Steven D. Levitt and Sudhir Alladi Venkatesh, "An Economic Analysis of a Drug-Selling Gang's Finances," *Quarterly Journal of Economics*, Vol. 115, No. 3, 2000.

[10]   This process is documented in detail in Bahney, Shatz, et al., 2010.

[11]   See Shapiro, 2013, Chapter Four, for more details.

Both controlling violence and managing group finances entailed a broad range of what economists and political scientists call *agency problems*. As a general matter, agency problems arise when three conditions exist: (1) one person, the principal, needs to delegate certain actions or decisions to another person, the agent (e.g., an individual hiring an accountant to do her taxes or voters electing politicians to write laws); (2) the principal cannot perfectly monitor the agent or punish him with certainty when he does not perform (e.g., when it is costly for a general contractor to verify all the work done by a subcontractor on a building site); and (3) the preferences of the principal and agent are not aligned (e.g., a worker does not derive the same value from putting effort into a task as her boss).[12]

In managing these agency problems, ISI faced trade-offs between hierarchy and decentralized control. Hierarchical structures can help manage a broad range of internal coordination challenges, and vertical integration can be useful for addressing a range of inefficiencies that arise when transactions have to take place without complete and enforceable contracts.[13] These benefits are why most business firms operate with a great deal of vertical structure rather than relying completely on internal markets and relational contracts.[14] These benefits are also why insurgent groups need hierarchy.[15] Many inputs into the

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[12] David M. Kreps, *A Course in Microeconomic Theory*, Princeton, N.J.: Princeton University Press, 1990b. Chapters Sixteen and Seventeen provide an excellent general summary of agency theory.

[13] On coordination problems, see Gary J. Miller, *Managerial Dilemmas: The Political Economy of Hierarchy*, New York: Cambridge University Press, 1992. Gibbons integrates various perspectives on the theoretical value of vertical integration, differentiating between those focusing on the value of ex ante incentives and those more interested in ex post governance; see Robert Gibbons, "Four Formal(izable) Theories of the Firm?" *Journal of Economic Behavior and Organization*, Vol. 58, No. 2, 2005.

[14] For a review of the theoretical and empirical literatures on vertical integration, see Timothy Bresnahan and Jonathan Levin, "Vertical Integration and Market Structure," in Robert Gibbons and David J. Roberts, eds., *Handbook of Organizational Economics*, Princeton, N.J.: Princeton University Press, 2012.

[15] For analyses of the varying levels of hierarchy and internal discord in insurgent and terrorist groups, see Jeremy Weinstein, *Inside Rebellion: The Politics of Insurgent Violence*, Cambridge, UK: Cambridge University Press, 2007; Jacob N. Shapiro, "Terrorist Organizations'

production of insurgent activity are hard to measure—for example, how much should a cell in Sinjar compensate a smuggler for bringing someone with unknown skills across the Syrian border—and there is no system to enforce contracts.[16] There are, of course, solutions to such problems that do not involve forming large organizations, but almost all rely on some combination of repeated interactions and reputation, both of which are hard to maintain in the context of an insurgency, where there is a premium on secrecy and where counterinsurgent activity makes it hard to build enduring relationships.[17]

Decentralized control also has potential advantages in insurgencies.[18] The less hierarchy, the less paperwork and documentation there is for counterinsurgents to capture and exploit for intelligence purposes. But delegation can also help operations in some circumstances. When agents have better knowledge than their principals about the task at hand, or about how actions relate to outcomes, the principals may be better off delegating to an agent than completing the task alone, even if the agent's preferences differ substantially.[19] Delegation is most obviously advantageous when success depends on situational information that can be known only to those close to the action. When a decision has to be made about when to launch a truck-bomb attack at

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Vulnerabilities and Inefficiencies," in Harold Trinkunas and Jeanne K. Giraldo, eds., *Terrorist Financing in Comparative Perspective*, Stanford, Calif.: Stanford University Press, 2007; Jacob N. Shapiro and David A. Siegel, "Underfunding in Terrorist Organizations," *International Studies Quarterly*, Vol. 51, No. 2, 2007; and Shapiro, 2013. For a related perspective, drawing mostly on the sociology literature on institutions, see Scott Helfstein, "Governance of Terror: New Institutionalism and the Evolution of Terrorist Organizations," *Public Administration Review*, Vol. 69, No. 4, 2009.

[16] Allowing the smuggler to take a substantial portion of the person's money as compensation is probably not ideal, though it did happen sometimes. See Brian Fishman, ed., *Bombers, Bank Accounts, and Bleedout: Al-Qa'ida's Road in and out of Iraq*, West Point, N.Y.: Combating Terrorism Center, West Point, 2008, pp. 48–49.

[17] There is a large literature on how individuals coordinate activity in the absence of legally enforceable contracts. For a good summary, see Avinash K. Dixit, *Lawlessness and Economics: Alternative Modes of Governance*, Princeton, N.J.: Princeton University Press, 2007.

[18] This section substantially mirrors the discussion of delegation in Shapiro, 2013.

[19] Jonathan Bendor and Adam Meirowitz, "Spatial Models of Delegation," *American Political Science Review*, Vol. 98, No. 2, 2004.

the entrance to a military base, for example, giving authority to the unit commander whose fighters have been observing the base can offer a significant advantage and minimize the need for communication with higher management. Similarly, allowing multiple unit commanders to coordinate around loosely stated objectives can enable coordinated attacks that would be too complex for any one commander to manage.[20]

Environment

Three conditions are particularly relevant for understanding the management environment for ISI. First, as with all firms, its managers were cognitively constrained. The problem was likely worse for ISI, because its political goal of radically restructuring society once the existing government was defeated would surely have limited its appeal to the kinds of people with management experience. Sunnis who developed organizational skills through success in business or government in Iraq before the war had many organizations they could join, none of which proposed changes similar to those ISI proposed. However, some jihadists had these skills, either naturally, through previous work, or through learning them in the field, and the fact that strong managers emerged is one reason ISI proved to be an adaptive organization.

Second, coalition forces and ISF were targeting ISI senior and midlevel leaders and key facilitators aggressively. The coalition's targeting campaign was especially aggressive from early 2006 through mid-2010. The targeting campaign forced such top leaders as al-Zarqawi, Abu Umar al-Baghdadi, and al-Masri to ensure their own security by limiting their direct contact with their organization's activities and delegating important functions of the organization to a bureaucracy of midlevel leaders. Nonetheless, the targeting campaign removed hundreds of leaders beneath the very top tier. This campaign might have caused the incapacity of ISI to regenerate new midlevel leadership and a rank-and-file cadre over time, trends that appear to have been significant in Mosul between 2007 and 2009, as well as in Anbar in 2006. In

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[20] Sean J. A. Edwards, *Swarming on the Battlefield: Past, Present, and Future*, Santa Monica, Calif.: RAND Corporation, MR-1100-OSD, 2000.

Anbar, AQI documents containing a sample of 251 members suggest that roughly one-third might have been killed. Members faced roughly a 17-percent chance of violent death in a year—a mortality rate 50 times higher than that of the civilian population of Anbar.[21] The degradation of AQI and ISI grew over time. In one later tracking spreadsheet of ISI members in Mosul in the fall of 2007, 526 of 1,318 members were listed as having been killed or captured, more than 40 percent of the recorded membership.[22]

Third, ISI brought together an extremely heterogeneous group of members. Many rebel groups have used preexisting social ties to mitigate agency problems. This can happen through screening or participation in prerevolutionary political activities,[23] using community social pressure to increase the costs of shirking,[24] and relying on previously established norms to coordinate group expectations.[25] Few of these strategies were available to ISI. The group had to rapidly integrate personnel from dozens of countries and was moving into areas where it often had little local history and few local ties. The traditional managerial tools employed by "sons of the soil"–style rebellions simply were not available to ISI.

Expectations

The analysis above leads to several concrete expectations that we will carry forward into the chapters that follow. First, ISI should have done

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[21] See Bahney, Shatz, et al., 2010.

[22] Harmony document NMEC-2008-614686; see "ISIL, Syria and Iraq Resources," 2015.

[23] See Eli Berman, *Radical, Religious, and Violent: The New Economics of Terrorism*, Cambridge, Mass.: MIT Press, 2009, for a complete discussion of why religious groups have a relative advantage in exploiting preexisting social networks to manage agency problems. The core argument is that groups' ability to screen recruits and credibly threaten members' families for defections provides an advantage in maintaining discipline within groups.

[24] For a discussion of the many reasons why ethnic groups are relatively better at punishing deviant behavior by their own members, see James Fearon and David D. Laitin, "Explaining Interethnic Cooperation," *American Political Science Review*, Vol. 90, No. 4, 1996.

[25] This is similar to the role envisioned for corporate culture in David M. Kreps, "Corporate Culture and Economic Theory," in James Alt and Kenneth Shepsle, eds., *Rational Perspectives on Political Science*, Cambridge, UK: Cambridge University Press, 1990a.

a good deal to monitor what its operatives were doing day to day. Some of this can be accomplished by establishing hierarchical structures in which people have limited spans of control, essentially what firms do when they have to bring together heterogeneous groups of employees. But a substantial amount of control would have to be accomplished by having members document their activities. We should therefore expect to see regular situation reports, as well as reporting on financial expenditures.[26] One common way organizations manage financial risk is to cover members' expenses, after the fact, through a reimbursement system. As we will see in Chapter Nine, this is exactly what ISI did. It appears that members would incur expenses on behalf of the group, pay them out of their own funds, and then request reimbursement.

Second, ISI should have produced substantial paper records, especially as it became larger and needed to manage complex operations. We should also expect the group to take measures to track its operatives' experiences. One of the benefits of size, after all, is the ability to allocate people to places where they will be most productive. But figuring out who will do best where requires knowing which of your members have the proper experience, training, and background. If leaders do not personally know all their fighters, which is not feasible in any modestly sized organization, then building that knowledge requires a database of personnel qualifications. As we will see in Chapters Five through Seven, ISI did just that.[27]

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[26] ISI kept spreadsheets to track spending and income, often at the unit level, for most of its existence. On expenditures specifically, see, e.g., Harmony documents MNFA-2007-000564, MNFA-2007-000566, MNFA-2007-000572, MNFA-2007-000573, NMEC-2007-632533, NMEC-2009-634443, NMEC-2009-634921, NMEC-2010-183085, and MNFV-2007-000370; see "ISIL, Syria and Iraq Resources," 2015. On the revenue side, see Harmony documents NMEC-2007-633700, NMEC-2009-600865, NMEC-2009-634444, NMEC-2009-634823, NMEC-2009-634838, NMEC-2010-175522, NMEC-2010-177375, and NMEC-2010-177378; see "ISIL, Syria and Iraq Resources," 2015.

[27] The Provisional Irish Republican Army (IRA) in Belfast considered collecting such information in 1973 to "select the best men for the squads." Gerry Bradley and Brian Feeney, *Insider: Gerry Bradley's Life in the IRA*, Dublin: O'Brien Press, 2009, p. 160.

Revenue

Task

The basic revenue-generation task for ISI was quite simple: Bring in financial and material resources to enable the group's military and political activities. What made this task challenging is that many options for raising money in Iraq during the war entailed smuggling, kidnapping, extortion, and other criminal activities that often set ISI at odds with local tribes, preexisting local militias, and criminal organizations.[28]

Historically, insurgent organizations have raised money through a variety of means. Both the Provisional IRA and Loyalist paramilitary organizations in Northern Ireland, for example, raised money through a combination of overseas fundraising, armed robbery, protection rackets, and membership dues from the Loyalist side.[29] Palestinian militants raised money through taxing their constituents in the Palestinian diaspora, raising funds from sympathetic governments, and engaging in criminal schemes, as did the Tamil nationalist Liberation Tigers of Tamil Eelam.[30]

Environment

Fundraising opportunities for ISI varied dramatically across Iraq and over time. The basic environment was one with a functioning but hobbled economy that had massive levels of grey- and black-market activity. The performance of the economy also varied hugely across

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[28] This process is well documented in Long, 2008.

[29] On Provisional IRA fundraising, see John Horgan and Max Taylor, "The Provisional Irish Republican Army: Command and Functional Structure," *Terrorism and Political Violence*, Vol. 9, No. 3, 1997, p. 21; and John Horgan and Max Taylor, "Playing the Green Card: Financing the Provisional IRA—Part 2," *Terrorism and Political Violence*, Vol. 15, No. 2, 2003. On Loyalist paramilitary fundraising, see Andrew Silke, "In Defense of the Realm: Financing Loyalist Terrorism in Northern Ireland—Part One: Extortion and Blackmail," *Studies in Conflict and Terrorism*, Vol. 21, No. 4, 1998; and Andrew Silke, "Drink, Drugs, and Rock'n'Roll: Financing Loyalist Terrorism in Northern Ireland—Part Two," *Studies in Conflict and Terrorism*, Vol. 23, No. 2, 2000.

[30] For a good summary of Palestine Liberation Organization fundraising activities in the pre-Oslo period, see James Adams, *The Financing of Terror*, New York: Simon and Schuster, 1986.

the country. The 2007 Iraq Household Socio-Economic Survey reports unemployment in the four governorates where our documents were found, ranging from a low of 7.6 percent in Salah al-Din to a high of 20.4 percent in Diyala. Household income ranged from a low of 474,300 Iraqi dinars per month in Diyala to 795,600 Iraqi dinars per month in Salah al-Din. And household expenditures showed a similar range. Within-governorate variance in economic performance was high as well, with the World Food Program's Iraq Food Security and Vulnerability Analysis 2007 survey reporting rates of stunting and chronic malnutrition by district that varied from 20.8 percent to 56.6 percent in Anbar and 17.2 percent to 56.0 percent in Ninewa.[31]

Expectations

Given the historical record of insurgent groups tapping all available sources of money, we expect that ISI documents will confirm the qualitative evidence that the group utilized a broad range of funding sources,[32] including

- kidnapping
- black-market oil sales
- vehicle and antiquities theft
- extortion.

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[31] Central Organization for Statistics and Information Technology, Kurdistan Region Statistics Organization, and World Bank, *Iraq Household Socio-Economic Survey: IHSES—2007*, Baghdad, 2008; see Table 5-4, Table 9-2, and Table 8-2 and pp. 92 and 182. Central Organization for Statistics and Information Technology, Kurdistan Region Statistics Office, Nutrition Research Institute (Ministry of Health), and United Nations World Food Programme Iraq Country Office, *Comprehensive Food Security and Vulnerability Analysis (CFSVA): Iraq*, Rome: United Nations World Food Programme, 2008.

[32] Phil Williams, *Criminals, Militias, and Insurgents*, Strategic Studies Institute Monograph 930, Carlisle, Pa.: U.S. Army War College, 2009.

Compensation

Task

All firms set their compensation and employment policies to balance multiple objectives. Firms need to attract the right talent, motivate their employees to work hard, maintain morale and a sense of equity within their workforces, and send signals about how workers should allocate their time. In labor markets with many potential employers and employees, all of this has to happen in such a manner that workers' compensation matches the marginal product of their labor, at least in expectation.

There is a massive literature on the functions of compensation systems in normal organizations. Literatures relevant to our study cover (1) using wages to screen for high-quality workers, (2) providing incentives for workers to take on risky or unpleasant jobs, and (3) providing wages for people who find that the reward of doing the job outweighs potential wages or the value that the employer puts on doing the job. The literature on using wages for screening starts from the observation that when the quality of workers is unobservable, low-quality workers have an incentive to seek high-wage jobs.[33] Drawing on this insight and the literature that followed it, research shows that when insurgent groups use the promise of high wages to attract recruits, they end up bringing in large numbers of opportunistic joiners who are hard to discipline and often abuse noncombatants.[34] Screening mechanisms to avoid such problems, known as *adverse selection*, include incentive schemes (such as piecework),[35] requiring costly investments in education as a precondition for employment,[36] participation in costly ritual

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[33] George Akerlof, "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism," *The Quarterly Journal of Economics*, Vol. 84, No. 3, August 1970.

[34] Weinstein, 2007.

[35] Edward P. Lazear, "Personnel Economics: Past Lessons and Future Directions: Presidential Address to the Society of Labor Economists, San Francisco, May 1, 1998," *Journal of Labor Economics*, Vol. 17, No. 2, 1999.

[36] On education as screening in traditional jobs, see A. Michael Spence, "The Learning Curve and Competition," *Bell Journal of Economics*, Vol. 12, No. 1, 1981. On costly investment in religious or ideological knowledge as a way to screen to militant groups, see Berman,

activity,[37] and low entry-level wages that will be attractive only to mission-oriented individuals.[38]

When it comes to creating incentives for workers to take on risky jobs, the literature has largely focused on the role of what are called *compensating wage differentials*. This literature considers the wage paid to workers as a function of (1) the worker's marginal productivity and (2) the attributes of the job, typically expressed through the notion of riskiness or dirtiness. Inducing workers to undertake risky or dirty jobs is thought to require a wage premium, although recent evidence suggests there is a substantial population that has a preference for risky work, and thus the wage premium for high-risk jobs is much lower than the statistical value of life would suggest it should be.[39]

Another literature studies the motivation for performance among government bureaucrats. This literature starts from the observation that the financial reward for performance in many jobs is modest, but the intrinsic rewards for exerting effort are quite high. In such settings, there are obvious benefits to self-selection (e.g., lower wage requirements) but also costs to select people with strong intrinsic motivations, including a bias toward doing the job over optimizing financial efficiency (e.g., social workers might not watch budgets as closely as elected officials would like, because they are focused on serving the poor).[40] And, indeed, recent empirical work confirms that, just as the theoretical literature would expect, more–pro-social workers exert higher effort on pro-social tasks at the same wage level, and when wages are

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2009; and Shapiro, 2013, especially Chapter Six, which discusses problems that Marxist terrorists groups had using this screening strategy.

[37] Berman, 2009.

[38] George Baker, Michael Gibbs, and Bengt Holmstrom, "The Internal Economics of the Firm: Evidence from Personnel Data," *The Quarterly Journal of Economics*, Vol. 109, No. 4, November 1994.

[39] Kurt J. Lavetti, "The Estimation of Compensating Differentials and Preferences for Occupational Fatality Risk," unpublished manuscript, Ohio State University, 2012.

[40] For a good review and theoretical model showing the policy bias that can result from self-selection, see Candice Prendergast, "The Motivation and Bias of Bureaucrats," *American Economic Review*, Vol. 97, No. 1.

increased, less pro-social individuals will consider pro-social jobs.[41] This is consistent with earlier work on rebel groups, which showed that those groups attracting fighters through paying good wages and offering opportunities for plunder also attract more-abusive fighters.[42]

Just like any other firm, ISI faced this trade-off between bringing in mission-oriented people who would work for relatively little and using wages to attract workers. More broadly, ISI had to achieve multiple objectives with its compensation policy, including

- attracting talented people to work in a high-risk environment
- screening for skills and unobservable human capital
- motivating employees to work hard and take risks
- maintaining morale.

Environment

There were three facts about ISI's operational environment that set it apart. First, the group did not have a particularly easy environment for using wages to attract members. Compared with violent organizations operating in largely dysfunctional economic environments (al-Shabaab in Somalia or ethnic militias in the Central African Republic), ISI faced a relatively less challenging economic environment. Although economic conditions during the war were far from ideal, the rates of intense want and deprivation were low, on average. This was in part because the Iraqi government had a long-standing policy of providing every household with monthly rations from the country's public food-distribution system. And although unemployment rates were high in some places, on average they were comparable with those of many developing economies.[43]

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[41] Sheheryar Banuri and Philip Keefer, "Intrinsic Motivation, Effort and the Call to Public Service," Policy Research Working Paper 6729, World Bank, 2013.

[42] Weinstein, 2007.

[43] Central Organization for Statistics and Information Technology, Kurdistan Region Statistics Organization, and World Bank, 2007; and Central Organization for Statistics and Information Technology, Kurdistan Region Statistics Office, Nutrition Research Institute (Ministry of Health), and United Nations World Food Programme Iraq Country Office, 2008.

Second, the group did not appear to have a hard time attracting fighters. ISI documents suggest that, for some of the war, the group had more fighters than it used.[44] Put in terms of the literature on public-sector wages, there were many intrinsically motivated types in ISI's labor pool. Because of the coalition's intelligence activities and the opportunism of many potential fighters, however, there were also a substantial number of "bad" types. Here *bad* refers to people who would readily give up information if captured or who would take advantage of positions of authority to skim funds.

Finally, when it came to the managerial functions of the wage plan, ISI faced a difficult environment. As noted, ISI had a heterogeneous set of employees, many of whom had little experience working together. ISI also had to deal with frequent managerial turnover because of coalition targeting. Furthermore, working for the group, even as a regular member, was extremely risky. Achieving the group's mission therefore required that managers, who did not have much time to form bonds of trust, be able to motivate their fighters to engage in extremely risky activities.

Expectations

Given the combination of screening and motivational challenges ISI faced, we expect its compensation scheme to have several traits. First, the wage structure should be relatively flat to encourage a sense of equity among members. Second, since the group did not have a hard time finding fighters, wages should be used as a screening mechanism. Uncommitted individuals posed security risks for the group, and there was a glut of willing fighters, so there was no reason for the group to pay market wages. Third, the wage structure should have some flexibility to accommodate members who have larger financial commitments. Fourth, the compensation scheme should have some elements that serve to build trust by requiring leaders to make credible future commit-

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[44] See, for example, Harmony document NMEC-2008-612449 ("ISIL, Syria and Iraq Resources," 2015), in which the writer lamented that foreigners who came to be suicide bombers were not being used, and, as a result, the prospective suicide bomber has "an impotent mental status and disappointment, his qualification will decrease and disappear because of depression and lack of help."

ments of resources whenever they ask members to take on extremely risky duties in the present.[45] The compensation scheme should send a credible signal, in other words, that leaders value their members' lives and will only spend them to good purpose.

Conclusion

In handling its managerial challenges, ISI faced two key environmental conditions. First, it had a diverse workforce, with varied views and levels of motivation, that often disagreed on how to spend money and how to use violence. Second, ISI had to deal with frequent, unplanned leadership turnover because of intense coalition counterinsurgency operations. Given these conditions, the organizational economics literature leads to several clear predictions.

ISI should not have to offer high wages to attract talent, but the workers it does attract at low wages will often want to overproduce or pad their wages through graft. Those agency problems create a need to track workers' expenditures and provide opportunities for management to identify and correct misbehavior. Additionally, with frequent turnover, there will be a need to maintain organizational memory.

Therefore, the group will need to employ a great deal of formal record keeping. Furthermore, with the high turnover and need to motivate risky action, ISI should employ compensation practices that create credible signals by leaders that they are using their fighters wisely, given the high risk of death or, in the case of voluntary suicide bombers, the desire to have a death that has a large effect.

As we will see in subsequent chapters, each of these expectations is borne out. ISI, it turns out, faced the same challenges as many legitimate organizations, and therefore the perspectives used to understand these organizations can be applied to an analysis of ISI.

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[45] Such commitments are known in the economics and political science literature as *time-consistent*.

Organizing Insurgency and Terrorism in Iraq

Three organizational issues have sparked debate among terrorism experts and scholars in recent years. These are (1) the organization and structure of terrorist or militant groups, (2) the functions performed by such groups and the organizational structures that enable the performance of these functions, and (3) how militants manage the territory they occupy. We term these issues *rebel governance.*

This chapter examines these organizational issues. The documents we analyze allow us to report how the militants themselves viewed these issues. Analysts, policymakers, and scholars have devoted significant attention to each issue. However, militants' internal documents offer unique insights.

Three key findings emerge. First, ISI designed its organization as a hierarchy in which each level practiced considerable top-down control over subordinates who administered a bureaucratic organization with strict standard operating procedures. ISI, in late 2008, was a standard multidivisional hierarchy, commonly known as an "*M*-form," in which a central management structure with functional bureaus is replicated at multiple lower geographic levels.[1] Second, ISI's chosen organizational structure at the central level and within regional units was almost identical to that espoused by Usama Bin Ladin's al-Qa'ida in the late 1990s. Third, although ISI had a clear geographic strategy for the territory in Iraq it sought to control, by late 2008, its ability to administer territory was more limited than its ambitions. By that time, the group simply

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[1]   Chandler, 1969; Bahney, Shatz et al., 2010.

was unable to fill out its organization chart at the mid to senior levels of management. Unfortunately, the documents released for this report are insufficiently complete to let us determine exactly why we see these patterns. There are at least two explanations for each of these facts, which are consistent with the data; we lay them out below.

What is clear is that ISI had a centralized hierarchy composed of multiple levels that drove the day-to-day operations of the group. The degree of organizational similarity, known by organization scholars as *isomorphism*, between ISI and al-Qaʻida makes sense from the perspective offered in Chapter Three, which discussed how bureaucracy and formal hierarchy can help militant groups perform key functions for both war fighting and state building.

This chapter proceeds as follows: We first briefly outline debates about how terrorist groups have organized. We then describe how ISI was organized and how much this organization mimics the structure that core al-Qaʻida sought to establish during its peak years in Afghanistan. This section also outlines two possible explanations for the remarkable similarity between al-Qaʻida's ideal structure and what ISI sought to establish. The next section discusses ISI's geographic strategy and highlights its inability to fill positions by late 2008.

Terrorist Organizations as Networks and Hierarchies

Since the early 2000s, terrorism analysis discussing group structures has focused on two ideal types: networks and hierarchies.[2] Networks are self-organized and self-enrolling. Sets of actors or nodes connected through ties, which are often social or informal, form the bulk of most networks. The origins and structure of terrorist networks make them fluid and resilient, according to terrorism analysts. Members of these

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[2] Much of the foundation of this debate comes from the organizational economics literature. See, for example, Chandler, 1969; Williamson, 1975; Miller, 1992; and Grahame Thompson, *Between Hierarchies and Markets*, New York: Oxford University Press, 2003. For applications of ideas from the organizational economics literature to a wide range of political organizations, see Alexander Cooley, *Logics of Hierarchy: Problems of Organization in Empires, States, and Military Occupations*, Ithaca, N.Y.: Cornell University Press, 2005.

networks often come from a variety of locations. Compact pockets of terrorists then congeal around a central idea but largely operate independently. People can form cells without meeting in person (e.g., over the Internet). Terrorist networks use intermediaries to keep cells isolated from each other but in communication with leadership. Intermediaries enmesh cells in the organization but keep them at arm's length from its vulnerable nodes. This offers operational-security advantages. No node should have evidence that could compromise the organization as a whole. Networked organizations thus should be difficult for security services to detect and dismantle.[3]

A counterargument is that networks are vulnerable by design. In this view, networks are poorly organized for effective counterintelligence practices because they are relatively easy to detect but hard to dismantle. They therefore struggle to operate clandestinely and must replace nodes that security forces neutralize. New members must be recruited to replace these nodes and perform additional tasks as a networked organization attempts to expand its influence. Recruiting is largely decentralized in networks, and these decentralized decisionmaking structures make it difficult for a group's leaders to screen recruits to their preferred satisfaction, which can lead to operational-security lapses that cause networks to unravel. Yet nabbing a cell, or even a key node, is unlikely to do as much damage to a networked group's security as targeting key members of hierarchical organizations, so networked groups are often simultaneously weak relative to their state adversaries but resilient to their adversaries' countermeasures.[4]

Hierarchical terrorist organizations are more akin to conventional armies or guerrilla movements. They use unconventional battlefield tactics, but their organization centralizes authority from the top down.[5] Sophisticated organizations have hierarchies that include

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[3] Jessica Stern and Amit Modi, "Producing Terror: Organizational Dynamics of Survival," in Thomas Biersteker and Sue Eckert, eds., *Countering Financing of Terrorism,* New York: Routledge, 2008, pp. 27–28.

[4] The authors thank Daniel Byman for suggesting this trade-off.

[5] For examples of this phenomenon and a theoretical logic underpinning it, see Shapiro, 2013, pp. 15–18.

different functional areas and that delegate decisionmaking. As with multidivisional firms, hierarchical organizations maintain governance over multifaceted activities to realize economies of scale and ensure that people lower down the hierarchy do what leaders expect them to do. Most use standard operating procedures and written rules to mitigate the challenges such complexity poses. Hierarchy also provides certain operational advantages, allowing groups to plan and execute complex attacks and to deconflict other operational activities.[6]

Most organizations fall somewhere between these two ideal types, but the lines of debate in the terrorism literature have been organized around which ideal best describes al-Qa'ida and like-minded groups; is it akin to a "leaderless jihad," or are leaders and bureaucracy central to the execution of its plans and strategy?[7] The answers are relevant for understanding the group's capabilities and its vulnerabilities.[8] For example, if terrorist groups require substantial hierarchy to operate at scale, then terrorism could be self-limiting, particularly if the government makes a strong effort to contest territory and exploit inefficiencies and vulnerabilities in these terrorist groups' organizational structures and bureaucracies, including record keeping and other intelligence that can be gleaned and used to dismantle the groups.[9] As soon as groups get big, the necessities of managing a large workforce require a good deal of communications and record keeping. That, in turn, means that

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[6] Candace Jones, William S. Hesterly, and Stephen P. Borgatti, "A General Theory of Network Governance," *The Academy of Management Review*, Vol. 22, No. 4, October 1997, p. 923. Also see Rohan Gunaratna and Aviv Oreg, "Al Qaeda's Organizational Structure and Its Evolution," *Studies in Conflict & Terrorism*, Vol. 33, No. 12, 2010, p. 1045.

[7] See, for example, Bruce Hoffman, "The Myth of Grass-Roots Terrorism: Why Osama Bin Laden Still Matters," *Foreign Affairs*, Vol. 87, No. 3, July/August 2008; Marc Sageman and Bruce Hoffman, "The Reality of Grass-Roots Terrorism [with Reply]," *Foreign Affairs*, Vol. 87, No. 4, July/August 2008; and Peter Neumann, Ryan Evans, and Raffaello Pantucci, "Locating Al Qaeda's Center of Gravity: The Role of Middle Managers," *Studies in Conflict & Terrorism*, Vol. 34, No. 11, 2011.

[8] James J. F. Forest, Jarret Brachman, and Joseph Felter, *Harmony and Disharmony: Exploiting al-Qa'ida's Organizational Vulnerabilities*, West Point, N.Y.: Combating Terrorism Center, West Point, 2006.

[9] On this point, see Jacob N. Shapiro, "108 Terrorist Memoirs, Analyzed," *Boston Globe*, January 19, 2014.

the groups begin producing a large signal—essentially a trail of paper and data that governments can detect and follow.

This concept has most often been applied to classic terrorist groups. The issue becomes more complex with a group such as ISI, then, and the Islamic State, now, because the group is not simply a terrorist group; it is also an insurgent group and a proto-government and in fact draws advantages from territorial control. Therefore, fully understanding not only the advantages but also the limitations of such a group having a substantial hierarchy would help combat it and groups like it.

ISI's Organizational Blueprint

Our ISI documents suggest that the group was a hierarchical, functionally differentiated organization, unlike the transnational jihadi movement often characterized as being organized around ad hoc personal networks.[10] To understand why, it is helpful to begin with a brief discussion of how core al-Qaʿida sought to organize.

Al-Qaʿida's Organizational Model

Some scholars have described al-Qaʿida as a flat transnational network.[11] This network consists of a core group and a largely autonomous set of franchises and cells in Algeria, Iraq (at one time), Somalia, Yemen, and elsewhere. To achieve a global reach, al-Qaʿida's leadership has relinquished control and delegates responsibility to its operatives. These operatives are diffuse and self-organizing. Marc Sageman, who provided the first rigorous treatment of what he termed the *global Salafi jihad*, wrote in 2004:

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[10] Marc Sageman, *Leaderless Jihad: Terror Networks in the Twenty-First Century*, Philadelphia: University of Pennsylvania Press, 2008.

[11] Marc Sageman, *Understanding Terror Networks*, Philadelphia: University of Pennsylvania Press, 2004; and James A. Piazza, "Is Islamist Terrorism More Dangerous? An Empirical Study of Group Ideology, Organization, and Goal Structure," *Terrorism and Political Violence*, Vol. 21, No. 1, January 2009, pp. 66–67. For exceptions, see Shapiro, 2013; and Leah Farrall, "How Al Qaeda Works: What the Organization's Subsidiaries Say About Its Strength," *Foreign Affairs*, Vol. 90, No. 2, March/April 2011.

> Participants in the global jihad are not atomized individuals but actors linked to each other through complex webs of direct or mediated exchanges. . . . A group of people can be viewed as a network, a collection of nodes connected through links. Some nodes are more popular and are attached to more links, connecting them to other more isolated nodes. These more connected nodes, called hubs, are important components of a terrorist network. . . . One significant aspect of a small-word topology is its suggestion of a spontaneous process of self-organization rather than intentional construction from above. . . . [A lack of] a comprehensive recruitment drive left the global jihad at the mercy of self-recruits, establishing clusters of mujahedin who built upon preexisting linkages to the jihad. This "natural" growth of the jihad took place within particular social niches that were susceptible to its message.[12]

This view was held by some after the U.S. invasion of Afghanistan in 2001, as analysts and researchers tried to make sense of al-Qa'ida.[13] Al-Qa'ida's persistence following the deaths of many leaders—including Usama Bin Ladin in May 2011—provided some support to the view that hierarchy was not central to how the group worked day to day in the period after 9/11.[14]

As Islamist terrorist organizations flourished in Iraq and elsewhere, and as an increasingly large sample of al-Qa'ida's internal documents became publicly available, it became apparent that core al-Qa'ida, during its peak from the late 1990s to late 2001, and similar groups operating elsewhere were actually highly organized. A broad range of documentary evidence indicates that al-Qa'ida leaders designed the organization to have a well-institutionalized, hierarchical

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[12] Sageman, 2004, pp. 137–139.

[13] Bill Braniff and Assaf Moghadam, "Towards Global Jihadism: Al-Qaeda's Strategic, Ideological and Structural Adaptations Since 9/11," *Perspectives on Terrorism*, Vol. 5, No. 2, May 2011.

[14] Jason Burke, *Al-Qaeda: The True Story of Radical Islam*, London: I.B. Tauris, 2004; Bruce Hoffman, "The Changing Face of Al Qaeda and the Global War on Terrorism," *Studies in Conflict & Terrorism*, Vol. 27, No. 6, 2004, pp. 551–552.

structure.[15] The extent to which that structure was realized is unclear, but the intent is quite well documented. Al-Qaʻida's organizational design was first described in the testimony of an al-Qaʻida defector and further illustrated in al-Qaʻida documents captured by U.S. forces in Afghanistan.[16] These documents revealed that Bin Ladin had designed al-Qaʻida to be a bureaucratic organization that could be managed and audited, much like a business.

In his court testimony in February 2001, Jamal al-Fadl, a former al-Qaʻida operative, described al-Qaʻida's structure as akin to a "pyramid." According to al-Fadl, this hierarchical structure had an "emir" (Bin Ladin) as the organization's top leader, who was supported directly by a deputy and a secretary. The emir was to be responsible for all aspects of the organization, including operational, strategic, and tactical planning, as well as logistical and organizational planning. Al-Qaʻida's organizational charter specified that the emir should approve an annual "work plan," approve an annual budget, and be responsible for amending plans or budgets as necessary. In terms of managing al-Qaʻida's human capital, the emir was to be responsible for overseeing nominations, promotions, and appointments to all senior positions within the organization, based on guidance from the *shura* council—an advisory board—and committee heads (Figure 4.1).[17]

The emir's deputy was to have qualities that closely resembled those of the leader, but with fewer authorities. His duties were to depend on what the emir would entrust to him. The documents reveal that the emir's secretary should be appointed by him and be respon-

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[15] We are not the first to have observed this pattern of hierarchy. Several other analysts have observed that al-Qaʻida is primarily a hierarchical organization. Gunaratna and Oreg, 2010, for example, write that "since its establishment, Al Qaeda has evolved into a strict and clear-cut hierarchical structure organization," and that "this formal infrastructure is the main factor which enabled Al Qaeda to adapt and overcome the setbacks it suffered from the Global War on Terrorism led by the United States that erupted following 9/11 and the subsequent invasion of Afghanistan in October 2001."

[16] See Jamal al-Fadl, testimony in *United States v. Usama bin Laden*, No. S(7) 98 Cr. 1023 (S.D. N.Y.), February 6, 2001; see also Harmony document AFGP-2002-000080; see "Harmony Program," database of declassified documents, Combating Terrorism Center, 2015.

[17] See al-Fadl, 2001.

Figure 4.1
Al-Qa'ida's Organizational Structure
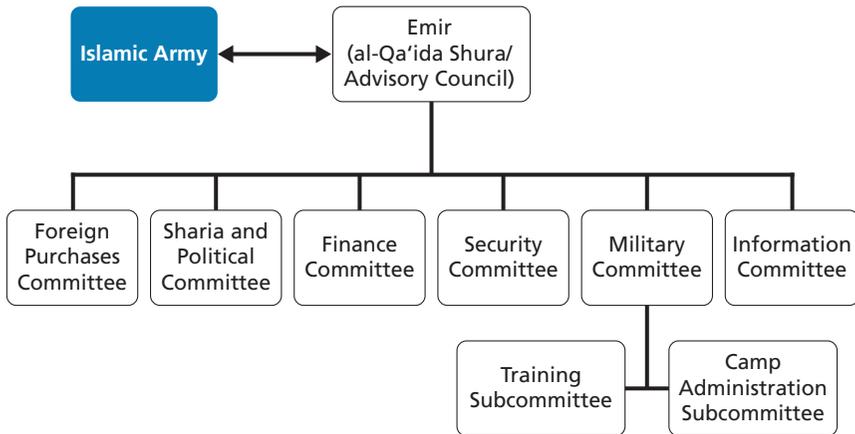
SOURCE: Derived from National Commission on Terrorist Attacks upon the
United States, "Overview of the Enemy," Staff Statement No. 15, 2004.
RAND *RR1192-4.1*

sible for such duties as organizing the emir's appointments, external
relations, and work schedule. The secretary, the documents indicate,
should accompany the emir wherever he goes.[18]

Supporting the emir was a *shura* council composed of individuals
appointed by the emir, based on their suitability for al-Qa'ida's various
needs. The next tier beneath this advisory council consisted of various
committees, which were responsible for administering the organiza-
tion's day-to-day activities in key functional areas. The functional areas
listed in al-Qa'ida's original charter included a military committee, a
political committee, a financial committee, a security committee, an

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[18] Gunaratna and Oreg, 2010. It is not clear whether the secretary position is currently
occupied. A previous personal secretary, Wadih El Hage, was arrested in Arlington, Texas, in
1998 and is currently serving a life sentence is a U.S. federal prison (Russ Buettner, "Resen-
tenced to Life in Prison, Terrorist Plans to Appeal," *New York Times*, April 23, 2013). A
successor as personal secretary, Nasir al-Wuhayshi, became the leader of al-Qa'ida in the
Arabian Peninsula, in Yemen, and presumably was killed by a U.S. drone strike in June
2015 (Kareem Shaheen, "US Drone Strike Kills Yemen al-Qaida Leader Nasir al-Wuhayshi,"
Guardian, June 16, 2015; "Nasir al-Wuhayshi: From Bin Laden Aide to AQAP Chief," *VOA
News*, June 16, 2015).

intelligence committee, and a committee in charge of media affairs and propaganda.[19]

The foreign purchases committee was responsible for acquiring weapons, explosives, and technical equipment. The sharia and political committee was responsible for reviewing Islamic law—sharia—and adjudicating whether certain actions would comply with its dictates. A religious emir might also act more generally as a spiritual adviser to al-Qa'ida's senior leadership.[20] The committee's political responsibilities involved spreading political awareness within an al-Qa'ida emirate (and to Muslims more generally). The main objective of this committee was to develop and train a like-minded, disciplined, political cadre within an al-Qa'ida target area to reflect the group's objectives, in accord with sharia, as interpreted by the sharia emir. As a result, the sharia emir had a lot of power in determining what is permissible under law in an al-Qa'ida–controlled area.[21]

The finance (or administrative) committee was tasked with accounting for the group's financial records and business and fundraising activities, as well as with overseeing the organization's personnel. These responsibilities generally include maintaining documentation of all of the organization's members and their dependents, overseeing the payroll, and formulating general financial-policy initiatives to be considered for implementation. The security committee was tasked with providing personal security and protective services for senior leaders, preventing information leaks, and conducting other counterintelligence tasks, including screening recruits for enemy infiltrators penetrating the organization. The military committee was tasked with

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[19] Harmony document AFGP-2002-000080; see "Harmony Program," 2015. The intelligence committee is referred to in the English translation of the document as the "surveillance committee." See also al-Fadl, 2001, p. 56.

[20] Al-Zarqawi famously used Sheikh Abd al-Rahman, his spiritual advisor, as a close aide and a member of his inner circle. Ultimately, al-Rahman's signature of movement helped lead U.S. forces to al-Zarqawi's hideout for the airstrike that resulted in al-Zarqawi's death. See Richard A. Oppel Jr. and Mark Mazetti, "Hunt Ends with Pair of 500-Lb. Bombs," *New York Times*, June 8, 2006.

[21] This point was reiterated during interviews with U.S. special operations forces, conducted in May 2013 in Arlington, Virginia.

al-Qaʻida's operational and other military activities. Its responsibilities included the mental and physical preparation of members for combat through military training. It was responsible for fighters' combat skills and technical skills relevant to military functions, as well as for instilling discipline in the organization's military personnel, based on the group's interpretation of the Qurʾan. The information committee served as the organization's propaganda arm. The committee disseminated information regarding jihadist ideology to the population and other relevant targets, such as other local jihadist militant outfits. It also produced videos, printed materials, and online content as part of al-Qaʻida's messaging strategy.[22]

ISI's Organizational Model

ISI's governorate-level structure for Anbar in 2006 was well articulated in a set of documents seized by a local militia cooperating with coalition forces in Anbar governorate in March 2007. The documents depicted a provincial administrative structure nearly identical to that of core al-Qaʻida (Figure 4.2). The provincial organization of ISI, then still known as AQI, looked very similar to that of core al-Qaʻida and

Figure 4.2
ISI's Provincial Organizational Chart for Anbar Governorate
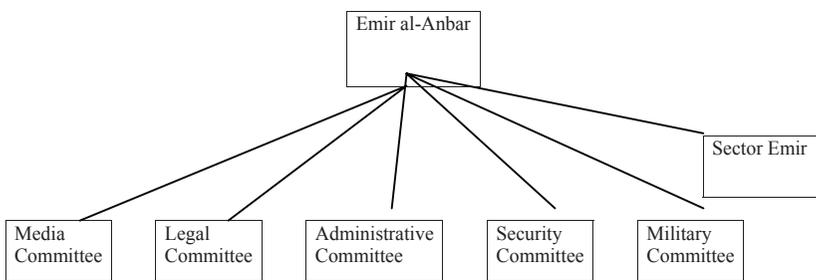
SOURCE: Harmony document NMEC-2007-632298; see "ISIL, Syria and Iraq Resources," 2015.
RAND *RR1192-4.2*

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[22] National Commission on Terrorist Attacks upon the United States, 2004; and Gunaratna and Oreg, 2010.

included a legal committee (sharia), a military committee, an administrative committee, a security committee, and a media committee.[23]

One difference to note is that the translation of the captured organization chart shown in Figure 4.2 does not indicate that Anbar governorate had a separate foreign purchases committee. Another difference is the absence of a provincial-level deputy, secretary, and advisory council. This might indicate that provincial-level emirs were not expected to preside over high-level decisionmaking and strategy to the degree that core al-Qaʿida's leadership did. Note too that, at the provincial level, ISI broke down its administrative functions a bit further than core al-Qaʿida envisioned, as seen in Figure 4.3, which is from the same document and shows the functional areas reporting to the provincial

Figure 4.3
ISI's Provincial Organizational Chart for the Administrative Committee for Anbar Governorate, Late 2006 or Early 2007
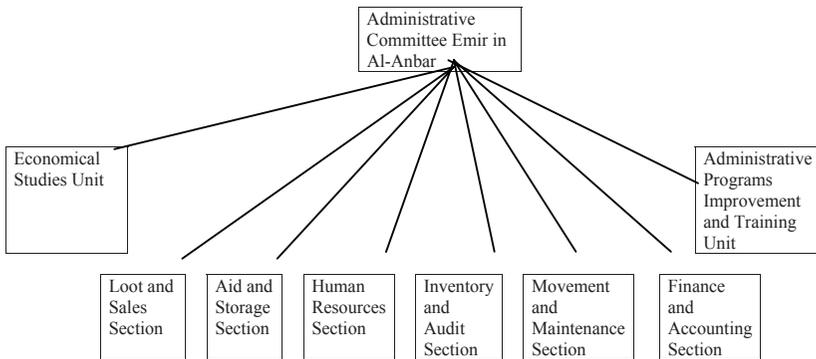
SOURCE: Harmony document NMEC-2007-632298; see "ISIL, Syria and Iraq Resources," 2015.
RAND *RR1192-4.3*

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[23] Figure 4.2 shows an administrative committee, which, based on our reading of the ISI documents captured from several of the group's administrative emirs, served in the capacity as the financial committee depicted in the core al-Qaʿida organizational chart shown in Figure 4.1. See Chapter Five for more information on the financial information captured from ISI administrative emirs. Moreover, Figure 4.2 displays a media committee, which was the functional equivalent of the information committee shown in the core al-Qaʿida organization chart in Figure 4.1 and the propaganda emir function in the ISI sector-level organization chart displayed in Figure 4.4.

administrative committee. That further division could make sense, because ISI in 2006 was a much larger organization than al-Qa'ida in the 1990s, and their administered territories were different. Therefore, ISI might have required a more specialized committee structure.

Turning to lower levels of administration, al-Qa'ida's organizational blueprint persisted down to the sector level—ISI's lowest-level administrative unit, also called *districts* and similar to Iraqi districts, a geographic level lower than the provincial or governorate level. Figures 4.4 and 4.5 display organization charts found in two different places in early 2007; both figures provide the same picture of ISI's sector-level organization in Anbar governorate.[24]

As Figures 4.4 and 4.5 show, ISI's sector organization had the same core emirs as the higher organizations. Unlike those levels, how-

Figure 4.4
ISI's Sector-Level Organizational Chart for the Western Sector, Anbar Governorate
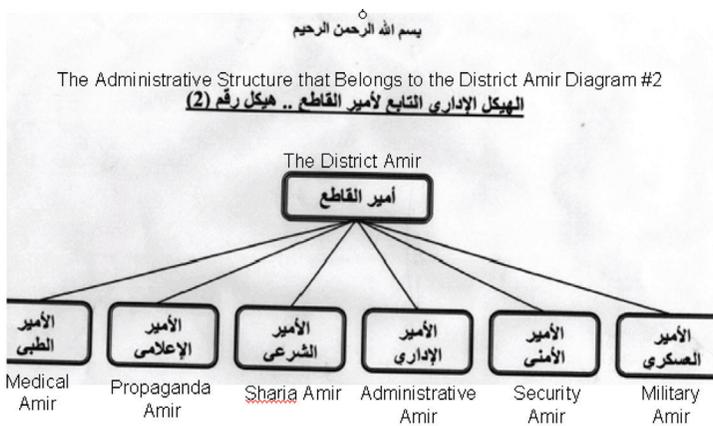
SOURCE: Harmony document MNFA-2007-000566; see "ISIL, Syria and Iraq Resources," 2015.
RAND RR1192-4.4

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[24] Harmony document MNFA-2007-000566 was captured in Tuzliyah in January 2007. Harmony document NMEC-2007-632298 was captured in Julayba in March 2007. These towns are approximately 80 miles apart, by road, along the Euphrates River. See "ISIL, Syria and Iraq Resources," 2015.

Figure 4.5
ISI's Sector-Level Organizational Chart for the Administrative
Committee, Western Sector, Anbar Governorate

The Structure that Belongs to the Administrative Executive in the Sector, Structure number (2)
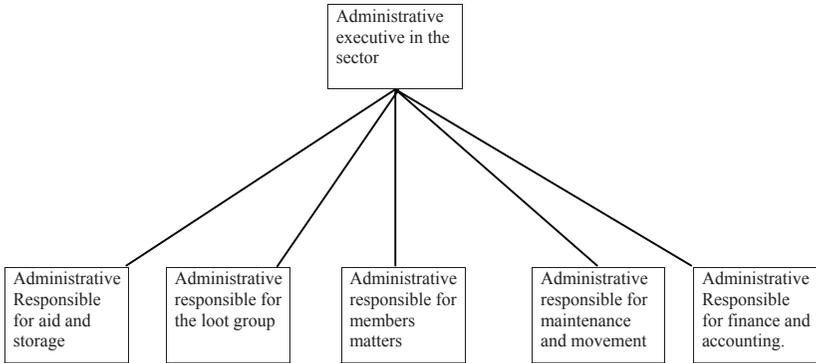
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                        ┌──────────────────┐
                        │ Administrative   │
                        │ executive in the │
                        │ sector           │
                        └──────────────────┘
```

| Administrative Responsible for aid and storage | Administrative responsible for the loot group | Administrative responsible for members matters | Administrative responsible for maintenance and movement | Administrative Responsible for finance and accounting. |

SOURCE: Harmony document MNFA-2007-000566; see "ISIL, Syria and Iraq Resources," 2015.
RAND *RR1192-4.5*

ever, the sector-level charts also included a medical emir. One plausible explanation for the presence of a medical emir in the sector-level organization, but not in the higher-level al-Qaʿida organizations, was that ISI's local operational units needed to treat wounded combatants more often.

Over time, ISI found that the structure described above provided insufficient checks on managerial challenges. Between August and October 2008, two senior ISI administrative emirs—Abu Wahab and Abu Qaswarah—were captured or killed. This appears to have provided the impetus for an organizational reform that deepened the group's bureaucracy by separating revenue-collection activities from disbursements and management. In a letter accompanying a report on financial activities, an ISI manager named Asʿad recommended an

individual for administrative duties and suggested that the financial organization be expanded in two steps (Figure 4.6).[25]

As As'ad noted, this new structure "makes the issue of monitoring the Treasury easier and makes the Administration of Finance dis-

Figure 4.6
Proposed Reorganization of Financial Administration, Fall 2008
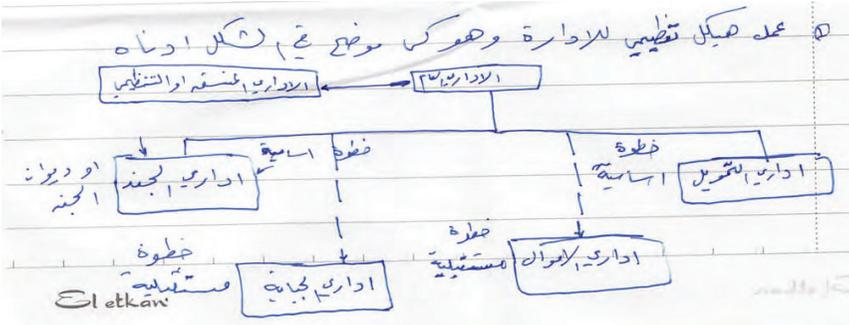
Course of action on the structure for my organization of the administration, and in order to clarify, it is in the figure below.
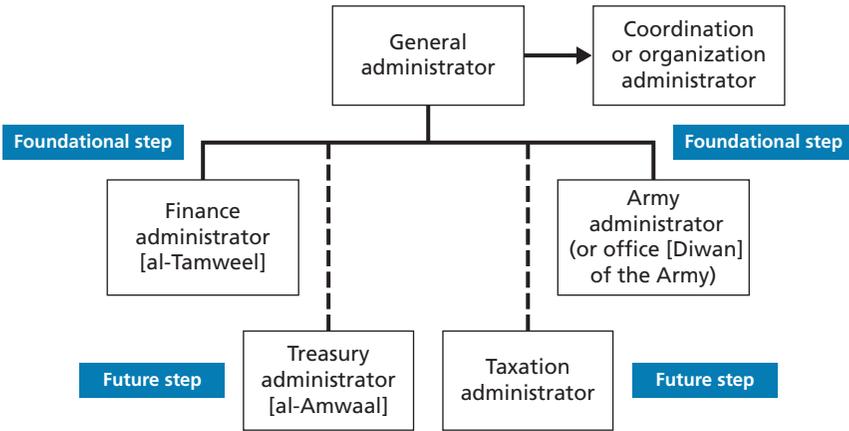
SOURCE: Harmony document NMEC-2009-636065; see "ISIL, Syria and Iraq Resources," 2015.
RAND RR1192-4.6

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[25] Harmony documents NMEC-2009-636065, NMEC-2009-636153, and NMEC-2009-634370; see "ISIL, Syria and Iraq Resources," 2015.

tinct from the Taxation of Treasury [*sic*], and the Administration of Taxation distinct from the Administration of Finance, and this issue is important to minimize the problem of embezzlement and fraud, first, and second, [to allow] the Finance Administrator to secure the mission and operations from destruction of the Sunni at the hands of the enemy."[26] In this new setup, the taxation administrator would be responsible for raising money, and the treasury administrator responsible for spending it. The memo suggests that at least one member of ISI found that grouping all finance-related activities under one authority created opportunities for both graft and security failures. Finding corruption and skimming in a militant group, where midlevel operatives are hard to supervise, should not be surprising.[27] As'ad's preferred solution was to add another layer to the hierarchy, suggesting that the theoretical benefits of hierarchy have some basis in reality.

Why ISI Looked So Similar to Al-Qa'ida

A simple comparison of al-Qa'ida's and ISI's organization charts shows a large degree of similarity in how the organizations were structured, from the highest levels to the lowest. Some analysis has claimed that al-Qa'ida's affiliate groups bear little resemblance to al-Qa'ida central, and that such groups tend to ally themselves with core al-Qa'ida to capitalize on al-Qa'ida's "brand," prestige, and material support but otherwise operate as independent, autonomous organizations.[28] Although it is true that core al-Qa'ida had little direct oversight of ISI's day-to-day operations, ISI's internal documents provide strong evidence that it adopted core al-Qa'ida's hierarchical and highly bureaucratic organizational design. There is no evidence that ISI had any intention of deviating from these structures. In fact, the only deviation it planned was to

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[26] Harmony document NMEC-2009-636153 (translation); see "ISIL, Syria and Iraq Resources," 2015.

[27] Shapiro and Siegel, 2007.

[28] For variants of this arguments, see Angel Rabasa, Peter Chalk, Kim Cragin, Sara A. Daly, Heather S. Gregg, Theodore W. Karasik, Kevin A. O'Brien, and William Rosenau, *Beyond al-Qaeda: Part 1, The Global Jihadist Movement*, Santa Monica, Calif.: Rand Corporation, MG-429-AF, 2002, pp. 3–4; Sageman, 2011; and Barak Mendelsohn, "Al-Qaeda's Franchising Strategy," *Survival*, Vol. 53, No. 3, 2011.

add a layer of bureaucracy to improve the oversight of administrative and financial activities.

Table 4.1 compares the organizational structures of core al-Qaʻida and ISI, based on translated versions of documents captured from each group, in Afghanistan and Iraq, respectively. The structures of these organizations were nearly identical at each functional level.

That both groups had hierarchical structures is not at all surprising, given the benefits of hierarchy (discussed in Chapter Three). What is surprising is that the specific functional areas they chose would be so similar. There are two likely explanations for this similarity. The first is that al-Qaʻida consciously and successfully pushed a specific model down to its affiliate organizations. The second is that this method of organizing formed a focal point for the early leaders of AQI, which eventually became ISI. Many of those individuals had spent time with core al-Qaʻida previously, receiving training and religious indoctrination in Afghanistan, Yemen, and other countries in which al-Qaʻida operates. Although ISI's organization vastly eclipsed al-Qaʻida in scale, and ISI's leadership disagreed ideologically with core al-Qaʻida in several respects, it is nonetheless likely that ISI's leadership looked to al-

Table 4.1
Core Al-Qaʻida's and ISI's (AQI's) Organizational Structures

Core Al-Qaʻida	Governorate-Level AQI	District-Level AQI
Emir	Emir	Emir
Secretary	Sector emirs	Military emir
Deputy	Committees	Security emir
Advisory council	Military	Administrative emir
Committees	Administrative	Legal (sharia) emir
Military	Security	Media (propaganda) emir
Political	Legal (sharia)	Medical emir
Administration and	Media	
finance		
Security		
Intelligence		
Media		

SOURCES: Harmony document AFGP-2002-000080 (see "Harmony Program," 2015); and Harmony documents NMEC-2007-632298 and MNFA-2007-000566 (see "ISIL, Syria and Iraq Resources," 2015).

NOTE: All three levels were hierarchical and functionally differentiated.

Qa'ida's experience as their primary guide for building a new jihadist organization.

The Geography of ISI Militancy

This section analyzes how ISI organized over space. After laying out the theoretical reasons to expect ISI to try to implement a structure with well-defined geographic subunits, we discuss the specifics of ISI's sector organization in late 2008. We then provide direct evidence that the group was having trouble filling out its organization chart and discuss reasons why that would be the case.

Literature on the Relationship Between Geography and Insurgency

Relatively little insurgency or terrorism analysis focuses on how militant groups organize themselves geographically or how the geography of militant organizations may influence their collective ability to operate effectively, based on top-down command and control. One study that does explicitly address geography extends the organizational-economics literature on firms to suggest that more–geographically dispersed groups are more likely to encounter serious principal-agent problems. In these situations, geographic dispersion reduces the oversight of upper-level leadership (the principal), so the members of field units or cells (agents) operate with limited supervision. These less supervised units could be more likely to engage in parochial practices and tactics that limit group cohesiveness and effectiveness.[29] In the case of ISI, such practices would have involved skimming money intended for operations, engaging in politically counterproductive brutality, and feuding with other insurgents. An implication of this analysis is that we should expect groups with territorial ambitions to stake out and attempt to staff clear geographic divisions so that they can set up the structures necessary to manage their agency problems.

Our ISI documents suggest that the group tried to do just that. It had a distinct geographic strategy aimed at capturing specific, geo-

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[29] Johnston, 2008.

graphically demarcated territories and establishing ISI subemirates within them, based on the organizational form and bureaucratic structures described above. The documents also suggest, however, that the group lacked the capacity to administer these territories. By late 2008, ISI was struggling to fill out its organization chart.

Data and Background

Documents seized during a raid that killed ISI's number-three leader, Abu Qaswarah, in Mosul on October 5, 2008, provide considerable insight into ISI's strategy of geographic organization, an important aspect of its objective to build an Islamic state in Iraq. The information in the documents is novel, since it lays bare the architecture ISI used to organize and govern across different types of geographic spaces. The documents describe how ISI defined a sector, the group's smallest general administrative unit, what the typical components of a sector should be, and how sectors should be demarcated geographically, as well as the extent to which the group had managed to fill sector leadership and top bureaucratic positions. In short, the documents illustrate how ISI leaders wanted their administration to function across space, and the documents show where the group both succeeded and failed to establish and consolidate bureaucratic structures.

How ISI Sought to Organize Geographically

The sector—roughly akin to Iraqi districts, the third-level administrative unit in Iraq—was the fundamental unit of geographic organization addressed in the documents captured in the Abu Qaswarah raid. It appears that ISI used rational calculations to demarcate its sectors. Sector boundaries were based on strategic calculations about the local conflict environment and geographic characteristics. ISI defined a sector as "an establishment identified by a certain number that is regulated by administrative regulations and has either natural or artificial geographical borders."[30] Although the available documents indicate that ISI had changed, or planned to change, most of the sector names

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[30] *Report of the Borders of the Sectors*, NMEC-2009-602145, captured and declassified ISI document, Harmony Database, Washington, D.C.: U.S. Department of Defense, 2009.

to reflect its Islamist ideology, they do not mention religious factors as an influence in decisionmaking regarding ISI's geographic expanse and organization.[31]

ISI sectors required certain components: "individuals, weapons and vehicles, (a reasonably hospitable) social reality, and (a reasonably favorable) geographical spot."[32] The main considerations in selecting geographic areas to become sectors, and in demarcating these areas' boundaries, were (1) the availability of an adequate quantity of personnel, (2) the presence of a subdistrict center, (3) the presence of "strategic locations" and "essential considerations" for the group, and (4) the presence of (natural or artificial) geographical dividers.[33] Further, "insignificant groups" would be required to either join a nearby sector or, if they preferred to remain independent, work on developing their organization and administrative capacity to the level of a sector.[34]

Table 4.2 reproduces the ISI document defining the group's 31 sector boundaries as of 2008. The document's original ISI author made various annotations regarding the sectors, noting in particular where the group had cells operating far outside the desired sector borders. The author wanted to attach most of these cells to existing sectors, consistent with the "doctrine" described above. However, some of these cells were allowed to remain independent in practice.[35] One such sector, called al-Birr and al-Taqwa, was located in Anbar governorate, south of Fallujah. ISI leadership decided to bring all units in al-Birr and al-Taqwa under the administration of the al-Ramadi sector. Al-Birr and al-Taqwa units operating outside these boundaries were to be consid-

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[31] *Report of the Borders of the Sectors*, 2009.

[32] *Report of the Borders of the Sectors*, 2009. This is consistent with cross-national literature on insurgencies; this literature suggests that they are likely to emerge where geographic and social conditions are favorable to them. James D. Fearon and David D. Laitin, "Ethnicity, Insurgency, and Civil War," *American Political Science Review*, Vol. 97, No. 1, 2003.

[33] Subdistricts are the fourth level of geographic subdivision in Iraq, below the nation, governorates (provinces), and districts.

[34] *Report of the Borders of the Sectors*, 2009.

[35] *Report of the Borders of the Sectors*, 2009.

ered "independent battalions and companies till (al-Birr and al-Taqwa) is completed as a sector."[36]

Table 4.2
The Geographic Organization of ISI Sectors, as of 2008

Serial Number	Sector Name	Sector Borders	ISI Comments
1	Mosul	West toward Rabi'ah, south to al-Qiyarah (internal) side, north is Dahuk, and east is the border of al-Mosul city	To be divided into two sectors in accordance with the requirements
2	Left Sharqat	From the borders of al-Qiyarah north of the left coast to the south of al-Zab side, east of al-Zab river and west of Dijlah river	
3	Right Sharqat	From the borders of al-Qiyarah subdistrict north of the right coast to al-Sharqat district inside the borders of the south of Baiji district and east of Dijlah river	
4	al-Huwayjah	From the center of al-Huwayjah toward the south of al-Fatah area, west of al-'Abbasi subdistrict to Dijlah river toward the east of Kirkuk city and north of al-Dibs district	(To be divided into two sectors in accordance with the requirements)
5	Tikrit	From al-Fatah and the borders of Baiji district from the north and the city center of Tikrit, the south of the borders of Makishifah subdistrict, south of the center and al-Dur city, east of the divider of the district of al-Tuz, Kirkuk, and west of the highway outside the city of Tikrit	Work on establishing a sector in Baiji
6	Samarra'	From the north of the city center of Samarra' to al-Dur city, and from the side of Baghdad road to Makishifah Dijlah sub district and to the divider of the south of al-Therthar and the border of al-Dulu'iyyah sub district	Work on having two sectors (Samarra' and al-Mu'tasam)

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[36] *Report of the Borders of the Sectors*, 2009.

Table 4.2—Continued

Serial Number	Sector Name	Sector Borders	ISI Comments
7	al-Dulu'iyyah	Inside the borders of al-Dulu'iyyah sub district to the borders of the north of al-Mu'tasam sub district, and east of al-'Azim river, and both west and south of Dijlah river	
8	al-Ishaqi	From the borders of Samarra' intersecting from the north with al-Therthar to the border of Balad station toward al-Dulu'iyyah new bridge from the east (inside) and toward the entrances of Balad city and west of al-Rewashed area and oil road	(An order came from the city to divide it into two sectors to solve the present problems, and the order is being executed)
9	al-Mazary (Western Yethrib)	The station road and bridge of al-Dulu'iyyah inside from the north, and west from the station of Balad (outside) and Baghdad road to al-'Ani mosque (inside) west, to the headquarters of National Guard, beginning of Yathrub sub district from the east	A military sector, work on establishing it as a complete sector
10	Yethrib	West from the beginning of the sub district center to al-'Ani mosque outside the road of Baghdad, west of al-Mosul toward al-Bakr headquarters inside, south and north of the border of Dijlah river	
11	al-'Azim	North from the divider of al-Tuz, Kirkuk toward Hamrin mountain and Kirkuk, Baghdad road, east of Jalula', Qurrah Tabah, and Dali 'Abbas, south of al-Dujmah and al-Nay and west of al-'Azim river	Work on making it two sectors
12	al-Tarmiyyah	From north of al-'Bayji, Baghdad al-Mosul road from the west, Dijlah river from the east, and Dhira' Dijlah from the south	
13	al-Taji	From north of al-Dajil, Baghdad road from the east, al-Naba'i from west, and Dhira' Dijlah from the south	

Table 4.2—Continued

Serial Number	Sector Name	Sector Borders	ISI Comments
14	al-Karmah	From Sab' al-Bur toward Ibrahim Bin-'Ali, al-Karmah, al-Saqlawiyyah from the west, and adjacent to Dhira' Dijlah from the north	Verify a sufficient quantity for the sector after separating Sa'd battalion
15	Abu Ghraib	From Abu-Gharib in south, Baghdad al-Ramadi old road to al-Fallujah, north of al-Ghazaliyyah highway road to al-'Ayayshah and al-Haswah from the west	Add the groups that are part of al-Birr and al-Taqwa to the nearby sectors (in al-Zaydan)
16	al-Fallujah	al-Fallujah and its western suburbs	Add the groups of al-Birr and al-Taqwa that are available amongst the sector
17	al-Birr and al-Taqwa	From al-Zaydan toward 'Amiriyyah al-Fallujah in the west, and al-'Uwaysat area from the south	The remainder sectors from al-Birr-wa-al-Taqwa will be independent battalions and companies till it is completed as a sector
18	Jarf al-Sakhr	From the east is the border of Euphrates river, from the south al-Masib area, from the north of 'Amiriyyah al-Fallujah area (al-'Uwaysat) and from the west the desert of al-Ramadi—Karbala	
19	Baghdad	Inside the border of Baghdad city	Has a special system
20	Diyala	Inside Ba'qubah city and al-Muqdadayah from the east	Will be two sectors (Ba'qubah and al-Muqdadayah)
21	West of Dijlah	To al-Qa'id river from the south, Dijlah river from the east, Hillah Baghdad road from the border of Baghdad sector in the north and highway from the west	

Table 4.2—Continued

Serial Number	Sector Name	Sector Borders	ISI Comments
22	al-Dayrah	From the north al-Qa'id river to the east of Dijlah river, west of Baghdad road and al-Hillah highway to the border of Jablah sub district on the south	Establish a sector in al-Dayrah and separate it from al-Gharir ('Umar bin 'Abd-al-'Aziz)
23	al-Rashid subdistrict	From the west Baghdad road Old Hillah, from the north and the east Baghdad road highway Hillah and from the south al-Mazra'ah road	
24	East of al-Latifiyah	From the north al-Mazra'ah road, Baghdad road al-Hillah highway from the east, Baghdad road Old Hilah from the west and Jablah project from the south	(Special exception due to the conditions of area)
25	Jablah Suwayrah	From the east Dijlah river, Baghdad al-Hillah highway [TC: Quick] from the west, Muyalahah road – al-Haq village from the north and to al-Hillah city from the south	
26	al-Radwanayah	From the east Baghdad Old al-Hillah, from the south al-Yusifiyyah river, from the west Euphrates river, and from the north to the borders of Baghdad and Abu-Gharib sectors	Divide it into two sectors
27	al-Mahmudiyyah	al-Yusifiyyah river from the north, Baghdad – Old Hillah from the east, al-Latifiyyah river from the south and Euphrates river from the west	
28	West of al-Latifiyyah	al-Latifiyyah river from the north, Baghdad – Old Hillah from the east, al-Latifiyyah river from the south, Euphrates river from the west and Alexandria sub district from the south	
29	Southern Cities	Diyala river from the north, Dijlah river from the west, al-Nahrawan from the east, and the districts of the cities (inside) from south	

Table 4.2—Continued

Serial Number	Sector Name	Sector Borders	ISI Comments
30	Northern Cities	The districts of the cities (inside) in north, Baghdad – al-Kut from the east, al-Hafriyyah sub district from south, and Dijlah river from the west	
31	al-Ramadi	From the east of Fallujah to the city center of al-Ramadi and al-Ratbah. West toward Rawah and 'Anah areas	Will be a new and independent battalion and make part of Rawah and 'Anah

SOURCE: *Report of the Borders of the Sectors*, 2009.

NOTES: This table is a verbatim reprinting of the Harmony document's official English translation. The brackets appear in that version. TC = translator comment. In the Arabic version of the document, the column heading that appears in English as "serial number" is the Arabic letter *ta*, the equivalent of a *T* in English. This likely is an abbreviation for *tarqim* (numbering).

To visualize the boundaries described in Table 4.2, Figure 4.7 shows the ISI sectors overlaid on maps of Iraqi governorates. (The first map is of the entire country, and the second map is of the smaller sectors in the center of the country.)

As Table 4.2 and Figure 4.7 show, ISI listed 31 sectors in its documentation of the group's geography. The territory covered by these sectors was substantial, ranging as far south as Hamzah and Shamiya districts in Diwaniyah governorate (previously known as Qadisiyah governorate); as far west as Rutbah in western Anbar governorate, a strategic location on the Amman-Baghdad road and on the Mosul-Haifa oil pipeline; as far east as Mazra'ah, in the oil-rich Khanaqin district of Diyala governorate, near the Iranian border, in which there are sizable Kurdish and Shia populations that had been targeted by ISI; and as far north as Duhok, the predominantly Kurdish capital city of Iraq's northernmost governorate, also called Duhok. Perhaps more interesting, Duhok is located in northern Iraq's semiautonomous Kurdistan Region, indicating that ISI envisioned or even forged a presence within at least certain parts of Iraqi Kurdistan.

Figure 4.7
ISI Sector-Level Map, as of 2007
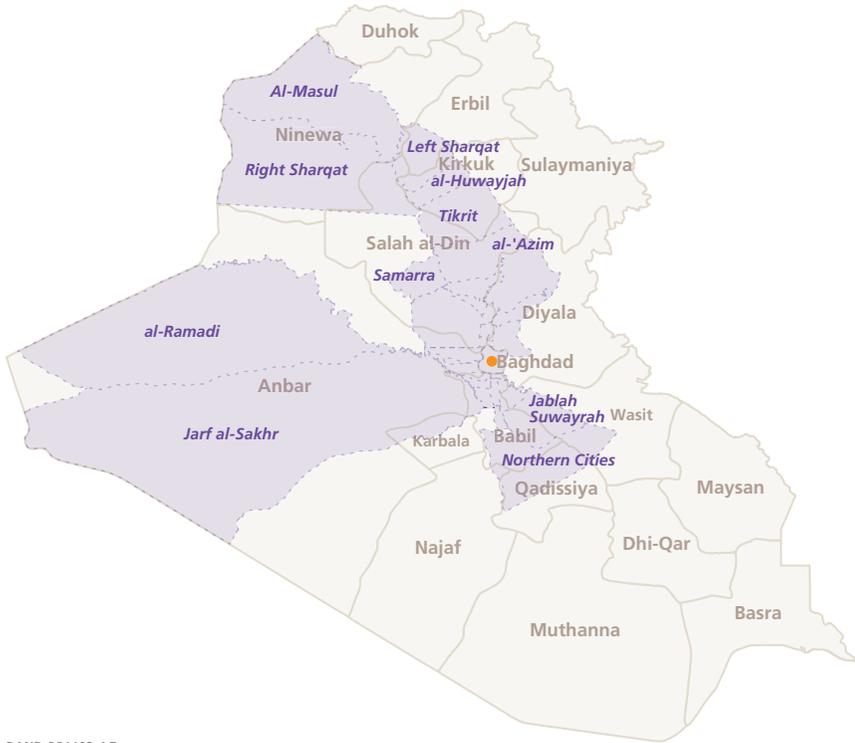
Figure 4.7—Continued
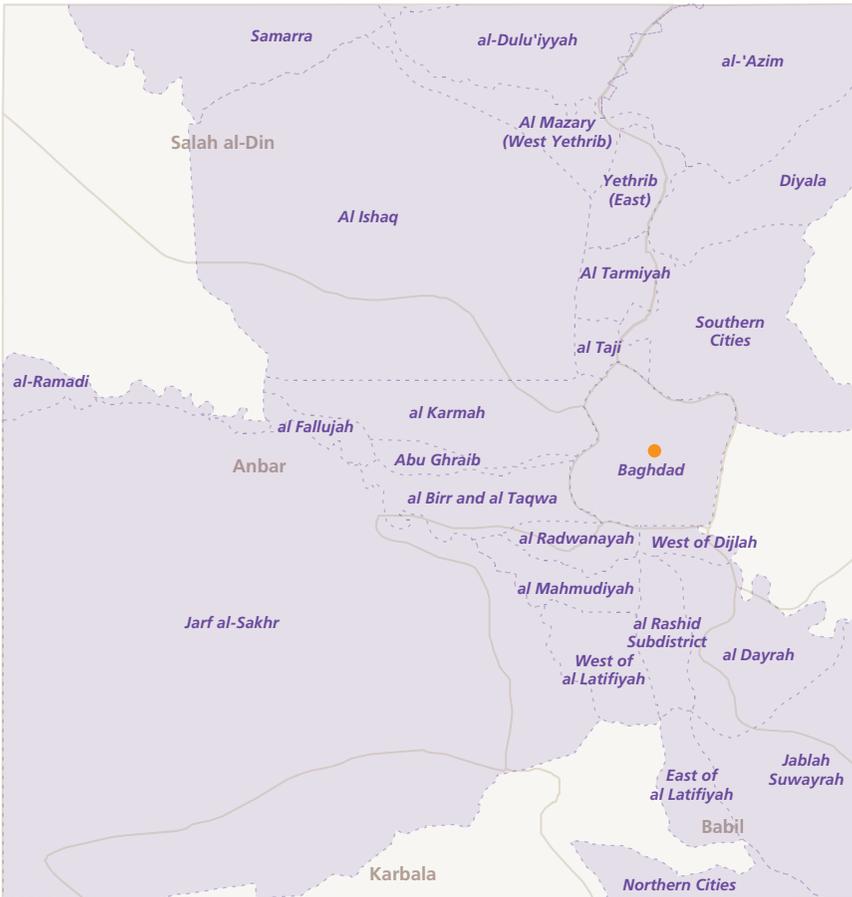
SOURCES: Harmony Document NMEC-2009-602125 (see ISIL, Syria and Iraq Resources," 2015); *Report of the Borders of the Sectors*, 2009.

NOTES: Names in gray are those of Iraqi governorates. Names in purple are those of ISI sectors. Although these documents were undated, they were captured from ISI's number-three leader in late 2008, and were thus likely to be at least a fairly up-to-date approximation of the group's geographic organization at that time, which was well after the surge and other factors had substantially cut into ISI's overall capacity. Those factors explain why the geography of ISI in Anbar entails much larger sectors than that which existed when the group was at its peak strength there in 2005 and 2006, when it had six sectors.

RAND *RR1192-4.7b*

ISI's boundaries were dynamic. Figure 4.8 shows the estimated ISI sectors for Anbar governorate in 2005–2006. At the time, ISI's strength in Anbar was substantial, and the group used many more subdivisions. Whereas the group had two sectors in Anbar in 2008, it had six in 2005–2006. ISI's geographic organization shifted in accordance with the group's fortunes.

Figure 4.8
Estimated ISI Sectors in Anbar, 2005 to 2006
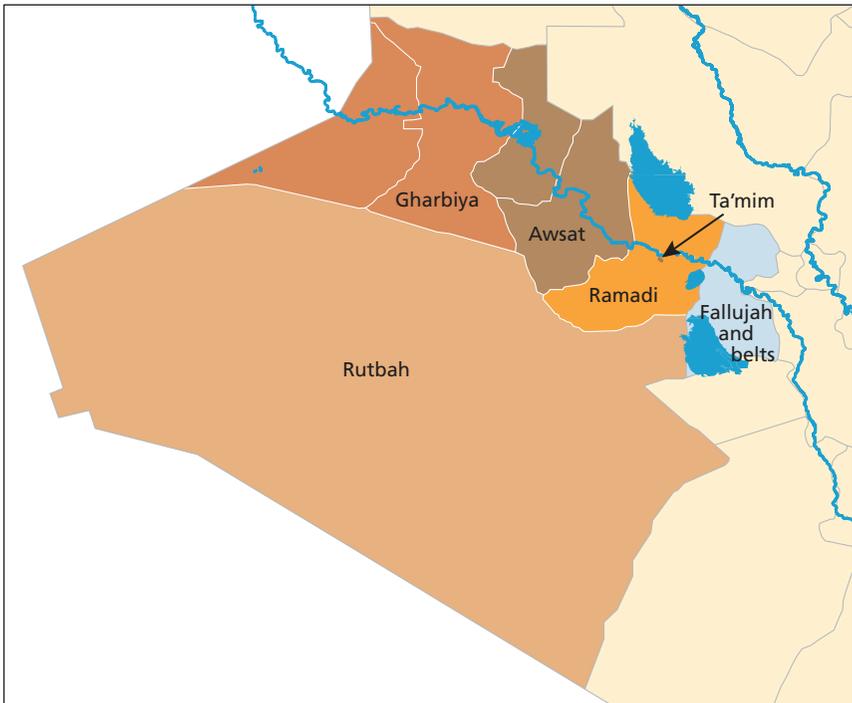
SOURCE: Bahney, Shatz et al., 2010, which drew from Harmony batches MA7029-5 and Ala Daham Hanush.
NOTES: The figure shows the authors' assessments of ISI's six sector divisions of Anbar governorate. These include Rutbah, Gharbiyah, Awsat, Ta'mim, Ramadi, and Fallujah and belts. These divisions are similar to the official Iraqi administrative divisions of Anbar governorate.
RAND RR1192-4.8

ISI Administration Across Space

In addition to defining sectors, the documents provide more information about ISI's plans for renaming certain sectors, as well as fields containing the names of four specific sector positions:

- sector emir
- sharia (or legal) emir
- military emir
- media emir.[37]

These documents offer substantial insight into three important organizational issues on which there is no extant analysis of al-Qaʿida or an al-Qaʿida–affiliated group, such as ISI, based on internal documents.

The first organizational issue is the strategic logic that underlay ISI's geographic organization. In 2008, the year in which the documents were captured and likely the year in which they were written, ISI was under heavy pressure because of aggressive and persistent counterterrorism operations conducted by coalition and Iraqi forces.

The second organizational issue is the preferences of top ISI leaders regarding how they planned to optimize their organization in the future. The leadership's aims, elaborated in the documents, can be fruitfully compared with the set of baseline conditions around which ISI had organized itself in 2008. Given the baseline conditions that ISI faced in 2008, the plans reveal what ISI's aims as an organization were and what ISI's leadership believed was possible under these conditions.

The third organizational issue concerns the group's ability to fill key local leadership and administrative positions across the sector-level subunits that made up much or all of the de facto state that ISI was working to establish. Despite ISI leadership's apparent strong preference to have a systematic, hierarchical organization at the local, provincial, and national levels, the group appears to have failed to find the personnel to fill key positions and replenish the large-scale losses it suffered from counterterrorism operations. This human capital constraint is slightly different from the one normally addressed in the literature on

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[37] Harmony document NMEC-2009-602125; see "ISIL, Syria and Iraq Resources," 2015.

insurgency. Rather than being constrained by the supply of low-skilled fighters, these documents suggest that ISI was constrained in some way by the scarcity of middle managers.

ISI's Preferred Administration Within an Islamic State

Numerous entries in the comments field of the document reproduced in Table 4.2 show that ISI leadership wanted to divide a significant proportion of its sectors into multiple sectors. Although it is not explicitly stated in the available documents, the simplest and most compelling hypothesis for this pattern is that ISI leaders sought to increase the group's direct control over valued territories whose sizes, as delineated by the boundaries described in Table 4.2, were too expansive for the group's sector-level administrators to oversee. The resulting lack of administrative capability could hinder ISI's ability to exercise control over its designated sectors, and thus open the door for other insurgent groups or tribal militias to seize control of ISI sectors.

Poor administrative capacity might also have affected ISI leadership's ability to maintain a high level of control over the group's internal affairs, including the detection and punishment of corruption, disloyalty, or other acts of insubordination from below.[38] By carving large sectors into multiple smaller ones and implementing new sector-level administrative structures in each newly designated smaller sector, ISI would be better equipped to avert these threats and establish or consolidate tighter control across the Islamic emirate sought by ISI leadership.

Who Governs, and Where? ISI's Lack of Local Administrators

It is clear that ISI had well-laid-out plans to construct hierarchical and highly bureaucratic organizational structures to administer various components of an Islamic state at the national, provincial, and district (or sector) levels. But how successful was the group at establishing and maintaining these structures? Measuring administrative capac-

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[38] On geographic obstacles to oversight in insurgent organizations, see Johnston, 2008; and Francisco Gutiérrez Sanín and Antonio Giustozzi; "Networks and Armies: Structuring Rebellion in Colombia and Afghanistan," *Studies in Conflict & Terrorism*, Vol. 33, No. 9, 2010. In the traditional management literature, the issues that arise when managers have excessively large numbers of subordinates to supervise are often discussed in terms of setting the appropriate *span of control*.

ity is notoriously difficult. A variety of measures, for example, have been constructed to gauge the governance capacity of nation-states, but scholars disagree over the concepts and data that underlie many of the indexes and variables.[39] Assessing the administrative capacity of militant groups is an even more daunting task. Little information and almost no quantitative data are available.

One way of gleaning insight into this issue is by examining an organization's ability to fill key positions that are laid out in its organization chart. An organization that can fill key leadership and administrative positions will be more likely to have the capacity to carry out administrative and bureaucratic tasks than one that cannot. To be sure, being able to fill key positions within an organization is not necessarily synonymous with being able to carry out these functions, but an organization that lacks the human capital at the top level is unlikely to be able to organize and conduct the full scope of the functions it seeks to execute or to build the institutions it needs to impose and consolidate control over particular geographic areas.

ISI's documents show that it had difficulty filling the four key positions for each sector. Of the 31 sectors listed, 30 also listed the status of appointments to the four specified positions. Of 120 total positions listed for the 30 sectors, ISI had filled only 46, as of the writing of the document (Table 4.3).

ISI listed a leader (sector emir) as present in only 18 of the 30 sectors for which these data were recorded. This finding is striking, as 40 percent of ISI's local subsidiaries lacked the presence of a leader. This is particularly important not only because the number of unfilled sector leader positions is high but also because, as shown earlier in this chapter, sector emirs play an important role beyond leadership,

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[39] For a variety of applications using different measures of institutional or governance capacity, see Stephen Knack and Philip Keefer, "Institutions and Economic Performance: Cross-Country Tests Using Alternative Institutional Measures," *Economics and Politics*, Vol. 7, No. 3, 1995; Daron Acemoglu, Simon Johnson, and James A. Robinson, "The Colonial Origins of Comparative Development: An Empirical Investigation," *American Economic Review*, Vol. 91, No. 5, 2001; Cullen S. Hendrix, "Measuring State Capacity: Theoretical and Empirical Implications for the Study of Civil Conflict," *Journal of Peace Research*, Vol. 47, No. 3, May 2010; James D. Fearon, *Governance and Civil War Onset*, Washington, D.C.: World Bank, World Development Report Background Paper, August 2011.

Table 4.3
ISI's Filled Sector Leadership and Administrative Positions, as of 2008

Type	Number Filled	Share Filled (%)
Sector emir	18	60
Sharia emir	11	37
Military emir	17	56
Media emir	0	0
All	46	38

SOURCE: Harmony document NMEC-2009-602125; see "ISIL, Syria and Iraq Resources," 2015.

NOTES: For each type of leader, the calculations made were based on the 30 total sectors that were listed in the documents captured in the Abu Qaswarah raid and that had data on leadership. The grand total of 38 percent (of all available sector-level positions filled) is inclusive of media emir positions, of which none was recorded as filled. Excluding media emir positions from this calculation, 51 percent of ISI sector, sharia, and military emir positions were filled.

decisionmaking, and general sector oversight—they are responsible for transmitting information from their sectors up the chain of command to higher-level provincial leaders. For the 12 sectors for which the sector emir position was not filled, it is unclear how, if at all, detailed reports were submitted to ISI higher-ups, or who, if anyone, oversaw operations and administered remaining ISI structures on the ground.

As noted, the documents indicated that no sectors had filled the position of media emir. As a result, ISI failed to fill all of the four key positions listed in the document in all of the 30 sectors for which data were available (Table 4.4). Nine of the 30 ISI sectors (30 percent) for which data were recorded, however, had filled each of the three remaining positions.[40] These sectors are Mosul, Left Sharqat, al-Duluʿiyyah (also spelled *Duluiyah*), al-Ishaq, al-Mazary (West Yethrib), al-Tarmiyah, al-Taji, Abu Ghraib, and Jarf al-Sakhr. Seven of these nine sectors appear to have been located north of Baghdad, where ISI was able to maintain a physical presence and organizational infrastructure in the wake of increased pressure from coalition forces

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[40] No information was available for one sector, al-Birr and al-Taqwa.

Table 4.4
Sectors with Different Numbers of Positions Filled

Total Number of Positions Filled	Number of Sectors	Share of Sectors (%)
4	0	0
3	9	30
2	7	23
1	5	17
0	9	30
Overall	30	100

SOURCE: Harmony document NMEC-2009-602125; see "ISIL, Syria and Iraq Resources," 2015.

and ISF. Abu Ghraib and Jarf al-Sakhr, both west of Baghdad, were the only two mostly administered sectors that were not located north of Baghdad—the areas to which ISI increasingly moved its base after 2006 because of coalition and Iraqi counterinsurgency and counter-terrorism operations. In seven sectors, ISI filled two of the four positions, and in five sectors, ISI filled one of the four key positions. Four of the five had a sector emir only, with no other ISI official listed.[41]

Perhaps most striking about the sector-position data is that in nine sectors, ISI was unable to fill any of the four positions, meaning that nearly one-third of ISI sectors lacked not only a top sector leader but also any leaders to administer key functions. These sectors include Baghdad, Diyala, West of Dijlah, al-Dayrah, al-Rashid subdistrict, Jablah Suwayrah, Southern Cities, Northern Cities, and Ramadi.

The size of the sector in terms of population appears to bear little relationship to whether ISI was able to fill the positions. If we construct an additive index indicating the number of positions filled (which ranges from 0 to 3), the bivariate correlation between that index and the sector population is weakly negative if we include the two largest

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[41] The other sector that had only one ISI official was al-Karmah. Al-Karmah's only listed ISI official, Abu Ahmad, was listed as the sector's military emir (Harmony document NMEC-2009-602125; see "ISIL, Syria and Iraq Resources," 2015).

sectors (which had no positions filled) and weakly positive if we exclude those sectors.

The geography of these sectors is revealing: seven were in or around Baghdad; two were in Anbar governorate, in western Iraq; and one was in Diyala governorate. In each location, coalition-led surge or SOI operations had cleared ISI from its former sanctuaries, from late 2006 through early 2008, most notably in Anbar governorate, Baghdad and its surrounding belts, and Diyala governorate.[42]

Previous analysis of coalition and ISF operations indicated that ISI had been routed in its previous strongholds.[43] Indeed, in January 2008, LTG Raymond Odierno commented: "Al Qaeda has been pushed out of urban centers like Baghdad, Ramadi, Fallujah and Baqubah, and forced into isolated rural areas. Many of their top leaders have been eliminated, and finding qualified replacements is increasingly difficult for them."[44] The captured documents provide another source of information that clearly corroborates Odierno's assessment. This information is valuable, because systematically analyzing militants' own internal documents can help analysts overcome some of the ambiguity of observed violence, such as the attacks documented in the MNF-I SIGACTS III Database.[45] This ambiguity, in isolation, makes it difficult to discern militants' strategic choices to reallocate or constrain violence from observer effects stemming from troop deployments or from genuine reductions in the capacity to perpetrate attacks. The documentary evidence helps remedy this potential shortcoming of other available data sources by demonstrating that not only did coalition forces and Iraqi operations significantly reduce violence in areas previously under ISI control but that it was unlikely that the decline in violence was an artifact of ISI leadership opting to constrain violence in these areas. Instead, it appears that, as an organization, ISI no longer had a significant presence in these areas, and its capacity to perpetrate

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[42] Hamilton, 2008b, p. 3.

[43] Hamilton, 2008a, pp. 2–3.

[44] Raymond Odierno, "DoD News Briefing with Lt. Gen. Odierno from Iraq," January 18, 2008.

[45] Empirical Studies of Conflict Project, n.d.

violence diminished as these areas were secured under coalition and Iraqi control.

ISI's Efficiency Across Space

Although the available data do not permit a thorough analysis of how ISI's operational efficiency varied across space, we gain a preliminary understanding by looking at the simple relationship between administrative positions filled and the production of violence. ISI more precisely produced violence relative to the population in areas where it had more positions filled in its administrative apparatus.

Assuming that ISI's attacks were roughly proportional with overall combat violence, the variation in the production of violence across the 31 ISI sectors during 2008 was very large.[46] The group's three most productive sectors had between 13.7 and 30.4 combat incidents per 1,000 residents in 2008. The next most productive sector had only 4.7 combat incidents per 1,000. ISI sectors in Anbar were the least productive during this period—not surprisingly, given that the group had been largely routed from that governorate by late 2007.

There are some differences in ISI attack rates depending on the proportion of administrative positions filled, but it is unclear whether those differences highlight the importance of filling administrative positions for producing violence or the fact that, during this period, the ISI hierarchy was encouraging its fighters to lay low. If we look at average rates of combat, effective ISI administration seems to have played a restraining role on the group's production of violence. In the nine sectors in which no leadership positions were filled, the average number of combat incidents per 1,000 residents was 4.8. In the 12 sectors where one or two positions were filled, it was 4.3, and in the nine with three positions filled, it was 2.4.

If, however, we look at the ability of ISI to produce levels of combat commensurate with an area's population, a different picture emerges.

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[46] This is a potentially flawed assumption, but there are no unclassified data on insurgent attacks in Iraq that provide the precise geolocation required to attribute them to the ISI sectors we have identified and that attribute attacks to specific groups. Since anecdotal accounts attribute much of the combat outside the south in 2008 to fighting against ISI, we believe that the assumption is a reasonable starting point.

Once we drop the two sectors that covered areas with populations of more than 2 million people (Baghdad and the Northern Cities), then the bivariate correlation between the count of combat incidents and a sector's civilian population is 0.63 in places with no administrative positions filled, 0.38 in sectors with one or two positions filled, and 0.88 in sectors in which ISI filled all positions.

ISI's Services Within Its Territories

In Chapters Eight and Nine, we discuss, in detail, how AQI and ISI made and spent their money. However, we preview the findings here because they are relevant to a key question that follows from ISI's lack of administrative capacity, as demonstrated earlier in this chapter. Specifically, did the group provide services, as a normal government would?

Overall, we see that neither AQI in Anbar nor ISI in Ninewa spent much of its budget on social services. In Anbar governorate, the AQI administrator's records show that the group spent the vast majority of its revenue on operational expenses—transfers from the AQI Anbar governorate level to local sectors on an as-needed basis. Costs that the AQI administrator categorized as "administrative" were the second-largest expenditure category in the Anbar database, but administrative expenses amounted to less than one-fifth the amount that AQI spent on sector transfers. The Anbar administrator also included a category of expenses called "support," which included expenditures made on various types of social support. The Anbar administrator's records show that AQI spent 10–15 percent of AQI's budget on services.[47]

AQI's declaration of an Islamic state (of Iraq) did not increase the group's spending on social services. To preview our findings in Chapter Eight concerning how ISI in Ninewa governorate spent its money in late 2008 to early 2009, only a tiny fraction was spent on social services. During this period, ISI in Ninewa spent vastly more money to pay its own personnel than on anything else. Military-related purchases made up about 10 percent of its budget. ISI spent very little on social services—funding disbursed for the group's medical committee, for example, made up less than 1 percent of ISI's total spending during

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[47] For a detailed breakdown of AQI and ISI income and expenses, see Chapter Eight.

the period. No other expenditure categories that would seem to represent spending on social services appear in the group's financial records.

An important question is whether ISI's successor group, the Islamic State, operates differently. Specifically, does the Islamic State provide services, unlike its forerunners studied in this report? Overall, ISI simply was unable or unwilling to allocate much of its budget to service provision. Although we do not have high-quality primary-source data to assess this proposition, it appears that, as of early 2015, the Islamic State's newfound riches enabled it to provide better quality and more services in areas firmly under its control, such as Raqqa, Syria. As of the summer of 2015, the Islamic State appeared to be offering a variety of services in Mosul and throughout its territories.[48] This suggests that the group's goals for a state extended well beyond marking internal boundaries and appointing officials. Rather, this suggests that had ISI not been severely damaged starting in 2006, it too would have built more-complex institutions for administering a territory and population.

Conclusion

We present three key findings about the group's organization. First, ISI's internal organizational structures much more closely resembled a hierarchy than a network. This finding is important but not revelatory: Previous research based on captured ISI documents had reached a similar conclusion, although based on a narrower set of evidence.[49]

Second, ISI's internal organization appears to closely mirror that of core al-Qa'ida, dating back to the pre-9/11 period in Afghanistan.[50] There are two possible explanations for this. The first is a path-dependence argument: Al-Qa'ida's affiliates and successors are

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[48] Ben Hubbard, "Offering Services, ISIS Digs Deeper in Seized Territories," *New York Times*, June 16, 2015a; Nour Malas, "Iraqi City of Mosul Transformed a Year After Islamic State Capture," *Wall Street Journal*, June 9, 2015.

[49] Bahney, Shatz, et al., 2010.

[50] National Commission on Terrorist Attacks Upon the United States, 2004.

not nearly as adaptive and dynamic as many have argued.[51] Rather, ISI adopted organizational structures used by al-Qaʿida's core because that was how the people who set up the groups were indoctrinated and trained during the 1990s and the first part of the 21st century. The second explanation for the similarities between how ISI and core al-Qaʿida sought to organize is a functional one: the exigencies of managing a territorially oriented insurgency mean that any rebels with territorial ambitions will naturally gravitate to the kind of hierarchical structure that ISI used. Under this view, the coincidence in naming conventions between ISI and al-Qaʿida may reflect shared ideological origins, but their structural similarities reflect similar managerial challenges and operational environments.

This degree of similarity is striking. It suggests that al-Qaʿida–affiliated groups will tend to adopt organizational structures and standard operating procedures that are similar to those of core al-Qaʿida because they have been taught doctrine that includes the basic al-Qaʿida structure.[52] Although affiliated groups' internal organizational structures reveal nothing about their intent to strike at "far enemy" countries, such as the United States and the United Kingdom, they do have implications for developing strategies to counter these groups. Al-Qaʿida's internal organizational structures and standard operating procedures are well-known. The United States and its allies will not need to start from scratch in devising countermeasures aimed at dismantling

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[51] For example, see Hoffman, 2004; Christopher M. Blanchard, *Al Qaeda: Statements and Evolving Ideology*, Washington, D.C.: Congressional Research Service, November 2004; and Assaf Moghadam, "How Al Qaeda Innovates," *Security Studies*, Vol. 22, No. 3, 2013. See also Rabasa et al., 2002; and Seth G. Jones, *A Persistent Threat: The Evolution of al Qaʿida and Other Salafi Jihadists*, Santa Monica, Calif.: RAND Corporation, RR-637-OSD, 2014.

[52] For example, many of the themes that al-Qaʿida in the Islamic Maghreb (AQIM) leaders discussed in documents uncovered by the then–Associated Press reporter Rukmini Callimachi also appeared in al-Qaʿida documents from Somalia and Afghanistan, as well as in AQI and ISI documents from Iraq. Callimachi writes about AQIM's detailed financial reporting requirements, as well as challenges managing relationships with locals, reigning in overly enthusiastic operatives, and making sure organizational resources are well spent. See Callimachi's series "The Al Qaeda Papers," published between January 22, 2013, and December 29, 2013 (the Pulitzer Prizes website hosts PDFs of ten of these articles).

new affiliate groups when they emerge or existing groups when they are resurgent.[53]

Third, regarding the geography of ISI's organization, ISI appeared to use straightforward logic to define the local areas it wanted as constituent parts of a larger emirate. The geographic factors that ISI used might provide useful guidance for security forces tasked with disrupting and dismantling other insurgent and terrorist organizations that seek control over a given area of operations.

Although ISI had specific territorial ambitions and governance goals over its defined jurisdictions, the group failed to fill a large proportion of the positions necessary to establish and consolidate local, sector-level subsidiaries. As the group's reemergence and takeover of Fallujah, Ramadi, and Mosul in 2014 demonstrate, ISI was down but never completely out. Nonetheless, its failure to administer a large proportion of its Islamic state implies that ISI, and possibly other al-Qaʻida affiliates, may be vulnerable to systematic human-capital deficits. Recruiting low-level fighters to a war that represents a popular cause among a substantial proportion of the local, national, and regional populations can be relatively easy. Maintaining a strong cadre of skilled, trusted leaders is difficult for covert organizations under attack. Recruiting middle managers will be difficult in the long run for any group that fails to win some measure of popular support.

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[53] See, for example, Brett McGurk, "Al-Qaeda's Resurgence in Iraq: A Threat to U.S. Interests," testimony to the House Foreign Affairs Committee, February 5, 2014.

Foreign Fighters, Human Capital, and Terrorism in Iraq

Like any organization, ISI needed workers with specific skills to achieve its objectives. In some cases, it found these skills among the domestic labor pool in Iraq. In others, it imported foreign fighters who possessed sought-after skills. Foreign jihadists traveled from many countries to join the insurgency in Iraq.[1] This chapter analyzes the "human capital" of ISI members, and specifically how ISI managed its human capital. A number of documents—in particular, two sets of documents captured in 2007 in Salah al-Din and Anbar governorates—provide significant new details about the demographics, skills, education, and other attributes of a large set of ISI members. At the time of our research, the data analyzed here were unique among the hundreds of ISI document collections we have reviewed. They reveal how ISI administrative officials methodically collected, organized, and stored information on demographics and skills about a subset of the group's members to match capabilities with the group's requirements. An ISI administrative emir likely collected and stored this information to help fill the specific and dynamic human-capital needs of his organization, which was experiencing rapid personnel attrition at the time, from arrests and raids. As we discuss in Chapter Seven, we believe that many of the members in these 2007 data—at least those who survived—are still active in ISIL.

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[1] The foreigners here fit a broad definition of the term *foreign fighter*. Namely, a foreign fighter is a "non-citizen of a state experiencing civil conflict who arrives from an external state to join an insurgency" (David Malet, "Foreign Fighter Mobilization and Persistence in a Global Context," *Terrorism and Political Violence*, Vol. 27., No. 3, 2015).

These data are unlikely to be atypical. In mid-2014, high-ranking Iraqi security officials indicated that the Islamic State kept analogous data on its members' skills and operational roles.[2] More recently, a new study of leaked Islamic State internal documents from 2013 and 2014 suggests that the group is currently keeping similar data on its members. As with our study, the new study similarly concluded that the group was keeping these data to scout for specific types of talent within its ranks.[3]

ISI faced unique personnel and human-capital challenges during the period we consider here. Prior RAND analysis showed that a sample of individuals in ISI faced a very high degree of occupational risk in 2006, with high annual violent mortality rates of more than 17 percent, and that risk increased dramatically in subsequent years.[4] Furthermore, ISI needed a continuous inflow of committed individuals to Iraq to support its signature tactic—suicide attacks—which ISI and broader al-Qaʻida referred to as *martyrdom operations*.[5] Based on the group's varied requirements, ISI needed steady inflows of various types of human capital to maintain the group's high operational tempo and to efficiently operate its administrative apparatus. Specifically, the group required both highly motivated operatives willing to sacrifice their lives in suicide operations and operatives with the varied skill sets required to ensure that the organization could function according to plan and remain resilient in the face of the pressure from coalition and Iraqi counterinsurgency and counterterrorism operations.

Our analysis of the documents supports three key hypotheses about ISI's labor pool. The first is that ISI's foreign labor force was diverse. The second is that foreign jihadists' skills tended to be distinct from skills more common among native Iraqi jihadists. The third

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[2]   "World's Richest Terror Army," reported by Peter Taylor, *This World*, BBC Two, April 22, 2015.

[3]   Brian Dodwell, Daniel Milton, and Don Rassler, *The Caliphate's Global Workforce: An Inside Look at the Islamic State's Foreign Fighter Paper Trail*, West Point, N.Y.: Combating Terrorism Center, West Point, April 18, 2016.

[4]   Bahney, Shatz, et al., 2010; Fishman, 2008.

[5]   Felter and Fishman, 2007.

is that ISI invested in human-capital development in ways that were responsive to its needs for specific skills among its workforce.

With respect to the first hypothesis, ISI foreigners can be easily divided into two groups: (1) a largely unskilled group that showed up without prior experience and (2) experienced terrorist operatives. These skilled operatives contributed a variety of knowledge and expertise to ISI and were likely placed into specific positions based on human-resources data that ISI collected on hundreds of foreign volunteers. The unskilled operatives were typically routed into either suicide-bombing operations or training.

With respect to Iraqi fighters, the information gathered by ISI suggests that Iraqis were also recruited and placed based on specialized skill sets. Those skills were different from those of the foreigners, however. Iraqi national recruits were more likely to have had traditional military skills and training in small-arms tactics.

Our evidence on the third hypothesis follows from the way foreign fighters were prepared if they were designated to operations other than suicide attacks. In contrast to other studies, we find evidence that ISI used foreign labor much more expansively than just for suicide operations.[6] ISI trained foreign individuals to execute a range of operations and was using foreign labor primarily for nonsuicide operations prior to 2008.[7]

Such training was part of ISI's organizational culture, going back to training camps that AQI's first leader, Abu Mus'ab al-Zarqawi, set up outside Herat, Afghanistan, in early 2000 for his original organization, Jund al-Sham;[8] these camps have continued through the present day in various locations in Iraq and Syria.[9] Accounts vary about how

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[6] For an exemplar of earlier work, see Mohammed Hafez, *Suicide Bombers in Iraq: The Strategy and Ideology of Martyrdom*, Washington, D.C.: United States Institute of Peace, 2007.

[7] Brian Fishman, "The Islamic State: A Persistent Threat," prepared testimony to the House Armed Services Committee, July 29, 2014.

[8] Weaver, 2006.

[9] John Reynolds, "French Airstrikes Target ISIS Training Camps in Raqqah," *Guardian*, November 16, 2015; Hassan Hassan, "The Secret World of ISIS Training Camps—Ruled by

ISI managed training during the war in Iraq. One detailed investigation into ISI training found that the group faced severe challenges in training its foreign recruits in Iraq during the height of the coalition involvement and resorted to training foreigners either in larger camps in Syria or in small safe houses inside Iraqi cities.[10] This report is consistent with others claiming that ISI commonly trained foreign operatives in rural eastern Syria.[11] Other reports from the period, however, document instances where ISI set up large camps in Iraqi towns under its control.[12]

Regardless of where training occurred, it is clear that ISI invested in its people. And the group appears to have allocated training dollars in a rational manner. According to the documents we analyze, ISI disproportionally trained foreign fighters over Iraqis. That difference is consistent with compensating for the foreigners' relative lack of military experience.

Of course, using non-Iraqi labor exposed the group to significant operational risks. Foreigners in Iraq were more likely to be detected as terrorists by the local population and by security forces, since they could easily be identified unless they were hidden in a back-office job or sheltered away in a safe house.[13] This dilemma raises an important

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Sacred Texts and the Sword," *Guardian*, January 24, 2015; Duraid Adnan and Tim Arango, "Suicide Bomb Trainer in Iraq Accidentally Blows Up His Class," *New York Times*, February 10, 2014; Brett McGurk, "Iraq at a Crossroads: Options for U.S. Policy," statement for the record, Senate Foreign Relations Committee hearing, July 24, 2014; Bill Roggio, "Islamic State Touts Training Camp in Northern Iraq," *The Long War Journal*, July 22, 2014; Human Rights Council, *Report of the Independent International Commission of Inquiry on the Syrian Arab Republic*, Geneva: United Nations General Assembly, A/HRC/27/60, August 13, 2014; and "Gun Safety, Self Defense, and Road Marches—Finding an ISIS Training Camp," *Bellingcat*, August 22, 2014.

[10] Truls Hallberg Tønnessen, "Training on a Battlefield: Iraq as a Training Ground for Global Jihadis," *Terrorism and Political Violence*, Vol. 20, No. 4, 2008.

[11] Bill Roggio, "Iraq Attacks and the Syria Connection," *The Long War Journal*, August 29, 2009.

[12] Mike Few, "The Break Point: AQIZ Establishes the ISI in Zaganiyah," *Small Wars Journal*, April 17, 2008.

[13] Fishman, 2009; Brian Fishman, "Syria Proving More Fertile Than Iraq to al-Qaʻida's Operations," *CTC Sentinel*, November 26, 2013.

general question for understanding such terrorist organizations as ISI: Why recruit foreign Islamists who pose security risks and are likely to further exacerbate relations with the local population? The answer must be that, once trained, the additional labor added value, even considering risks.

In the remainder of this chapter, we first discuss the data we have on ISI human capital. Second, we report our analysis of differences in how foreign and Iraqi ISI members recruited and assigned personnel. We conclude by discussing potential implications of these findings for the current U.S.-led coalition campaign against the Islamic State.

Data on ISI Human Capital

Our data on ISI's human capital come primarily from two sets of records captured in Anbar and Salah al-Din governorates in 2007.[14] The Salah al-Din data contain entries for 82 fighters, all of whom were Iraqi in origin. The data captured in Anbar contain entries for 417 fighters, primarily foreign fighters. Many of the foreign fighters have a date of entry into Iraq. All fighters with a date recorded entered Iraq in 2004 and 2005. Taken together, we have 393 foreign fighters and 106 Iraqi fighters, a total of 499 unique personnel records detailing attributes that ISI tracked. Entries for fighters detail demographic information, education, combat and other skills, and training. Although the record keepers did not track all attributes for each fighter, the combined records give us insight into the needs and priorities that ISI had in managing its human capital. The data provide insight into how ISI managed a diverse workforce during a period in which the group was being routed militarily and thus needed to manage the constant personnel turnover that resulted from the high rate at which ISI members were captured and killed.

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[14] The full set of documents used in analysis here includes Harmony documents MNFT-2007-005315, MNFT-2007-005316, MNFT-2007-005318, MNFT-2007-005319, NMEC-2007-633795, and NMEC-2007-634059; see "ISIL, Syria and Iraq Resources," 2015.

The personnel records shown in Figure 5.1 come from documents captured in Anbar governorate in March 2007. This particular document shows how ISI tracked battle experience and locations where the members were active. The documents resemble the advice that the al-Qaʻida leaders Usama Bin Ladin and Ayman al-Zawahiri sent to ISI leaders in a letter in March 2008, which was intercepted by U.S. forces:

> a. The sheikh [Bin Ladin]—may God preserve him—advises you to set up a department in the bureau for the affairs of the mujahideen in the Islamic State of Iraq, part of its duties would be the following:[15]
>
> (1) To look for hidden capabilities among the brothers who have joined the [Islamic] State and activate them, by gathering detailed questionnaires from each member in which he would clarify his age, health condition, experience, level of education and the commendations he has received, the areas where he excels, and so on, and what ideas he has to develop the work and support the Jihad, and what advice he has for the [Islamic] State and its leaders, bearing in mind the various security aspects to safeguard the information for the safety of the brothers. Also, only nicknames are to be used in identifying them.
>
> (2) To develop the expertise of the brothers in the various required fields through the available capabilities and accessible means.
>
> (3) To identify the gaps in required expertise in terms of quality and quantity.
>
> b. Seek to appoint some qualified brothers to set up a higher legal council and form a higher sharia court for the Muslims in general, including the mujahideen, which would not follow the State or any of the groups, and whose task is to rule in disputes by applying the provisions of Sharia, so that justice would prevail and security would settle and disputes would disappear.

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[15] *Mujahideen* is the plural for *mujahid*, which means "one who engages in jihad." Al-Qaʻida and ISI often referred to their members as *mujahideen*.

Figure 5.1
ISI's Records of Skills, Country of Origin, and Experience

Previous Missions				Previous Tours			Location Series				Security Status
Types	Location	Date	Assignment	Type	Duration	Date	1	2	3	4	
Battels	Baghdad - Abughraib - Rawah- Al-'Ubaydi			Estensive Engagement Course							wanted
Battels	Al-'Ubaydi-Al-M'adid			Informatory							very good
Battle	Haditha										good
Administrative	Haditha										
Battels	Al-Khisah - Haditha			Engagement - Mines							
Administration	Hadithah										
Rawa clashes				Penetrations / IED courses	15 days		Rawa/ 9 months				Wanted
Attack checkpoints and Military base/ Heet ambush/ Attack	//Abu-Gharib			various military courses/ al-Ma'adid course	2 months/ 1 week		Rawa/'Ana	Heet	Baghdad	al-'Ubydi	

SOURCE: Harmony document NMEC-2007-634059-1; see "ISIL, Syria and Iraq Resources," 2015.

RAND RR1192-5.1

c. Advancing the strong and faithful in general wardships and important jobs, and training the others in finance and the like.

d. As for what concerns external support, the brothers in the State must include in their communiqués the required needs and expertise and to specify their quantities. We in turn will confirm in our communiqués what you have requested.[16]

Given that the documents predate this letter from al-Qaʿida, it is possible that ISI had previously received this guidance or had arrived at the idea independently. Our documents suggest that ISI tried this system in a limited fashion, and it might have determined that either the system did not fit its needs or was too risky to document identifying information about its members.

We emphasize that these data are a nonrandom selection of records, and the record keeper documented attributes of ISI members inconsistently within—as well as across—the documents. Consequently, there are limits to our analysis, and we have chosen to present a conservative description of the population in the records.[17]

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[16] Bill Roggio, Daveed Gartenstein-Ross, and Tony Badran, "Intercepted Letters from al-Qaeda Leaders Shed Light on State of Network in Iraq," *The Long War Journal*, September 12, 2008.

[17] When the record keeper listed attributes for some but not for others, we assume that the member with the blank record did not possess those attributes. For instance, it is possible that an individual not listed as desiring suicide may in fact have later volunteered for a suicide mission. Because we are able to observe only where ISI recorded actual data, it is difficult to determine whether missing data entries are either meant to be recorded as 0 or whether the data are simply missing. Wherever possible, we note these issues and identify from which document the records came, as record keepers were more consistent in tracking similar characteristics within their own document than different record keepers were across documents. Although these entries span several years of record keeping on human capital, we do not see repeated entries and cannot disentangle updated entries—if there are any—from the documents. This has the added analytical disadvantage of not allowing for claims about how ISI leadership chose to develop and manage its human capital over time and in response to changing operating conditions because of the presence of coalition forces.

ISI Human Capital: Foreign Fighters Versus Iraqi Members

Among the 499 members listed in the documents were 393 foreign fighters and 106 Iraqis. We compare these two groups to weigh possible explanations for why ISI imported foreign fighters. These explanations include (1) ISI faced a shortage of members who were both true believers—Salafi jihadists of the al-Qaʻida ilk—and local Iraqis, who could continually replenish the ranks of the group's fighters and military leadership; (2) ISI experienced continuous shortages in skilled technical positions in its ranks, which it needed to replenish with skilled or trained foreigners; and (3) ISI needed a continuous flow of ideologically committed foreign fighters to use for its trademark suicide bombings.

Our documents show that ISI drew its foreign fighters from a variety of countries, with the largest group coming from Arabian Peninsula countries and the second largest group coming from North Africa (Figure 5.2 and Table 5.1). In Figure 5.2, the map in Panel B is derived from the well-known "Sinjar documents," a cache of insurgent records found in Sinjar, Iraq, in September 2007. The Sinjar documents contained significant details about foreign fighters, much of which is consistent with the information that was recorded in the documents that were declassified for this study. The Sinjar documents accounted for foreign fighters who entered Iraq from August 2006 through August 2007.[18] Many of these recruits came from North Africa and even Western Europe, in addition to a large number of entrants from the Arabian Peninsula. The map in Panel A illustrates our data, showing members who entered in 2004 and 2005, earlier in the insurgency. In contrast to the Sinjar collection, the new documents analyzed for this study show a somewhat different picture, suggesting that the types of ISI foreign-fighter flows might have varied over time, as circumstances on the ground changed. For example, our data suggest that, in this earlier period, a much larger percentage of ISI members from neighboring countries flowed into Iraq, and there were more fighters from Tunisia.

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[18] Fishman, 2008.

Figure 5.2
Sources of Foreign Fighters
Panel A: Fighters Entering in 2004 and 2005

Inflows in 2004 and 2005

Number of fighters
- 1–5
- 6–30
- 31–49
- 50+

Belgium (1)

Karachay-Cherkess (1)

Dagestan (1)

Lebanon (5)

Tunisia (48)

Palestinian Territories (2)

Syria (61)

Morocco (5)

Algeria (26)

Libya (14)

Jordan (8)

Kuwait (5)

Saudi Arabia (149)

Chad (3)

Sudan (10)

Yemen (45)

Somalia (2)
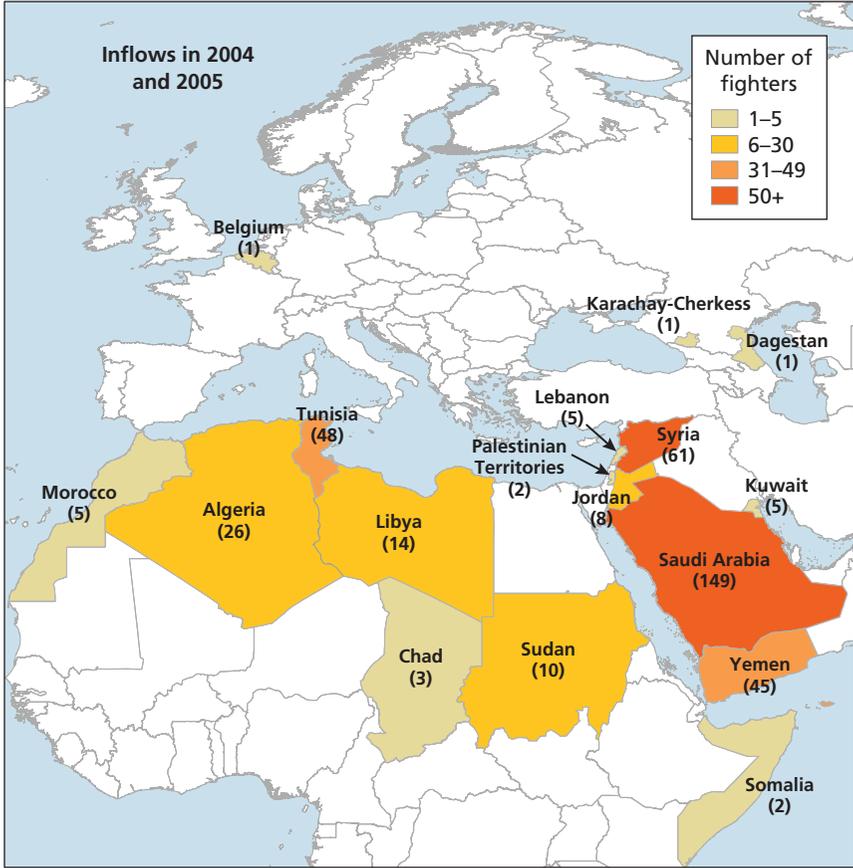
Figure 5.2—Continued
Panel B: Fighters Entering in 2006 and 2007 (the Sinjar documents)
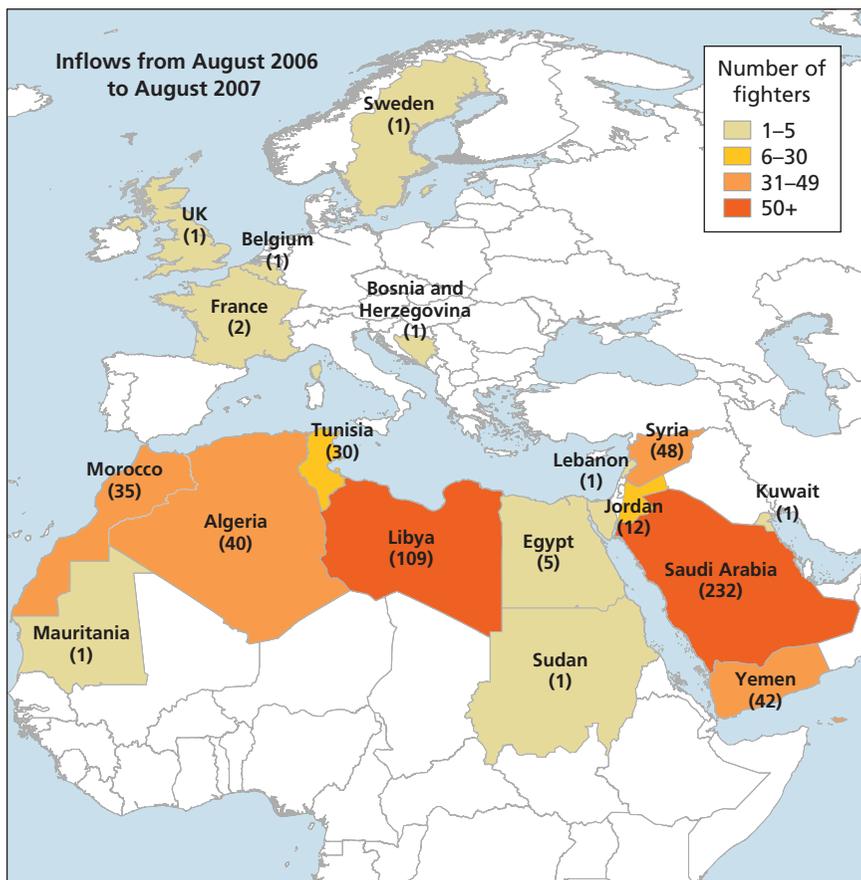
SOURCES: Harmony documents NMEC-2007-633795 and NMEC-2007-634059 (see
"ISIL, Syria and Iraq Resources," 2015) and Sinjar documents, as listed in Felter and
Fishman, 2007.

RAND *RR1192-5.2b*

Table 5.1
ISI Members, by Country, in Our Data

Country	Number of ISI Members	Share (%)	Rank
Saudi Arabia	149	30.3	1
Iraq	106	21.5	2
Syria	61	12.4	3
Tunisia	48	9.8	4
Yemen	45	9.2	5
Algeria	26	5.3	6
Libya	14	2.9	7
Sudan	10	2.0	8
Jordan	8	1.6	9
Kuwait	5	1.0	10
Lebanon	5	1.0	10
Morocco	5	1.0	10
Chad	3	0.6	13
Palestinian territories	2	0.4	14
Somalia	2	0.4	14
Belgium	1	0.2	16
Cherkessia	1	0.2	16
Dagestan	1	0.2	16
Total	492	100.0	

SOURCES: Harmony documents MNFT-2007-005315, MNFT-2007-005316, MNFT-2007-00531 MNFT-2007-005318, MNFT-2007-005319, NMEC-2007-633795, and NMEC-2007-634059; see "ISIL, Syria and Iraq Resources," 2015.
NOTE: The individuals of unknown, but presumed Iraqi, origin are not included.

As a general matter, foreign fighters tended to be more tied ideologically to the transnational Salafi-jihadi ideology that characterizes the current Islamic State than our sample of Iraqi members. Foreign individuals and groups traveled far and gave up much to fight with ISI. This dynamic created a well-known schism within ISI.[19] "Imperious" foreigners had a sense of superiority, but locals sensed that the foreigners could not do anything for themselves, had little understanding of the local culture or dialect, and created security risks for the group. One study judged that foreign labor was a key to both ISI's lethality from 2005 to 2007 and its decline post-2007, as Sunni tribal groups rose up against it in the Awakening.[20] Perhaps as a result of this, as ISI came under greater pressure, local ISI leaders tended to tuck foreigners away and either not use them or misuse them. A strategist writing in late 2007 or 2008 noted:

> The moment the Mujahid enters the land of Jihad [in this case, Iraq], he will be faced with a series of transitions, particularly those who enter into al-Anbar, and who are selected to go to the western region. . . . At the beginning of their arrival, they are placed in a dreary, peculiar desert and forced to live with rough Arabs who probably never prayed to Allah but who are only hospitable because the guests are also Arabs. The new brother will stay at this peculiar location until he reaches one of the guest houses of the brothers where he will be shocked with the realities of the lack of work and idleness at the camps in the desert where people are idle for several months. . . . Additionally, this person is not able to meet his immediate Emir during which he witnesses the problems of the military brothers. His operation has been postponed for months while he lives in a violent atmosphere of the fighter brothers and their issues because of their inactivity. He lives without having a military Emir to lead them and conduct their operations inside the cities. After a month of waiting and being discharged from his faith, the suicide bomber will be notified that his mission is coming soon with God's will and

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[19] Fishman, 2009.

[20] Fishman, 2009.

with God's permission, relief is coming. The brother's hope will be refreshed, but he starts hearing stories and episodes of previous suicide bombers who carried out their attacks in the air or against walls. He hears also that the brothers will be sending him to an easy target that can be dealt with by a security or military operation. One of the brothers will inform the suicide bomber that the target will be against two police cars or one of the apostate leaders; as result, his morale will deteriorate as he was hoping to cause huge damage to the apostate group, and devilish thoughts and depression crawls to his heart. . . . The brother decides to transfer from suicide bomber to fighter, but his request will be rejected by some Emirs, as it is considered the State's decision, they have no authority to transfer him to a fighter. The suicide bomber then returns to his country or he will be obliged to accept the status quo and choose any target on which to execute.[21]

ISI later judged that the political backlash against its foreign identity was so severe that, in 2008, the group decided to no longer accept foreign recruits.[22]

We consider a number of personnel characteristics in the remainder of this chapter and how they are correlated with foreign or Iraqi origin (Table 5.2). There is a strong relationship between foreign members and training, which may reflect a resource-allocation decision by ISI to train the relatively inexperienced and uneducated foreigners in fighting skills, or for people to seek training with the intent of joining ISI. This interpretation is supported by the observation that foreigners were much less likely to have battle experience or formal education. Across the sample, there is a weak relationship between records of having received training and noncombat skills. These correlations emphasize that the key dimension along which many other differences fall is the Iraqi–foreign fighter difference, which we examine in more detail in the following pages.

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[21] Harmony document NMEC-2008-612449; see "ISIL, Syria and Iraq Resources," 2015.

[22] Fishman, 2009.

Table 5.2
Correlations Between Foreign Status, Training, and Education

	Foreign Member	Any Training Recorded	Combat Skills Recorded	Noncombat Skills Recorded	Formal Education Recorded	Any Battle Experience Recorded
Foreign Member	1.000					
Any Training Recorded	0.3202	1.000				
Combat Skills Recorded	−0.0240	0.0693	1.000			
Noncombat Skills Recorded	0.0652	0.1101	−0.0336	1.000		
Formal Education Recorded	−0.4071	0.0611	0.0712	0.0725	1.000	
Any Battle Experience Recorded	−0.5332	−0.0773	0.0273	−0.0173	0.2589	1.000

Human Capital and Terrorism: Comparing Iraqi and Foreign ISI Operatives

In general, ISI's foreign fighters were less educated and less skilled than Iraqi fighters. They were more likely to be placed in traditional ter-rorist roles—suicide bombings and irregular attacks—than in more-traditional military roles. In some cases, perhaps because they tended to be more ideologically committed, they were placed in key military leadership roles.

Education

Foreign ISI members were much less likely to be educated than Iraqi ISI members. This finding is highly significant, with a likelihood of being random at less than 1 percent ($p < 0.01$). ISI recorded whether its members were "formally" educated. We believe that formal education likely means education beyond primary school, since the vast majority

of Arabs of fighting age are literate and received primary education.[23] Although it is difficult to interpret these data, because we cannot determine the group's definition of formal education, it seems clear that ISI found its foreign members to be poorly educated, compared with the Iraqis. Only roughly one in 13 foreigners were listed with some formal education, while nearly half of Iraqis were (Table 5.3).

Dying to Win?

Previous studies have found that most ISI suicide operations from 2005 to 2007 were conducted by foreign recruits. The Sinjar documents contain records on 389 foreigners who designated their work in Iraq. Of these, more than 50 percent—217 of the 389—were recruited into suicide-bomber roles.[24] Almost all of the remainder were listed with "military" roles, while only a handful (six total) were listed in the legal, media, or medical departments. The Sinjar documents showed that recruits from different countries had vastly different predilections—although the vast majority of Libyans, Moroccans, and Syrians were suicide bombers, the majority of Algerians were listed as fighters. Another study of ISI documents found that foreigners were kept separate from Iraqis—possibly because of the security risk

Table 5.3
Differences in Formal Education Among ISI Members

Type	Total	Number with Formal Education Recorded	Share (%)
Iraqis	106	46	43.4
Foreigners	393	30	7.6
Total	499	76	15.2

SOURCES: Harmony documents MNFT-2007-005315, MNFT-2007-005316, MNFT-2007-005318, MNFT-2007-005319, NMEC-2007-633795, and NMEC-2007-634059; see "ISIL, Syria and Iraq Resources," 2015.

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[23] Education for All Global Monitoring Report, *Regional Fact Sheet: Education in the Arab States*, Paris: UNESCO, January 2013.

[24] Felter and Fishman, 2007; see their appendix for a list of studies on this topic.

that foreigners constituted—and many wavered in their desire for suicide after lingering for some time in Iraq. Some also tried to switch to being regular fighters, despite having "little training."[25] Abu Qaswarah reportedly killed some foreigners who lost their nerve to commit a suicide attack and asked to return to their home countries.[26]

Our data show 40 people listed with "desires martyrdom" under the field "skills." ISI leadership apparently viewed recruits' desire to commit a suicide attack—or lack thereof—as information worth including in incoming members' personnel files. ISI did not record any other data about these individuals beyond their countries of origin.[27] In contrast, the group collected a substantial amount of data about its foreign-fighter recruits who were not suicide bombers, including age, education, types of skills, and operational experience. Other ISI document sets from this period similarly distinguish prospective suicide bombers and foreign fighters and suggest that, once a foreigner submits to being a suicide bomber, it is very difficult to convert to being a fighter.[28]

None of the 40 suicide bombers in our documents is Iraqi, which supports previous studies showing that ISI mostly used foreign suicide bombers (Table 5.4). This could reflect either a lack of Iraqi volunteers for the role or a preference on the part of ISI to save Iraqis for other roles. Similarly, only two out of the 61 Syrians were listed as suicide bombers, indicating that ISI treated Syrians more like locals, despite the fact that Syrians looked, demographically, like foreigners. We also infer that ISI had a standard way of managing suicide bombers because it consistently recorded only willingness to be a suicide bomber and country of origin for this subset of members. ISI did not provide would-be suicide bombers with training; only one of the 40 individuals listed as a would-be suicide bomber is also listed as having been trained. That 2.5-percent training rate is vastly lower than the

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[25] Fishman, 2009.

[26] MNF-I, "Al-Qaʻida in Iraq's Number Two Leader Killed," press release, October 15, 2008.

[27] In one case, it was recorded that a single individual received operational training.

[28] Harmony document NMEC-2008-612449; see "ISIL, Syria and Iraq Resources," 2015.

Table 5.4
Foreign Status and Allocation to Suicide and Operational Roles

Type	Total	Suicide Bomber	Operational Role	Share That Were Suicide Bombers (%)
Iraqis	106	0	106	0.0
Foreigners	393	40	353	10.2
Total	499	40	459	8.0

SOURCES: Harmony documents MNFT-2007-005315, MNFT-2007-005316, MNFT-2007-005318, MNFT-2007-005319, NMEC-2007-633795, and NMEC-2007-634059; see "ISIL, Syria and Iraq Resources," 2015.

34 percent of non–suicide bombers who were trained. This finding is statistically significant at the 0.001-percent level. The group simply did not invest resources in adding human capital to those designated for suicide bombings.

Because only 10 percent of the foreigners listed in our new ISI data were designated as would-be suicide bombers, potentially up to 90 percent of ISI's foreign workers were employed within the organization in non–suicide attacker roles. This means that, in these data, most ISI members, both Iraqi and foreign, took long-term positions in the group.

Battlefield Experience and Training for Terrorism

Iraqi ISI members were much more likely to have had some battlefield experience than were foreign fighters. An ISI document from this period stated that "most of the fighters in Iraq are well trained, experienced, professionals with high qualifications," suggesting that the foreign-origin members were more in need of training (Table 5.5).[29]

Other elements of our data also support this idea. For instance, Iraqis' weapon experience was broader and more varied than foreigners' (Table 5.6).

The combination of greater weapon and battlefield experience among Iraqis suggests that combat or weapon experience was not a

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[29] Harmony document NMEC-2008-612449; see "ISIL, Syria and Iraq Resources," 2015.

Table 5.5
Foreign Status, Training, and Battle Experience

Type	Total	Training		Battle Experience	
		Number	Share (%)	Number	Share (%)
Iraqis	106	3	2.8	94	88.7
Foreigners	393	154	39.2	99	25.2
Total	499	157	31.5	193	38.7

SOURCES: Harmony documents MNFT-2007-005315, MNFT-2007-005316, MNFT-2007-005318, MNFT-2007-005319, NMEC-2007-633795, and NMEC-2007-634059; see "ISIL, Syria and Iraq Resources," 2015.

Table 5.6
Foreign Status and Weapon Experience

Type	Total Members	Weapons		Machine Guns		Rifles	
		Average per Member[a]	Members with Expertise	Members with Expertise	Share (%)	Members with Expertise	Share (%)
Iraqis	106	1.1	87	18	17.0	47	44.3
Foreigners	393	0.5	105	27	6.9	45	11.5
Total	499	0.6	192	45	9.0	92	18.4

SOURCES: Harmony documents MNFT-2007-005315, MNFT-2007-005316, MNFT-2007-005318, MNFT-2007-005319, NMEC-2007-633795, and NMEC-2007-634059; see "ISIL, Syria and Iraq Resources," 2015.

[a] "Average per Member" is the average number of weapons with which a member has expertise. The results show that, on average, Iraqi members had expertise with more weapons than did foreign members.

motivating factor for importing foreign labor. These findings are also consistent with previous research, which found that Iraqis brought traditional military skills, while foreigners brought more-unconventional skills.

We see this pattern repeated when we examine the training that ISI afforded Iraqi and foreign members, compared with the battle experience those members had (Table 5.5). Foreigners were more likely to be trained, while Iraqis were much more likely to have battle experi-

ence. However, even though foreigners might have presented unique operational risks, they clearly brought skills for certain types of operations, since ISI appears to have been putting its foreign operatives into operational roles.

Even though foreigners were less educated, it appears that ISI valued education. Holding all else equal, ISI was much more likely to train foreign and educated recruits (Table 5.7). It may also be the case that the more educated disproportionately sought training—meaning that the causality ran the reverse direction. However, as noted above,

Table 5.7
Determinants of Training

Determinants	(1) Logit Model	(2) Conditional Fixed-Effects Logit Model
Foreign fighter	5.09*** (1.50)	1.51** (0.66)
Formal education	2.42* (0.99)	3.85*** (1.03)
Battle experience	0.42 (0.77)	0.50* (0.25)
Combat skills	0.60*** (0.05)	0.64 (0.44)
Noncombat skills	0.12 (0.24)	−0.03 (0.28)
Constant	−6.44 (1.09)	
Observations	460	377
Pseudo R-squared	0.195	0.108

SOURCES: Harmony documents NMEC-2007- 633795 and NMEC-2007-634059 for all models; MNFT-2007-005315, MNFT-2007-005316, MNFT-2007-005319, and MNFT-2007-005318 only included in model 1; unable to estimate model 2 with these records; see "ISIL, Syria and Iraq Resources," 2015.

NOTES: The dependent variable for both models is dichotomous, indicating whether the fighter had any documented training. Model 1 clusters standard errors on the document. Model 2 is a conditional fixed-effects logit estimation with document fixed effects. Standard errors are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

there is evidence that ISI's decision to train an individual was purposeful and intentional.

If ISI desired members with education and battle experience, why did it accept so many uneducated and inexperienced foreigners? First, it was perhaps easier to train foreigners in groups before they arrived in Iraq, out of reach of direct coalition military operations. It was also likely much easier to train foreigners before they arrived in Iraq than it would have been to later transport Iraqis out of the country for training. Sending Iraqis out of the country for training would have required the extra risk of crossing the border twice—once to get out of Iraq for training and a second crossing to get back into Iraq to fight. Some of the document entries note that foreigners had a "full course in Yemen," including details of the training.[30] This also suggests that either ISI had training camps in countries further afield than Iraq and Syria or ISI accepted training from other jihadist groups, such as other al-Qaʻida affiliates.

Second, it is possible that ISI desired foreigners over Iraqis despite the educational and experience advantages that Iraqis presented. Foreigners incurred large travel costs to get to Iraq, thereby demonstrating their commitment to jihad. Further, during this period, coalition forces had payment incentives available for informing on terrorist operations, so it is possible that, for security reasons, ISI wanted committed jihadists planning and executing military operations.[31]

Third, it is possible that there were more foreigners who wanted to join ISI at this point than there were Iraqis, and it may be that ISI wanted to train the foreigners who had only a minimal skill set. Most of the Iraqis might have joined earlier in the conflict and were therefore already battle-hardened, so they needed less training.

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[30] Harmony document NMEC-2007-633795; see "ISIL, Syria and Iraq Resources," 2015.

[31] On incentives, see Multi-National Corps–Iraq, *Money as a Weapons System (MAAWS)*, MNC-I CJ8 SOP, January 2009, p. 12 and Appendix E. This possibility follows from theories presented in Eli Berman and David D. Laitin, "Religion, Terrorism, and Public Goods: Testing the Club Goods Model," *Journal of Public Economics*, Vol. 92, 2008; as well as 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, 2001.

Fourth, as we note below, security jobs were given solely to Iraqis, perhaps because ISI wanted locals—who also were more likely to be educated—to run its security operations. From our analysis of the documents and from secondary sources, we know that security positions conducted surveillance, reconnaissance, counterintelligence, and detainee operations.[32] Although regular military operations almost certainly entailed exposure to the population, perhaps the security cadre required much more exposure, thereby making Iraqis more desirable for security operations because they had local knowledge and language skills. ISI perhaps then mostly trained foreigners to do military operations, where they were less exposed to detection and generally needed less knowledge about the local environment.

Working for the State

Other ISI captured documents state that there are four basic job functions within the organization: legal (sharia), administrative, security, and military.[33] The documents we discussed in Chapter Four also highlight the importance of the group's media functions.

In our documents that list the skills of ISI members, ISI split out media positions, suicide bombers, and irregular fighting skills as separate domains of expertise. ISI disproportionately placed members with formal education—who were predominantly Iraqi—in security positions. Almost one in four of the Iraqi members were in security, whereas no foreigners were. Even if ISI determined that locals were better suited for security functions because of their knowledge of the local environment, their native language capabilities, and their higher educational status, it is also possible that ISI believed that Iraqis were also not as well suited for unconventional terrorist operations as foreigners.

ISI administrators' records were not as comprehensive for foreigners as they were for Iraqis, making it harder to ascertain what specific roles foreigners played within ISI (Table 5.8). The administrators were

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[32] Mohammed Hafez, "Suicide Terrorism in Iraq: A Preliminary Assessment of the Quantitative Data and Documentary Evidence," *Studies in Conflict and Terrorism*, Vol. 29, No. 6, 2006; and Fishman, 2009.

[33] Harmony document NMEC-2008-612449; see "ISIL, Syria and Iraq Resources," 2015.

Table 5.8
Foreign Status and Job-Position Data

Position	Iraqi Fighter	Foreign Fighter	Total	Share of All Fighters (%)
Administration	10	7	17	3.4
Suicide bomber	0	40	40	8.0
Irregular	0	5	5	1.0
Other	6	0	6	1.2
Security	23	0	23	4.6
Soldier	60	92	152	30.5
Total	99	144	243	48.7
Share of each category with occupation listed (%)	93.4	36.6		

SOURCES: Harmony documents MNFT-2007-005315, MNFT-2007-005316, MNFT-2007-005318, MNFT-2007-005319, NMEC-2007-633795, and NMEC-2007-634059; see "ISIL, Syria and Iraq Resources," 2015.

NOTE: Only 243 fighters, or 48.7 percent of the total, had job status listed. Another had "detainee" listed under job category, and we do not include that person in this table.

almost three times more likely to list the positions of their Iraqi members than the foreign ones. In addition, almost two-thirds of the foreign members with a listed role were recorded as having a traditional military position ("soldier" in the documents). Accordingly, it is possible that ISI saw foreigners as a resource it could train with a standard, minimum skill set that would qualify them for military roles in the group and that foreigners were more expendable.

Mobility

Most ISI members tended to stay in one location, but a large share served in two or more locations (Table 5.9).[34] In multiple locations in

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[34] The maximum number of locations where a member was recorded as active was eight.

Table 5.9
Foreign Status and Active Locations

Active Locations	Iraqis		Foreigners	
	Number	Share, If Known (%)	Number	Share, If Known (%)
Unknown locations	15		331	
1 location known	63	69	26	42
2–4 locations known	26	29	26	42
5 or more locations known	2	2	10	16
Total known	91	100	62	100

SOURCES: Harmony documents MNFT-2007-005315, MNFT-2007-005316, MNFT-2007-005318, MNFT-2007-005319, NMEC-2007-633795, and NMEC-2007-634059; see "ISIL, Syria and Iraq Resources," 2015.

Iraq, the group made use of a set of trained Iraqi members with combat skills. In general, we find that Iraqi members were slightly less mobile than foreign members, but this finding appears to be driven by other factors that are correlated with foreignness, rather than foreign status itself. As noted above, foreigners stood out in Iraqi society, and by presenting a security risk, they were less likely to be moved unless they had specific skills needed in an area or unless there was a specific task to be accomplished, such as a suicide bombing.

Statistical analysis provides clearer explanation for mobility trends (Table 5.10). Although the raw data indicate that foreign fighters served in more locations, the difference with Iraqi members was not statistically significant once other factors were taken into account. In addition, noncombat skills are statistically related to lower mobility regardless of other factors (see models 3 and 7 in Table 5.10). In this light, ISI might have developed a cadre of back-office workers with specific skills—such as clerics, administrators, and media officials—who generally stayed in one place. Overall, the relationships between skills and mobility show that ISI used military skills and training quite flexibly across locations, and other skills and training much less so.

Table 5.10
Correlates of Number of Active Locations

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Training	1.005* (0.39)				0.842 (0.48)	1.084** (0.38)	0.905 (0.47)
Combat skills		0.450 (0.55)				0.658 (0.54)	0.619 (0.52)
Noncombat skills			−0.823** (0.26)				−0.678* (0.28)
Foreign				0.765* (0.34)	0.345 (0.41)		0.124 (0.39)
Constant	1.018	0.227	1.612	1.021	1.105	0.321	1.094
N	153	153	153	153	153	153	153
R-squared	0.180	0.132	0.169	0.155	0.185	0.194	0.225

NOTES: The dependent variable for each of these models is the number of active locations. All models are ordinary least squares estimates, with document (record keeper) controlled for. The sample includes only non–suicide bombers and those with at least one known location. Robust standard errors are in parentheses.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Findings and Implications

Although ISI focused its operations on local targets in Iraq (and, as the Islamic State, more recently, in Iraq and Syria), the group has long depended on the recruitment of foreign labor for its human capital. Our findings show that ISI used foreign and domestic labor supplies in distinct ways. ISI employed and trained foreigners for violence. It needed both trained recruits and suicide volunteers for terrorist-style operations, and foreign operatives largely ended up as trained fighters or as suicide bombers. It is possible that ISI put foreigners in specific key military positions because foreigners were more ideologically aligned with ISI than the Iraqis were, as they had given up much more to join the fight. But ISI used Iraqis with skills, battle experience, and training more flexibly across locations than other types of personnel.

Foreign jihadists in ISI tended to have a different profile from Iraqis. Foreigners were not as well educated as Iraqi recruits, but they

were more likely to have previous training in low-intensity combat. Perhaps as a result, ISI leadership continued recruiting foreigners in 2006 and 2007, despite the distinct operational and strategic risks that foreigners presented. The group did not start turning away foreigners until it shifted to a more covert terrorist posture from 2008 to 2011.

Islamic State of Iraq Compensation

Participating in insurgency is almost always physically risky, raising questions about what motivates people to do so.[1] Political economy theories of crime, insurgency, and rebellion suggest some opportunity-cost constraint, so the net value of participation must be at least as good as the next-best option.[2] That net value may contain a component that has nothing to do with money, such as soothing personal grievance or gaining prestige, but it also contains monetary rewards.[3] Sometimes these rewards are implicit: the ability, usually of middle managers, to take advantage of one's position to skim funds or tax civilians.[4] Typically, however, the monetary rewards are explicit: Wages are paid, as in other jobs. How those wages vary has implications for counterinsurgency policies and provides evidence regarding the agency problems that the compensation scheme is designed to solve.

In this chapter, we analyze ISI compensation practices using qualitative and quantitative data. On the qualitative side, we discuss a document captured in January 2007, outside Tuzliyah, in Anbar governorate, "Rules for Social Assistance." On the quantitative side, we developed data on 9,271 payments to ISI members recorded in 87 dif-

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[1] This chapter draws from Benjamin W. Bahney, Radha K. Iyengar, Patrick B. Johnston, Danielle F. Jung, Jacob N. Shapiro, and Howard J. Shatz, "Insurgent Compensation: Evidence from Iraq," *American Economic Review*, Vol. 103, No. 3, 2013.

[2] See, e.g., Ethan Bueno de Mesquita, "Rebel Tactics," *Journal of Political Economy*, Vol. 121, No. 2, 2013.

[3] Such a component would be termed *nonpecunia*ry in the academic literature.

[4] Weinstein, 2007*;* Shapiro and Siegel, 2007.

ferent documents.[5] Using these data, we analyze the level of ISI compensation, how payments to members were divided between salary payments and rental assistance, and how salaries varied with family composition and over time and space. Taken as a whole, the answers to these questions provide valuable insight into the capacity of ISI, the motivations of its fighters, and the managerial challenges the group faced.

This chapter is divided into four main sections. We first summarize our data on ISI compensation. We then provide a detailed analysis of ISI salary payments. Following that, we discuss expense reimbursements. We conclude by reviewing what the apparent compensation scheme tells us about ISI's organizational structure and challenges. In the next chapter, we further trace changes in ISI compensation over time for a specific set of fighters in two periods.

Compensation Data

Our compensation data are drawn from 9,271 records pertaining to at least 3,757 individuals, the number of unique war aliases, known in Arabic as *kunyas*, in the data. These records come from 87 documents listing ISI members. These documents typically list individuals by unit and describe their current status (active versus killed or detained); marital status; number of children or overall dependents; and payments of various kinds, including a monthly stipend (typically translated as *bail*) and the amount paid to members who required funding for accommodations or to run safe houses (typically translated as *rent*). Some of the documents record lists of individuals along with their assets—weapons and cars, for example—but do not specify payments.

The number of personnel listed per document varies widely. Some documents were used by small-unit commanders to report to sector administrators and thus contain relatively few individuals. Other documents were used by administrative emirs to track payments to personnel across multiple units. The median number of personnel per

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[5]   Appendix C provides the full breakdown of payments recorded by document.

document is 31, the mean is 107, and the two largest documents each record more than 1,000 salary payments, with 13 more documents listing between 200 and 590 payments. When documents were in Excel spreadsheets, we had the original and translated versions declassified whenever possible. There is a large amount of contextual information in these spreadsheets. Some of the administrators employed the Excel comment feature a good deal, as well as macros and links to other spreadsheets. For handwritten and PDF source documents, our coding team transcribed the salary payments.

Geographically, our sample is concentrated in Ninewa (3,615 payments), Anbar (2,917 payments), and Diyala (2,193 payments), with a smaller numbers from Salah al-Din (546 payments). Table 6.1 shows the distribution of payments by governorate and year. Twenty-three of the documents list a single amount of compensation paid to each individual. Eleven documents disaggregate payments into a base rate and additional payments for food (groceries or a ration card), accommodations (rent), or other expenses (translated as *assistance*, which could have also been rent). In ISI's compensation scheme, salary payments were to continue to the families of those killed or captured.[6] Eleven

Table 6.1
Compensation Data, by Governorate and Year

| Governorate | Number of Payments | | | |
	2006	2007	2008	Total
Anbar	1,263	1,588	66	2,917
Diyala	0	2,193	0	2,193
Ninewa	39	3,072	504	3,615
Salah al-Din	159	387	0	546
Total	1,461	7,240	570	9,271

NOTE: A complete list of the documents used in the construction of these data is in Appendix C.

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[6]   As we show in Chapter Seven, ISI did not always make good on this promise.

documents clearly record fighters' status, and in these only 57 percent of the payments went to active fighters.

Nearly all documents also track family structure—marital status most commonly, but also the number of children per fighter. Although the Mosul administrator, in Ninewa, used unique identification numbers for fighters to track them across documents, others recorded only names, making it hard to distinguish repeated payments from those to different fighters sharing a name.

We also analyze compensation against the risk that members bore. To do so, we combine the compensation data with data on conflict intensity, including combat incidents recorded in the MNF-I SIGACTS III Database and with data on civilian casualties from Iraq Body Count, a database that tracks civilian deaths in Iraq using press reports.[7]

ISI Compensation Rules

To reiterate the point made in Chapter Three: All firms set their compensation and employment policies to balance multiple objectives. Firms need to attract the right talent, motivate their employees to work hard, maintain morale and a sense of equity within their workforces, and send signals about how workers should allocate their time. In labor markets with plentiful employers and potential employees, all of this has to happen in such a manner that workers' compensation matches the marginal product of their labor, at least in expectation.

Like a standard firm, ISI had to achieve multiple objectives with its compensation policy, including

- attract talented people to work in a high-risk environment
- screen for skills and unobservable human capital
- motivate employees to work hard and take risks
- maintain morale.

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[7]   Empirical Studies of Conflict Project, n.d. The Iraq Body Count project can be found at www.iraqbodycount.org.

To meet these objectives, ISI appears to have mandated a flat salary structure. The "Rules for Social Assistance," found in Anbar in January 2007, listed the monthly base salary for a fighter as 60,000 Iraqi dinars, about $41 in nominal terms at then-current exchange rates.[8] The document specified that fighters get an additional 30,000 Iraqi dinars for each child and that wages continue if a fighter is killed or captured.[9] Such payments could serve several purposes. They might be seen as providing insurance if fighters believed that they would be paid as long as the organization survived and if they expected that it would remain viable. Even if neither belief was present, continuing payments upon death can help leaders signal that they will spend fighters' lives carefully by accepting a loss in future operating revenue when fighters are killed. That function does not require that the payments actually be made in perpetuity; it only requires that they be made for some time after a person has been killed.

These "rules" reveal a clear interest in establishing standardized salary guidelines that account clearly for what will happen in a range of contingencies, while abiding by norms of equity in the distribution of funds. Below we provide the translated rules; the formatting is replicated as much as possible to provide a feel for the original. It is not clear what distinction is made between "fighters" and "Members of the Organization."

Rule of Social Assistance.

Singles:

1- The ration for single fighter is 60,000 [dinars]

2- The ration for single fighter with dependents as follows

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8   Harmony document MNFA-2007-000566; see "ISIL, Syria and Iraq Resources," 2015.

9   The Provisional IRA made similar payments to the families of captured fighters, an expense that put the group under considerable pressure over time, as salaries to prisoners' families came to consume a large portion of the organization's budget. See James M. Glover, *Northern Ireland: Future Terrorist Trends*, London: UK Ministry of Defence, 1978.

A – Fighter himself 60,000

B – His parents 30,000

C – Single sister 30,000

D – His brother under 15 30,000

3- Material assistance to a single fighter when getting married is $500.00 to [$]1,000.00 based on Al-Anbar Amir assessment, based on his financial situation, his work, and reputation, also should be based on the recommendation of his supervisor.

4- When a fighter dies, $500.00 should be paid to his family through Amir of Al-Anbar according to the priority and order #.

5- His salary should be stopped if he has no dependents

Married.

1- Ration of married individual is 60,000

2- His wife 30,000

3- Son and daughter 30,000 if she is not married also the son should be under 15

4- If he is the only one in his family they should be paid as follows

His parents 30,000

Unmarried sister 30,000

His brothers under 15 30,000

3- Assistance for the sick should be assessed by the Amir himself

Families of the martyrs, detainees and the wounded.

1- The same amount a martyr gets when he was alive, should be given to his family which is 60,000 and everyone dependent on him 30,000, that includes parents, a brother under 15 or unmarried sister.

2- Detainee families, the same amount when he was not captured and which is 60,000 and each individual he was responsible for, 30,000 for the parents and a brother under 15 and unmarried sister.

3- The wounded, they should have what the fighter's family gets, also, they should be paid for their treatment.

Employees and the forced out:

Employee who gets paid a salary above the assessed assistance that he gets, will not be paid, he will be paid a difference in case his pay is less than the assistance, example, if the assistance is 200,000 and his pay is 150,000 he will be paid the difference of 50,000.

The forced out:

1- He will be paid a house rent in the area where he settles and the matter will be in the hand of the Amir exclusively.

2- The rent will be the median of the area

3- Amir of the sector will be responsible over them and their living conditions.

Rules of the Social Assistance for the members of the Organization.

1- A martyr with sons under 15 for males, however, for the females until they get married they will get 30,000 Dinar. In case the parents and his brothers under 15 are dependent on him, each one will get 30,000 Dinar and unmarried sisters will get 30,000 each.

2- In case one of the group member becomes a martyr $500.00 will be paid to his relatives through the Amir of Al-Anbar, names will be submitted and will be paid according to the priority.

3- Guardian of the individuals will be directly responsible for the family of the martyr and he should follow their living and health matters.

4- If a brother becomes a martyr and he was single, his pay should be stopped.

5- If a brother is employed and he has a salary more or equal to the dues that he gets he will not be paid, if the salary is less than his dues, the difference should be paid.

6- A brother who lives in a rented house, his rent should be paid based on the rent median.

7- Each working brother should be paid the sum of 60,000 Dinar, and if he has dependents each should get 30,000, provided that males should be under 15 and the females are not married.

8- If a brother is completely devoted to jihad, assistance should be paid to his family if they depend on him.

9- Wounded brothers should be paid the cost of their treatment after submitting it to the area guardian.

10- A detained brother will have the same dues as mentioned above

11- A brother who moves from town to town should be rented a house based on the median of rent with furniture if he does not have one and should be the property of the group.

12- A brother who is willing to get married should get between $500.00 to $1,000.00 according to his work, reputation and obedience, and recommendation of his boss.

Remarks:

Family of the martyr or a detainee or a wounded or temporarily handicap due to his wounds, will consider if his wife is the one running the house she will be paid her husband's salary 60,000 Dinar, if she is with her relatives her husband's money will be stopped [60,000] Dinar be it the wife or the family.[10]

The extent to which these "rules" were followed outside Anbar and in other periods is an open question. In documents for other locations, the implicit formula was changed to 75,000 Iraqi dinars per fighter and either 25,000 or 10,000 Iraqi dinars per dependent. For example, in Mosul in 2007, fighters appeared to have been paid 75,000 Iraqi dinars for themselves, 25,000 per wife, and then 10,000 for dependent children and women.[11] What is clear is that the rules evince a strong concern with equitable compensation and with making the standards clear and replicable. This focus makes sense in an environment where turnover was high (as we will discuss in Chapter Seven), opportunities for corruption were rampant, and the group had to maintain a strong sense of shared mission.

Regardless of the purpose of the continuation of payment upon death, the base salary of 60,000 Iraqi dinars per month appears to be

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[10] Harmony document MNFA-2007-000566; see "ISIL, Syria and Iraq Resources," 2015. Put more plainly, this instruction says that if a member is killed in action, detained, or wounded, then if the wife is running the household, she will get her husband's full salary. But if she goes to live with other family members, the salary will stop.

[11] Harmony document NMEC-2008-614685; see "ISIL, Syria and Iraq Resources," 2015. The "total workers" tab of this roster and payroll spreadsheet lists 768 people with specific salary figures. Of these, without imputing values when there are obvious errors, 476, or 62.0 percent, earned a salary exactly equal to the 75,000/25,000/10,000 formula. In some cases, the spreadsheet had "M" or "provider" or other nonnumerical entries in columns for dependent children or women. When we converted these to 0, 521, or 67.8 percent, earned a salary exactly equal to the 75,000/25,000/10,000 formula.

quite low by Iraqi standards. Based on a 2004 listing of job openings, the following monthly salaries were described as low: approximately 220,000 Iraqi dinars for an experienced bricklayer; 73,000 Iraqi dinars at the low end for an unskilled worker in plastic-bag production, vending, and metalworking shops; and 146,000 Iraqi dinars at the high end for an unskilled worker in those same venues, or $150, $50, and $100, respectively.[12] In the nationally representative 2007 Iraq Household Socio-Economic Survey of 18,144 households, the average wage among men who reported earning wages from employment was 357,000 Iraqi dinars per month. For illiterate men, it was 319,000 Iraqi dinars, and even those unemployed at the time of their interviews reported earning 178,000 Iraqi dinars per month during the previous 12 months.[13] An ISI member would need nine dependents to approach the average 2007 monthly wages reported by illiterate wage earners.

Furthermore, these salaries are strikingly low considering the risks that ISI fighters accepted. Bahney and coauthors found that, in Anbar in 2005 and 2006, the mortality risk for AQI fighters was more than 47 times that for men ages 18 to 48 populationwide.[14] In the 21 documents specifically recording the status of those receiving payment, 49 percent of payments went to members who had been killed and detainees. As we will see in Chapter Eight, the apparent turnover from 2007 to 2009 in Ninewa was greater than 50 percent annually. Although we cannot tell how many of these people were voluntary departures versus deaths, these numbers surely reflect the fact that being in ISI was an extremely dangerous job.

For such low wages to be paid for such a risky job, ISI members must have received a substantial portion of their compensation through the value they placed on being part of the group. This ideological com-

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[12] Craig Davis, "Reinserting Labor into the Iraqi Ministry of Labor and Social Affairs," *Monthly Labor Review*, Vol. 128, No. 6, 2005. When these dollar figures are translated to 2006 values, adjusting for the high Iraqi inflation that persisted in 2005 and 2006, they are equivalent to $310, $100, and $200, respectively.

[13] Central Organization for Statistics and Information Technology, Kurdistan Region Statistics Organization, and World Bank, 2008, Tables 9-10 and 9-11.

[14] Bahney, Shatz, et al., 2010.

pensation was apparently quite large, since even the most-optimistic estimates based on these data place the median total monthly payments within the group at about 120,000 Iraqi dinars per month.[15]

Beyond base salary, nonsalary payments to members could be quite substantial, largely because of the payments categorized as rent or assistance (Figure 6.1). Of the 5,951 ISI members for whom we have information on salary and other payments, many received total payments well above the implied monthly salary in the "Rules for Social Assistance." As one can see, the payments do not cluster on the $y = x$ line (green line) in Figure 6.1, which plots monthly salary implied by the rules against total payments. Rather, the vast majority of members received compensation above and beyond what the "Rules for Social

Figure 6.1
Implied Base Salary Versus Total Payments
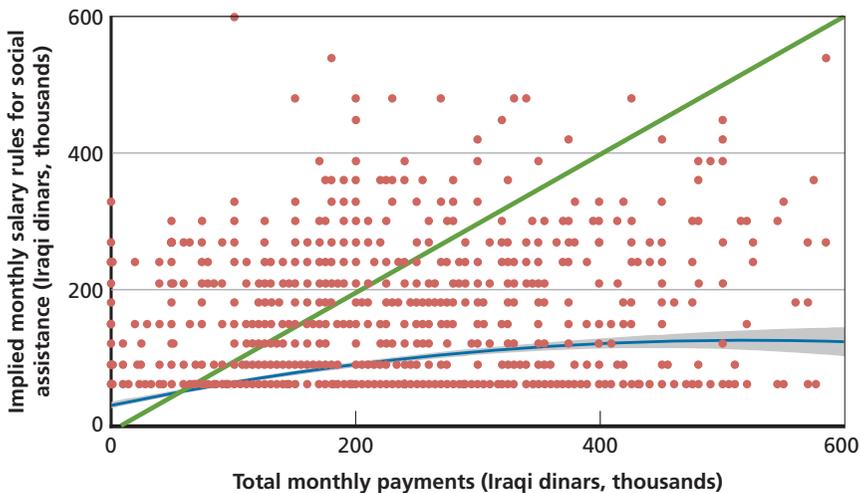
SOURCE: Authors' calculations based on data contained in documents listed in Appendix C.
NOTE: For this figure, we dropped 55 payments above 600,000 Iraqi dinars per month, the 99th percentile of the payment distribution.
RAND *RR1192-6.1*

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[15] This figure is based on 5,946 payments, dropping outliers beyond four standard deviations but including rental-assistance payments.

Assistance" would imply. In fact, regressing total payments on implied base salary explains only 10 percent of the variance in total payments.

Salaries and total payments differed by region, with additional payments for rent varying most dramatically. On average, most of the payments were through salary. Among the 2,200 payments listed in 25 documents that distinguish clearly between salary and rental or assistance payments (80 percent of which were from Ninewa), the average proportion of total payments devoted to rent was 19 percent, but this varied widely, with a standard deviation of 26 percent.

Payments beyond salary were a substantial portion of total payments for the highly compensated. Among those receiving more than 330,000 Iraqi dinars per month (the 90th percentile of total payments, for the sample, that clearly separated salary and rent), the average additional payment for rent or assistance was 212,000 Iraqi dinars per month, almost 51 percent greater than the median total payment within the overall subsample.

This pattern suggests that one way the group might have paid select personnel higher wages without violating its egalitarian compensation norms was to allow these personnel a large monthly housing allowance—some of which for such things as rent on safe houses and some as an implicit salary, similar to how expense allowances enable corporate executives to enjoy perks above and beyond their notional salaries. Alternatively, the allowance could have reflected true rental assistance to members who had been displaced in the fighting between ISI and coalition forces, ISF, and Awakening forces.

The most surprising pattern in the data is that average compensation did not differ in the expected way by levels of violence. Typical models of wages suggest that, holding labor supply constant, we should see more-productive workers earning more and those facing higher risk earning more, the latter known as a *compensating differential*. Neither appears to have clearly been the case in Iraq (Table 6.2). Mean and median total payments were relatively similar in Anbar and Ninewa, while ISI fighters in Diyala were paid substantially less. What is surprising is that those operating in the least-violent governorate (Ninewa), employing the lowest-risk attack portfolio, made almost as much as those in the most violent, highest-risk governorate.

Table 6.2
Monthly Compensation and Violence, by Governorate

Panel A. Personnel				
Governorate	Members	Total Payments (dinars per month)		Proportion Married (%)	Children per Member
		Mean	Median		
Anbar	1,985	157,507	140,000	64.8	0.81
Diyala	1,235	102,466	100,000	66.2	1.23
Ninewa	2,094	175,082	150,000	74.7	0.85
Salah al-Din	384	105,525	110,000	63.5	1.21

Panel B. Violence in Governorates, and Years with Salary Data					
Governorate (years)	Total Combat Incidents	Combat Incidents per Month	Combat Incidents per 1,000	Civilian Casualties per 1,000	Riskiness of Attack Portfolio
Anbar (2005–2006)	20,324	847	19.0	2.3	0.53
Diyala (2007)	6,143	512	5.0	2.7	0.63
Ninewa (2007–2008)	11,675	486	5.1	1.7	0.60
Salah al-Din (2006–2007)	9,701	404	16.0	3.2	0.56

SOURCES: Compensation figures from author calculations. Combat incidents and civilian casualties from Condra and Shapiro, 2012.

NOTES: Compensation figures exclude outliers where total payments were above the 99th percentile. The number of dependents was not recorded for all members. Riskiness is defined as the proportion of attacks that are not indirect fire or IED attacks, the two kinds that can be conducted without exposing fighters to immediate risk of counterattack.

These salary figures suggest that there was little monetary compensation for risk in ISI. To compare across governorates, we can simply take the monthly median payment and divide by the average number of combat incidents per month. The median payment in Anbar came to approximately 165 Iraqi dinars per incident of violence, compared with 195 Iraqi dinars in Diyala, 308 Iraqi dinars in Ninewa, and 272 Iraqi

dinars in Salah al-Din. In our sample, the total payment per attack was higher in areas with *lower* levels of overall and per-capita combat violence. Indeed, there is a negative correlation between payments and combat at the governorate level, after controlling for marital status and allowing a mean shift for observations that cannot be located in a specific district.

Some of the apparent homogeneity of wages may be due to aggregation to the governorate level. Trends in violence varied quite a bit across smaller geographic units. We see some variation in pay across subunits in these data.[16] Within the 37 identifiable subunits that had 20 or more fighters, median monthly payments were 110,000 Iraqi dinars, in line with provincial averages, but across these subunits, they ranged from 50,000 to 390,000 Iraqi dinars. These differences were not fully explained by family structure, although family structure played an important role. The average rate of married personnel was 64 percent across subunits, but it ranged from 30 percent to 90 percent. The percentage married is positively correlated with median total payments within units and accounts for 36 percent of the variance in median total payments. Overall, there is little strong evidence within the payment data for compensating differentials.

It may be the case that differences in labor supply explain some of this result. Qualitatively, the war was going much more poorly for ISI in Ninewa in 2007 and 2008 than it was in Anbar in early 2006. Over the course of 2007, ISI was pushed out of Anbar almost entirely and shifted to Ninewa, where it rapidly lost ground throughout 2008. That might have made it harder for the group to recruit fighters. No one, after all, wants to be on the losing side in an insurgency. If that were the case, then the group would have had to increase compensation to maintain its forces. This would have been a subtle break with the goal of providing low wages to attract more-devoted members, but even the later amounts were not large. The apparent lack of compensation for risk may therefore simply reflect the fact that ISI had a harder time recruiting fighters later in the war and, as any firm facing a personnel shortage might do, it increased compensation in response. Alterna-

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[16] For variations in violence, see Biddle, Friedman, and Shapiro, 2012.

tively, it could be that later in the war, Ninewa had large numbers of displaced fighters from Anbar, Diyala, and Salah al-Din and therefore had higher rent obligations.

Reimbursements

One of the more interesting aspects of the ISI payments to fighters was that members were apparently expected to incur expenses on behalf of the organization for which they would later be reimbursed. The document collection includes several large ledgers recording payments for ad hoc expenses, and many of the salary-reporting documents submitted by cell leaders to higher authorities included both fighter rosters and records of expenses. We further discuss in Chapter Nine the implications for the organization of the reimbursement system. In the remainder of this chapter, we provide examples of how reimbursements formed a part of overall payments to members.

ISI documents reveal a close attention to how money was spent and to whom it was distributed. Although some of the line items are rather vague, it is clear that reimbursements to individuals, as well as units, were carefully tracked and documented. Figure 6.2 shows a sample of reimbursements from Diyala. Disbursements were made for standard payroll and vague expenses (e.g., miscellaneous expenses in item 4), as well as specific expenses, such as for the purchase of a motor or fuel containers (items 6 and 7), or 20,000 Iraqi dinars for an injured fighter (item 9).

Expense sheets from Anbar reveal similar reimbursements (Figure 6.3). Reimbursements included guesthouse expenses, as well as expenses for cars, repairs to houses, and the value of a refrigerator for one group. Reimbursements to individuals for such expenses as "booby traps" are also common in the documentation. Although it is unclear what the limits of reimbursable expenses were, those granted were carefully documented, specifying the amount, name, and purpose.

Correspondence from Ninewa indicates the care, and timeliness, that ISI leadership expected (Figure 6.4). In this correspondence, presumably a cover letter to the documented expenses (and income), the

Figure 6.2
Examples of Reimbursements from Diyala

In the name of God the Merciful and Compassionate
The Iraqi Islamic State
Diyala Province
List of Disbursements

	Name	Platoon Name	Details
1	Abu Dhikra	A S Platoon	200,000 Dinars Miscellaneous For Abu Haydar
2	Abu Sayder	Admin Section	47,000 Fuel
3	Abu Ishaq	Al-'Askar Platoon	100,000
4	Abu Waqas	Mortar Platoon	70,000 Misc.
5	227	Al-'Askar Platoon	Abu Zayyad's Disbursements
6	Abu 'Abdulla Al-Jareh	Al-'Askar Platoon	55,000 Purchase of Motor
7	Abu Haydar	Admin Section	Fuel Containers
8	Abu Faleh	Amer Sariya	100,000
9	Abu 'Abdulla	Injured	20,000
10	Samir	Admin [UNK-2]	5,000

SOURCE: Harmony document MNFV-2007-000345; see "ISIL, Syria and Iraq Resources," 2015.
NOTE: *UNK-2* is a translator's mark meaning *unknown*.
RAND RR1192-6.2

Figure 6.3
Expenses Documented from Anbar

Amount	$	Recipient	Date	Committee - Sector- Division
				Al Anbar Expenses
337,837	$	Firas	23-Jun-05	Reparations for the Al Qa'im and Al Karabilah houses
20,270	$	Abu-'Azzam	23-Jun	Ar Rutbah
2,027	$	Abu-Ahmad Nizar	25-Jun	al-Ma'adid guest house expenses
10,135	$	Abu-Sulayman	30-Jun	Al Anbar Emir
69,324	$	Jarrah	22-Jun	Ar Ramadi, in the hands of Hamid al-'Ubaydi
20,270	$	Dhanun	28-Jun	Rawah
15,540	$	Firas	22-Jun	Purchasing two cars
2,000	$	Hisham	28-Jun	Baghdad Expense
40,000	$	Abu-Hammam	1-Jul	Hadithah
15,000	$	Abu-Shihab Ahmad Subar	1-Jul	Kirkuk, by orders from Abu-Sulayman
15,000	$	Abu-'Abbas	19-Aug	Al Qa'im expenses
1,500	$	'Azzam	19-Aug	Security
10,000	$	Abu-Sa'id	21-Aug	Media
6,750	$	Hajji Mut'ab	21-Aug	Aid for Hajji Hammad's house- attacks in al-Ma'adid
6,750	$	Hajji Hammad	22-Aug	Aid for Hajji Hammad's house- attacks in al-Ma'adid
10,000	$	Abu-Wa'il	22-Aug	Weapons
200	$	Abu-Tibah	22-Aug	Aid to add on the expenses of Rawah
200	$	Spoils of war group	22-Aug	Aid and expenses
5,000	$	Islamic Judges	22-Aug	Abu-Muhammad al-Maghribi
4,200	$	Abu-Yasir	23-Aug	Booby traps
5,500	$	Firas	24-Aug	Value of a Toyota Sedan
5,800	$	Abu-Yasir	26-Aug	Booby traps
65	$	Abu-al-Harith	26-Aug	Expenses
200	$	Abu-Tibah	27-Aug	Rawah group, value of a refregirator
200	$	Abu-'Abdallah	27-Aug	Hadithah, spoils of war
200	$	Abu-Tibah	29-Aug	Abu-Khattab's expenses
8,500	$	Abu-Tibah	30-Aug	Building for Rawah group

SOURCE: Harmony document NMEC-2007-633541; see "ISIL, Syria and Iraq Resources," 2015.
RAND *RR1192-6.3*

author asks for permission to move to filing administrative reports of this type from a weekly to twice-monthly schedule.

Although many of the reimbursements were to individuals for their expenses, transfers and reimbursements within the organization were also closely documented. Figure 6.5 shows correspondence from a platoon to its regimental administration in Diyala, asking for reimbursement for the provisions for a guest fighter. The request is signed by four officials, at platoon, regimental, and section levels. The four-signature procedure appears to have been fairly standard. Forms allowing for travel, for medical-expense approval, and for separation from the group contain similar sets of signatures.

Figure 6.4
Correspondence Documenting Expenditures in Ninewa over Several Weeks, 2008
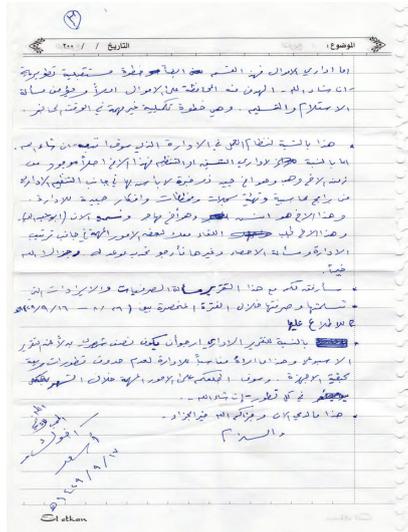
As for the finance administrator [TC: Possibly Administration], this department is also a future developmental step, God willing, with the goal of which is to first protect the funds and safeguard the issue of the amounts of money received and disbursed. However, this is currently a supplementary and insignificant issue.

- This is in regards to the administrative operation that I will follow, God willing. Moreover, as for the coordination or organization administrator, this brother has been present since the period of brother Wahab. He is a good and skillful brother with an average experience in administrative organization, such as computer programs, preparation of records, projects, and good ideas for the administration. Brother Anas, who is an immigrant [TC: Foreign or Arab mujahid] brother of whom we now nickname as (Abu-'Abdallah). This brother requested a meeting with you regarding some important issues related to the organization of the administration, statistical issue, and so forth. So please arrange an appointment for him, may Allah reward you with blessings.

- I will attach for you with this report a review of the expenditures and revenues which I have received and spent during the period of 28 AUG through 16 SEP 2008.

- As for the administrative report, please let it be bi-monthly [Every two weeks] instead of weekly, because I deem it appropriate for the administration because of the lack of rapid developments of the other systems [TC: Organizations/departments]. I will inform you about the significant matters and every progress/development within the month, God's willing.

- This is what I have for now, and may God reward you with blessings.

Peace

Your beloved brother
As'ad
17 SEP 2008

SOURCE: Harmony document NMEC 2009 634370; see "ISIL, Syria and Iraq Resources," 2015.
NOTE: TC = translator comment.

RAND *RR1192-6.4*

Figure 6.5
Request to Regimental Administration for Reimbursement, Diyala

بسم الله الرحمن الرحيم

دولة العراق الإسلامية
ولاية ديالى

العدد \
التاريخ \

من \
إلى \

In the Name of the Merciful and Compassionate God
The Islamic State of Iraq
Diyala Province

From: Abu Dajana Platoon Administration
To: Khaled Ben Al-Walid Regimental Administration

We wish to inform you that Brother 'Amar is a guest at our platoon. Please issue his provisions for this month.

s/Platoon Administration, Abu Wisam
s/Platoon Commander, Abu [U/I-1]
s/Regimental Administration, Abu Saydar
s/Section Commander, Abu Khatiya

SOURCE: Harmony document MNFV-2007-000389; see "ISIL, Syria and Iraq Resources," 2015.
NOTE: *U/I-1* is a translator's mark meaning unknown.
RAND *RR1192-6.5*

Conclusion

In a typical labor market, compensation rewards employees for what they do for the firm. In the case of insurgent groups, this would entail compensation for risks taken on behalf of the group, as well as productivity, and would lead one to expect that fighters operating in places with more combat would receive higher wages. That was manifestly not the case for ISI. So how should we understand the observed wage structure?

One possibility is that labor supply was just much tighter in Ninewa and Diyala than it was in Anbar in 2006. The group had to pay roughly 17 percent more per attack in Diyala than in Anbar and fully 84 percent more in Ninewa than Anbar. This explanation certainly makes sense given qualitative accounts of the war, wherein the Awakening made it much harder for ISI fighters to operate and legitimized parallel militias that were competing for recruits. The differences in labor supply cannot, however, explain the fact that ISI's monthly wages were much lower than what even illiterate Iraqis reported making.

A second possibility is that ISI used wages as a screening mechanism in an environment where uncommitted individuals posed security risks for the group and where there was a glut of willing fighters. For wages to screen effectively while still allowing the group to operate, ISI would have to set them high enough so that members could survive and support their families but low enough that only sufficiently committed individuals would accept. That members were expected to bear some expenses in hopes of getting reimbursed might also have served a managerial purpose: If operatives performed poorly, reimbursements could be withheld.

A third possibility could pertain to ISI's desire to create a population that viewed it as a state, rather than an insurgent or terrorist group. The marginal increase in wages for being married and having children makes sense as a way of embedding the group in local communities, consistent with a view of insurgency as a form of armed state-building.[17]

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[17] Johnston, 2008.

This still leaves the issue of payments to the families of killed and captured members. For ISI, these payments guaranteed that legacy costs would rise inexorably over time. Perhaps such payments served to buttress low salaries by providing implicit life insurance, although it seems unlikely that the organization's guarantee of lifetime payments would be completely credible given the range of groups competing for power and, therefore, ISI's expected longevity, should it be eclipsed by other groups. An alternative theory is that ISI leaders needed to signal something about their type to potential operatives. These payments could serve to build member loyalty and trust by showing that leaders were willing to spend resources on fighters' families instead of allocating those resources to attacks.

Our results raise two questions. First, how did ISI retain Iraqi talent in the presence of competing insurgent groups when it paid such low wages? We can only speculate: Talented people might have expected rapid promotion or might have placed a high value on life insurance; ISI's ideology and organizational strengths might have made it the best jihadi organization, regardless of salary levels; or ISI might have enforced a no-exit policy for Iraqis (Felter and Fishman showed that foreign fighters could go home[18]). However, the documents suggest that a number of individuals did voluntarily leave the group, and the "Rules of Social Assistance" explicitly provide for that possibility.

Second, and more important, if insurgents are not paid market wages, then how should we think about opportunity-cost constraints? Such constraints are critical in almost all economic models of conflict, but compensation practices by the most prominent insurgent group in the largest recent war suggest that they were not critical.

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[18] Felter and Fishman, 2007.

The Fates of Terrorists: Tracking Militants' "Career Paths"

From the time of the surge through the end of the period we analyze, ISI was under aggressive, persistent counterterrorism pressure in Iraq and had to adapt continuously. Adaptation included reorganizing after the loss of key personnel, resulting in career paths that were established in a highly fluid context. Outside of anecdotes, terrorism analysts have not systematically addressed career dynamics within terrorist organizations. Relevant dimensions include (1) the level of personnel turnover experienced over time, (2) mobility by individual members between positions, and (3) changes in compensation rates for existing members over time. Uncovering trends, patterns, and anomalies along each dimension can illuminate how militant organizations adapt to changing operational conditions, as well as the internal requirements for managing their personnel.

This chapter analyzes personnel movements in ISI using documents that cover two different periods. Both document sets were captured from the senior ISI administrator who accounted for ISI personnel in and around the city of Mosul in the northern Iraqi governorate of Ninewa. The first set of documents was current as of September 2007. The second set was current as of January 2009.

Comparing documents from the same organization in the same location at different times allows an evaluation of how ISI and its personnel fared over time, how the group adapted its organization and human-resources policies, and how the career arcs of individual ISI personnel changed as the organization experienced major battlefield

setbacks that led to significant personnel turnover. It also allows us to build on our analysis of compensation by seeing how compensation adjusted over time.

These two sets of documents also help us understand ISI's evolution in Mosul during a particularly important period of the Iraq war. Between 2007 and 2009, the war's course underwent a dramatic reversal, as we described in Chapter Two. During this period, successful raids by coalition and Iraqi special operations forces, which targeted ISI's leadership; facilitator networks; and midlevel bureaucrats put ISI under heavy pressure. ISI's rank and file was degraded at the same time through resistance to ISI rule by Sunni Awakening militias, many of which included people who had fought with ISI, and by U.S. counterinsurgency operations that reversed ISI's territorial gains and reestablished Iraqi control in Anbar, Baghdad, Diyala, and Salah al-Din. Documentation of ISI's organization, personnel, and behavior during this period offers a unique opportunity to examine how the Islamic State's predecessor adapted to these events and offers lessons about how the Islamic State might react to similar stresses.

This chapter first provides background on our data on ISI personnel movements. We then discuss the group's workforce in Mosul in 2007 and 2009, analyze mortality and turnover within the group across that period, and assess how ISI personnel moved geographically from 2007 to 2009. We also examine the case of the "unknowns," a fighter designation that could imply an attempt by ISI bookkeepers to balance the twin challenges of managerial record keeping and organizational secrecy, or it perhaps reflects graft through the creation of ghost employees. We conclude by discussing what the career paths of ISI personnel tell us about the organization.

Documents and Data

To understand career paths within ISI, we analyzed two sets of documents captured by coalition forces in the northern Iraq governorate of Ninewa, of which three documents in particular provide relatively complete records of the group's personnel in the area, roughly

18 months apart.[1] In total, these documents provide information on 1,149 fighters who were alive and active at the time the documents were written and 1,159 fighters who were dead or imprisoned at the time the documents were written. The two sets of documents allow us to identify common ISI personnel listed in both sets, indicating that they were on ISI's Mosul payroll in both periods. Using temporal variation in the data on each matched individual, we can assess the extent to which experienced personnel received increased compensation and enjoyed upward mobility in the organization.

The first set, from which we drew two key documents, was captured from the files of an ISI member named Khalid, who was associated with ISI's Mosul media office, in a raid near Mosul in early 2008 by conventional forces from the 3rd Squadron of the 3rd Armored Cavalry Regiment (3-3 ACR) of the U.S. Army. We refer to this collection of documents as the Abu Hareth documents because he was the administrative emir for the group in Mosul at the time.[2] This data set contains information on ISI members in Ninewa governorate through late 2007.

The second set of documents, from which we drew one key document, was captured in February 2009 from a Ninewa administrative emir named Ahmed Zayd, who was a successor to Abu Hareth.[3] This data set contains information on ISI members in Ninewa governorate during Ahmed Zayd's tenure as administrative emir, from August 2008 through January 2009.[4]

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[1] The three Harmony documents are NMEC-2008-614685, NMEC-2008-614686, and NMEC-2009-633789; see "ISIL, Syria and Iraq Resources," 2015. NMEC-2008-614685 and NMEC-2008-614686 are from the Abu Hareth documents; NMEC-2009-633789 is from the Ahmed Zayd collection.

[2] Within the Harmony system, these documents are referred to as 3-3 TXFR 12.

[3] There were several other administrative emirs between Abu Hareth and Ahmed Zayd, including a certain Abu Wahab, who held the position for much of 2008. Ahmed Zayd was also known as Abu Zayd.

[4] Our rationale for this judgment is that the other key documents seized in the February 2009 raid contained daily financial information on ISI activities from late August 2008 through the end of January 2009.

Each document contains two types of information. The first is individual-level information on ISI personnel, including unit assignments, the amount of compensation, and the number of dependents. Importantly, the administrator assigned each person in these documents a serial number, which served as a unique identifier when combined with individuals' names. That identifier presumably enabled ISI administrators to track personnel accurately, which would have been otherwise difficult to do based on the "name" field alone in payroll documents, because many ISI personnel shared the same *kunya*, or nom de guerre. This tracking system would have allowed ISI leaders better oversight and control of their organization. It would allow them to audit the personnel reports submitted by midlevel leaders—those who formed the bureaucratic core of the group and were responsible for disbursing and accounting for the group's money. This is particularly important because payroll accounted for the largest share of the organization's costs. These costs included payments to killed and captured members' dependents—a nontrivial cost that, unlike spending on weapons and active personnel, brought no tangible productivity return for the organization. In the earlier set of documents, ISI used a five-digit serial number. By the time of the later set of documents, the group had switched to a system that assigned each member a new, four-digit serial number.

Second, each document contains a report that aggregates the individual-level personnel data. In the case of the 2009 document, the aggregate report lists more fighters than the section with individual-level personnel data. We believe that these aggregate reports were intended to inform ISI's leadership to support personnel and human-resources decisionmaking. Examples of decisions that ISI's leadership likely needed to address include how to deal with imbalances or inadequacies in personnel across units and whether the group's salary and overall compensation practices required revision in response to changing circumstances on the ground that were straining the organization.

Summary Characteristics of ISI Personnel in Mosul in 2007 and 2009

The most striking fact about ISI's personnel records in the 2009 versus 2007 data is that ISI in Mosul appears to have had fewer than half as many active fighters in January 2009 as it did in September 2007 (Table 7.1). The Mosul administrator's records included 792 active personnel as of September 2007 and only 357 active personnel as of January 2009. Although these rosters account only for Mosul and not ISI nationwide, Mosul was ISI's main operational center in 2009, meaning that the relative drop understates the change in the group's fortunes.

ISI fighters received substantially more compensation, on average, in 2009, both in terms of base salary and funding for accommodations and expenses (Table 7.2). As will be discussed in the next chapter, base salary was in large part determined by family size, and so the rise in base salary could have been due to an increase in the number of dependents for which each member was responsible.

Tracking Militants over Time

We track ISI members over time, as well as changes in ISI itself, in several ways. The first is to simply assume that these documents are inclusive. If the documents are inclusive, then the size of ISI in Mosul fell by roughly 60 percent from 2007 to 2009, a number consistent

Table 7.1
ISI Roster Statistics, September 2007 and January 2009

Date	Active	Deceased or Detained	Total	Share Active (%)
September 2007	792	526	1,318	60.1
January 2009	357	633	990	36.1

SOURCES: The 2007 data come from Harmony document NMEC-2008-614685; the 2009 data come from Harmony document NMEC-2009-633789; see "ISIL, Syria and Iraq Resources," 2015.

NOTE: The 2009 data come specifically from the aggregate statistics shown on p. 28 of Harmony document NMEC-2009-633789.

Table 7.2
ISI Family Structure and Compensation, 2007 and 2009

Variable	Total	2007	2009	Difference
Family structure				
Number of members (with compensation recorded)	1,822	1,318	504	–814
Share married	72.5%	71.0%	76.2%	5.2 percentage points
Share with children	55.8%	53.7%	61.1%	7.4 percentage points
Average monthly compensation, per member				
Base salary (Iraqi dinars)	124,627	117,018	144,359	27,341
Total payments (base + "rent"; Iraqi dinars)	175,821	159,695	216,875	57,180

SOURCES: Harmony documents NMEC-2008-614685 and NMEC-2009-633789; see "ISIL, Syria and Iraq Resources," 2015.

NOTES: Salary and rent figures are in nominal Iraqi dinars. Base salary is not inclusive of funds paid to some ISI members for accommodations. Total payments are inclusive of both base salary and any funding for accommodations. Calculations in this table include only fighters with salary recorded.

with qualitative accounts of coalition forces effectively targeting the group. The second is to match ISI personnel between payroll documents, either based on ISI-assigned serial numbers or other features, such as family structure, and ask how the personnel fared. Among the personnel listed, some in the later records had only five-digit numbers, some had only four-digit numbers, and some had both. We used the five-digit numbers.

We used two methods for the second approach—matching ISI personnel listed in the group's 2007 Mosul payrolls to personnel listed in the group's 2009 Mosul payroll. The first method—doing a simple database "join" operation on the 2007 and 2009 payroll tables' serial-

number field—is the simplest but also the crudest technique. This method yielded 244 matches between the 1,327 personnel listed on the 2007 roster and the 504 individuals listed on the payroll in 2009 (48.4 percent of the 2009 total).[5] The second method improves on that relatively crude approach by assigning two analysts to independently confirm or reject each of the matches using other entity-resolution approaches.[6]

The two methods used to match ISI personnel over time resulted in different numbers of matches (Table 7.3). Of the 244 matches obtained from combining the 2007 and 2009 payroll tables based on individuals' five-digit numeric identifier alone, 124 also matched on other available information associated with each individual in the payroll files (name, marital status, number of wives, and number of children).

Table 7.3
Results of Methodologies Used to Match ISI Personnel, 2007 and 2009

Method	Matches	Percentage Matched
Automated join	244	48.4
Human entity resolution	124	24.6
Difference	120	23.8 percentage points

SOURCES: Harmony documents NMEC-2008-614685 and NMEC-2009-633789; see "ISIL, Syria and Iraq Resources," 2015.

NOTES: The number and percentage of matches are out of the 990 militants listed in ISI's January 2009 Mosul payrolls. The key used for the automated database join was the five-digit serial number assigned by ISI administrators to uniquely identify members. The entity-resolution procedures used ISI-assigned serial numbers and additional individual-level information to further refine the matched sample.

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[5]   We have previously reported 1,318 personnel for this roster. However, nine were listed as "deleted," and we have excluded them from all totals except this one.

[6]   To execute the second method, one analyst used entity-resolution tools available in the Palantir Gotham analysis software platform. The other analyst resolved the serial number matches manually using other information in the payroll documents about the group of individuals who had the same serial number in both sets of documents. These entity-resolution efforts were conducted independently to prevent intercoder bias. A senior researcher then examined both sets of matches, which were nearly identical, and adjudicated the remaining discrepancies.

Militant Mortality and Turnover

ISI members faced high mortality rates throughout the course of the Iraq war. One of the key findings from our documents is that when the group faced pressure, it appeared to renege on its promise to continue payments to families of killed members. Our documents do not allow us to say whether this was a temporary response or a permanent response.

We assess attrition rates in ISI from 2007 to 2009 two different ways. First, we calculate turnover as the share of personnel recorded in one period who are not present in the next period. That turnover will reflect some combination of mortality because of enemy action and voluntary turnover (e.g., people leaving Iraq or getting injured and going home). Second, in documents tracking salary payments, we look at the share of payments to dead or imprisoned members.

Using the first approach yields extremely high attrition estimates. Of 792 active ISI operatives on the payroll in Mosul in 2007, only 124 can be matched to the 2009 data. Assuming 18 months in between these data sources provides an estimated departure rate of 71 percent per year, a massive rate for any organization, and one that suggests that ISI's promises that it would continue to pay martyr payments in perpetuity was false; many of the killed fighters whose families were listed as receiving payments in 2007 were missing from the rolls in 2009.[7] Another way to benchmark changes in the group is to assess how many of its units changed. The 2007 documents listed 62 specific units. Only eight of those appeared in the 2009 documents, a retention rate at the unit level of 13 percent. That number is consistent with massive losses, although it could also have resulted from reorganization and renaming.

Taking the second approach to examining the proportion of salary going to killed or captured fighters shows that ISI in Ninewa experienced a dramatic shift in its overall personnel, mortality rates, and unit composition from September 2007 to January 2009. ISI's September 2007 personnel rosters for Mosul listed 1,318 members on the organi-

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7   The implied attrition rates would be even higher if we assumed only a year between the reports.

zation's payroll. Not everyone on the payroll, however, was active in the group. Of the 1,318 entries, 792 (60.1 percent) were listed as active, while 526 (39.9 percent) were reported as having been either detained or killed. The 2009 personnel rosters indicate that ISI's numbers in Mosul governorate had shrunk over time, and the ratio of captured and killed to active members increased significantly. ISI's 2009 Mosul payroll records contain aggregated information on 990 ISI personnel, broken down into two groups: fighters and deceased. According to the document, the fighter group consisted of 357 members, while 633 were deceased.

To highlight the extent to which high mortality rates and ISI's policy of supporting dependents of its deceased members were affecting the group's finances, the administrator included a table illustrating the disproportionate and growing amount of the group's payroll being devoted to supporting families of deceased members, as opposed to active members.[8] Given that ISI spent almost all of the revenues it generated on a month-to-month basis, these payouts suggest that ISI's compensation policy constrained its ability to recruit and pay new members without having to stop payments to deceased members' dependents. Common approaches that firms take to reduce such legacy costs would have been quite difficult for ISI. Reducing the group's equivalent of pension liabilities by recruiting new members and stopping payments to former fighters' families could not have been popular. The pressures on payroll generated by the killing and capture of members thus represent a notable vulnerability for groups with similar compensation plans, such as core al-Qa'ida, several of its non-Iraqi affiliates, and the Provisional IRA, historically.

Regardless of how ISI dealt with these costs, and we will see evidence that it did so by falling short on its commitments, the share of deceased members on the payroll was much higher in 2009 than in 2007 (Table 7.4), increasing from 40 percent to 64 percent. Even if the Mosul documents are not exhaustive of all members, the increased *relative* mortality rate meant that the group would have had relatively less for its routine operating costs, as well as for collecting intelligence; con-

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8   Harmony document NMEC-2009-633789; see "ISIL, Syria and Iraq Resources," 2015.

Table 7.4
ISI Personnel Mortality in Mosul, 2007 and 2009

Category	2007	Percentage of 2007 Total	2009	Percentage of 2009 Total
Number of personnel	1,318		990	
Active personnel	792	60.1	357	36.1
Deceased or detained personnel	526	39.9	633	63.9
Number of units	24		14	

NOTES: The Mosul 2007 calculations are based on units listed in the "All Workers" worksheet of NMEC-2008-614686. The Mosul 2009 calculations are based on the units listed on p. 28 of NMEC-2009-633789; see "ISIL, Syria and Iraq Resources," 2015.

ducting surveillance; administering sharia law; and conducting attacks on coalition forces, ISF targets, local Shia and Christian civilians, and Sunnis viewed as disloyal to the group.

Militants' Career Paths: Personnel Mobility, Promotions, and Lateral Transfers

As with employees of firms, governments, and other types of legitimate organizations, members of militant organizations are promoted, demoted, fired, or moved laterally to perform new functions or to support an organization's efforts in a different geographic region as circumstances or priorities change. Because militant organizations are secretive by nature, the extent to which such changes occur, and what they look like in practice, has, in large measure, remained a mystery to analysts and policymakers, despite other advances in analysis of how terrorist groups function and operate as organizations.[9]

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[9]   Sun-Ki Chai, "An Organizational Economics Approach to Anti-Government Violence," *Comparative Politics*, Vol. 26, No. 1, October 1993, pp. 101–105; Weinstein, 2007, pp. 27–60; Johnston, 2008, pp. 107–112; Aaron Zelinsky and Martin Shubik, "Terrorist Groups as Business Firms: A New Typological Framework," *Terrorism and Political Violence*, Vol. 21, No. 2 March 2009; Shapiro, 2013, pp. 1–21, 249–251.

Personnel Mobility

Analysis of the sample of the 124 ISI members who could be identified with high confidence (in the group's September 2007 and January 2009 payrolls) suggests a great deal of mobility within the group. Of these members, 96, or more than three-quarters (77 percent), who had been on payroll in September 2007, were in a different unit in 2009.

Such personnel mobility represents a puzzle: Why would ISI reassign such a large proportion of its personnel to different units? Doing so clearly violates the principle of strict compartmentalization used by ideal type cell-based organizations. In such groups, only one individual connects each cell to the larger group, minimizing what cell members know about other cells to reduce the risk of information being lost to the government should one or more cell members be apprehended. ISI seems to never have tried to implement such a structure—and if it did, we have found little evidence of it.

Rather, the group seemed to value tracking its members. In the 2007 payroll documents, for example, the administrator made numerous notes about individuals who were transferred from one unit to another. Some transfers were made after the leadership of a unit expressed a need for additional manpower to support his unit's operations. In the cases of these transfers, there was a trade-off between operational security and practical operational requirements, and the latter won out. Some transfers, however, were made at the request of individual ISI members because of their personal preferences or needs. For example, the administrator noted several cases in which members requested to be transferred to a specific unit, often so that the militant would be closer to his family or hometown.

Such transfers were made in the context of an organization facing high attrition. It therefore seems likely that many transfers were made based on organizational exigencies and the need to adapt. This would not have been all bad. To the extent that these changes were promotions, promoting operatives with extensive experience would help maintain continuity and enable the organization to capitalize on their knowledge.

Promotions

To identify militants who moved upward within ISI's hierarchy between 2007 and 2009, we separate ISI units listed in the 2007 documents and the 2009 documents into "field" units (those we think were tasked with day-to-day fighting or other tactical field-level activities) and "nonfield" units (which we believe managed and led ISI). We made these assessments based on the structures described in Chapter Four. Field units were typically named after individuals, perhaps their leaders. Nonfield units were typically named according to their bureaucratic function. An example of a field unit that appears in both sets of documents is a unit referred to as Fayyad. An example of a nonfield unit that appears in the 2009 documents is the Media Battalion.

Among the 124 ISI members who could be identified in both the 2007 and 2009 documents, there were 23 people (18.5 percent) who, according to this criterion, were promoted from a field unit to a nonfield unit. If we calculate ISI promotion rates using only the universe of fighters who changed units between 2007 and 2009, about one-quarter (24 percent) of militants who survived had been promoted, by 2009, to nonfield positions.[10] Of course, the fact that only 124 of 1,318 operatives in 2007 show up in the 2009 data, with high confidence, suggests massive attrition, greater than 90 percent over 18 months.

Lateral Transfers

There are numerous examples in the documents of what appear to be lateral personnel transfers. The rationale for some of these transfers is briefly explained in notes contained in the administrative emir Abu Hareth's master spreadsheets. The notes indicate that many lateral transfers were made to provide manpower to bolster the capabilities of certain units as circumstances on the ground, and units' attendant requirements, changed.[11]

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[10] For these calculations, we simply add the people who moved from field to nonfield (23), for the total 124 members and the 96 members who had a different unit in 2009 than 2007.

[11] See, for example, notes inserted into the administrative emir Abu Hareth's Excel spreadsheets. Good examples can be found in Harmony documents NMEC-2008-614685 and NMEC-2008-614686; see "ISIL, Syria and Iraq Resources," 2015.

Unfortunately, information in the available documents does not allow us to discern whether any ISI members were promoted to the highest levels of the group—ISI's top leadership—which, by design, were separate from the midlevel core that oversaw the group's day-to-day operations. Nonetheless, snapshots taken over time of ISI's human resources suggest that the organization was far from static. On the contrary, external forces might have forced fairly dynamic personnel practices to compensate for losses within the midlevel bureaucratic corps.

Compensation Trends over Time

ISI followed a flat compensation structure. However, ISI did not follow its written guidelines to the letter, and the salary formula appears to have changed over time, although still remaining flat. Salaries and total payments differed by region, with reimbursable expenses varying more, as would be expected given differential economic conditions. The payroll records from Mosul indicate that, for individuals for whom data are available in both years, total payment levels tended to increase. So too, however, did the average number of dependents associated with ISI members, at least partially explaining this result.

To parse the differences in more detail, we disaggregate the total amount that ISI personnel received each month into two categories: salary and supplemental. These categories appear separately in the documents, and are usually (but not always) translated from the original Arabic as *bail* and *rent*. *Bail* corresponds with *salary*, as we use it here; *rent* corresponds with our use of *supplemental*.[12]

Differences in Compensation from September 2007 to January 2009

The average total monthly payments made to the 124 ISI members for whom data were available in both periods increased from 155,806

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[12] Indeed, both the documents and interviews with subject-matter experts indicate that funds disbursed to ISI members for "rent" were often used for accommodations, which were frequently needed by ISI members who did not own a home in Iraq. Presumably, this was the case for most of ISI's foreign fighters, as well as for fighters who had been displaced from their home governorates.

to 189,323 Iraqi dinars (Table 7.5). This 22-percent increase in total payments is similar to the core inflation rate of 23.8 percent, reported by the Central Bank of Iraq, over the same period.[13] Table 7.5 also breaks down changes in ISI member payments over time by the type of payments these members received. The average difference between the base-salary payments ISI paid its members in January 2009 and September 2007 was 13,032 Iraqi dinars. Supplemental payments rose more, to 20,484 Iraqi dinars over the period, on average. How large were these increases in U.S. dollars? We converted these amounts at an exchange rate of 1,193 Iraqi dinars per dollar, the average exchange rate in 2008, according to Central Bank of Iraq in 2010.[14] Using this conversion rate, the changes in ISI payments from 2007 to 2009 represent

Table 7.5
ISI Compensation in Mosul, 2007 and 2009 (Iraqi dinars)

Period	Total Payments (mean)	Salary (mean)	Salary (median)	Dependents (mean)
2007	155,806	116,048	110,000	2.3
2009	189,323	129,081	125,000	2.6
Difference	33,516	13,033	15,000	0.3
Percentage increase	21.5	11.2	13.6	13.0

SOURCES: Harmony documents NMEC-2008-614685, NMEC-2008-614686, and NMEC-2009-633789; see "ISIL, Syria and Iraq Resources," 2015; Central Bank of Iraq, 2007–2009.

NOTES: Values are in Iraqi dinars. Data are from the payroll records of the 124 ISI personnel who appear in both the late 2007 and early 2009 sets of captured documents. Consumer price index inflation from 2007 to 2009 was 23.8 percent.

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[13] Central Bank of Iraq, *Key Financial Indicators*, Baghdad, updated regularly between September 2007 and January 2009.

[14] This is consistent with other conversions from Iraqi dinars to U.S. dollars in previous studies of AQI's captured documents. See those performed in Bahney, Shatz, et al., 2010, p. 26.

increases in base salary of $10.92 and supplemental income of $17.17, for an average monthly increase of $28.09.[15]

Although ISI paid its members more, on average, in 2009 than in 2007, not all ISI members for whom we had data received more. Most did—74 of the 124, or about 60 percent—but 25 of the 124 (about 20 percent) had their pay lowered between 2007 and 2009. Part of the explanation for these declines appears to have been a change in family structure. Individuals whose pay was cut reported fewer dependents in 2009 than in 2007, which would explain why their pay had been reduced. On average, these fighters lost about 0.8 dependents between 2007 and 2009. Those losses would account for a reduction in salary of about 24,000 Iraqi dinars. However, the 25 members who lost money lost an average of 87,600 Iraqi dinars per month.[16] In contrast, individuals whom ISI paid the same monthly salary in 2009 as it had in 2007 had no median change in dependents—exactly what would be expected based on the standard operating procedures ISI laid out in its "Rules for Social Assistance" document.[17] Given that changes in associated dependents do not fully explain the pay decreases that 20 percent of our sample suffered, we suspect that the group decided to dock the pay of certain individuals, perhaps because of performance problems or personal indiscretions, or because the group found its budget for personnel compensation squeezed. Consistent with evidence from Chapter Six, this suggests ISI might have become less rigid over time about its flat compensation structure.

Did Promotions Come with Raises?

The ISI payroll data suggest that ISI members who moved from field units into units that had greater administrative responsibility tended

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[15] It is important to note that these are within-individual increases, which are not dependent on cross-sectional variation across different individuals over time, since these individuals might have different personal characteristics, skills and levels and types of experience, or numbers of dependents. As a result, we are confident that these increases capture real changes in the compensation paid to AQI personnel.

[16] Individuals who had received raises since 2007 reported a median increase in dependents of one dependent.

[17] Harmony document MNFA-2007-000566; see "ISIL, Syria and Iraq Resources," 2015.

to receive increased payments, but not at a higher rate than those who moved laterally to other field units within ISI (Table 7.6).

In fact, ISI members who moved laterally saw their total payments increase at a higher rate than those who were promoted. This result cannot be explained by the increase in dependents. For those who moved laterally, their dependents did not increase, on average, from

Table 7.6
Compensation Increases from 2007 to 2009, Promoted Versus Lateral Mobility (thousands of Iraqi dinars)

Promoted Versus Lateral Move	Compensation Variable	Mean	Standard Deviation	Median	Min.	Max.
Lateral move (*N* = 73)	2007 salary	110	32	110	75	250
	2007 total payments	146	76	120	75	375
	2009 salary	127	51	125	0	250
	2009 total payments	188	100	175	0	450
	Difference (total payments between 2009 and 2007)	42	24	55	−75	75
Promoted (*N* = 23)	2007 salary	121	62	110	75	370
	2007 total payments	166	84	130	75	370
	2009 salary	104	69	125	0	225
	2009 total payments	180	121	150	0	400
	Difference (total payments between 2009 and 2007)	14	37	20	−75	30

SOURCES: Harmony documents NMEC-2008-614685, NMEC-2008-614686, and NMEC-2009-633789; see "ISIL, Syria and Iraq Resources," 2015.

NOTES: Values are in thousands of Iraqi dinars. The table reflects the authors' calculations of the 124 ISI personnel in Mosul, tracked from the group's September 2007 payrolls to its January 2009 payrolls. An additional 28 fighters out of the 124 stayed in the same group, and therefore were neither promoted nor moved laterally.

2007 to 2009, staying at an average of two dependents per member for the 73 nonpromoted fighters we could track. The promoted fighters saw their average dependent count increase from 2.34 in 2007 to 3.00 in 2009. ISI members who moved laterally saw their average total payments beat the rate of inflation, while those who were promoted saw their total payments lag behind inflation by about 25,000 Iraqi dinars.[18]

Several dynamics could explain these shifts. Perhaps the increased pressure of coalition forces and ISF required ISI bureaucrats to increase pay to those in more-dangerous positions to keep the group's fighting force as strong as possible in difficult circumstances. This would be a reversal of long-standing payment policy, but in a difficult operating environment, it is not hard to envision a shift to retain the necessary fighters and maintain relevance against an advancing foe. An alternative possibility is that more people in field units had been displaced from other areas to Mosul, which would be consistent with the fact that the increase came mostly in nonsalary compensation.

As mentioned in Chapter Three, the political economy theory on compensation shows us that wages for people taking on risky jobs usually come with a premium for the inherently dangerous nature of this work. ISI could have added this premium for the field members to keep its fighting force robust in the face of a tougher operating environment. This behavior would have differed from ISI's expressed policies and the average pattern in the full compensation data but would be closer to the payment procedures of other clandestine groups, at least anecdotally.[19]

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[18] This estimate was calculated by multiplying the average amount of compensation paid to ISI members in 2007 with ISI members for both sets by 1.238 (the consumer price index inflation rate between 2007 and 2009); we then compared that result with the actual compensation recorded for 2009.

[19] Adams, 1986, for example, discussed how, in the 1980s, Palestinian groups that offered their operatives a riskier life with fewer opportunities for corruption had to pay higher salaries.

The Curious Case of ISI's "Unknowns" in Mosul

The 2007 payroll and personnel document identified 1,318 ISI members. In this document, the administrator separated personnel by unit and their status as active, deceased, or detained. Organizing the document in this way makes sense: Administrative emirs were responsible for maintaining personnel records for each unit, keeping track of ISI personnel who were killed or captured, and calculating the grand total of compensation to be paid to each unit based on compensation guidelines.

Keeping records by fighter status also allowed the administrator to perform another important function: producing brief statistical reports for ISI leadership on overall and unit-level attrition. Units suffering from disproportionately high attrition rates were at risk of either having to abandon controlled or contested areas because of low capacity or being defeated militarily by coalition forces and ISF. Since administrative emirs were the only element in the ISI organization with full knowledge of the status of all units operating in their areas of responsibility, ISI leadership had a strong incentive to require such reporting from its administrators to make well-informed decisions about how to allocate money and manpower. Such reporting would have been particularly important in and around the city of Mosul, which was ISI's last stronghold during the first insurgency. By late 2007, and even more so in late 2008 and early 2009, ISI had no good alternative to the Mosul area should the group be dislodged from northern Iraq. Coalition forces and ISF, along with local SOI Sunni militia, had cleared ISI from Baghdad, Anbar, and most of Diyala and Salah al-Din, leaving ISI without a Sunni population center inside Iraq where it could relocate and reconstitute its forces.

As noted, the organization experienced a sharp decline in membership in Mosul between 2007 and 2009, and a higher proportion of members on ISI's roster is listed as killed. In addition to the sharp decline in the number of operational ISI personnel, the 2009 personnel roster reveals another interesting pattern. After the first 357 individuals—the same number listed as being "active fighters" in the summary report at the end of the document—the standard format of

the personnel roster abruptly changes. After the administrator com-piled the roster and compensation information about members of ISI Mosul's "support" unit, he sketched a wide, gray band across the docu-ment, which he labeled "all unknown." He then inserted a page break and used a fresh set of row numbers, beginning at 1, to distinguish the 138 subsequent entries (Figure 7.1). An additional nine personnel are vaguely listed as assigned to units with nondescript names, includ-ing "work location unknown," "special cases," and "outside Mosul."[20]

Why were these individuals accounted for separately from the rest of the group, and why would the rest of the group be considered opera-tional while the remaining members were not listed that way? At least three possibilities are plausible.

The first is that this group consisted of new fighters. They all have new four-digit serial numbers and not the old five-digit ones, suggest-ing that they might have joined the group after it stopped assigning five-digit numerical identifiers in its files. This does not explain, how-ever, why these members would not have unit assignments. Thus, it seems unlikely that the individuals listed in ISI's personnel roster were new personnel who simply had not received a unit assignment yet, par-ticularly because they all appear to have already been on the group's monthly payroll.

A second possibility is that ISI administrators had actually lost track of these individuals. It is possible that constraints made commu-nications between certain field personnel and ISI administrators too dangerous or difficult to conduct. Without regular status reports from the field, ISI administrators with little knowledge of the situations or activities of these individuals and units might categorize their status as unknown. Yet if this were the case, we would expect some individuals among currently the "unknown" to have both types of serial numbers in their entries, as well as for their units to be listed. After all, this kind of information could be helpful in coordinating cross-ISI efforts to locate and support units and personnel whose status was unknown. Thus, it is unlikely that the individuals listed separately from ISI's

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[20] Harmony document NMEC-2009-633789 Trans, pp. 18–19; see "ISIL, Syria and Iraq Resources," 2015.

Figure 7.1
2009 Personnel Roster Document Break, English Translation and Arabic Original

Panel A

Number	Number Q	Name and Surname	Marital Status	Children	Spouses	Works	Rent
			Support				
1538	11371	Baha'	Married	-	1	100	100
1539	11090	Abu-Anwar	Married	-	1	100	-
1540	11317	Sa'id	Married	4	1	200	85
1541	11083	Sha'lan	Married	2	1	150	-
1542	11305	Nabil	Married	1	1	125	250
1543	11523	Abu-'Abdallah	Married	4	1	200	60
1549	11152	Sayf-al-Din	Single	-	-	75	-
1550	11142	Hamid	Married	3	1	175	-
1552	11110	'Abbas	Married	-	1	100	60
						1,225	555

All Unknown

	Number	Surname	Marital Status	Number of Spouses	Number of Children	Support Quan	Ball	Rent	Remarks	Residence
1	1003	Abu-Hudhayfah Na'im	M	1	3		175	100		
2	1005	Abu-Nabil al-Suwaydi	M	1	8		300	-		Outside Mosul
3	1006	'Abd-Abu-'Abd-al-Rahman	M	1	5		225	100		
4	1007	Family of Majid	M	1	2		150	-		Outside Mosul

Panel B

سند

الايجار	يعمل	الزوجات	الاطفال	الزوجية	الاسم والكنية	الرقم ق	الرقم
100	100	1	-	متزوج	بهاء	11371	1538
-	100	1	-	متزوج	ابو انور	11090	1539
85	200	1	4	متزوج	سعيد	11317	1540
-	150	1	2	متزوج	شعلان	11083	1541
250	125	1	1	متزوج	نبيل	11305	1542
60	200	1	4	متزوج	ابو عبدالله	11523	1543
-	75	-	-	أعزب	سيف الدين	11152	1549
-	175	1	3	متزوج	حامد	11142	1550
60	100	1	-	متزوج	عباس	11110	1552
555	1,225						

سند

الايجار	يعمل	الزوجات	الاطفال	الزوجية	الاسم والكنية	الرقم ق	الرقم
100	100	1	-	متزوج	بهاء	11371	1538
-	100	1	-	متزوج	ابو انور	11090	1539
85	200	1	4	متزوج	سعيد	11317	1540
-	150	1	2	متزوج	شعلان	11083	1541
250	125	1	1	متزوج	نبيل	11305	1542
60	200	1	4	متزوج	ابو عبداله	11523	1543
-	75	-	-	أعزب	سيف الدين	11152	1549
-	175	1	3	متزوج	حامد	11142	1550
60	100	1	-	متزوج	عباس	11110	1552
555	1,225						

جميعهم مجهولين

السكن	ملاحظة	الايجار	النفقة	عدد الاعالة	عدد الاطفال	عدد الزوجات	الحالة الاجتماعية	الكنية	الرقم	
		100	175	3	1		م	ابو حذيفة نعيم	1003	1
خارج الموصل		-	300	8	1		م	ابو نبيل السويدي	1005	2
		100	225	5	1		م	عبد ابو عبد الرحمن	1006	3
خارج الموصل		-	150	2	1		م	عائلة ماجد	1007	4

SOURCES: Panel A shows Harmony document NMEC-2009-633789 Trans, p. 20; Panel B shows Harmony document NMEC-2009-633789 Orig, p. 34; see "ISIL, Syria and Iraq Resources," 2015.
NOTES: *Works* is *salary*, and *rent* is *supplemental*, as discussed above. *Number Q* is the 5-digit serial number.

active personnel had gone missing or were unaccounted by the group's administrators.

A third possibility is that these personnel consisted at least partly of mid- and senior-level ISI leadership and that these leaders were accounted for separately from those in lower-level operational positions in the field to attempt to preserve their security.[21]

At least five patterns in the documents we examine are consistent with patterns one would expect to see if the document broke out senior personnel differently. These patterns merit explication, because they bear strongly on how to interpret the links between some of these individuals and reporting on the Islamic State leadership.

Pattern 1: Names on the List Correspond with Those of Known ISI Senior Leaders

The first pattern that is consistent with the 2009 roster being split into operational and leadership elements involves war aliases. The *kunyas* of numerous individuals listed among the group with suppressed five-digit serial numbers and unit information are the same as those used by known ISI mid- and senior-tier leaders. Several of the most interesting are Abu Zayd (a name by which Ahmed Zayd was also known; he maintained the group's records examined here); Muhammad Abu Ayyub (a possible variant of ISI leader Abu Ayyub al-Masri); Qahtan Abu 'Abd al-Rahman; Abu Sarah (a known alias of ISI number three Abu Qaswarah); and Abu Du'a (an alias of the current Islamic State leader, Abu Bakr al-Baghdadi). Experts on the Islamic State have identified other *kunyas* consistent with lower-level ISI leaders.[22]

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[21] In strictly compartmented organizations, the senior leadership of the organization communicates with subordinates only through "cutouts" and other indirect channels for operational security in the face of a capable intelligence adversary.

[22] Possible name matches include Abu Ali (number 1,023, and possibly the administrative emir who paid transferees from Anbar to Mosul); Abu Bakr (number 1,090, and possibly Hajji Bakr, the now-deceased military emir of ISI); Abu Ridwan (number 1,166, and possibly Abu Radwan, a.k.a. Abu Mahdi, who was the deputy wali of northern Iraq after Abu Qaswarah was killed); Abu Nabil (number 1,080, and possibly Abu Nabil, a.k.a. Wissam Abed Zaid; see Hisham al-Hashimi and Telegraph Interactive Team, "Revealed: The Islamic State 'Cabinet,' from Finance Minister to Suicide Bomb Deployer," *Telegraph*, July 9, 2014);

Because the listed names are aliases, it is impossible to verify that these individuals were in fact senior ISI leaders. However, the preponderance of them in a single document that appears to have been prepared expressly with certain individuals' security in mind remains striking. Such patterns cannot definitively prove that the correlation between the predictions and observed values is correct in any given case. What these patterns can do is provide a method for assessing whether available evidence can confirm the *plausibility* of the operational-security hypothesis. The more cases in which candidate factors correlate with defined outcomes of interest (in the predicted direction), the more plausible the explanation.

Pattern 2: Individuals in the "Unknown" Group Were Likely More Senior

A second pattern in the document—consistent with the leadership hypothesis concerning the individuals listed separately from the group's operational elements or fighters—is found in indirect measures that are reasonable proxies for members' levels of seniority. More-senior individuals should be more likely to be married, have more wives, and have more children (if married). These factors would not indicate that these individuals are necessarily senior leaders, but it would be another pattern consistent with the hypothesis that the administrator's separate list consisted of senior leaders.

The data contained in the 2009 personnel roster are consistent with these patterns. The nonoperational ISI members listed separately in ISI Mosul's 2009 payroll and personnel document were more likely to be married than others in the group (Table 7.7). They were 10 percent more likely to be married than members listed among the group's operational fighters—85 percent of the individuals in the former list for whom data were available were listed as married, whereas only 75 percent of the individuals in the latter list were married, according to the document.

Abu Muhannad al-Suwaydawi (no number provided, but possibly Abu Abdel Salem, a.k.a. Abu Mohammad al-Sweidawi; see al-Hashimi and Telegraph Interactive Team, 2014).

Table 7.7
T-Test of Differences in Means of Marital Status, Operational Versus Nonoperational Members

Group	N	Mean	Standard Error	Standard Deviation
Operational	361	0.75	0.02	0.44
Nonoperational	136	0.85	0.03	0.36
Combined	497	0.77	0.02	0.42
Difference between operational and nonoperational	225	−0.10**	0.04	

SOURCE: Harmony document NMEC-2009-633789; see "ISIL, Syria and Iraq Resources," 2015.

NOTES: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. The p-value of the difference in marital status between the two groups is 0.017, indicating that the difference in means is statistically significant at the 5-percent level.

These individuals also had more wives (Table 7.8). The mean *count* of wives of the individuals in the nonoperational cases group was 0.12 higher than for operational fighters, 0.91 versus 0.79. There are several reasons why more-senior members could be more likely to be married. First, marital status in Iraq could correlate strongly with ability, which also correlates with promotion. Second, those who reach senior ranks may be older, and thus more likely to have gotten married through a simple cohort effect. Third, there was substantial anecdotal reporting of forced marriages to ISI members, so these extra spouses may represent additional compensation to senior leaders. Regardless of the reason, the greater number of wives suggests that members listed separately are more senior in the group.

Another piece of evidence is that the nonoperational "special group" had more children, on average, than did the operational fighter group, conditional on each member's marital status (Table 7.9). Table 7.9 shows the results of two statistical tests in which the relationship between number of children and group is explored.

Both models tell a similar story. The model shown in column 1 indicates that ISI members in the nonoperational group had an average

Table 7.8
T-Test of Differences in Means of Number of Wives, Operational Versus Nonoperational Members

Group	*N*	Mean	Standard Error	Standard Deviation
Operational	357	0.79	0.027	0.51
Nonoperational	136	0.91	0.047	0.46
Combined	493	0.82	0.022	0.50
Difference between operational and nonoperational	221	−0.12**	0.05	

SOURCE: Harmony document NMEC-2009-633789; see "ISIL, Syria and Iraq Resources," 2015.

NOTES: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. The *p*-value of the difference in marital status between the two groups is 0.013, indicating that the difference in means is statistically significant at the 5-percent level.

Table 7.9
Difference in Estimated Number of Children, by Group

Group	(1)	(2)
Nonoperational group	1.24 (0.278)	0.48 (0.097)
Married	2.48 (0.168)	2.57 (0.537)
Constant	−0.03 (0.099)	−1.70 (0.523)
Observations	497	497
R-squared	0.228	

SOURCE: Authors' calculations based on Harmony document NMEC-2009-633789; see "ISIL, Syria and Iraq Resources," 2015.

NOTES: Column 1 shows the results of an ordinary least squares regression. Column 2 shows the results of a Poisson regression. Robust standard errors are in parentheses. The *p*-values are statistically significant at the 1-percent level.

of 1.24 more children than did operational fighters. The model shown in column 2 estimates that the nonoperational group averaged 1.08 more children than the operational group (based on a transformation of the Poisson regression coefficient). Both estimates were statistically significant at conventional levels, meaning that the results are likely not random.[23]

The evidence suggests that the nonoperational group was likely more senior, by virtue of the family characteristics of its members. These personnel were more likely to be married, were likely to have more wives than operational fighters, and were likely to have more children. We next add one more layer of evidence to suggest that the unlisted, nonoperational ISI personnel consisted largely of ISI leadership; to do this, we examine the tribal and family names of individuals listed among personnel in the nonoperational group.

Pattern 3: Family Names of ISI Members in the "Unknown" Group Consist of a Cross-Section of Iraqi Names, Not Just Names Common to Mosul

The third pattern evident in the document is the presence of a significant number of tribal (and subtribal or family) names that are not traditionally affiliated with the Mosul area. If this group of individuals were in fact part of ISI's mid- and senior-level leadership, we would expect that they would represent a fairly broad swath of the Iraqi population, with a particular focus on the areas where ISI had had a presence, such as Anbar governorate. ISI was forced to shift its base of operations to northern Iraq because of the combined pressure from coalition forces and ISF on the group elsewhere; consequently, many of the group's leaders would have been displaced from their previous safe havens. Based on the predominance of "nonlocal" tribal names represented in the "unknown" group, we can say with a high degree of confidence that this group does in fact represent a population that was not native to Mosul or Ninewa governorate. Although this does not

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[23] In column 2, the results of a Poisson regression, we interpret the coefficient for the nonoperational group as a marginal effect—the interpretation most similar to the interpretation of the coefficient in the ordinary least squares regression of column 1.

necessarily mean that the group was composed of more-senior leaders, it is relatively unlikely that ISI would dedicate significant effort to relocate, protect, and pay lower-level members of the group.

Of the 138 individuals listed in the "unknown" section of the 2009 Mosul roster, there were 21 with an included tribal affiliation of some sort. The remainder of the individuals listed in this section had only a *kunya*, which does not allow us to assess their tribal or family affiliations. However, of the 21 individuals listed in the "unknown" section who did have a listed tribal affiliation, virtually all of them represented a tribe or clan that was not traditionally based in or around Mosul. For example, the most-listed tribal affiliation was with the Albu Issa tribe (marked as al-Issawi in the document), which is the dominant Sunni Arab tribe in an area about 80 kilometers south of Fallujah, in the western governorate of Anbar.[24]

With the majority of the tribal affiliations representing locations other than Ninewa governorate—primarily Anbar, Salah al-Din, Baghdad, and Diyala—it is likely that this group of unknowns represented an important group of ISI leaders that the group wanted to protect by relocating to the Mosul area, which at the time was the only place where the group could guarantee relative safety. Of course, there are always other possible explanations for the unknowns. It could be that they represent a secret merger with another organization, such as the Sunni-Sufi insurgent group Jaish Rijal al-Tariqa al-Naqshbandiya, or that their identities were being deliberately protected because they were members of a defecting faction from another Sunni insurgent organization. It could also have been possible that the unknowns were across the border in Syria and could not be easily accounted for by ISI's administrators in northern Iraq.[25] However, there is no evidence in the personnel rosters to suggest that the unknowns were new members from other groups or that they had moved outside the country. Indeed,

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[24] See Lin Todd, W. Patrick Lang Jr., R. Alan King, Andrea V. Jackson, Montgomery McFate, Ahmed S. Hashim, and Jeremy S. Harrington, *Iraq Tribal Study—Al-Anbar Governorate: The Albu Fahd Tribe, the Albu Mahal Tribe and the Albu Issa Tribe*, Arlington, Va.: Global Resources Group and Global Risk, 2006.

[25] We thank Brian Fishman for suggesting these alternative hypotheses.

ISI began sending fighters of this number into Syria only after the Syrian civil war began in 2011.[26]

If, in fact, the "unknowns" represent ISI leadership, this has several important implications for our understanding of ISI's organization and strategic priorities. First, the existence of this group of unknowns who needed to be relocated confirms the fact that ISI no longer felt safe and secure enough in its previous strongholds to continue to keep these leaders based in those areas. Second, the fact that the majority of these unknowns who did list tribal affiliations were from Anbar highlights the continued importance to the group of the governorate, which was ISI's original base of operations. Third, although we cannot be completely sure that this group of unknowns represents key ISI leadership, the fact that ISI was willing to commit significant financial and administrative resources to relocating and protecting this group confirms that the group must have held some level of operational or symbolic significance within ISI.

Pattern 4: There Are Discrepancies in Recording Personally Identifying Information

The fourth pattern is the relative dearth of information on these separately recorded individuals. A clandestine organization—such as ISI—would likely attempt to improve its operational security by minimizing the intelligence signatures that its operatives could leave (at least where such signatures might be found). Known intelligence breaches, such as the one that occurred with the coalition's seizure in 2008 of the 2007 Abu Hareth documents, often lead organizations to take actions intended to limit the potential damage caused by the compromised information. One such action would be to redact information from group records produced after intelligence was compromised. One obvious type of information that could compromise a group would be personally identifying information about the identities of group members. The 2007 documents linked a five-digit numeric identifier to more than 1,200 ISI members. As noted, in the period between the seizure

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[26] Noman Benotman and Roisin Blake, *Jabhat al-Nusra: A Strategic Briefing*, London: Quilliam Foundation, January 2013, p. 2.

of the Abu Hareth documents on ISI in Mosul and the seizure of similar ISI documents in 2009, ISI switched to a system that assigned each member a four-digit identifier.

For the personnel entries at the end of the document, not only did ISI not list a five-digit serial number but it did not even include a column for these members' five-digit serial numbers. This is consistent with a security precaution that would not allow these members to be linked to earlier records and, consequently, for an overtime intelligence picture to be developed about these members, which might reveal their roles in the organization. This would be more likely for members in the mid- and upper-level leadership ranks, who did have access to or knowledge of information that could compromise large parts of the organization. This is one reason to surmise that these individuals were members of ISI leadership.

Pattern 5: There Are Discrepancies in Recording Unit Information

Finally, no unit information was associated with the entries of the individuals in the second group, who were not counted among the group's fighters. Rather than listing unit information, many of the entries simply mention that the individual was "outside Mosul." There are no directly comparable entries in the 2007 document. It is unlikely that these were regular fighters who had been displaced from other governorates, because ISI likely would have attached them to units and used them for its operations. A more likely hypothesis is that these entries were intended to designate that key individuals had left Mosul and were hiding out in ISI safe houses in areas outside the city proper. This pattern does not seem to have been uncommon for AQI and ISI leaders with special security concerns. For example, the AQI leader al-Zarqawi and the ISI leaders Abu Umar al-Baghdadi and Abu Ayyub al-Masri were found hidden in safe houses located away from population centers, in Diyala and Salah al-Din governorates, respectively.[27] However, the information in the documents cannot independently confirm this

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[27] Stanley McChrystal, *My Share of the Task: A Memoir*, New York: Portfolio/Penguin, 2013, p. 228; and Hamza Obeid, "Governor of Baghdad in al-Qaeda Organization Reveals Details About It," *Islamic Times*, June 6, 2010.

hypothesis, because these individuals might have had other responsibilities or reasons for being located outside Mosul, despite being on the Mosul administrator's payroll.[28]

Conclusion

Our analysis of personnel records and career paths yields six key findings. The first is that ISI in Mosul experienced massive turnover and attrition between 2007 and 2009. Using our most generous matching approach across documents, we find that less than 22 percent of those present in the 2007 payroll show up in 2009 (although they make up a fair proportion of the 2009 members), and the proportion of members on the payroll who were dead or in prison increased substantially.

The second key finding is that the manpower available to ISI in Mosul in 2009 appears to have decreased significantly from the manpower that was available to the group in 2007. In other words, recruitment did not keep up with attrition. Although this finding could be an artifact of the particular documents that were recovered, it is also consistent with the general trend of ISI's broader decline and weakening during this period.

The third key finding is that ISI personnel who survived across the two periods were highly mobile within the organization. Ninety-six of the 124 members whom we were able to track across documents with high confidence changed units (77 percent). The high rate of personnel mobility within an organization that required cohesion, bureaucratic administration, and secrecy is surprising. It is less surprising, however, in light of the significant turnover during this period of ISI personnel at all levels of the organization. This turnover was because of aggressive coalition forces and ISF counterterrorism operations, the Awakening, and the surge, which resulted in ISI losing control of strongholds in and around Baghdad and in Anbar and Diyala governorates but

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[28] The Mosul administrator might have been the de facto ISI administrator for northern Iraq. The bulk of his entries were from the group's operational center in Mosul, but other entries could be from outside Mosul.

maintaining a last major holdout in Ninewa governorate. Such turn-
over appears to have resulted in an ISI organization that had no better
choice than to constantly reassign its personnel to adapt to the chang-
ing circumstances on the ground and the new challenges it confronted,
despite the likely costs attendant in doing so.

Fourth, we find a general increase in total payments to members
over time, which roughly match the core inflation rate. These increases
were not in salary payments, which lagged inflation, but came in the
form of payments for expenses and changes in ISI members' number
of dependents, which other studies have shown to help predict ISI's
compensation rates.[29] Several of the militants who received the largest
increases in payments, independent of any increase in their number of
dependents, are recorded as having moved to units listed under such
names as "work location unknown." It is possible that these members
were elevated to leadership or other top-tier status within the group
and hence given raises and better "cover" unit assignments to hide their
real status and locations for operational security purposes, intended to
protect the group's senior leadership.

Fifth, we find that those ISI members who were promoted from
field positions to bureaucratic positions did receive pay increases from
their 2007 salaries, but those increases lagged behind those received by
members who moved laterally to other field units. Possible explanations
for this include that the fighters who moved to field units were facing a
more difficult operating environment than those who fought in 2007,
that they had greater responsibilities in 2009, and that they were dis-
placed from other areas and so were less likely to own their own homes.
To help maintain a strong fighting force, compensation might have
increased for those who had the riskiest positions.

Sixth, we find evidence in the January 2009 documents that is
consistent with an ISI effort to omit identifying information about a
group of mid- or senior-level leaders by sanitizing such information
in the group's own documents. The group had experienced significant
intelligence losses from past seizures of similar documentation and had
good reasons to seek to protect such information while still having

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[29] Bahney, Iyengar, et al., 2013.

sufficient data to account for the personnel who were on its current payroll.

These findings have implications for broader U.S. counterterrorism efforts against not only the Islamic State but also al-Qaʻida and similar groups worldwide. Al-Qaʻida's and ISI's survival and growth in the wake of persistent organizational upheavals indicate that well-organized terrorists can survive the intense pressures placed on them by counterterrorist forces. But it is not clear whether the costs and challenges of effectively adapting such organizations internally might affect their ability to pose a significant threat outside the Middle East and North Africa.

Assessing the Islamic State of Iraq's Finances: The Governorate Dimension

ISI was a complex organization—a terrorist group, an insurgent group, and, in its own planning, a proto-state. Any one of these activities—terrorism, insurgency, state-building—would take money. All three of them required enormous amounts of cash.

In this chapter, we discuss how ISI managed its finances at the governorate level and below. In the next chapter, we discuss higher levels of finance, as well as methods of financial control. Our analysis in this chapter is based on three large data sets relating to the finances of AQI in Anbar governorate in 2005 and 2006 and ISI in Ninewa governorate in 2008 and 2009. We also have two small data snapshots of ISI's finances in two other locations for short periods—Baghdad in 2007 and al-Jazirah (the western desert region between the Tigris and Euphrates rivers) in 2010. The Ninewa, Baghdad, and al-Jazirah analysis extends previous RAND research about AQI's financial activities in Anbar governorate during parts of 2005 and 2006.[1] Together, these data allow us to analyze the evolution of ISI's financing.

The most important finding is that the group raised most of its revenues locally, and did so, in part, for strategic reasons. In an undated letter from an official of the Mosul state of ISI to a select group of "sheikhs"—most likely Abu Ayyub al-Masri and Abu Umar al-Baghdadi, from whom the documents were captured in April 2010—the official explained, as part of a broader discussion of ISI

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[1] Bahney, Shatz, et al., 2010.

strategy and operations, where ISI's money was coming from. The official listed the source of ISI's income as the following:

> First: A percentage of the contracts and projects that are conducted within the State, and that is done by calling the contractors or the executers of these projects. The percentages range between 8 to 10 percent, and sometimes it reaches 5 percent from the value of the profits of each project knowing that these projects will benefit the general public, and it shouldn't benefit the infidel apostates.

> Second: From the Gas Stations named in the administrator's (of the ISI) terminology as (*al-Bayadat*) which are Propane, Kerosene and Gas.

> Third: From the transportation offices that transports merchandise inside and outside the country

> Fourth: The flour factories and the factories of construction materials.

> Fifth: The fines from some individuals who committed violations of the Islamic Shari'ah that don't require killing or beheading.

> Sixth: Some donations from generous Muslims even if it was small.

> Seventh: Some collected from the directorates of the apostate government such as the municipality, education and so forth.[2]

Similar sources of revenue were prominent in the documents back to 2006 and appear to have remained important to ISI throughout 2010. Press reports detail extortion by ISI as a major source of revenue throughout 2010 and 2011 in Ninewa governorate, suggesting that the

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[2]   Harmony document NMEC-2010-186331 Trans, p. 2; see "ISIL, Syria and Iraq Resources," 2015. Donations from wealthy individuals appear to have been a minor part of the ISI funding stream.

group developed an enduring revenue-generating infrastructure, similar to the one detailed here.[3]

This chapter lays out what we know about ISI's revenue generation. We first provide background on the financial data. We then move to revenues in Anbar and Ninewa governorates and then expenses in both governorates. We conclude with a brief discussion of finances in two other areas of Iraq.

Data on AQI and ISI Financing

Our analysis of AQI's finances in Anbar governorate is based on two sets of documents relating to the administration of AQI in Anbar governorate in 2005 through 2006. The first set of documents is referred to as the "Travelstar" documents. Awakening forces found these when they raided the residence of Ala Daham Hanush in Julaybah, Iraq, on March 15, 2007. The hard drive of Hanush's computer contained the documentation of AQI's provincial administration of Anbar governorate from mid-2005 through the end of 2006. This unit of the organization reviewed and regulated the activities of AQI in its different geographic sectors within Anbar governorate and provided money to these sectors when they needed financing. The master financial ledgers formed the basis of our analysis; these are aggregates of many of the 1,200 files in the collection.

The second set of documents was found in a ditch in the town of Tuzliyah in western Anbar in January 2007 by a U.S. Marine Corps unit that was patrolling the area. This set of nine documents contained financial records for AQI in Anbar's "western" sector, from September 2006 through mid-December 2006, including payrolls, records of equipment and supply purchases, and the flow of funds into and out of the sector. This western sector reported to the governorate administration of Anbar. Both document sets show interaction between these two

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[3] "Iraq: Al-Qaeda Extorting Businesses in Mosul," *Asharq al-Awsat*, September 9, 2010; "Al Qaeda in Iraq Tightening Economic Grip on Mosul," *Albawaba Business*, May 3, 2011; "In Iraq's Mosul, Pay Qaeda Tax or Pay the Price," *Middle East Online*, September 15, 2011.

distinct levels of AQI command, including financial transfers, memoranda, and military and administrative reporting.

Our analysis of ISI's finances in Ninewa derives from a set of documents captured by coalition forces in a February 2009 raid that resulted in the detention of an ISI administrative emir operating in Ninewa—Ahmed Zayd.[4] Data from these documents allow us to extend earlier RAND research on AQI's financial activities in Anbar governorate during parts of 2005 and 2006 and cover a key period in the Iraq war, in general, and the Islamic State's history, in particular (2008 and early 2009).

Among the documents captured from Ahmed Zayd were two master ledgers—one tracking income and one tracking expenditures—containing transaction-level detail on ISI's financial activities in the Mosul area. We exploit this detail to document patterns in ISI's financial transactions, revenues and revenue sources, and aggregate expenditures and what it was spending its money on.[5] We built our data set from the transaction-level observations recorded in the documents. When dollar figures were used, we used the figures in the document. When dinar figures were used, we converted them to dollars at market exchange rates. Our totals by category and time period are different from the totals recorded in the documents. We do not have further information to explain these differences.

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[4] It is possible that Ahmed Zayd was ISI's administrative emir not only for Mosul but also for all Ninewa governorate or greater northern Iraq. We are unable to discern from the available documents the full expanse of Ahmed Zayd's jurisdiction. By the point when the documents were captured, Mosul was the epicenter of ISI's financial activities, making it comparable to the documents examined in this report from AQI's stronghold in Anbar governorate.

[5] One notable difference in the document collections from Anbar and Ninewa is the length of time covered by transaction-level information. The Anbar data span a longer period than the Ninewa data. The Anbar documents include detailed financial data beginning on June 22, 2005, and ending on November 2, 2006, a total of 498 days, or approximately 16 months. The Ninewa documents include detailed financial data from August 26, 2008, through January 29, 2009, a total of 157 days, or about five months. Together, the two time-series data span a total of 655 days, or roughly 21 months. We have data covering 16.33 months for Anbar and 5.15 for Ninewa. We use these more-precise measures to compute monthly statistics.

We have a limited set of documents from two other locations. These locations are the al-Jazirah sector of Ninewa governorate and Baghdad. Although these documents cover only very short periods, they allow us to learn more about ISI's financial activities elsewhere.

ISI Provincial and Sector Revenues

ISI's leadership focused on raising revenue locally. The sources of income that senior leaders were quoted as seeking appear to have been the main sources of income for the group, according to data captured from AQI and ISI in Anbar and Ninewa governorates. The group's records of its income and expenses typically came from its administrative emirs. In Anbar, the governorate revenues were tallied on two different master sheets in the document collection. The first corresponds to the administrative period of Firas (June 2005 to May 2006), and the second corresponds to the administrative period of 'Imad (May 2006 through October 2006).[6] As in earlier RAND research, we analyze these two periods separately because of a difference in the administrators' accounting; the first broke out individual revenue transactions by their detailed descriptions, whereas the second used only the broad categories spoils and sales, donations, and transfers from the sectors.[7]

In Ninewa, provincial revenues were tallied on a single master sheet. The sheet corresponds to Ahmed Zayd's administration of the governorate from August 2008 through January 2009. Ahmed Zayd disaggregated individual revenue transactions into four broad categories: contracting work, oil, real estate, and spoils. Other revenue-generating activities were filed as miscellaneous.

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[6]   The data include three transactions from November 1, 2006, and one from November 2, 2006.

[7]   Bahney, Shatz, et al., 2010, pp. 34–36.

AQI Revenues in Anbar Governorate

The Anbar governorate administration collected revenue mostly from sales of stolen commercial goods and did not collect much revenue from black-market fuel sales, large-scale extortion, or direct taxation of the population. We present a more detailed profile of revenue collection in two periods.

AQI Revenues in Anbar Governorate, June 2005 Through May 2006

From June 2005 to May 2006, AQI's Anbar administration raised nearly $4.5 million, or roughly $373,000 per month. The group obtained roughly $2.3 million—more than 51 percent of its revenue—from selling what appear to be stolen goods, most of which were highly valuable capital items, such as construction equipment, generators, and electrical cables (Figure 8.1).[8] In contrast to what has been suggested in much news reporting, the data do not support the claim that the group was largely financed by selling stolen oil or refined oil products, such as gasoline, since the revenue garnered from oil and these products appears to be small in the context of total group revenues at this level of administration (note that revenues from oil and refined oil products are not shown separately in Figure 8.1 but are instead a small portion of the stolen-goods entry in the figure).[9] However, it is also entirely possible that revenues from oil and refined oil products were included in one of the many Anbar AQI sectors for which we do not have data, or in the ledgers of the national AQI administration, which had a number of purported ministries and claimed to have a specific oil minister.[10]

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[8] We assume that these goods were all stolen, as in some cases they are explicitly denoted as "booty" and in others they simply appear on the group's balance sheets without any record of payment for them. It is also possible that goods that simply appear on the books were donated in Iraq or donated abroad.

[9] Richard A. Oppel, "Iraq's Insurgency Runs on Stolen Oil Profits," *New York Times*, March 16, 2008; Lennox Samuels, "Al Qaeda Nostra," *Newsweek*, web exclusive, May 21, 2008b.

[10] "Al-Furqan Media Wing Declares the Members of the Cabinet of the Islamic State of Iraq," Al-Furqan Media Wing, April 19, 2007; also see Evan F. Kohlmann, *State of the Sunni Insurgency in Iraq: August 2007*, New York: The NEFA Foundation, 2007; "Oil Smuggler

Figure 8.1
Sources of Revenue in Anbar Governorate, June 2005 Through May 2006
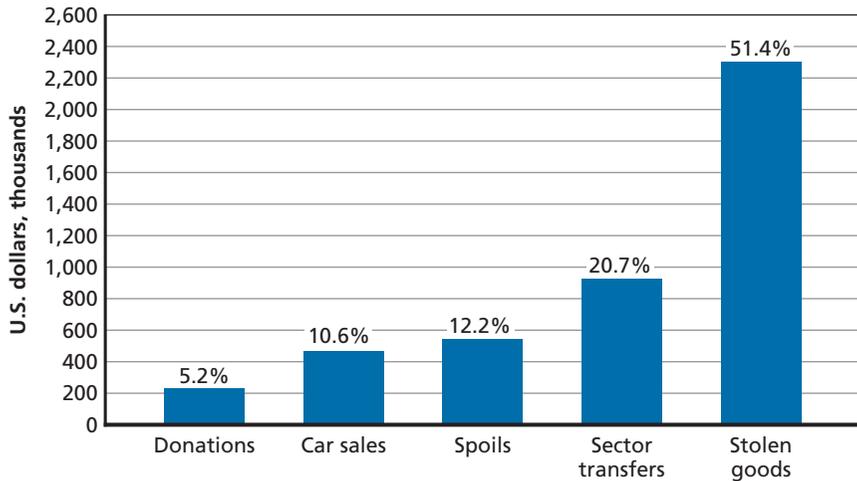
SOURCE: Harmony batch Ala Daham Hanush; see "ISIL, Syria and Iraq
Resources," 2015.
NOTES: These amounts ran through late May, when a new governorate administrator
took over. Percentages do not sum to 100 because of rounding.
RAND *RR1192-8.1*

AQI's Anbar governorate administration also collected a substantial amount of revenue that was raised by the sectors and transferred to the center, constituting approximately 21 percent of the governorate administration's total revenues. This indicates that each sector had its own revenue-generating activities, and it appears that the sectors with excess cash on hand were expected to pass funds up to the governorate administrator.

Car sales and spoils each constituted between 10 and 12 percent of the Anbar provincial revenues. Spoils are the goods and other property taken with violence from those whom AQI designated as infidels and as apostates by the group's Islamic law section. We believe that these people encompass the Iraqi Shia population, other religious

and Al Qaida Supplier Arrested in Bayji," *Al Mashriq Newspaper*, November 22, 2007; and P. Williams, 2009.

minorities, and Iraqis associated with the Iraqi government. Explicit donations accounted for only about 5 percent of total revenues.

AQI Revenues in Anbar Governorate, June Through November 2006

From June to November 2006, the governorate administrative unit dramatically increased its revenues, making $4.3 million over the period, or $860,000 per month (Figure 8.2). The group realized this dramatic uptick in revenue—from $373,000 a month to $860,000—through an increase in all revenue streams except transfers from sectors, which declined substantially. Revenue from spoils and from sales (both cars and stolen goods) increased disproportionately. Spoils and sales increased from 73 percent of revenues in the earlier period to 93 percent in the later period, whereas transfers from sectors decreased as a share of total revenues.

The financing of the western sector was similar to that of Anbar governorate as a whole. In the western sector, AQI funded itself

Figure 8.2
Composition of Revenue, June 2006 Through November 2006
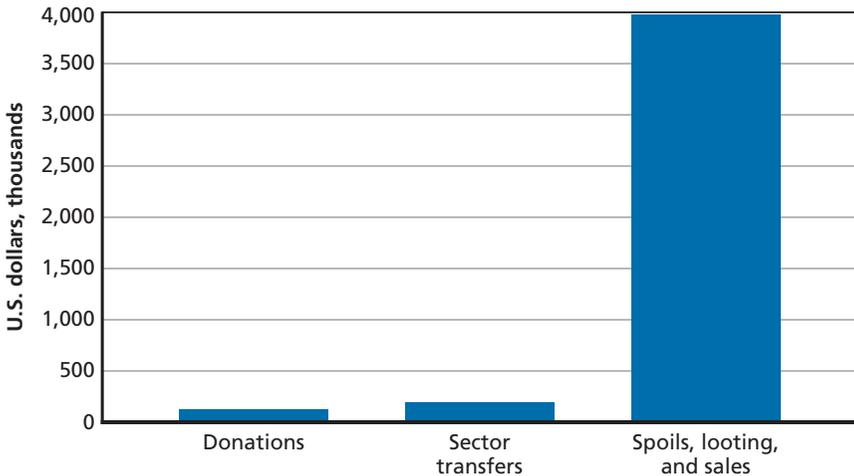
SOURCE: Harmony batch ALA DAHAM HANUSH; see "ISIL, Syria and Iraq Resources," 2015.
NOTE: These amounts actually started in late May, when a new provincial administrator took over.
RAND RR1192-8.2

through the sale of cars and lesser-valued commercial goods. The western group focused on taking spoils and booty from those whom the group deemed to be infidels and apostates, following AQI ideology in strict, exploitative terms. As noted, spoils are taken with violence. In contrast, booty includes the goods and other property taken from people without a fight.

The AQI financing model can be characterized as local, religiously radical, and politically destabilizing. It encompassed vigorous independence (specifically, focusing on local financing), exploitation based on radical religious beliefs, sensitivity to the perception of the average Sunni, and an explicit attempt to subvert the power of a number of key tribes. Another noteworthy aspect of AQI's revenue activity was the demarcation of revenues being collected by "spoils groups." This notation may indicate that AQI had specifically designated units for extortion and theft.[11] Even though AQI viewed the taking of spoils as entirely legitimate, this activity was clearly extortion or theft undertaken by either this activity was clearly extortion or theft undertaken by either AQI members or criminal elements that were co-opted by AQI and, as noted in press reporting, was perceived as such by much of the population.

Revenues were commonly generated by units that were directly administered by the sectors, although large revenue streams seemed to pass directly to the Anbar administration. This could mean that the Anbar administrator had business assets that operated within the sectors or that sector assets were passed up to the governorate administration by rule. Although we do not know which of these occurred, it seems likely that sector-based groups passed large revenue streams to the governorate administration, because the higher administrative unit had clear bureaucratic precedence in many other ways.

Although AQI in Anbar generated an average of $138,600 in weekly revenue, the group's weekly take fluctuated, and it could not

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[11] There is historical precedent for specialized revenue-generation units. A "Staff Report" captured in 1977 detailed reorganization plans for the Provisional IRA. The report advocated forming specialized units, including one that would conduct robberies to raise group funds. The report is reproduced in Tim Pat Coogan, *I.R.A.*, 5th ed., London: HarperCollins, 2000.

count on a consistent weekly funding stream (Figure 8.3). In mid-November 2005, the administrator had reported weekly revenues amounting to only $150. However, in the following week, he reported revenues of well above $100,000, which demonstrates the dramatic short-term fluctuations in AQI's revenues.

Income booms came more often than busts for AQI in Anbar. AQI recorded more than $700,000 in weekly revenues twice during the 15-plus months covered by the records and more than $580,000 in two additional weeks. Overall, AQI Anbar's median weekly revenue was $97,740, demonstrating that the group was able to consistently raise substantial funds, despite the occasional short-lived dry spells. The rate at which AQI was able to raise funds increased substantially over time. From June 2005 to December 2005, AQI's median weekly

Figure 8.3
AQI's Weekly Revenue in Anbar Governorate, June 2005 Through October 2006
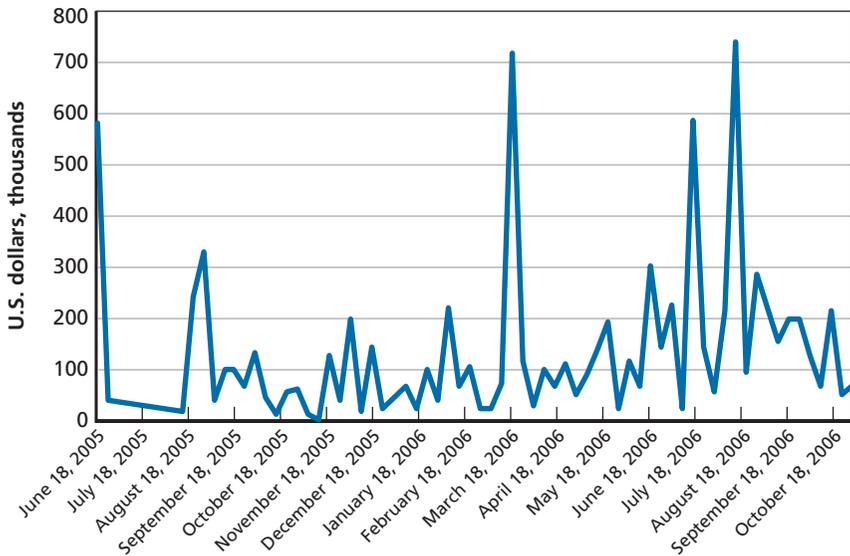
SOURCES: Harmony documents NMEC-2007-633809 and NMEC-2007-633893-HT; see "ISIL, Syria and Iraq Resources," 2015.
NOTE: The data include one observation of $64,770 from November 1, 2006.
RAND RR1192-8.3

revenue was $56,900. From January 2006 to December 2006, the group reported median weekly revenues of $102,960.[12]

If we look at our data broken down into three roughly equal periods—the first from mid-June 2005 through the end of December 2005, the second from January 2006 to May 2006, and the third from June 2006 to October 2006—AQI was able to raise progressively more money as time passed, from a median weekly rate of $56,900 from June 2005 to December 2005, to $73,983 from January 2006 to May 2006, and to $150,898 from June 2006 to October 2006.

Changes in Revenue-Generating Activities over Time

Stolen goods played a prominent role in AQI's revenue-generating activities in Anbar throughout the period for which we have data (Figure 8.4). In June 2005, most provincial revenues came from sector transfers, and these continued to be important in mid to late 2006. However, throughout the period, stolen goods were far more important. This is clear in the period when Firas was administrative emir, through May 2006; he categorized stolen goods separately. 'Imad, whose first full month was June 2006, wrapped stolen-goods revenues into a more general category of "looting and sales section." It is unlikely that spoils alone would have jumped that much between the 12 months from June 2005 to May 2006 and the five months from June 2006 to October 2006 (which includes one observation of $64,770 from November 1, 2006), so most of the revenue in that category must have been from sales of stolen goods.

ISI Revenues in Ninewa

From late August 2008 through January 2009, AQI's Ninewa administration, including the key city of Mosul, recorded $4,820,090 in revenues, or roughly $964,000 per month. The group obtained about $1.87 million—almost 39 percent of its revenue—from oil-related

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Figure 8.4
AQI's Monthly Revenue in Anbar Governorate, by Type, June 2005 Through October 2006
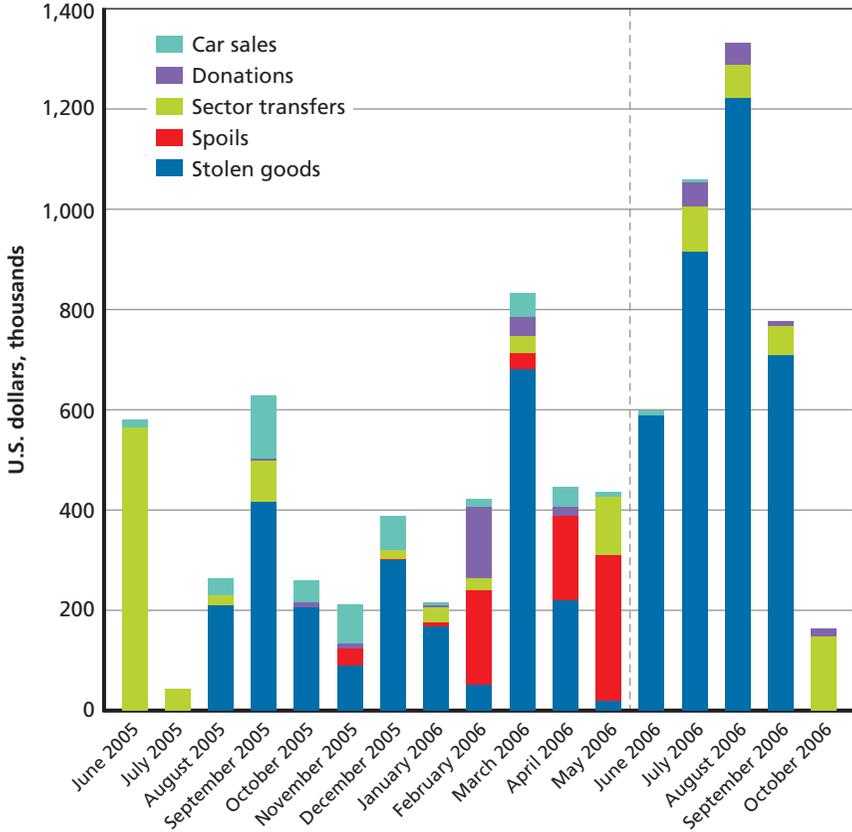
SOURCES: Harmony documents NMEC-2007-633809 and NMEC-2007-633893-HT; see "ISIL, Syria and Iraq Resources," 2015.
NOTES: There is a break in the series between May 2006 and June 2006. Starting in June, no proceeds of stolen goods were recorded. Such sales continued, but they were wrapped into a new "looting and sales" category by the new administrative emir. Data for October 2006 include one observation from November 1, 2006.
RAND *RR1192-8.4*

activities, such as gas stations and fuel-trucking companies that it set up in Ninewa governorate and elsewhere (Figure 8.5).[13] In many cases, these gas stations were likely fake, set up to gain rights to fuel shipments.[14] The group also exploited the Mosul area's ripe smuggling environment to resell hijacked fuels, including gasoline, cooking gas, and diesel.[15]

ISI became more involved in other organized criminal activities in Mosul as well. The group's second-largest revenue source from August 2008 to January 2009 was contracting work—the extortion of contracted projects in and around Mosul—from which it brought in $1.83 million over the five-month period (37.9 percent of its revenue during that time). These schemes involved extorting hundreds of thou-

Figure 8.5
Sources of Revenue in Ninewa Governorate, Late August 2008 Through January 2009
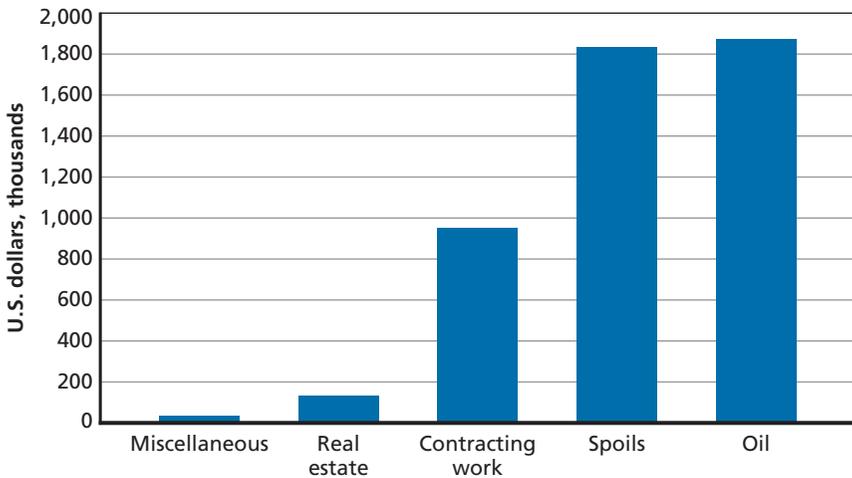
SOURCE: Harmony document NMEC-2009-634823; see "ISIL, Syria and Iraq Resources," 2015.
RAND RR1192-8.5

[13] P. Williams, 2009, pp. 231–232.

[14] P. Williams, 2009.

[15] Knights, 2008a, p. 3.

sands of dollars from businesses in the area, including soft-drink man-
ufacturers, mobile-phone companies, and flour and cement factories.
In real estate, ISI reportedly stole some 26 ledgers containing the deeds
to almost $90 million worth of property and resold at least some of it.[16]

ISI intimidated or co-opted firms under contract to conduct
reconstruction activities in the Mosul area, typically demanding 10
to 20 percent of a contract's value, in exchange for protection. The
transactions recorded in Ahmed Zayd's ledgers show a diverse criminal
enterprise. For example, on September 3, 2008, ISI recorded a $50,000
credit obtained through the extortion of a firm under contract to pave
local roads. On the same day, ISI recorded another credit of almost
$100,000, which was obtained through the extortion of a contractor
implementing a water project in western Mosul. A little more than a
week later, on September 12, Ahmed Zayd recorded ISI's largest "con-
tracting work" windfall in the five-month period—a $160,000 pay-
ment from a mobile-phone operator in Iraq.[17] Interestingly, Ahmed
Zayd's notes indicate that the mobile-phone company still had a bal-
ance of $40,000, suggesting that the company paid ISI $200,000 per
month to operate in northern Iraq. Consistent with this hypothesis,
Ahmed Zayd's records show two $100,000 payments from the com-
pany the following month, on October 9 and 12. The company made
the latter payment exactly one month to the day after its $160,000
payment, providing further evidence that the company paid ISI a large
standard fee each month to continue operating in the region.[18]

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[16] Knights, 2008a, p. 3. It remains unclear precisely when, or for how much, ISI resold the
deeds. From September 2008 to January 2009, ISI's Mosul administrator attributed only
$134,361 of ISI revenues to real estate. However, it is possible that he categorized some of
this revenue as "spoils" or "miscellaneous."

[17] Harmony document NMEC-2009-634823; see "ISIL, Syria and Iraq Resources," 2015.

[18] Over time, relations between the mobile company and ISI became strained. By February
2009, ISI accused the company, Asiacell, of cooperating with the United States to collect
technical intelligence that threatened to compromise ISI operatives and activities. By March,
ISI's media wing issued a printed declaration that read: "After taking this to our legislative
group, we have decided to apply the rule of Allah to them. We will kill whoever works for
them, and we will strike their offices and towers" (Daniel W. Smith, "Asiacell Targetted by
'Islamic State of Iraq': Attacks/Claims of Government Surveillance Target Popular Mobile

In exploiting Ninewa's contracting environment, ISI did not always act alone. Documents seized from the compound of the ISI's two top leaders, Abu Ayyub al-Masri and Abu Umar al-Baghdadi, reveal instances of high-dollar collusion between ISI and certain Iraqi government officials.

One instance was a scheme that involved two senior ISI operatives identified by their pseudonyms, Abu Ahmad and Abu Layth, who established good relations with numerous Iraqi government officials, including a high-level provincial official, a senior Iraqi government official, and the office director of another senior Iraqi government official. According to the documents, these officials agreed to deal with ISI and to provide assistance to the group, on the condition that this assistance would benefit Mosul. For example, ISI positioned itself to exploit contracts for various construction projects in and around Mosul. Abu Layth was appointed as a representative and deputy for one of the senior governing officials in the chairmanship of a governing council for the reconstruction of Mosul. Abu Ahmad was appointed to Ninewa's mail and communications directorate. Under the auspices of the directorate, he initiated a project to erect a building, which would have provided ISI with 4.9 billion Iraqi dinars skimmed from the contract.[19] Documents also contain a list of a number of large projects with costs varying from 8 billion Iraqi dinars to 40 billion Iraqi dinars, which could have provided an opportunity for ISI to secure its funding.

The large-scale extraction of revenue from the country's oil and contracting industries marked a significant change from AQI's revenue-generating activities in Anbar, as did the group's revenue stream from real estate, which yielded about $134,000, or 2.8 percent of its total recorded revenue from Ninewa (Table 8.1).

As in Anbar, spoils remained a lucrative source of revenue for ISI in Ninewa, bringing in more than $950,000. And as in Anbar, where

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Company," *Iraq Slogger*, March 23, 2009). Smith's article includes a link to the ISI declaration (in Arabic).

[19] Harmony document NMEC-2010-186334; see "ISIL, Syria and Iraq Resources," 2015. For a discussion about what this might mean for the fight against the Islamic State, see Benjamin Bahney, Patrick B. Johnston, and Patrick Ryan, "The Enemy You Know and the Ally You Don't," *Foreign Policy*, June 23, 2015.

Table 8.1
Ninewa Revenue, by Type, August 2008 Through January 2009

Category	Total Revenue (U.S. $)	Share of Revenue (%)
Contracting work	1,826,544	37.9
Miscellaneous	41,464	0.9
Oil	1,866,593	38.7
Real estate	134,362	2.8
Spoils	951,128	19.7
Total	4,820,090	100.0

SOURCE: Harmony document NMEC-2009-634823; see "ISIL, Syria and Iraq Resources," 2015.

NOTE: The data run from August 29, 2008, to January 29, 2009.

donations accounted for only 5 percent of AQI's total revenues, dona-tions still composed a very small portion of ISI's revenues, accord-ing to an ISI official in Mosul, writing later in the war. As Table 8.1 shows, donations were not significant enough to be coded as a sepa-rate revenue category.[20] Other Ninewa revenue-generating transac-tions, labeled "miscellaneous," amounted to the lowest amount of any of the categories defined by ISI, at $41,464—less than 1 percent of ISI's total revenue from August 2008 through January 2009.

As in the Anbar documents, the ISI Mosul documents reveal that the group's week-to-week revenues fluctuated considerably. ISI Mosul's average weekly revenue was almost $210,000 (Figure 8.6). However, on average, ISI Mosul brought in more money at the beginning of the period that the records cover, and less over time. ISI Mosul's rev-enues dropped from $1.31 million in September 2008 ($1.51 million including the end of August) to only $506,000 in November 2008 and $572,000 in December 2008, before sharply increasing to $1.32 mil-lion in January 2009, the last month included in the documents. The Mosul administrator recorded one transaction for more than $652,000

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[20] Harmony document NMEC-2009-634823 Trans; see "ISIL, Syria and Iraq Resources," 2015.

Figure 8.6
ISI's Weekly Revenue in Ninewa Governorate, August 2008 Through January 2009
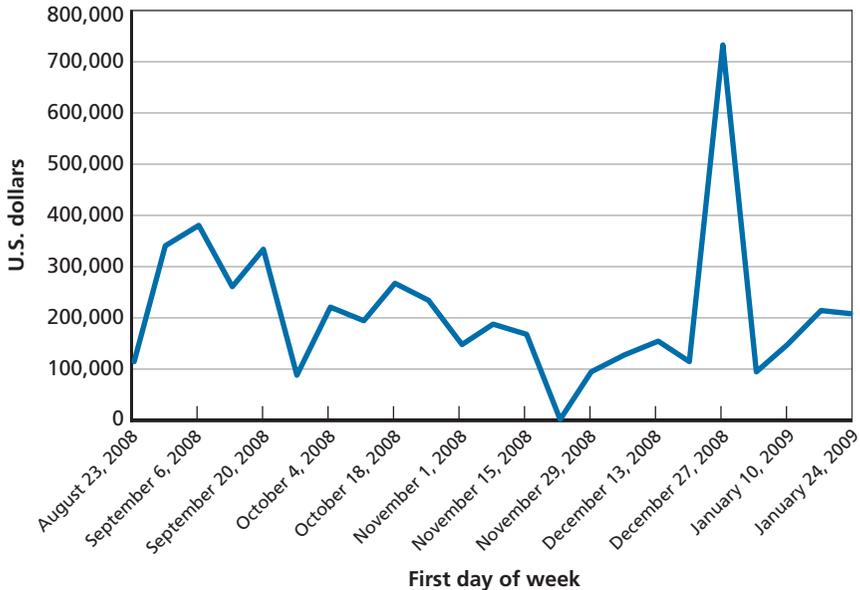
SOURCE: Harmony document NMEC-2009-634823; see "ISIL, Syria and Iraq Resources," 2015.
NOTES: We calculated weeks as starting on Saturday and ending on Friday. The first week starts on August 23, 2008, but has revenue only for August 29. The last week starts on January 24, 2009, and has revenue through January 29, 2009.
RAND *RR1192-8.6*

on January 1, 2009, which was attributed to "spoils from al-Ayman."[21] This is by far the largest revenue-generating transaction recorded by ISI in either set of documents. The next-largest revenue transaction recorded was for $160,000, on September 12, 2008, categorized under contracting work and described as "revenues from Asia."[22] If the out-

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[21] *Al-Ayman* denotes *West*, indicating that the spoils had been looted from western Mosul (Harmony document NMEC-2009-634823 Trans; see "ISIL, Syria and Iraq Resources," 2015).

[22] Harmony document NMEC-2009-634823 Trans; see "ISIL, Syria and Iraq Resources," 2015. These revenues were likely from the Asiacell mobile-phone company, which ISI was

lier transaction for $652,000 is removed, ISI Mosul's January revenue would have amounted to $665,323, which would have been well below the revenue generated in both September and October 2008.

The bulk of ISI's monthly revenue came from the oil sector and extorting local contract work (Figure 8.7). These dominant positions remained fairly constant over the five months the documents cover, with the exception of January 2009, when revenues from spoils composed a substantially larger share of AQI's revenues than they had during the previous months, largely because of the $652,000 looted in western Mosul in early January.

One important trend is the declining share of ISI's Ninewa revenues obtained from extorting contractors. Contractor extortion was

Figure 8.7
ISI Monthly Revenue in Ninewa Governorate, by Type
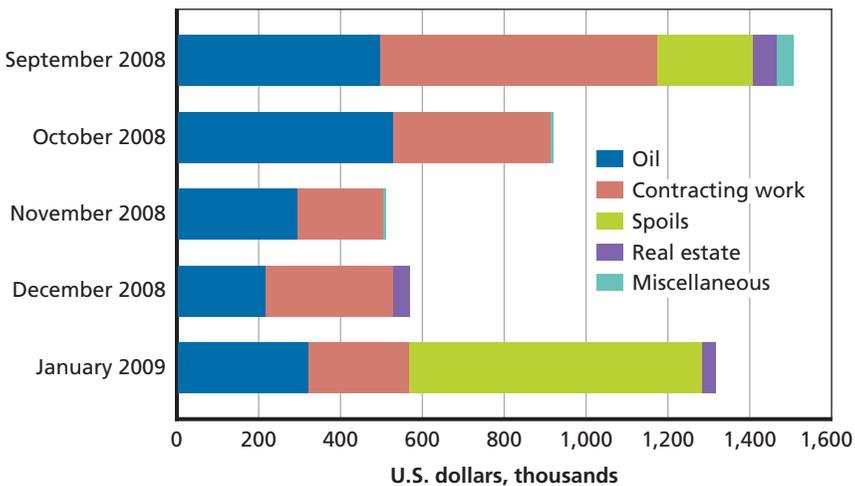
SOURCE: Harmony document NMEC-2009-634823); see "ISIL, Syria and Iraq Resources," 2015.
NOTE: September 2008 includes $181,000 from August 29, 2008, through August 31, 2008.
RAND RR1192-8.7

known to extort. See, for example, Jamal al-Badrani and Jim Loney, "Asiacell Building Bombed in Iraq City of Mosul," Reuters, February 3, 2012.

the largest source of ISI revenue in September 2008 (49.8 percent, but 44.8 percent if $181,000 in total revenue from the end of August is included) but diminished significantly from October 2008 (41.5 percent) through January 2009 (18.9 percent). This decline—from almost $662,000 in September ($676,000 including the end of August) to $249,000 in January—amounted to a 62-percent decrease in revenue from extorting contractors (63 percent including the end of August). The decrease in ISI contracting revenue was notably steep in October and November 2008, after the ISI deputy Abu Qaswarah was killed. Revenues from extorting contracted projects dropped from September to October by more than $280,000, a 43-percent decrease in the month of Abu Qaswarah's death and a 68-percent decrease from September to November. Abu Qaswarah was known as one of ISI's savviest operatives at financing and administration, and he was ISI's top leader in northern Iraq at the time of his death.[23] August 2009 correspondence from a high-level ISI operative to Abu Ayyub al-Masri and Abu Umar al-Baghdadi revealed that Abu Qaswarah's previous deputy, who assumed some of his duties after Abu Qaswarah was killed, had hatched a plot to infiltrate the Iraqi government to divert funding from it to ISI, suggesting that while Abu Qaswarah's death might have had a relatively short-lived impact on ISI's fundraising activities, his replacement was able to successfully facilitate complex, risky schemes that had lucrative payoffs.[24]

As with its revenue from extorting contracted projects in the Mosul area, ISI's oil-related revenue declined between September 2008 and January 2009, from a peak of more than a half-million dollars in October to $321,000 in January. ISI's oil revenue fluctuated notably over time. Its reported oil revenue in September 2008—the first

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[23] "AQI's Swedish emir," *Jane's Terrorism and Security Monitor*, October 27, 2008. See Abu Umar al-Baghdadi, "Eulogy for the Martyr, Abu Qaswarah al Maghribi," English translation, October 2008.

[24] The letter seized from al-Masri and al-Baghdadi's hideout was dated August 7, 2009—more than ten months after Abu Qaswarah was killed—explaining how Abu Qaswarah's deputy had instructed the author's group to infiltrate the Iraqi government administratively to direct some of the financial and economic decisions toward the interest of the Islamic State (Harmony document NMEC-2010-186334; see "ISIL, Syria and Iraq Resources," 2015).

full month for which we have data—was $371,000 ($497,000 including the end of August). Its October oil revenues spiked to more than $532,000, but then decreased 59 percent by December, to approximately $218,000, before increasing in January 2009 to $321,000, a 13-percent decrease from ISI's September oil revenue.

ISI's capture of spoils-related revenue fluctuated even more dramatically. In September 2008, Ahmed Zayd recorded just under $235,000 in spoils revenue, followed by three months with almost none.[25] In January, he recorded more than $715,000 in spoils revenue—more than twice that of ISI's next-largest source that month, oil, and almost $150,000 more than oil and contractor extortion combined, its normal top-two revenue categories.[26]

ISI's revenues did not grow linearly (Figure 8.8). Rather, the revenues fluctuated dramatically week to week. Revenues also fluctuated day to day, although the differences were not dramatic, and there was no obvious collection day.

Internal Financing Strategy

One of our most notable findings about ISI's fundraising in both Anbar and Ninewa governorates is a nonfinding: There is no evidence in any of the documents we analyze that private donors or foreign states played any meaningful role in financing ISI. This fact is borne out not only in the group's actual financial records. Documents out-

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[25] Ahmed Zayd reported $1,389 in spoils revenue in October 2008 and none in November and December (Harmony document NMEC-2009-634823; see "ISIL, Syria and Iraq Resources," 2015).

[26] Nearly all of ISI's January 2009 spoils revenue was received in a single transaction, dated January 1, 2009, in which the ISI administrator recorded a credit of 939,000,000 Iraqi dinars (approximately $652,000 at 2009 exchange rates), attributed to "security," for "spoils from al-Ayman" (western Mosul). Incidentally, January 1, 2009, was the same day that the Iraqi government assumed formal control from the United States of Baghdad's Green Zone. There is no evidence in the document suggesting that the two events were related. It is more likely that these spoils were obtained in violence targeting the local Christian and Shia populations in the run-up to the January 31, 2009, governorate elections. See Timothy Williams, "Attacks Occur as Iraq Takes Control of Key Sites," *New York Times*, January 1, 2009.

Figure 8.8
Weekly Changes in ISI Total Revenue in Mosul, Top Two Categories, August 29, 2008, Through January 29, 2009

Revenue Type	Average Weekly Revenue (U.S. $)	Weekly Trend
Contracting work	70,308	
Oil	81,156	
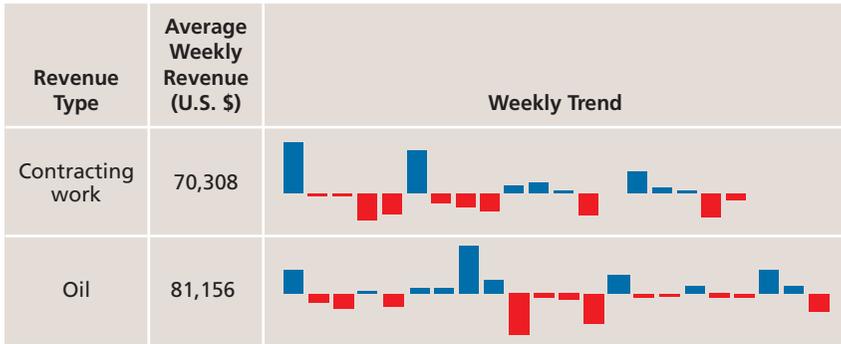
SOURCE: Harmony document NMEC-2009-634823; see "ISIL, Syria and Iraq Resources," 2015.
NOTES: The third column presents data points showing the change in revenue from week to week, starting from August 29, 2008, through January 29, 2009. The first week runs from August 23, 2008, through August 29, 2008, but includes data from only August 29, 2008. The last week runs from January 24, 2009, through January 30, 2009, but has data ending on January 29, 2009.
RAND *RR1192-8.8*

lining the group's strategy and recording "lessons learned" make clear that remaining financially self-sufficient was part of the group's strategy to remain resilient in the face of the challenges it had encountered and anticipated facing in the future. ISI strategists emphasized self-financing as a way to remain independent from the political whims of foreign patrons, who, in other cases, had stopped sending money to other jihadist groups, leaving them vulnerable to military attacks and internal collapse.

In a lengthy assessment of ISI economic strengths and weaknesses, one of the group's strategic thinkers wrote:

The second economical issue that I would like to mention is to rely on only one source of financing and having in the same time a bad management of financing. We have noticed that many of the groups like the Lebanese Allat Group and the Islamic Army in Iraq base their financing on some countries represented by some well-known political or religious figures. These individuals

are properly guided by the intelligence services of that country, which finances these groups for malicious political reasons which usually end by infiltrating these fighting groups and imposing conditions and restrictions on their leaders leading to its destruction. Pay close attention to this issue and be aware of the proverb "Make your dog hungry and he will follow you."[27]

The document's author then went on, however, to emphasize the importance of the group's management of funds, suggesting a rationale for a pattern of ISI's reimbursement of its members' expenses instead of providing funds up-front for anticipated expenses, suggesting that ISI leaders and administrators recognized potential limitations in their fundraising strategy:

> The third economical issue is bad economic management especially when there are many demands from the fighters for money from the Emirs and ignoring any efforts for self-sufficiency. Brothers start asking for many unnecessary things like soda beverages, clothes and many other things that the brother wouldn't think about buying it if the money had to come from his pocket. In addition, these bargains are usually neglected and thrown here and there.[28]

We examine this strategy of reimbursement in the next chapter.

ISI was not alone among jihadi groups in recognizing the value of internal fundraising. In a lessons-learned document about the Muslim Brotherhood violence and uprising in Syria from 1976 to 1982, the writer notes:

> The inside field commanders may have been the 1st. to think of a strategic plan, but their fatal mistake was their dependence on the outside for financing, resources and support; this got things out of their control and [will] lead to their destruction.[29]

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[27] Harmony document NMEC-2008-612449, "Analysis of the State of ISI," n.d., p. 23.

[28] Harmony document NMEC-2008-612449, "Analysis of the State of ISI," n.d., p. 23.

[29] Harmony document AFGP-2002-600080; see "ISIL, Syria and Iraq Resources," 2015.

This document, recovered in Afghanistan, was attributed to the Syrian jihadist Abu Mus'ab al-Suri, an al-Qa'ida strategist.[30]

ISI Expenditures and Funding of Subsidiary Units

AQI in Anbar and ISI in Ninewa spent nearly as much money as they made (Figure 8.9). The overall amounts for Anbar are higher than Ninewa because of the longer time for which revenue and expenditures data were available (16 months for Anbar, five months for Ninewa). Even though the group collected slightly more money than it spent in both governorates, clearly neither AQI in Anbar nor ISI in Ninewa was able to amass a substantial funding surplus, as the Islamic State has reportedly been able to do in Iraq and Syria from 2013 to 2014.[31]

Figure 8.9
Total Revenue and Expenditures in Anbar and Ninewa Governorates
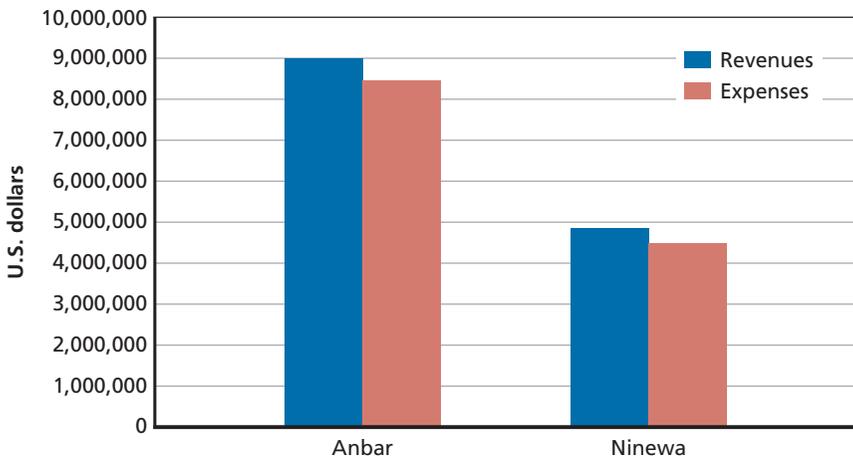
NOTES: The Anbar data span from June 2005 to October 2006 (but include three transactions from November 1, 2006, and one from November 2, 2006). The Ninewa data cover September 2008 through January 2009.
RAND *RR1192-8.9*

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[30] Forest, Brachman, and Felter, 2006, p. 25.

[31] See, e.g., Johnston and Bahney, 2014b.

A comparison of the Anbar and Ninewa provincial emirs' documents shows an organization adapting in the face of pressure. In Anbar, spending at the level of the governorate administrator was focused on operational expenses, consistent with a desire to maintain a high operational tempo and a well-articulated organization. The Tuzliyah documents from the western sector of Anbar show that sectors maintained personnel rosters and distributed payroll. In Ninewa, in late 2008 and 2009, in contrast, such nonmilitary costs as payroll and medical costs appear to have been centralized at the governorate level and consumed the bulk of the group's budget, consistent with a group retreating in the face of more than two years of intense pressure by coalition forces, ISF, and Awakening forces and accumulating legacy costs over time. This section outlines the differences between Anbar and Ninewa in more detail.

Anbar Governorate

AQI's Anbar administrator funded a multitude of affiliated units; in particular, he sent more than 50 percent of his funds to the six subsidiary sector-level administrators (Figure 8.10). The governorate administrative section used 11 percent of total spending to fund administrative operations. In comparison, direct military activities—constituting an attached military battalion and a military procurement section—received only 10 percent of the group's spending. An entity called the General Treasury received 9 percent of total revenue. The General Treasury might have been a shared fund for AQI's senior leaders or al-Qaʻida outside Iraq.[32] We discuss this further in the next chapter. Returning to Anbar expenses, interestingly, payroll and medical expenses constituted only 5 percent of spending at the governorate level, while the other administrative subsections, such as legal and mail,

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[32] The Anbar AQI documents we examined give no further clues as to the purpose of the General Treasury. However, more information may exist in the document set. On possible payments to al-Qaʻida's core leadership in Pakistan, see Ayman al-Zawahiri's July 2005 letter to al-Zarqawi, in which al-Zawahiri writes that he heard about AQI's interest in sending funding to support al-Qaʻida in Pakistan. Office of the Director of National Intelligence, 2005.

Figure 8.10
Composition of Expenditures by AQI in Anbar Governorate, May 2005
Through October 2006
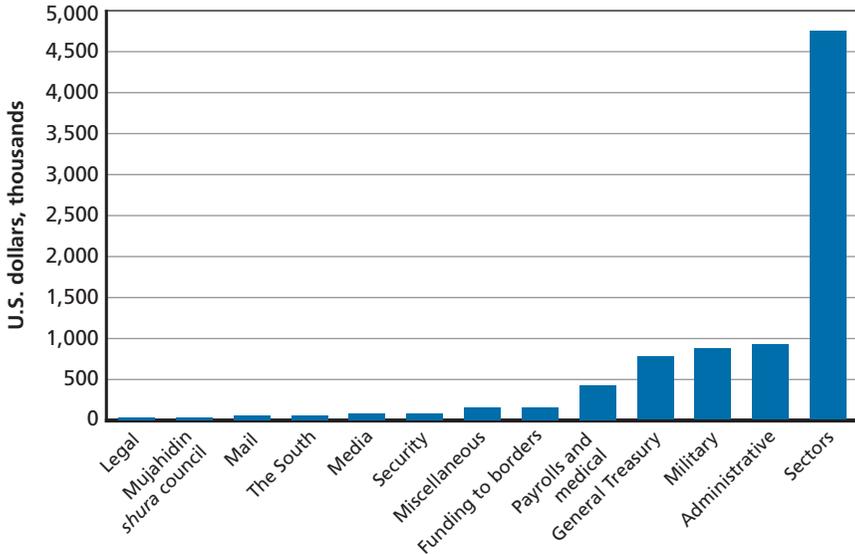
SOURCE: Harmony batch ALA DAHAM HANUSH; see "ISIL, Syria and Iraq
Resources," 2015.
NOTE: Expenses also include two transactions on November 1, 2006, and one
on November 2, 2006.
RAND RR1192-8.10

received less than 1 percent of the total budget.[33] This suggests a lean
central administration with extensive delegation to sector authorities.

The sectors that were farthest from the western border and simul-
taneously most central to AQI's operations, Fallujah and Ramadi,
received the most in net money transfers. The group generated most of
its revenues away from the cities where it focused its operations. This
geographic separation could be explained by illicit trade and large-scale
theft being most profitable in rural areas along smuggling routes or by
a strategic decision to keep its unpopular revenue-generating opera-
tions away from the scrutiny of most of the Anbar public.

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[33] Bahney, Shatz, et al., 2010, pp. 39–43.

The governorate administration functioned as both a unit of financial oversight and financial facilitation, enabling high levels of operational tempo across large geographic areas by sharing revenue streams. The governorate administration did so by moving funding from sectors that raised more revenue relative to their expenses to those that raised less, as well as managing large revenue streams that otherwise might not have been contributed to a shared pool.

By analyzing the funding flows to the sectors, we find that the monthly transfers to the different sectors largely rose and fell in unison, again with the exception of Ramadi and Fallujah. As revenues increased after May 2006, nonsector spending increased disproportionately. Such an increase may indicate that the administrative emir preferred to send excess funding to units that he directly controlled, which might have increased his power relative to the sectors or relative to other governorate administrators. This increase appears in the Anbar-level funding to military, administration, and payrolls, as opposed to financial flows to sectors for the sectors to distribute.

The administrator exhibited a strong, consistent preference to move money rather than hold it. He sent extremely large amounts on the same day he received them, usually to the governorate administrative units, the local military wing, or the General Treasury. The Anbar administrator kept only between $25,000 and $250,000 in cash on hand throughout the period, and he transferred large excess revenues to the General Treasury. The Anbar administrative emir transferred a net sum of $390,000 to the General Treasury over the entire period, which leads us to believe that Anbar was a net contributor to AQI nationally or perhaps to al-Qa'ida central during this period. The fact that the Anbar administrative emir transferred funds to such far-flung places as Mosul, the border sections, and Basra bolsters the argument that Anbar was a highly profitable locale for AQI.

The data allow us to analyze AQI at the peak of its power in Anbar in mid-2006 and during its change to ISI. The administrative emir added the sectors of Rutbah, Ta'mim, and Fallujah in May 2006, when the group's revenue streams were markedly increasing, adding to the extant sectors of Ramadi, Awsat, and Gharbiyah. The documents also show the reaction of the administration to the adversity it faced

when the Awakening organized and attacked AQI in Ramadi in late September and early October 2006. During this period, the governorate administration provided increased funding to the Ramadi sector, where coalition forces were also conducting intensive military operations against AQI. On October 16, 2006, the administrator eliminated the Ta'mim, Fallujah, and Rutbah sectors from his ledgers and renumbered those that remained. The three eliminated sectors provided less than 5 percent of the provincial administration's revenues over the period. Accordingly, we believe that this action indicates a choice by the administrative leaders to consolidate the areas being funded by AQI's higher leaders because of the intense fighting taking place against Awakening forces. This type of strategic decisionmaking by AQI's administration would have been possible only through a managed, hierarchical organization. However, it is also the case that AQI leaders established ISI on October 15, 2006, and this might have been accompanied by administrative changes mandated by ISI's senior leaders. It cannot be discerned from the available data whether the change in the sectors was due to fighting Awakening forces or new rules stemming from the creation of ISI.

Temporal Trends in AQI Expenditures

AQI's weekly expenditures followed a fairly steady longer-term trend from mid-2005 through late 2006, although with short-term volatility (Figure 8.11). Spending spiked in spring 2006, then declined to roughly its previous level, before increasing again markedly in July and August 2006 before declining again in fall 2006. Despite this decline, however, spending leveled out at a higher weekly rate than that at which the group had spent its money in 2005.

Over this time, AQI's overall spending fluctuated, and so did the types of goods and services on which it spent money (Figure 8.12). Transfers to sectors within Anbar governorate always constituted a large portion of provincial expenditures. Beyond those, from June through October 2005, the group spent more on military-related expenditures than on any other category of expense, except for sector transfers. Over time, AQI began spending proportionally more on support functions and transfers and less on military-related items. From November 2005

Figure 8.11
**AQI's Weekly Expenditures in Anbar Governorate, June 2005 Through
October 2006**
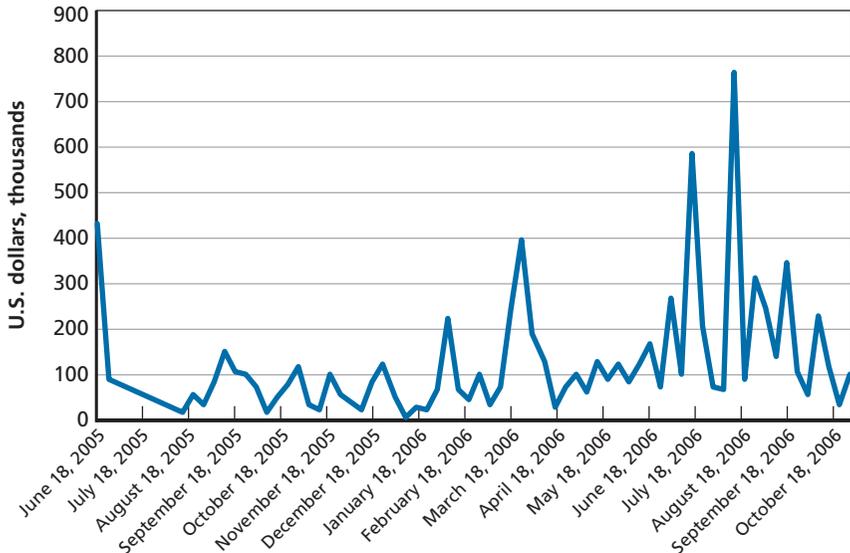
SOURCES: Harmony documents NMEC-2007-633809 and NMEC-2007-633893-HT; see
"ISIL, Syria and Iraq Resources," 2015.
NOTE: Expenses also include two transactions on November 1, 2006, and one
on November 2, 2006.
RAND RR1192-8.11

through October 2006, administrative expenses outstripped military
in eight of the 12 months. When AQI's expenditures increased dra-
matically in July and August 2006 to a combined total of $2.5 million
in those two months, more than $1 million of those expenditures were
transfers to subsidiary units in its local Anbar sectors and $550,000 was
to the General Treasury, likely AQI leadership. Military expenditures
were also higher those months, outstripping administrative expenses
and hitting a peak of $156,000 in August 2006.

Ninewa Governorate

In Ninewa, by contrast, there was little evidence that the governorate
administrative emir funded sector-level subsidiary units in the same
fashion as the Anbar administrator. The Ninewa administrator spent,

Figure 8.12
AQI's Anbar Expenditures over Time, June 2005 Through October 2006
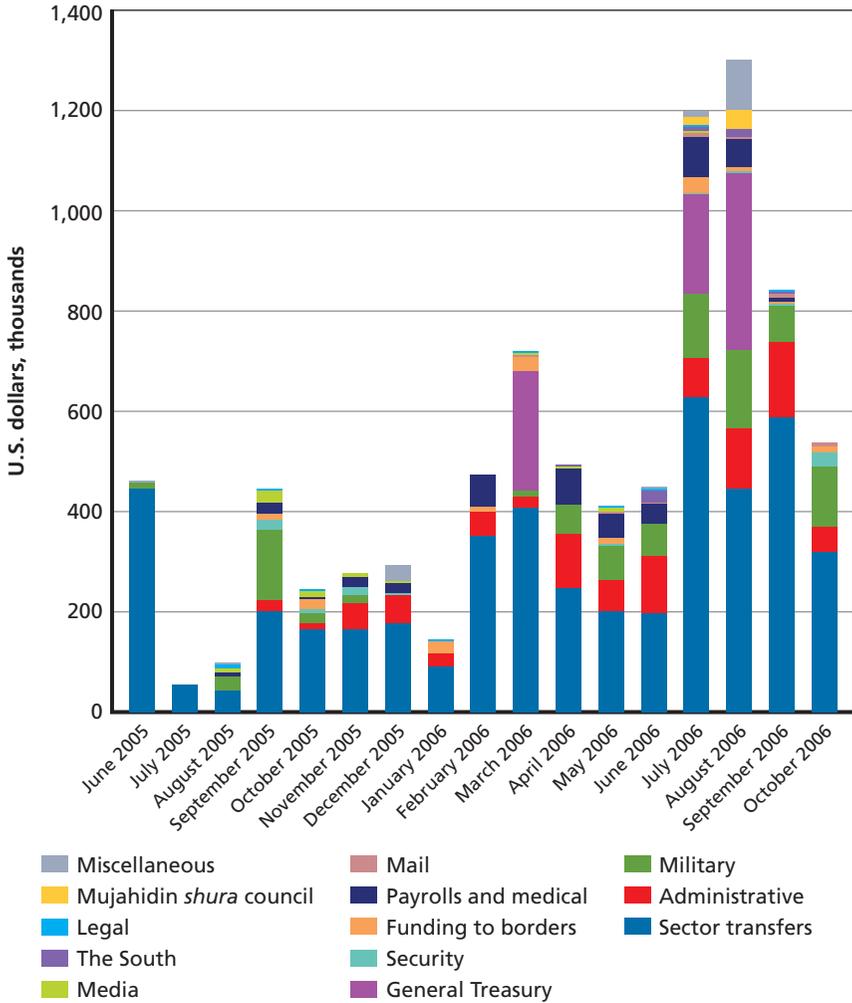
SOURCES: Harmony documents NMEC-2007-633809 and NMEC-2007-633893-HT; see "ISIL, Syria and Iraq Resources," 2015.
NOTE: October 2006 expenses include two transactions on November 1, 2006, and one on November 2, 2006, totaling $41,000.

RAND *RR1192-8.12*

by far, the largest percentage on "allowances and leases," at 38.5 percent (Figure 8.13). This spending was to compensate ISI members and provide for their families, as well as for disbursements to certain members to rent a home or apartment if they did not own one or otherwise have accommodations, and, in some cases, to operate safe houses that provided accommodations and cover to ISI operatives. This might have put considerable pressure on central administration to aggressively fundraise.[34]

Figure 8.13
Composition of Expenditures by ISI in Ninewa Governorate, August 2008 Through January 2009
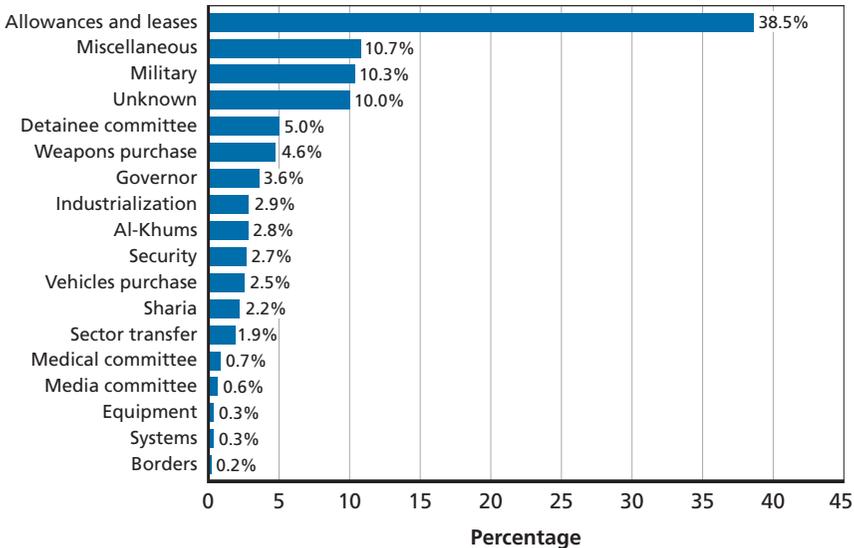
SOURCE: Harmony document NMEC-2009-634921; see "ISIL, Syria and Iraq Resources," 2015.
NOTES: "Al-Khums" is a one-fifth tax. Recent evidence suggests it is specifically a tax on war booty. See Andrew Keller, "Documenting ISIL's Antiquities Trafficking: The Looting and Destruction of Iraqi and Syrian Cultural Heritage; What We Know and What Can Be Done," remarks at the Metropolitan Museum of Art, New York, U.S. Department of State, September 29, 2015.
RAND RR1192-8.13

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[34] Meeting payroll was also a challenge for the Ulster Volunteer Forces in Northern Ireland. See Henry McDonald and Jim Cusack, *UDA: Inside the Heart of Loyalist Terror*, Dublin: Penguin Ireland, 2004, pp. 189, 230–232.

In Ninewa, ISI's spending on compensation was nearly four times greater than the amount the group paid for its second-largest specific expenditure type, military expenses. The third-largest specific expense type was the detainee committee, which might have involved payments to the families of detained ISI members or expenditures for other detainee-related issues, such as legal fees or bribes to government officials within the Iraqi legal system to attain favorable outcomes for ISI detainees. These findings stand in stark contrast to the Anbar findings, which revealed that, in 2005–2006, AQI in Anbar at the governorate level spent only 5 percent of its budget on payrolls and medical expenses, with the sectors handling these expenses.

Weapon purchases constituted the fourth-largest specific expenditure in Ninewa, at 4.6 percent of total expenditures. If combined with military spending, this would mean that ISI in Ninewa was actually spending about 15 percent of its budget for military-specific purposes.[35] ISI spent almost none of its budget—0.6 percent—for media purposes. The lack of ISI investment in media is consistent with a key finding of Chapter Four—that AQI had filled none of the "media emir" positions in its 30 sectors, for which we have available data, as of 2008.[36]

As with AQI in Anbar, ISI in Ninewa invested little in courts, or, as this is translated in the declassified documents, in sharia. Courts made up less than 1 percent of AQI's budget in Anbar. In Ninewa, sharia constituted only 2.2 percent of ISI's budget.

Militant groups in many settings provide dispute-adjudication services, which entail little fixed infrastructure. However, many groups provide more. Given ISI's goal of running a state, the fact that the group provided legal services raises the question of why it did not use service provision as part of an effort to win popular support, a strategy that such groups as Hezbollah and the Liberation Tigers of Tamil Eelam used to great effect.[37] One hypothesis consistent with this broad

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[35] It is unclear what *governor* and *industrialization* referred to, but ISI indicated that it spent 3.6 and 2.9 percent of its budget in Ninewa in these areas, respectively.

[36] Harmony document NMEC-2009-602125; see "ISIL, Syria and Iraq Resources," 2015.

[37] Shawn Teresa Flanigan, "Nonprofit Service Provision by Insurgent Organizations: The Cases of Hizballah and the Tamil Tigers," *Studies in Conflict and Terrorism*, Vol. 31, No. 6, 2008.

pattern is that robust service provision might not be a feasible insurgent strategy when counterinsurgents can use force throughout the contested territory. For service provision to work, it has to be recognized by the public to be coming from the insurgent organization, which necessarily makes it is easy for counterinsurgents to identify and target it.

ISI's weekly expenditures in Ninewa fluctuated considerably, from only $250 in its worst week to nearly $500,000 (Figure 8.14). As before, we consider a week to run from Saturday through Friday, starting on August 23, 2008. Even though these expenditures dipped considerably in certain periods—the weeks of November 22 to 28, December 6 to 12, and December 20 to 26, for example—the ISI rate of expenditures was nonetheless steadier than in the earlier period, indicating the possibility that ISI's finances had stabilized by the later

Figure 8.14
ISI's Weekly Expenditures in Ninewa Governorate, August 2008 Through January 2009
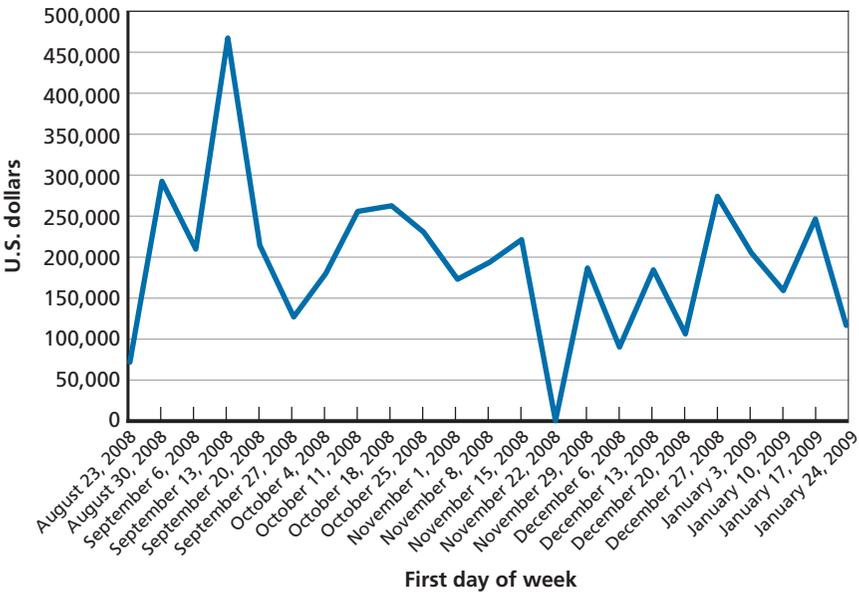
SOURCE: Harmony document NMEC-2009-634921; see "ISIL, Syria and Iraq Resources," 2015.

RAND *RR1192-8.14*

period, possibly because of a more standardized set of tactics, techniques, and procedures for the revenue sources targeted by ISI.

The nature of ISI Mosul's expenditures varied over time, but less so than it had in Anbar governorate (Figure 8.15). From September 2008 through January 2009, payroll (allowances and leases) expenses were ISI's predominant costs. The contrast to Anbar might reflect a degree of centralization that the group carried out in the face of coalition forces, ISF, and Awakening pressure. Although payroll costs became ISI's main type of spending in Ninewa—a pattern that persisted during the period the documents cover—the share of its budget spent on those and all other types of expenses varied from month to month. The pattern of payroll expenditures provides further evidence that ISI missed or delayed such payments when it was under pressure. Those monthly payments ranged between $184,000 and $478,000 (excluding expenditures for August 2008), a variation too large to be accounted for by changes in the number of personnel.

ISI Revenues and Expenditures in Other Locations and Periods

The captured documents also contained revenue and expense reports from other locations and periods. Although these reports were not as thoroughly documented or as extensive as the revenue and expense reports from Anbar and Ninewa, they allow us to compare ISI activities in other locations in Iraq where the security environment and local economies differed. These reports provide a fuller picture of ISI's financial clout, or lack thereof, that is at least somewhat more representative of a cross-section of provincial ISI groups. We provide overviews from the documents of ISI's overall revenues and expenditures, as well as how it was making and spending the money, in Baghdad in March 2007 and in al-Jazirah sector in Ninewa governorate in February 2010.

Baghdad, Mid-February 2007 Through Mid-March 2007

From February 24, 2007, through March 13, 2007, Baghdad reported an income of $197,310 and expenditures amounting to $253,358

Figure 8.15
ISI's Monthly Expenditures in Ninewa Governorate, August 2008 Through January 2009
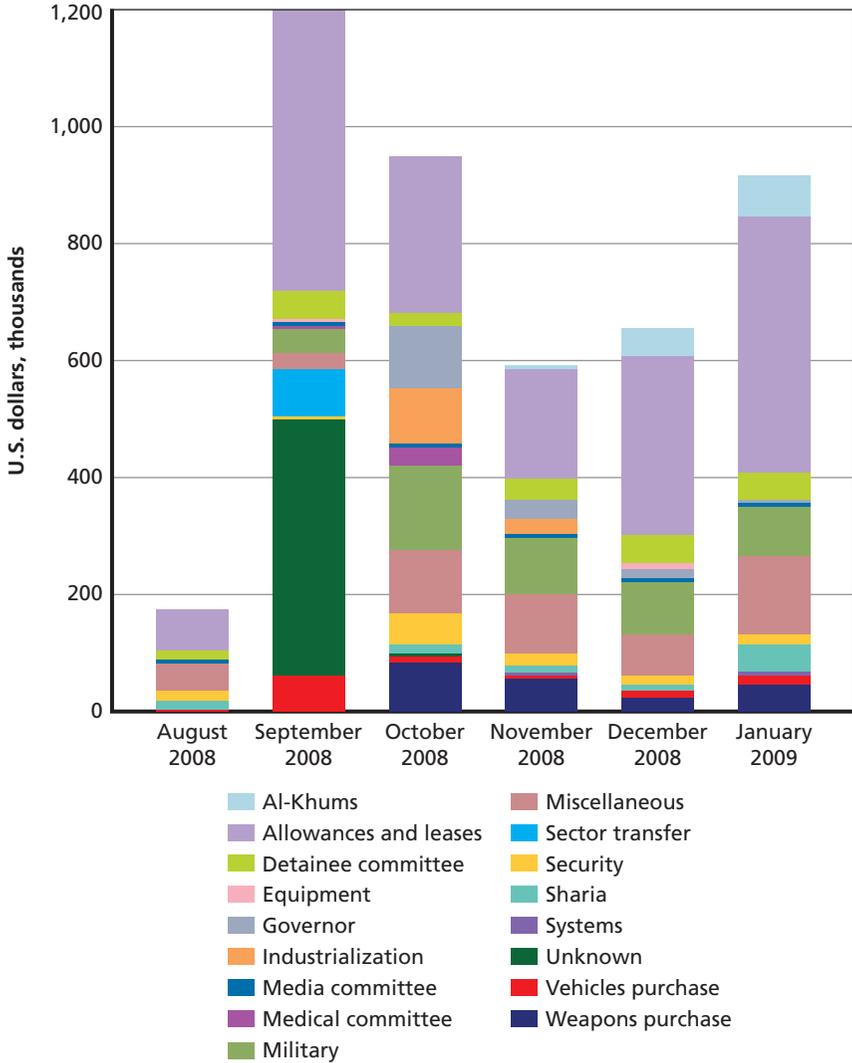
SOURCE: Harmony document NMEC-2009-634921; see "ISIL, Syria and Iraq Resources," 2015.

RAND *RR1192-8.15*

(Table 8.2). Let us briefly assume that these revenue and expenditure rates would have remained constant to extrapolate comparison to Anbar and Mosul. If this were the case, ISI's Baghdad subsidiary would have earned just under $395,000 for a full month and spent just over $507,000. This deficit is notable for several reasons. First, unlike Anbar and Mosul—where ISI was strongest—ISI in Baghdad failed to balance its revenues and expenditures. In this short window, ISI spent about $56,000 more than it generated in revenue, meaning that it is possible that the group lost $100,000 or more in Baghdad that month. These estimates are not definitive—the revenue and expenditures from this reporting period might not be representative of ISI Baghdad's normal finances, especially since, as we showed regarding revenues in Anbar and Ninewa, ISI revenues were highly volatile. Still, this report was compiled during a period when the U.S. troop surge was under way and ISI was struggling to remain a viable player in the fight for Baghdad. It is thus possible that ISI was able to balance its expenditures with commensurate revenues only in areas firmly under its control and was not able to do so in areas where its presence was sporadic and its control was inconsistent or largely lacking.

Was ISI's Baghdad group making its money from sources similar to those tapped in Anbar or Mosul? The answer is maybe. By far, the largest revenue source in the document was listed as "Baghdad province" (*wilaya Baghdad* in the original; Table 8.3). It is unclear whether

Table 8.2
ISI's Baghdad Income and Expenses, Mid-February Through Mid-March 2007

Type	Time Span	Days	Total (U.S. $)	Daily Mean (U.S. $)
Expense	February 24, 2007, to March 13, 2007	18	253,358	14,903
Revenue	February 24, 2007, to March 11, 2007	16	197,310	13,154
	Balance		−56,048	−1,749

SOURCE: Harmony document NMEC-2010-198595 Orig; see "ISIL, Syria and Iraq Resources," 2015.

NOTES: Revenue includes $11,435 dated February 24, 2007, but noted as rollover since February 19, 2007. All dates in the original are Hijra calendar dates.

Table 8.3
ISI's Baghdad Income, by Source, March 2007

Revenue Source	Total (U.S. $)	Share (%)
Baghdad province	167,100	84.7
Charity	6,300	3.2
Rollover	23,910	12.1
Total	197,310	100.0

SOURCE: Harmony document NMEC-2010-198595 Orig; see "ISIL, Syria and Iraq Resources," 2015.

this refers to spoils gained from looting money or goods from Shias in Baghdad during the broader Sunni-Shia sectarian conflict that was still simmering in March 2007 or from other revenues generated within Baghdad, such as the type of extortion that was a leading revenue source for ISI in Mosul a year later.

What is clear is that, unlike AQI in Anbar and ISI in Mosul, the group had few other reliable sources of income. "Rollover," its second-largest revenue source, made up only 12 percent of ISI's Baghdad revenue and does not represent new funding; rather, it is previous revenue unspent. Given the losses seen during the February 2007 through March 2007 reporting period, it appears that ISI Baghdad could not rely on a surplus of funding each month. Charity is the only other source of revenue listed in the ISI Baghdad report. It is unclear whether these funds came from local or international charities. But the point is largely moot, as charitable contributions made up only $6,300 of the group's almost $200,000 of income—roughly 3 percent.

ISI's Baghdad group spent money on a variety of things, ranging from ammunition, to sheep, to vehicles, to suicide bombers (Table 8.4). Aside from ammunition, arms spending also probably included other weapons or materiel, given that the total two-week ammunition expense was $70,000 and accounted for more than a quarter of the group's spending. The largest expense category was labeled "needs of the district," which was probably mostly or entirely payroll costs for ISI's Baghdad organization, as the percentage of expenditures is com-

Table 8.4
Baghdad Expenses, by Source, March 2007

Expense Type	Total (U.S. $)	Share (%)
Needs of the district	116,000	45.8
Ammunition	70,000	27.6
1/5 of governorate	30,000	11.8
None listed	11,000	4.3
Bonds of brothers + POW and martyrs	8,198	3.2
Purchase of a pickup	6,300	2.5
Media needs of the district	4,000	1.6
Friendly fire compensation	2,500	1.0
Purchase of sheep	2,100	0.8
1/5 of charity	1,260	0.5
Expenses of brothers	1,000	0.4
Unit martyrs	1,000	0.4
Total	253,358	99.9

SOURCE: Harmony document NMEC-2010-198595 Orig; see "ISIL, Syria and Iraq Resources," 2015.

NOTES: The "Share" column does not sum to 100 because of rounding. POW = prisoner of war.

parable to the approximately 40 percent of the Mosul budget that was spent on personnel costs.

It is unlikely that "needs of the district" costs were being spent on social services: According to the ISI sector leadership roster captured from Abu Qaswarah in 2008, it is possible that, by March 2007, ISI Baghdad had no established sector leadership or administrators in the area. As the document seized from Abu Qaswarah's residence shows, this was the case by 2008.[38] This would have meant that there was no official who could determine how to allocate social spending. Another

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[38] Harmony document NMEC-2009-602125; see "ISIL, Syria and Iraq Resources," 2015.

possibility is that funds recorded as "needs of the districts" referred to the type of sector transfers seen in the Anbar ledgers.

Another noteworthy category among the expenses is "1/5 of governorate." As we discuss in the next chapter, ISI units across Iraq sent one-fifth of their revenues, known as the *khums*, to a central treasury, likely the General Treasury discussed earlier. Combined with the Anbar documents from 2005–2006 and evidence in the next chapter from late 2008, it appears that this was standard procedure throughout the life of the organization.

Al-Jazirah Sector, February 2010

Another area covered by our documents is ISI al-Jazirah sector's revenue and expenses. Unlike the Baghdad document, the al-Jazirah document appears to cover the entire month of February 2010. As in Baghdad, al-Jazirah sector was in the red during the month covered by our document, spending almost $35,000 more than it generated in revenue (Table 8.5). The sector ran a deficit of 10 percent of revenues.

The al-Jazirah sector administrator categorized revenues into five types: revenue from the economic security, revenue from the military, donations from Muslims and fines, revenue through Abu 'Uthman, and revenue from cars (Table 8.6). The first was, by far, ISI's largest revenue source in al-Jazirah, composing 72.0 percent of the group's revenue, and might have represented protection rackets or other forms of extortion the group actively practiced. Its next-largest revenue source, composing only 12.2 percent of the group's revenue, was revenue from the military.

Table 8.5
Al-Jazirah Sector Revenues and Expenditures, February 2010

Type	Total (U.S. $)	Share of Cash Flow (%)
Revenue	328,100	47.5
Expenditures	362,400	52.5
Balance	−34,300	5.0

SOURCE: Harmony document NMEC-2010-175522; see "ISIL, Syria and Iraq Resources," 2015.

Table 8.6
ISI's Revenue Sources from al-Jazirah Sector, February 2010

Revenue Source	Amount (U.S. $)	Share (%)
Revenue from economic security	236,100	72.0
Revenue from the military	40,000	12.2
Donations from Muslims and fines	34,500	10.5
Revenue through Abu 'Uthman	10,000	3.0
Revenue from cars	7,500	2.3
Total	328,100	100.0

SOURCE: Harmony document NMEC-2010-175522; see "ISIL, Syria and Iraq Resources," 2015.

As with the Baghdad document, we cannot discern whether donations from Muslims consisted of donations from local Iraqis or from foreign donors. Regardless, the share of al-Jazirah's income from donations was relatively small, at 10.5 percent, and that category also included fines, which likely were judgments for violations of Islamic law.

The al-Jazirah sector spent five times more on compensation (called "financial sponsorship" in the document) and rent than on any other expense category (Table 8.7). The sector spent almost twice as much buying or maintaining vehicles than it did on military expenses, suggesting that the group either had logistics challenges or that its military presence in the sector was small and thus did not require a large budget.

Tellingly, ISI's al-Jazirah group spent almost nothing on assistance (service provision to the population). Nearly all of its money went to the organization's operating costs, not service provision or warfighting, suggesting that investing in the organization was either necessary for its survival or that the group had little interest in delivering services to the population in its sector of ISI.

Table 8.7
ISI's Expenditure in al-Jazirah Sector, by Type, February 2010

Expense Type	Amount (U.S. $)	Share (%)
Financial sponsorship and rent	237,700	65.6
Vehicle expense	46,000	12.7
Military expense	24,000	6.6
Detainee expense	20,800	5.7
Purchasing a house for Abu Dijanah	10,000	2.8
Security expense	6,800	1.9
Marriage expense for the sector	4,900	1.4
Deported personnel expense	2,200	0.6
Purchasing a shop	1,700	0.5
Purchasing house furniture	1,700	0.5
Medical expense and doctors' fees	1,500	0.4
Media expense	1,300	0.4
Martyr's bonus	1,000	0.3
Purchasing food	800	0.2
Assistance	600	0.2
Debt payment	600	0.2
Expense for Abu 'Uthman	400	0.1
Purchasing supplies for the shop	400	0.1
Total	362,400	100.2

SOURCE: Harmony document NMEC-2010-175522; see "ISIL, Syria and Iraq
Resources," 2015.

NOTE: The "Share" column does not sum to 100 because of rounding.

Conclusion

ISI had a sophisticated, diversified fundraising operation that relied almost entirely on raising money from within its operating territory. The group purposely avoided seeking outside donations, so that it could retain autonomy. This fundraising took place throughout the organization, at the governorate level and, below that, at the sector level. Each level sent a certain amount upward, but each level also appeared to retain most of what it raised.

ISI's revenue-generating activities in its formative years in Anbar governorate closely resembled that of petty criminality, including significant revenues generated from sales of stolen goods. In its new stronghold of Mosul, the group made money from new sources, particularly theft and extortion from the local oil sector and contract-based projects that were vulnerable to the group's influence. ISI's revenue-generating activities in Mosul in 2008 and 2009 closely resembled activities commonly used by organized-crime syndicates.

ISI at the sector and governorate levels did not maintain a surplus. Expenditures closely matched revenues. As an organization bent on creating a state, this could have been a conscious decision to expand as rapidly as possible when strong to keep itself intact for future battles to come when it was weak.

Spending focused on organization maintenance and operations. Maintenance included payrolls, rent, safe houses, and medical expenses. Operations included all expenditures related to military and security, as well as media. Despite ISI's goal of becoming a functioning state—the *Islamic state*—it appears that ISI spent very little on social services for the communities in which it operated. This might have been because it could not successfully raise enough money to do so, in part because its fatality and capture rate put pressure on its payrolls. Or it might have been because providing such services would have forced it to take a public posture, exposing it to counterinsurgent and counterterror operations.

Assessing the Islamic State of Iraq's Finances: Central Activities and Financial Control

ISI faced three major financial issues, aside from raising money and determining how to spend it. The first was how to fund the central administration. The second was how to reallocate money across geographic areas. In 2005–2006, AQI in Anbar was highly successful at raising money and sent money to the AQI central administration. It is highly likely that, during that same period, AQI in other governorates was less successful and needed financial help to achieve the organization's goals. Certainly, ISI reallocated money from governorates where fundraising was successful to governorates that were less successful. The third issue was that ISI faced the problem of financial control. It needed to ensure that its members were using money to achieve the group's goals and were not stealing money to enrich themselves.

We cover these issues in this chapter. We discuss evidence regarding a central treasury and ISI reallocation efforts, and we discuss issues of financial control and what they meant for the organization.

Transfers to and from the ISI Treasury

As early as 2005–2006, AQI had in place systems for reallocating funding within the organization. The Anbar administrative emir recorded

transferring money to Mosul and the border sections, and even a small amount to Basra, along with noting transfers to the General Treasury.[1]

Documents seized from the ISI senior leader Abu Qaswarah, in an operation in October 2008, provide greater insight into how ISI leaders internally reallocated funding to and from its highest levels to manage its revenues centrally and to match them with operational priorities and the operating costs its units incurred. Governorate-level ISI branches sent one-fifth of their revenues to the organization's top-level leadership. In practice, it appears that these payments were sent to, and reallocated by, Abu Qaswarah, or that Abu Qaswarah at least had knowledge of these financial transfers.[2]

Of the revenue ISI generated from its governorate-level subsidiaries, those from Baghdad, Mosul, and the al-Jazirah sector (recorded as *al-Jazeera* in the published translations of the documents) were, by far, the largest. These areas were the only subsidiaries able to contribute substantial funds in 2008. Redistribution of funding appears to have gone to areas where ISI presence was the weakest and was under severe threat because of the Sunni Awakening and counterinsurgency tactics by coalition and Iraqi forces.

Content of the Documents

The financial documents seized from Abu Qaswarah's compound provide a unique and revealing glimpse into ISI's financial health in 2008. Much is known about the decline in attacks conducted by ISI and other militant groups across key governorates during and after the U.S. troop surge of 2007, but little corresponding information has been hitherto available concerning the financial status of ISI across the Iraqi governorates, nor has there been information on the proportion of ISI revenues from its various subsidiaries operating nationwide or how ISI spent money on these subsidiaries.

The documents detail a list of ISI's revenue-generating activities and expenditures, over one month. The primary financial document

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[1]   Bahney, Shatz, et al., 2010, pp. 34, 42–43.

[2]   For more on Abu Qaswarah, see "AQI's Swedish Emir," 2008; and Harmony document NMEC-2009-602764; see "ISIL, Syria and Iraq Resources," 2015.

we analyze was not dated but was likely composed sometime in 2008, prior to Abu Qaswarah's death that October.

The documents were structured differently from the ones captured from Ala Daham Hanush in Anbar and Ahmed Zayd in Ninewa, both governorate-level administrative emirs who were responsible for maintaining detailed master financial ledgers that documented ISI's revenues and expenses in their areas of responsibility, down to the transaction level. The financial documents seized from Abu Qaswarah's compound appear to be summary reports of ISI's national-level revenues and expenditures (Figure 9.1). It is for this reason that the financial documents seized from Abu Qaswarah's compound are of special interest.[3]

Abu Qaswarah held ISI's financial documents that, analogous to the Anbar transfers to and from sectors, contained information on major ISI governorate-level subsidiaries in Iraq, from which ISI received and sent money, as well as other group revenues and expenses.

The One-Fifth Transfers

Mosul was the largest source of ISI funding from the "one-fifth" transfer of any area listed, transferring $170,000 to ISI leadership. Of the revenue-generating transfers in the Abu Qaswarah document, funding from Mosul constituted 40 percent of incoming funds to ISI. The Abu Qaswarah document also indicates that ISI's Baghdad sector transferred 4.5 kilograms of gold, in addition to $2,500 in cash, to ISI's senior leadership as its "one-fifth." We estimate the value of the transferred gold to be $138,400, suggesting that the total size of Baghdad's one-fifth transfer was approximately $140,900, or 33 percent of the revenue ISI generated from sector transfers.[4] It is not clear whether Baghdad transferred one-fifth of the gold it had or whether it used the gold to pay its one-fifth and retained the cash. An argument for

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[3] Harmony document NMEC-2009-602764; see "ISIL, Syria and Iraq Resources," 2015.

[4] Since the document is undated but was likely drafted in 2008, we base this estimate on the average daily price of gold in 2008, $871.91 per ounce, multiplied by the number of ounces of gold transferred from Baghdad to AQI leadership, 158.7 (at 35.3 ounces per kilogram), for a total of approximately $138,400. Data on daily gold prices were obtained from the USAGOLD website (www.usagold.com).

Figure 9.1
Original Financial Document Seized from Abu Qaswarah,
Original and English Translation

Panel A

Panel B

Sources of Incoming Revenues		Issuing [export] Sources	
Source	Amount	Issued to	
'Ashraf	600,000 USD	Abu-Sawsan	45,000 USD
One fifth of al-Jazeera	100,000 USD	Herbalist	15,000 USD
One fifth of al-Mosul	100,000 USD	Baghdad	180,000 USD
Cement	90,000 USD	Al-Anbar	170,000 USD
One fifth of J [SATTS]of al-Mosul	40,000USD	Diyala	120,000 USD
One fifth of al-Basrah	2,300 USD	Salah al-Din	120,000 USD
One fifth of al-Basrah	800 USD	Media	110,000 USD
One fifth of Baghdad	4 kilograms of Gold	House	50,000 USD
One fifth of Baghdad	2,500 USD	Materials	30,000 USD
One fifth of Baghdad	0.5 kilograms of Gold	Syria	5000 USD
		Al-Basra	40,000 USD
One fifth of al-Mosul	30,000 USD	Donations	300 USD
One fifth	10,200 USD	Kirkuk	20,000 USD
One fifth of Salah	300 USD	Detonators	10,000 USD
Booty money [TC: Possibly also money from sheep sold]	5,400 USD	Private Vehicle	10,000 USD
		Kirkuk	10,200 USD
		Abu-Nashwan	5,000 USD

SOURCES: Harmony documents NMEC-2009-602764-ELC, p. 7, and
NMEC-2009-602764-HT; see "ISIL, Syria and Iraq Resources," 2015.
NOTES: TC = translator comment. *SATTS* likely means Standard Arabic
Technical Transliteration System. In the original Arabic document, the
letter *jim*, which sounds like a *J*, appears between the Arabic words for
one-fifth and *Mosul*. *J* likely stands for *janoub* (south).

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the latter is that, because of its value, gold is difficult to use in day-to-day transactions, whereas cash is far more useful. Al-Jazirah sector's $100,000 (about 24 percent of the total sector transfers to ISI) was next in order of size. Somewhat surprisingly, at least in the document seized from Abu Qaswarah, no other subnational ISI group sent much money to the group's core national leadership. Basra, Salah al-Din, and another sector, the name of which was omitted from the document, all made "one-fifth" transfers of less than $11,000 (Table 9.1).

Assuming that the sector transfers recorded in the document were exhaustive of all sector transfers for the reporting period and that each sector actually sent one-fifth of its total revenue from the period to ISI's senior leadership, we estimate that ISI's sectors brought in a total revenue of more than $2.1 million.[5]

Beyond transfers, the documents reinforce the importance of taxing the oil trade. The largest single source of ISI's revenue recorded in the captured document is $600,000, from an entity referred to only

Table 9.1
ISI's Revenues from Sector Transfers, from Document Seized from Abu Qaswarah in October 2008

Location	Total (U.S. $)	Share of Total Transfer Revenue (%)
Al-Jazirah	100,000	23.6
Baghdad	140,900	33.2
Basra	3,100	0.7
Mosul	170,000	40.0
Salah al-Din	300	0.1
Unidentified location	10,200	2.4
Total	424,500	100.0

SOURCE: Harmony document NMEC-2009-602764; see "ISIL, Syria and Iraq Resources," 2015.

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[5] Multiplying the total reported one-fifth transfers by five gives a total of $2,118,000.

as 'Ashraf. Abu Ashraf was a pseudonym for Abu Ibrahim, ISI's oil minister, a senior position.

Reallocation from the Center

As the Anbar governorate administrators had done vis-à-vis Anbar's sector-level subsidiaries, it appears that ISI's national-level leadership collected payments from governorate-level ISI subsidiaries and reallocated these funds by pushing them back to the governorate ISI subsidiaries as necessary. ISI leadership sent the largest transfers to the areas in which the Awakening and the surge had the greatest effects—Anbar governorate and Baghdad, which received $170,000 and $180,000, respectively (Table 9.2). At the same time, ISI in Anbar and Baghdad apparently failed to generate sufficient revenue during this period to match those amounts in their obligatory 20-percent income tax payments made up the chain of command. According to Abu Qaswarah's

Table 9.2
ISI's Net Financial Transfers to the Governorates, from Document Seized from Abu Qaswarah in October 2008

Location	Transfers to (U.S. $)	Revenues from (U.S. $)	Difference
Al-Jazirah		100,000	100,000
Anbar	170,000		−170,000
Baghdad	180,000	137,500	−42,500
Basra	40,000	3,100	−36,900
Diyala	120,000		−120,000
Kirkuk	32,200		−32,0200
Mosul		170,000	170,000
Salah al-Din	120,000	300	−119,700
Syria	5,000		−5,000
Unidentified location		10,200	10,200
Total	667,200	421,100	−246,100

SOURCE: Harmony document NMEC-2009-602764; see "ISIL, Syria and Iraq Resources," 2015.

records, ISI in Anbar is not listed as transferring any money to ISI senior leadership, while ISI in Baghdad transferred $137,500 to ISI's top leadership, or $40,000 less than it received in top-down transfers per Abu Qaswarah's records.

Other governorates fared no better. ISI's Diyala administration had been severely degraded in mid and late 2007 by tribal revolts by local Awakening groups and intense counterinsurgency operations that fanned out from Baghdad north to Diyala on the heels of the coalition's successful stabilization of Baghdad following the surge.[6] At risk of losing another stronghold to coalition and Iraqi forces, ISI's leadership sent $120,000 to ISI in Diyala to stem the tide. There is no record of ISI's Diyala branch transferring any funds to ISI leadership as a one-fifth payment, likely because it was forced to expend many of its resources on fighting instead of pursuing the revenue-generating activities it enjoyed previously.[7] The financial dynamic in Salah al-Din governorate was similar, with ISI's leadership transferring $120,000 there and receiving only a token $300 payment back from the group. The Abu Qaswarah documents also show that ISI leadership went in the red to support its governorate-level subsidiaries in Basra and Kirkuk, although to a lesser degree than in the aforementioned governorates.

Strikingly, Mosul was the only area that transferred more money to ISI's top level than it received—and it did so by a wide margin. ISI leadership received $170,000 in transfers from Mosul during the period that our documents cover and transferred no funds to ISI in Mosul. The relatively large amount of funds that ISI leadership received from Mosul, combined with its relatively good security and the group's prospects for continued economic extraction there, suggest that, by 2008, ISI viewed Mosul as its last secure, sustainable stronghold in Iraq.

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[6]   See, for example, Kagan, 2007b. See also Bill Roggio, "The Diyala Salvation Front," *The Long War Journal*, May 10, 2007a.

[7]   In Diyala, AQI reportedly engaged in widespread auto theft and kidnap-for-ransom operations to fund its operations, as well as smuggling. Lennox Samuels, "Al Qaeda in Iraq Ramps Up Its Racketeering," *Newsweek*, May 20, 2008a.

Financial Management Within ISI

ISI appeared to manage its money carefully. The group demanded extensive reporting on expenses from lower levels in ways that ensured that money was spent properly but that added risk to the group's operations. ISI administrators occasionally produced summary financial reports that could prove useful for creating greater situational awareness among ISI's midlevel and senior decisionmakers. This kind of behavior in a covert group is consistent with leaders worrying about the financial probity of their underlings. There is some direct evidence that such concerns were warranted.

ISI Expenses

ISI appears to have kept a very close eye on expenses. This is consistent with an organization that faced challenges managing its finances and making sure that all goods and services charged to the group were actually used to its benefit.

There are three ways that any organization can handle expenses. First, it can provide a sum of money to its members for any expenses they might have and not require further reporting. This is similar to a travel per diem given by many businesses. Second, the organization can provide a sum of money but require reporting of how it is spent. Third, it can have the member or employee incur the expense and then file for a reimbursement. The last two carry greater risks to a clandestine organization; ISI appears to have used these two methods.

At times, the group appears to have provided members with reimbursements for expenses incurred on behalf of the organization. At other times, it merely recorded disbursements in large spreadsheets and then required follow-up reporting about how the distributed funds were spent.[8] Requiring postspending reports and using reimbursements to cover expenses both require additional communications. If the group had sufficient funds, it would be safer to simply transfer fixed fees to fighters and managers that would be more than adequate to meet their

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[8]   Examples can be found in Harmony documents NMEC-2008-614685 and NMEC-2008-614686; see "ISIL, Syria and Iraq Resources," 2015.

expected operational needs. This requires only one transaction, sending money for expenses in a given period, which needs to happen anyway to pay the operative's salary.

However, it looks as if individuals either (1) requested funds, which the administrator then distributed, after which the recipient reported back, or (2) incurred small-scale expenses on behalf of the group and then requested to be paid back. Either method would triple the number of transactions required. For specific budgeting ahead of time, the unit had to report up the chain what it wanted to spend money on, then the money was sent down, and then a report was sent back up about the expenditures. For reimbursements, the operative had to send his request for payment up and receive a separate payment back. Both methods entail a total of three transactions. Since each transaction has some marginal risk, these reporting methods make sense only from the perspective that the group faced a tight-enough budget constraint that it could not afford to simply pad operatives' salaries with the amount of costs they were expected to incur.

The evidence for careful expense tracking shows up in documents we analyzed. Often, such evidence appears either as entries in a notebook or as specific notes detailing expenses. For example, a notebook found in January 2007, among the Tuzliyah documents, regarding activities in the western sector of Anbar, contains AQI expense accounts, distributions of payments, and handwritten annotated lists that were used as daily reports and personnel lists.[9] This notebook records a wide variety of expenditures, including:

- $50.00 to Abu Hajir to buy a Thurya (satellite phone) card on November 20, 2006
- 35,000 Iraqi dinars to Abu 'Abbas for "expenses car rent" on an unspecified date
- $90 to the Abu Haydar (Logistics) unit for "tires for Nissan," $100 to that unit for "oil valves," and 87,000 Iraqi dinars for that unit to purchase "3 batteries 12 Volts with the acid."

[9] Harmony document MNFA-2007-000564; see "ISIL, Syria and Iraq Resources," 2015.

Such documentation of small-scale expenses is pervasive in AQI and ISI expense reports. Other documents in the declassified collections we analyzed contained short narrative entries regarding expenses and were submitted up the hierarchy to the group's leadership, as we found when we discovered that ISI leaders Abu Ayyub al-Masri and Abu Umar al-Baghdadi were in possession of copies of the Anbar revenue and expense reports we analyzed in Chapter Eight.

The use of such short narrative entries, as opposed to a rigid selection from a given list of categories, suggests that ISI opted to collect itemized accounts of its members' expenses on behalf of the organization, as opposed to providing operatives with general per diem payments. For example, one handwritten note from a Tuzliyah document includes a range of such short narrative entries. One of these entries consisted of the following, written by Abu 'Abdallah al-Hubli:

> I received sum of ($1900) from Brother Abu Shad through Brother Abu Walid, on Shawal 23rd 1427. I gave to Amir of naval boats Abu Umar sum of ($200) on Shawal 23rd 1427. Abu Tahah Amir of fuels, I gave Abu Zarifah $400 to buy a boat + 100 dollars his expenses.[10]

A note in which Abu Walid wrote to Abu Yunis, detailing the distribution of money to individuals, was even more detailed:

> To my generous brother Abu Yunis may God preserve him, peace of God and his blessings.
>
> These are some of the works that I have accomplished in the sector before the appointments of Brother Abu Jihad as Al-Shamyiah administrator:
>
> Two weeks ago I received $1,300 from Abu Shahd and used it as follows.
>
> 1- Two weeks ago I received $1300 from Abu Shahd and used it as follows.

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[10] Harmony document MNFA-2007-000566; see "ISIL, Syria and Iraq Resources," 2015.

1[*sic*] - I handed over to Abu Hajir $600.00 he is the chief of Al-Sadrin company.

2- I gave Brother Abu Haydar Al-Salmani $100.00 expenses for his family

. . .

Then I received from you in Al-Ma'adid $2,500 and it was spent as following

1- I gave to brother Taha $500, a loan that the group owed him

2- $100 to Abu 'Abdullah the Amir of Al-Safra'

3- $100 to Abu Dajanah the Amir of Al-Sadiq Company

4- $200 for Abu Hasan Fahd from 'Ana group

5- $100 expenses for Abu Husayn and Abu Taha because his house is a guest house.

6- $100 Abu Usama, Maintenance and movement

7- $200 for Abu Khalid to buy a barrels for storage

8- $100 for Abu Muhammad Al-Ma'adidi, public relation

9- $100 for Abu Shahd

10- $1,000 I hand it to Abu Jihad the Administrator.

Such detailed documentation of expenses was not unique to that area of Anbar in late 2006 and perhaps through early 2007. An expenditure tracking spreadsheet from 2008, for an unspecified location, records payments in Iraqi dinars and U.S. dollars (one column for each) and includes such items as:

- $5,000 "Handed over by Mu la Salim as the remainder of the Equipment debts" to Abu Ali al-Afari on September 4.
- $5,950 to Ahmad, "the purchasing manager," for the purchase of "5 pistols for Baghdad" and $7,400 more to him for "the purchase of 6 more" on September 15.
- $400 to "Prepare and install Siplit air-conditioner" to Muhammad on September 22.[11]

What is unclear is whether the listed payments were made ahead of the expenses being incurred or afterward.

For some expenses, it seems clear that the group provided upfront payments and then tracked spending. One nicely formatted memo from the Borders Emirate of the Mujahidin Shura Council (MSC; basically, the ISI unit responsible for the area around Sinjar in late 2006 or early 2007) came complete with a bordered cover page featuring the MSC logo.[12] The memo listed various administrative requirements for Border Emirate personnel; for example: "For every amount paid out of the Muslim people funds, the recipient is required to provide two signatures, in his own handwriting, one for receiving the money and another one to show how the money was spent."[13] The document then helpfully provided templates for the forms to be maintained when receiving funds and then when reporting about their expenditure (Figure 9.2).

Such reporting requirements were apparently followed in the Borders Emirate. Multiple documents report expenses at the unit level or record payments to specific individuals.[14]

A few documents included in our collection suggest that the reimbursement model was also used. One administrative spreadsheet covering expenses in Anbar governorate from January 31, 2006, to

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[11] Harmony document NMEC-2009-634443; see "ISIL, Syria and Iraq Resources," 2015.

[12] Harmony document NMEC-2007-657926; see "ISIL, Syria and Iraq Resources," 2015.

[13] Translation from Fishman, 2008, p. 72, which quotes Harmony document NMEC-2007-657926 (see "ISIL, Syria and Iraq Resources," 2015).

[14] Harmony documents NMEC-2007-657980, NMEC-2007-647974, and NMEC-2007-657977; see "ISIL, Syria and Iraq Resources," 2015.

Figure 9.2
ISI Receipt and Expense-Report Forms

A Receipt
The brother …………. Place of work ……………………….. Section belongs to
T brother ……………. The amount of ……………………….. USD
Day ……………..   Date …………………………
Recipient brother ……………..   Administrator …………………….
Signature …………………….   Signature …………………………….

Expense Report

I, ………………… work at …………………… and section belong to ………….. Brother ………………….. Provide this detailed report about the finds I received from brother ………………………. For the amount of ……………… USD Day ……………………….   Date ……………………… ?

Serial	Supplies	Amount USD	Remarks
1			
2			
3			
4			
5			
6			

Amount Received ……………………. USD
Amount Spent …………………………USD
Remaining Balance ……………………USD

Alias: ……………
Signature: …………….

SOURCE: Harmony document NMEC-2007-657945; see "ISIL, Syria and Iraq Resources," 2015.
NOTE: *T brother* is a quick translation of *The brother*.
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October 20, 2006, includes line items, such as 6,400 Iraqi dinars for "reimbursement pay to Abu Abd Al Kadir" on April 9, and 4,270 Iraqi dinars to Imad for "expenses of the Administrative Committee" on June 3.[15] A document tracking a range of expenses incurred by the Borders Emirate in early 2007 included 20,000 Iraqi dinars for a "busi-

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[15] Harmony document NMEC-2007-631844; see "ISIL, Syria and Iraq Resources," 2015.

ness expense to Abu 'Ubaydah" and 45,000 Iraqi dinars paid to Abu Ahmad for a "clutch plate."[16]

In some cases, documentation could include simple handwritten notes, such as one for the Umar Ibn Alkhattab Platoon, which requested reimbursement from a sector administrator for 120,000 Iraqi dinars for medical expenses (Figure 9.3).[17] It was for the medical needs of the platoon commander Abu Haytham's family, according to the note, and was signed by four individuals, including the sector commander, Abu Khitbah. Another note similarly requested the payment of 40,000 Iraqi dinars for the family medical expenses of Abu Yas and

Figure 9.3
ISI Reimbursement Chit for Medical Care
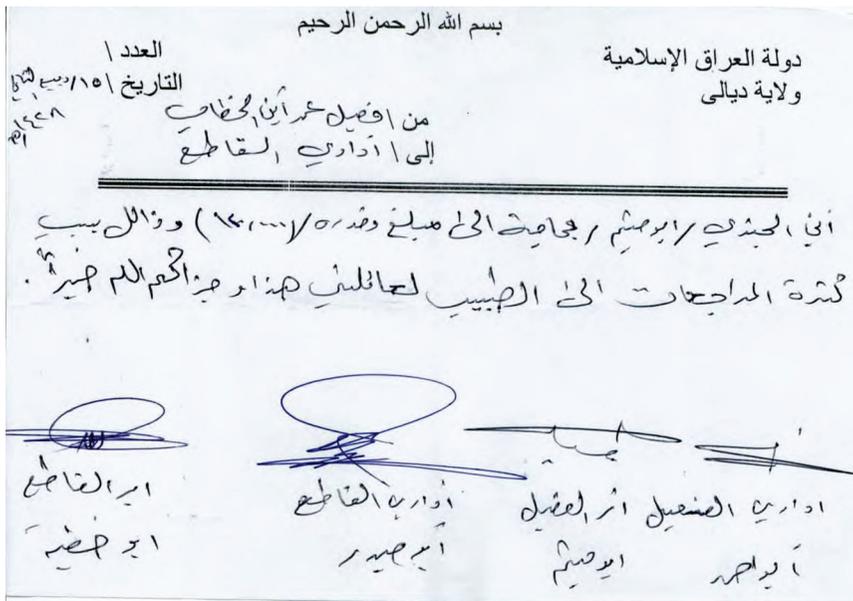
SOURCE: Harmony document MNFV-2007-000468; see "ISIL, Syria and Iraq Resources," 2015.
RAND RR1192-9.3

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[16] Harmony document NMEC-2007-657731; see "ISIL, Syria and Iraq Resources," 2015.

[17] Harmony document MNFV-2007-000468; see "ISIL, Syria and Iraq Resources," 2015.

was signed by the platoon commander and administrator, as well as the sector commander and sector administrator.[18] Although we have relatively few such documents in our collection, a collection that was selected to include as many large spreadsheets as possible, these expense notes are not unusual. In fact, they are likely voluminous, given the disparate information that administrators collected from individual members or their unit leaders to accurately document revenues and expenses for their entire jurisdictions, including military, intelligence and security, and media units.

Overall, the amount of attention to tracking expenses in ISI strongly suggests that the group faced both substantial revenue constraints and difficulties with operatives using group resources for personal benefit. Otherwise, such record keeping simply does not make sense.[19] For example, even though we noted that ISI's average monthly revenues in and around Mosul in 2008 and early 2009 were substantially higher than they were in Anbar governorate earlier in the war, the group's fiscal constraints were similar because its expenses were roughly equivalent to its revenues, suggesting a need to minimize payments to avoid deficits that would limit its ability to pay active fighters and finance attacks critical to its military campaign. Such minimization of expenditures required an extensive book-keeping apparatus, which is evident in the way that ISI operatives recorded and reported expenses to administrative officials.

Midlevel Tracking Spreadsheets and Economies of Scale

A final revealing fact about ISI's financial-management practices is that the group periodically produced roll-up reports and statistics on its spending. Such documents are not particularly useful for solving the problems faced by management regarding getting their subordinates to fulfill management's goals.[20] These documents do, however, provide higher-level senior leaders with information on the group's progress.

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[18] Harmony document MNFV-2007-000481; see "ISIL, Syria and Iraq Resources," 2015.

[19] See Shapiro, 2013, Chapter Two, for a full discussion of this point.

[20] As noted, this is known in the technical social science literature as an *agency problem*.

Such information is provided in a number of forms. For example, a document recording expenses and revenues in Anbar governorate from June 22, 2005, to January 30, 2006, includes graphs summarizing revenue and expenditures (Figure 9.4).[21]

This sheet was not unique. Two other documents had similar graphs; one records revenues and expenditures from January 30, 2006, to May 19, 2006, on two lengthy spreadsheets, and the other records revenues and expenses from May 19, 2006, to October 19, 2006 (Figures 9.5 and 9.6).[22]

Figure 9.4
AQI Anbar Governorate Revenue Graph, June 2005 Through January 2006
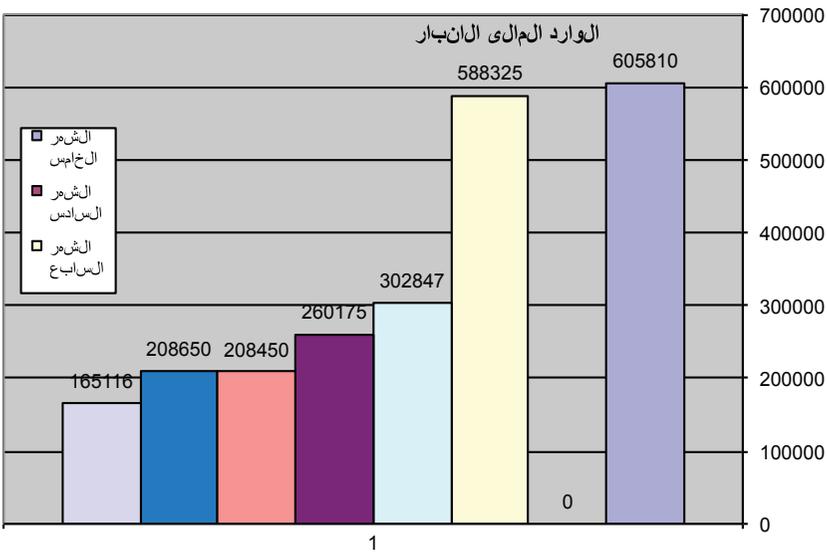
SOURCE: Harmony document NMEC-2007-633541 Orig; see "ISIL, Syria and Iraq Resources," 2015.
RAND *RR1192-9.4*

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[21] Harmony document NMEC-2007-633541; see "ISIL, Syria and Iraq Resources," 2015.

[22] Harmony documents NMEC-2007-633919 and NMEC-2007-633700, respectively; see "ISIL, Syria and Iraq Resources," 2015. Harmony document NMEC-2007-633893 has similar plots; see "ISIL, Syria and Iraq Resources," 2015.

Figure 9.5
AQI Anbar Governorate Revenue Graph, Winter and Spring 2006

تخطيط الوارد المالى 1427

الشهر الاول ☐	453760
الشهر الثانى ☐	813904
الشهر الثالث ☐	427376
الشهر الرابع ☐	271257
رصيد اول المده ☐	240955
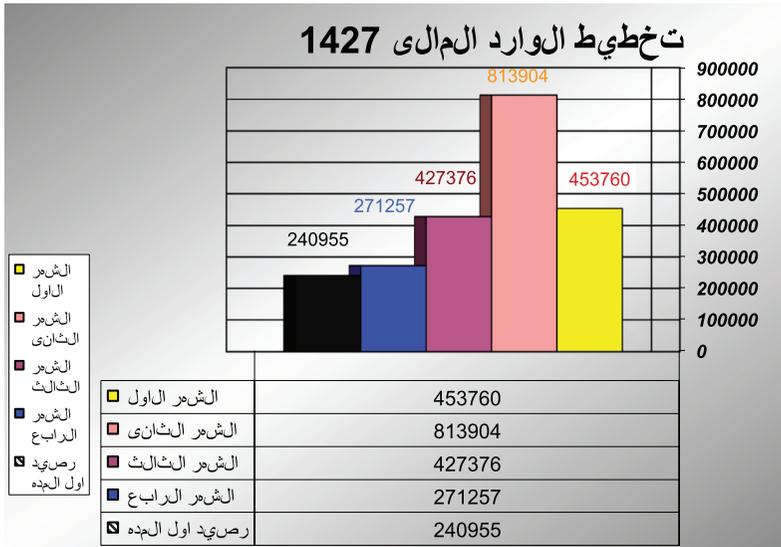
SOURCE: Harmony document NMEC-2007-633919 Orig; see "ISIL, Syria and Iraq Resources," 2015.
RAND *RR1192-9.5*

Although the presence of time-series bar charts showing revenues and expenditures might have been unique to the AQI administrators in Anbar in 2005–2007, the general principle of providing occasional roll-up reports was pervasive and continued through ISI's history. In 2010, for example, one document reported specific monthly revenues and then recorded salaries by category.[23] One of the largest salary spreadsheets from Mosul recorded individual payments by unit and then calculated various statistics. In it, the administrator recorded payments to 357 active fighters; then calculated overall spending by unit, the number of fighters and dependents per unit, and the number of dead fighters' families still being paid; and finally calculated some statistics on his overall payroll.[24]

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[23] Harmony document NMEC-2010-175522; see "ISIL, Syria and Iraq Resources," 2015.

[24] Harmony document NMEC-2009-633789; see "ISIL, Syria and Iraq Resources," 2015.

Figure 9.6
AQI Anbar Governorate Revenue Graph, Summer and Fall 2006

تخطيط الصادر المالى
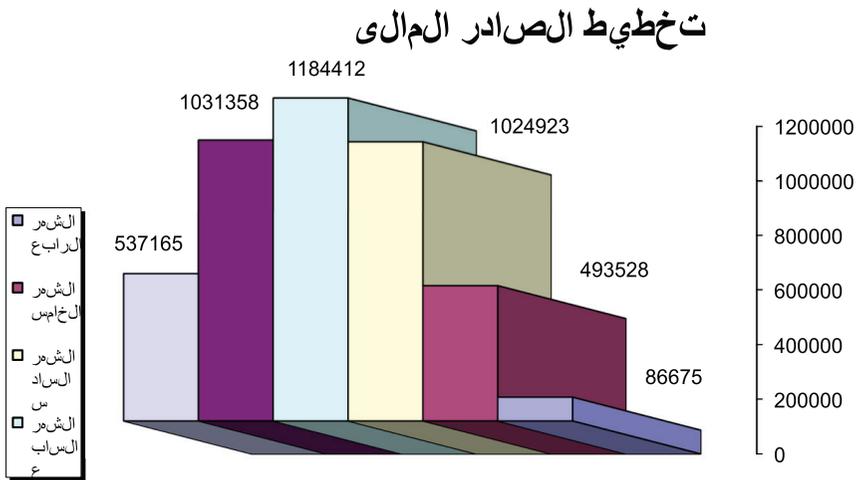
SOURCE: Harmony document NMEC-2007-633700 Orig; see "ISIL, Syria and Iraq Resources," 2015.
RAND *RR1192-9.6*

These documents reinforce our earlier point that the standard cognitive constraints that compel all senior managers to seek summary statistics about their organizations apply to ISI leaders, and likely to the leaders of other large terrorist organizations as well. The group's leaders worked hard to conduct jihad in a rational, efficient manner and therefore sought the kinds of inputs that any high-quality manager would.

Ghost Employees

In light of the security pressure that ISI was under from 2006 to 2009, the expenditure tracking and the use of roll-up reports suggest an organization whose management was strongly motivated to track spending. If those tools were working perfectly to deter potential graft, there would be no evidence of it in the documents. Although there is indeed little direct evidence of graft in the documents we examine, there is some.

A 41-sheet administrative tracking spreadsheet captured in early 2008 provides some evidence (Figure 9.7).[25] The document, which appears to be from September 2007, records the amounts paid in salaries and expenses to 26 different subunits, and the spreadsheet contains some roll-up reports of expenses and total personnel, which aggregated everyone from the unit-level reports, and a few miscellaneous items. Figure 9.7 shows the serial numbers, *kunyas*, family status, and payments made to 57 active fighters (under an orange banner) and the families of 33 dead members (under a green banner) for a unit called Fayyad. This sheet is notable because of the documentation on the upper right. Translated into English, the text reads, roughly, "Abu-Nasir had these names, he deleted them, we do not if they were real or fake ones."[26] None of the serial numbers for those individuals show up in the "Total Workers" sheet, suggesting that payments were no longer made to them. This was odd because had they been killed in battle, their families should have continued to draw salaries, per the group's rules, and these individuals should have been recorded under a green banner. Our interpretation is that the unit leader suspected Abu Nasir of listing ghost employees to pad his payroll and reported this up his chain of command.

More-direct evidence of the use of ghost employees comes from Ahmed Zayd's spreadsheets, which were captured in February 2009. At the bottom of a spreadsheet listing all the members in various units, Ahmed Zayd reports the number of active fighters, the number of deceased fighters, and dependents in each category (Figure 9.8).[27] His 633 deceased fighters had 1,478 children and 489 widows. His 357 active fighters had 661 children and 278 wives. Simple division shows that the average deceased fighter had 2.33 children and 0.77 wives. His active fighters had 1.85 children and 0.78 wives. Overall, deceased fighters had 3.10 dependents, on average, while active

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[25] Harmony document NMEC-2008-614685; see "ISIL, Syria and Iraq Resources," 2015. Note that a second version of this spreadsheet, with 39 sheets, exists as NMEC-2008-614686; see "ISIL, Syria and Iraq Resources," 2015.

[26] Harmony document NMEC-2008-614685; see "ISIL, Syria and Iraq Resources," 2015.

[27] Harmony document NMEC-2009-633789; see "ISIL, Syria and Iraq Resources," 2015.

Figure 9.7
ISI Administrator Spreadsheet, September 2007
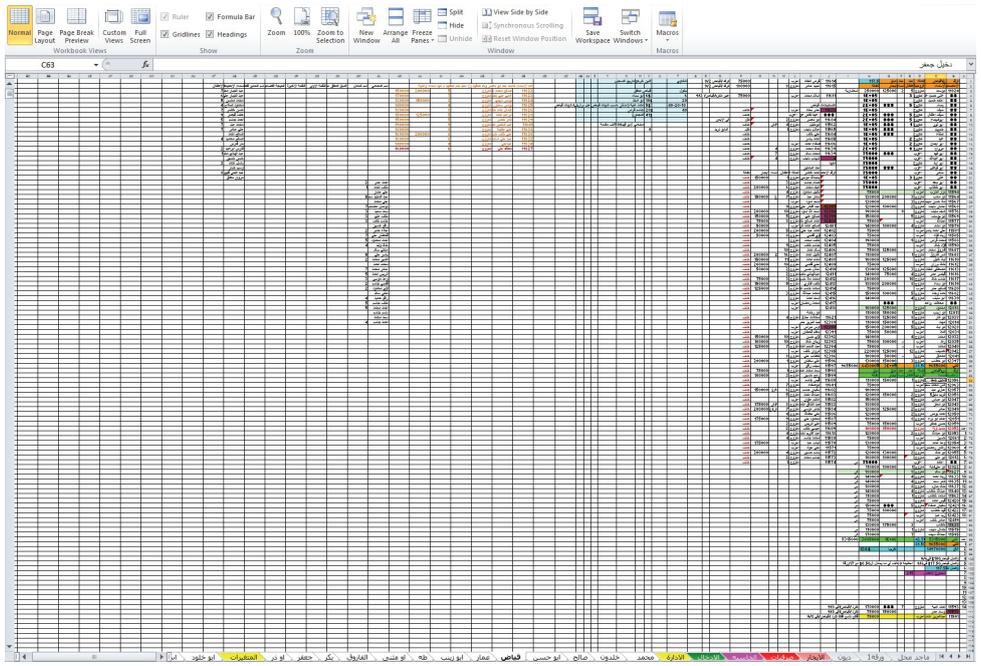
SOURCE: Harmony document NMEC-2008-614685; see "ISIL, Syria and Iraq Resources," 2015.
RAND *RR1192-9.7*

Figure 9.8
ISI Administrator Spreadsheet, 2009

عدد زوجات الراحلين	عدد اطفال الراحلين	الراحلين	عدد الزوجات	عدد الاطفال	القوة القتالية	الكتيبة /القسم
			8	18	10	تصنيع اللاكتروني
			23	57	21	الكتيبة الادارية
			14	33	13	سرية التمويل
			6	14	6	سرية الراحلين
			6	25	7	سرية ادارية
			17	29	36	أتية ابو ميسرة الغريب الاعلامية
			0	0	2	سرية اعلامية مستقلة
			10	26	14	أتية الشيخ أبو يحى الليبي الشرعية
			66	152	88	أتية أبو طلحة الحمداني فك الله أسره
			11	14	12	أتية التفخيخ
			16	61	20	أتية التصنيع العسكري
			45	109	64	أتية الشيخ أبو عبدالله الكردي رحمة الله
			51	110	59	أتية الشيخ أبو مصعب الزرقاوي رحمة الله
			5	13	5	سرية المشاجب الصحراوية)محمود حديد (
489	1478	633	0	0	0	الجند الراحلين
489	1478	633	278	661	357	الاجمالي

fighters had only 2.63. Deceased fighters, in other words, had 18 percent more dependents, on average.[28] This would be consistent with unit leaders padding their payrolls by reporting additional dependents for deceased fighters, which would have been easier to get away with than padding the payroll for active fighters who could be directly asked about their families.

Conclusion

ISI's financial practices reinforce the idea that it was a hierarchical, bureaucratic organization. Governorate and local subsidiaries transmitted 20 percent of their revenues upward. These revenues were then reallocated from high-level headquarters, to both the governorate and the national levels. Such reallocations are important because they are a potential factor in explaining AQI's and ISI's resilience to the intense

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[28] We do not have enough underlying data to determine whether this is a statistically significant difference.

military pressures they faced at various times and in various areas. Such infusions of resources might have enabled subsidiary AQI and ISI units to avoid complete annihilation or disintegration. As evidence of the vitalizing effect of such transfers, previous research on the effect of transfers to AQI sectors in Anbar governorate showed that these transfers were associated with increases in the rate of AQI attacks in recipient areas for up to the next four weeks.[29]

The group tasked its administrators with financial reporting semimonthly or monthly, which provided information that might have informed these reallocation decisions. We do not have access to documents from the period after the current leader, Abu Bakr al-Baghdadi, assumed control over ISI and its successor, ISIS. However, the organization's continued use of such calculated financial practices would have been a sound means to develop its capabilities to conduct persistent violent campaigns in Syria and Iraq, as al-Baghdadi's organization has done especially effectively in 2013 and 2014.

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[29] Bahney, Shatz, et al., 2010, pp. 57–71.

Conclusions and Implications

The Islamic State as of 2016 represented a deadly challenge to the people of the Middle East and to governments throughout the region, as well as to other countries worldwide. This organization did not arise out of nowhere. The group, which had roots in Jordan dating back to the early 1990s, has been active in Iraq since 2002. Since around 2004, the group's fundamental characteristics have apparently changed very little, as this chapter shows using more-recent information (through 2015). This means that findings about the group dating from 2005 to 2010 can help develop the strategy and methods to combat it in 2015. Its fundamental characteristics that exhibit great continuity include a desire to establish an Islamic state based on the group's vision of early Islam,[1] the use of indiscriminate violence against Shia civilians,[2] the desire to kill those they consider to be apostates or those from unprotected religions, and the view that violent jihad is necessary.[3]

In many ways, the group has fulfilled this vision, exemplified by its rule over a territory the size of Great Britain, the massacre of 1,700 Shia at Camp Speicher in June 2014,[4] and the establishment of slave

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[1]   Fishman, 2007; Bunzel, 2015.

[2]   Al-Zarqawi, 2004.

[3]   Pascale Combelles Siegel, "Islamic State of Iraq Commemorates Its Two-Year Anniversary," *CTC Sentinel*, Vol. 1, No. 11, October 2008; Bunzel, 2015.

[4]   Tim Arango, "Escaping Death in Northern Iraq: Video Feature: Surviving an ISIS Massacre," *New York Times*, September 3, 2014; Wassim Bassem, "IS Massacre Leaves Families of Victims Stunned," trans. Sahar Ghoussoub, *Iraq Pulse*, Al-Monitor, August 28, 2014.

markets, where girls from the Yazidi religion, viewed by the Islamic State as a form of devil worship, are sold for sex.[5]

Even where there seems to be dramatic change, there has been continuity. The Islamic State has unleashed a sophisticated propaganda campaign, across multiple platforms, including video, print, and social media. The analyst Charlie Winter has written that this propaganda "has generated a comprehensive brand . . . composed of six non-discrete narratives—brutality, mercy, victimhood, war, belonging and utopianism." Of these, new recruits are most drawn to the utopianism.[6] In the realm of social media, analysts found that in the last quarter of 2014, Islamic State supporters used at least 46,000 Twitter accounts, with 20 percent selecting English as their primary language.[7] As noted in Chapter Four, AQI's early organizational blueprint included media operations, and media emirs were counted as an essential position in the subnational divisions of ISI in 2008, although none of those positions was filled.

Because of the continuity of the group's goals and methods, understanding its past can help design policies and actions to limit its future.[8] This report provides a comprehensive examination of the finances, organization, personnel policies, and management of ISI, the predecessor of today's Islamic State. Working with more than 140 recently declassified ISI documents, including personnel tracking spreadsheets, expense reports, and financial logs, we analyzed

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[5] Patrick Osgood and Rawaz Tahir, "Iraq's Yezidi Minority Faces Massacre," *Iraq Oil Report*, August 6, 2014; Nick Squires, "Yazidi Girl Tells of Horrific Ordeal as ISIL Sex Slave," *Telegraph*, September 7, 2014.

[6] Charlie Winter, *The Virtual "Caliphate": Understanding Islamic State's Propaganda Strategy*, London: Quilliam Foundation, 2015, p. 6.

[7] J. M. Berger and Jonathon Morgan, *The ISIS Twitter Census: Defining and Describing the Population of ISIS Supporters on Twitter*, Washington, D.C.: Brookings Institution, U.S. Relations with the Islamic World, Analysis Paper No. 20, March 2015.

[8] See Michael Weiss and Hassan Hassan, *ISIS: Inside the Army of Terror*, New York: Regan Arts, 2015, which presents the group's background and a strong account of its recent activities.

- plans for geographic organization and state-building in northern and western Iraq
- individual-level data on the country of origin and practical qualifications of more than 499 ISI members in 2007–2008, including 393 foreign members and 106 Iraqis
- individual-level data on member status and unit assignments for 1,149 active members and 1,159 dead or imprisoned members derived from what appear to be near-complete personnel records maintained by ISI administrative emirs in Ninewa governorate in late 2007 and early 2009
- individual-level salary data on 9,271 salary payments in Anbar, Diyala, Ninewa, and Salah al-Din governorates from 2005 to 2009
- transaction-level expenditure and income records for Anbar governorate in 2005–2006, Ninewa governorate in 2008–2009, and, more modestly, two other locations.

Although neither representative nor fully exhaustive, these records paint the clearest picture available in the open-source literature of how ISI developed and implemented many of the same organizational strategies, methods, and procedures that typify how the Islamic State now operates and finances itself on a grand scale.

ISI designed its organization to be a top-down multidivisional hierarchy, in which a central management structure with functional bureaus was to be replicated at multiple lower geographic levels, as conditions permitted. As in most organizations of this type, each geographic unit had substantial autonomy, while issues requiring coordination between units—such as the allocation of resources, both human and financial—were handled by the central organization. Although this structure is associated with the unprecedented successes of the Islamic State, it does have certain inherent weaknesses and vulnerabilities that constrained and undermined ISI. The group raised money in ways that created friction with local economic elites. Moreover, the way that the group managed human resources and finances reflected an organization that lacked internal cohesion and did not fully trust its operatives. At the same time, the group created durable manage-

ment institutions that enabled it to survive massive personnel losses, high turnover of senior leadership, and an ideological break in forming ISI. After multiple failures of the Iraqi government, Middle Eastern countries, and the international community regarding policy toward Syria, as well as of the United States, coalition partners, and Iranian policymakers and operatives regarding influence over Iraqi government policies and decisionmaking, these institutions enabled the group to resurge. They put it in a position to expand its operations and capture large swaths of Syria, declare the Islamic State in Iraq and al-Sham, accelerate operations in Sunni areas of Anbar and Ninewa governorates, and ultimately to declare the Islamic State caliphate in territory spanning the Iraqi-Syrian border.

ISI applied an organizational structure that was originated by al-Qaʻida. Where al-Qaʻida built an organization focused on setting up branches around the world, ISI used this model to set up subnational jurisdictions throughout Iraq. ISI applied the model with great emphasis on controlling territory, contiguous, if possible; farming the local economy for revenue; and spreading its control and operations outward by violently applying a simple yet effective template for state-building that involved specific organizational and ideological principles and tactics, techniques, and procedures for administering territory after it had been infiltrated and subverted or overrun. From 2006 through 2010, coordinated action by the United States and coalition forces, as well as the Iraqi government, military, police forces, tribal elements, and intelligence agencies, degraded this structure, but the system was able to survive at lower levels of activity and reemerge when political and security conditions changed. This may have been due, in part, to ISI's strategic use of human capital. ISI appeared to assign roles inside the organization based on skills and beliefs. For example, foreigners were more likely than Iraqis to be true believers in ISI's ideology, and so foreigners dominated the suicide-bomber corps. In contrast, Iraqis had better local knowledge and could mix more easily with the population, and so they dominated security roles. In the remainder of this chapter, we review our key findings and discuss the implications, both for methods and policy.

Key Findings

Studying ISI's documents provides evidence on several aspects of how one particular jihadist militant organization worked and highlights its ultimate limitations. To the extent one believes that ISI faced a set of organizational imperatives and challenges common to terrorism and insurgency, and that the Islamic State today faces the same challenges while increasing its global influence by expanding across many Muslim countries, analysis of ISI also provides possible ideas about how other jihadist groups may try to organize and finance themselves under the Islamic State's banner. The lessons from examining the group's history are also useful for setting expectations about the strengths and vulnerabilities of the Islamic State and its ability to combat its opponents, designing a coordinated and effective campaign against it, and understanding why it might be able to survive such an effort and sustain itself into the future, albeit perhaps at a lower level of threat.

Militant Organization Structures and Management Practices

Four facts about militant management stand out in our analysis. First, this report reinforces the idea that rebel and insurgent organizations need hierarchical governance to operate at scale. Both AQI's and ISI's organizational structures resembled those designed by al-Qaʿida in the 1990s, when al-Qaʿida was engaged in training jihadis to export Salafi-jihadist militancy to establish Islamic emirates in far-flung parts of the Muslim world. As of 2008, ISI had articulated its governance of Iraq in great detail, subdividing the country into sectors, defining governing positions for each of those sectors, and recording which positions were filled. As of 2015, the most-authoritative reporting on the Islamic State suggested that these basic structures have remained largely the same. The group's managerial responsibilities and structures have remained almost identical despite many changes on the battlefield, although the Islamic State appears to have added more bureaucratic subsidiaries to exploit opportunities and deal with requirements associated with the expanded territory it controls. The Islamic State might have lacked the ability to reorganize when its original blueprint failed, or the hierarchical structures we observe might have remained intact because of their

robustness and suitability to the Islamic State's aims and objectives. The latter argument appears far more likely to be correct, given how adaptive the Islamic State and its predecessors have proved in tactical proficiency and operational planning and execution.

Second, rationally managing human resources in these settings, although challenging, was a characteristic of ISI. Examples include its use of foreign fighters versus Iraqi personnel and its use of tracking spreadsheets that listed personnel qualifications and a bit about their operational histories. We also found evidence of substantial mobility over space and between units. There appeared to be limits, however. We found no documents reporting centrally directed efforts to allocate members to specific jobs. Given the systematic way that financial matters were recorded, this gap is surprising. It suggests that personnel allocations were made at lower levels, or in a more ad hoc manner, based on members' relationships with specific emirs or on members' general reputations.

Third, some of the unexpected aspects of the groups' compensation and financial schemes—its low salaries, for example—were potentially useful for managing agency problems. In particular, having salary structures that emphasized equity and making payments to the families of killed or detained militants makes sense from the perspective of managing internal agency problems. These are the problems leaders face in getting their followers to carry out orders when the leaders do not have complete control over followers' actions. Policies regarding expense reporting make sense from the same perspective. Although creating a paper trail and courier networks exposed the group to great risk of exposure, those practices also gave leadership greater control. And, as we showed in Chapter Nine, there is some direct evidence of corruption in ISI.

Fourth, although ISI's management and information reporting requirements appeared quite systematic for an ostensibly covert militant organization, they pale in contrast with those of even modestly capable state militaries and other government bureaucracies. For all of ISI's attempts to document its human resources, finances, attack and military operations, and other facets of its organizational activities, such reporting occurred in piecemeal fashion, with a proliferation of

nonstandard formats for reporting, even during periods when administrative officials were trying to enforce common standards.

All of this makes sense from an organizational theory perspective. Even highly effective militant organizations face substantial management challenges. These organizations recruit a diverse workforce willing to violate all manner of behavioral norms, particularly if employing foreign fighters, and have to operate under challenging conditions with limited oversight. In such conditions, it is hardly surprising that these groups have a great deal of trouble making sure members behave as the organizations want at all times. Our documents clearly show that AQI and ISI were no different, and there is no reason to believe that the Islamic State is either.

But as the long-run history of the predecessors of the Islamic State shows, one should not mistake those challenges for an inability to endure and regenerate. The group took enormous losses from 2006 to 2010 but was able to maintain its command and control structures, send trained members and leaders into a neighboring country twice—once as Jabhat al-Nusrah and once under its own command—and return to take control of large swathes of territory from western Iraq to eastern Syria.

Insurgent and Terrorist Financing

The most important lesson from ISI's revenue-raising practices is that insurgent groups do not need external backers if they can tax the economy. As of mid-2015, the Islamic State reportedly generated more than $1 million per day in extortion and taxation, about $1.3 million per day from oil smuggling and other means of farming the oil sector, and additional revenues from kidnapping for ransom, antiquities smuggling, and bank heists.[9] Oil had at one point generated $1 million, and even up to $3 million, per day in revenue, and the Islamic State has been described since its reemergence as the richest terrorist group

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[9]   Sarah Almukhtar, "ISIS Finances Are Strong," *New York Times*, May 19, 2015; Michael R. Gordon and Eric Schmitt, "U.S. Steps Up Its Attacks on ISIS-Controlled Oil Fields in Syria," *New York Times,* November 12, 2015.

on the planet.[10] Faced with an accelerated effort to attack its oil assets starting in late 2015, the Islamic State was still reportedly earning as much as $1 million per day from oil assets in April 2016.[11] Neither AQI nor ISI generated revenue on this scale during the period in our documents. According to the AQI and ISI ledgers analyzed for this study, AQI in Anbar governorate generated an average of $18,000 per day from June 2005 through October 2006 (including one revenue transaction on November 1, 2006). ISI in the Mosul area of Ninewa governorate generated an average of about $31,000 a day—a 72-percent increase over time. These are governorate revenues, but even so, it is highly unlikely that additional revenues from other governorates would have amounted to the total the group is taking in today. For the group as a whole before 2010, oil smuggling might have netted ISI $200 million annually—almost $550,000 per day—with $50,000 to $100,000 per day coming from operations related to the Baiji refinery in early 2008.[12]

These daily revenues were far lower than the current estimates of the Islamic State's daily revenues in mid-2015. This should not be surprising; ISI controlled far less territory and thus had fewer opportunities to tax or directly take over crude oil production and refineries, as it reportedly has done in Syria; to sell oil and gas to the Syrian regime and others throughout Syria; or to demand a cut from intermediary black-market actors that smuggle oil through northern Iraq and into Turkey.[13] By 2008, however, profits from involvement in Iraq's black-market oil sector were already one of ISI's top two sources of revenue.

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[10] Johnston and Bahney, 2014c; Vivienne Walt, "How Guns and Oil Net ISIS $1 Million a Day," *Fortune*, June 24, 2014; Howard J. Shatz, "How ISIS Funds Its Reign of Terror," *New York Daily News*, September 8, 2014a; and Howard J. Shatz, "To Defeat the Islamic State, Follow the Money," *Politico Magazine*, September 10, 2014b.

[11] Benoit Faucon and Margaret Coker, "The Rise and Deadly Fall of Islamic State's Oil Tycoon," *Wall Street Journal*, April 24, 2016.

[12] Ayman Oghanna, "Corruption Stemmed at Beiji Refinery—But for How Long?" *Iraq Oil Report*, posted by Alice Fordham, February 16, 2010; Oppel, 2008.

[13] See, e.g., David E. Sanger and Julie Hirschfeld Davis, "Struggling to Starve ISIS of Oil Revenue, U.S. Seeks Assistance from Turkey," *New York Times*, September 13, 2014; Erika Solomon, Guy Chazan, and Sam Jones, "ISIS Inc.: How Oil Fuels the Jihadi Terrorists,"

The group's transition from relying on petty crime, to more sophisticated mafia-style protection rackets, to direct involvement in oil production and smuggling reflects the organization's gradual improvement in revenue collection.

Access to funding is important to the Islamic State—militant groups that become significant threats to U.S. national security are those that both establish safe havens in which operations and attack planning can be conducted freely and have the resources necessary to finance external operations. Historically, terrorist groups have pursued these prerequisites through external state sponsorship—for example, the Taliban provided al-Qa'ida under Usama Bin Ladin with a safe haven in Afghanistan after Bin Ladin was forced to leave Sudan in the mid-1990s. Al-Qa'ida raised money from foreign donors, among other sources.

ISI and its successor, the Islamic State, are different. In the case of ISI, the group explicitly noted that gaining external backers imposes substantial liabilities and gives the backers leverage over the organization.[14] It and the Islamic State rely largely on taxing economic activity in areas they control, or at least where they can pose a serious threat of violence against those being taxed. As the group's survival from 2010 to 2012 shows, such revenue generation can clearly happen in a sustainable way, even in the presence of a substantial counterterrorist campaign. But ramping up taxes to high levels can only happen when militants have a substantial measure of control in an area and can operate with relative impunity, as the Islamic State has had in northern Iraq between June 2014 and mid-2015. Such taxation cannot be conducted without revealing an organization's forces to outside observers. It can also not be done without the organization interacting with the community. At minimum, the people being taxed will know something about the organization, and the organization's tax collectors must expose

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Financial Times, October 14, 2015; and Erika Solomon and Ahmed Mhidi, "ISIS Inc.: Syria's 'Mafia-Style' Gas Deals with Jihadis," *Financial Times*, October 15, 2015.

[14] See, e.g., Harmony document NMEC-2008-612449, "Analysis of the State of ISI," a declassified captured document about ISI's "lessons learned" (from both its own and other Islamic militant organizations).

themselves. This therefore opens up the organization to counteraction by an adversary with the ability to act in the group's territory, as many states with effective air power and special operations forces can do.

Compensation and Participation in Militant Organizations

ISI had a well-developed payroll system with clearly defined salaries. This should not seem odd. Even the most dedicated jihadis need to make a living. In the context of a violent insurgency where large numbers of fighters need to be recruited, people with families and other financial obligations are a valuable labor source, both because any group that cannot recruit them has a smaller labor pool to draw from and because success in marriage markets correlates with human capital in most places.

But ISI did not pay competitive wages. Nonmonetary compensation must therefore have been a big part of the overall package for ISI fighters. In fact, pay was often lower in places with higher levels of fighting and during periods when combat was more intense. This suggests two possibilities: either (1) the group's members have negative risk premiums (so that martyrdom risk is an amenity) or (2) there were substantially more people willing to fight for the group in 2006, when the war was going relatively well, than in 2008, when it was not, and therefore their risk-adjusted pay had to be higher later in the war.

All of this poses a challenge for traditional opportunity-cost models of conflict. In such settings as this one, improvements and declines in the legitimate economy might be immaterial to the population being recruited. The information in these documents can therefore help make sense of the positive relationship between employment and violence observed in Iraq.[15]

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[15] Eli Berman, Michael Callen, Joseph H. Felter, and Jacob N. Shapiro, "Do Working Men Rebel? Insurgency and Unemployment in Afghanistan, Iraq, and the Philippines," *Journal of Conflict Resolution*, Vol. 55, No. 4, 2011.

Implications and Recommendations for Analysis

The implications of this study can be broken down into two categories: methodology and policy. We first address the methodology issues and then close with policy implications. The methodological considerations are simple: More systematic study of captured documents and media is necessary to gain the fullest possible understanding of the threat that groups such as the Islamic State actually pose. There is a gap in both the policy and academic analytic cycle—neither group combines in-depth analysis with the kind of theoretical sophistication that lets one draw broader lessons. We have made some progress on this score, but much more could be done. There are substantial limitations on what can be achieved analytically and inferentially in a study such as this because of the limited availability of documents, as described in Appendix A.

Greater collaboration between government analysts and social science researchers—including subject-matter experts, experts on methodology and theory, and linguists—on documents and media that have been obtained from militant groups (jihadist militant groups in particular) could be extremely productive. Government analysts can gain from a better conceptual framework—ideally one supported by systematic analysis of data—with which to interpret and contextualize real-time, tactical information as they receive it. This is particularly true for threat groups such as ISI, where strategic questions are of great importance and for which analysts may lack substantial background knowledge and a good intelligence picture of the details and actors in play on the ground[16] or knowledge of advanced methodologies.

Systematic document exploitation can provide a valuable adjunct to other forms of collection and analysis about militant groups. Document exploitation may be undervalued, as exemplified by the closure of the Conflict Records Research Center, a document repository at the National Defense University.[17]

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[16] The massive focus on the group from 2005 to 2010 was not sustained after the U.S. withdrawal from Iraq.

[17] Michael R. Gordon, "Archive of Captured Enemy Documents Closes," *New York Times*, June 21, 2015; Mark Stout, "Understand Our Wars and Enemies? Nah . . ." *War on the Rocks*, August 21, 2013.

Documents can provide a portrait of how the organization works and what its weaknesses and strengths are. They can identify important nodes of communication. They can identify the organization's plans and its strategy—in the case of ISI, the documents show clearly an organization intent on state-building. The usefulness of document exploitation should not be surprising. Societies have long understood the value of archives, and the operational value of documentation is substantial, albeit short-lived.

To be maximally useful, however, such document collections need to be

- large scale, so that the representativeness of documents is discernible[18] (scholars need to be able to assess whether any given document is normal or a unique outlier)
- well documented, since high-quality metadata enable thoughtful sampling strategies and the efficient selection of documents for closer inspections.

There are substantial challenges to achieving these goals. Maintaining large-scale document collections is expensive, and consistently recording metadata at the collection point entails practical challenges in high-intensity operational environments. These challenges, however, are predictable, and, given the long-run value of understanding insurgent and terrorist organizations, future collection efforts should keep in mind these twin imperatives.

Systematic document exploitation also needs people with multiple skills. We have found that to get the most out of any document set, it is valuable to have practiced intelligence analysts, social scientists, translators, and military personnel with battlefield experience. This argues for carefully building analytic teams for document exploitation.

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[18] Technically, we would want to know the distribution of documents, as in the probability distribution. This would shed light on how common are such documents as large-scale financial spreadsheets, personnel rosters, and reimbursement notes. Without knowledge of such a distribution, we cannot definitively conclude that the findings from a document analysis apply to the group as a whole over a long period or only to the specific faction of the group that generated those documents at the time they were generated.

Implications and Recommendations for Policy

In spite of the Sunni Awakening movement in 2006, the U.S. troop surge in 2007, and a campaign of highly refined U.S., coalition, and Iraqi counterterrorism operations that badly damaged ISI, the group was strong enough to persist. A successful strategy against the Islamic State will comprise many elements. Militarily, these elements will include direct action against the group; training, advising, and assisting troops involved in the fight; and providing arms, intelligence, and other support. Socially, deradicalization efforts are needed, not only in Iraq and Syria but throughout the world.

A full understanding of the group's traditional goals, management methods, human resource policies, and financial practices, as analyzed in this report, can also inform a counter–Islamic State strategy. In fact, such an understanding can point out vulnerabilities and avenues for eroding the group's power and influence.

Organization and Territorial Control

ISI's organization mirrored that of traditional, legitimate states and organizations in many respects, even though the group's ideas about statehood, the rights of citizenship, and the provision of public goods were quite different from those of legitimate states. The reasons why are simple: This is the most effective way to organize collectively across a large area of strategic importance. Such structures also signaled to enemies and allies that the group looked like a state. And, most important, establishing a state was a goal, one that has been approximately realized.

By 2008, ISI had articulated 31 specific geographic subdivisions of its Islamic State of Iraq, building on previous pronouncements of founding an Islamic state. By 2015, the Islamic State had declared 33 *wilayat*, or provinces, throughout the greater Middle East, including ten in Iraq, seven in Syria, two spanning the border of Iraq and

Syria, six in Yemen, three in Libya, and one each in Saudi Arabia, Algeria, Egypt, Afghanistan-Pakistan, and Nigeria.[19]

The combination of cognitive constraints on leadership, high turnover from warfighting, efforts to establish state-like services, and problems within the organization regarding the translation of management intent to member operations—the organization's agency problems—all point to great value in having formalized organizational structures and substantial amounts of paperwork and record keeping. This could well apply to any nonstate group striving to establish a state. In the case of the Islamic State, the persistence of such structures—and their likely extension to affiliates in Libya, Egypt, Afghanistan, and elsewhere—creates substantial vulnerabilities.

In particular, the resulting documents create a vulnerability as soon as groups face an enemy whose military forces cannot be excluded from their territory. These documents can show a group's size, its specific personnel, its sources of revenue, and its overall strategy—all information useful for combating it. Thus, when the Islamic State, or any similarly sized group, faces a highly competent military force, all the things it does to organize well become a major vulnerability. As we have shown, the group's records are particularly rich. A short organizational instruction from 2007, or earlier, doubled as an instruction for generating documents. The main responsibilities of the finance department were to

1. Open and Maintain a Register for the incoming documents

2. Open and Maintain a Register for the outgoing documents

3. Incoming status report with the Daily situations

4. Outgoing status report with list of monthly miscellaneous expenses.[20]

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[19] Aaron Zelin, "The Islamic State's Model," *Monkey Cage*, *Washington Post*, January 28, 2015a; Aaron Zelin, "Full List of the 33-Officially-Claimed Wilayat of the Islamic State as of Today," Twitter, June 20, 2015b.

[20] Harmony document MNFT-2007-005313; see "ISIL, Syria and Iraq Resources," 2015.

The main responsibilities of the soldiers department were to

1. Tally the number of active, non-active fighters, captures and martyrs who pledged their life for the cause only plus sectors miscellaneous expenses

2. Following up the fighters rental expenses

3. Following up the Fighters marriage Issues

4. Following up the pledges of the new comers (fighters)

5. Daily status report about any changes in the fighters situation such as number captured, killed, injured, marriage.[21]

For the intelligence vulnerabilities of an actor such as the Islamic State to be exploited, there must be commensurate efforts in intelligence collection, analysis, counterterrorism, and counterinsurgency. U.S.-led coalition forces were able to do this successfully, most notably by task forces of U.S. and British special operations forces. The commitment of resources to countering AQI and ISI was significant, however, compared with most intelligence efforts. For a similar intelligence and operational capability to be established by ISF, and in particular, Iraqi special operations forces, will require significant capacity-building on the analytical side, as well as substantial support from other parts of the U.S. government interagency community. Specific capabilities necessary include financial investigations, which would be supported by the U.S. Department of Treasury. They also include street-level investigative capacity necessary to counter criminal-like activities by the Islamic State, which provide a revenue stream and help it control the Iraqi population in areas where it operates. Support from the U.S. Federal Bureau of Investigation and the U.S. Drug Enforcement Administration, or similar agencies from other countries, to the Iraqi government could help a great deal. On the collection side, the vulnerability that stems from running a highly bureaucratic state suggests

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[21] Harmony document MNFT-2007-005313; see "ISIL, Syria and Iraq Resources," 2015.

that when members of the group are targeted for capture, emphasis should be put not only on the leadership but on personnel who maintain and store records, such as administrative emirs.

As with any state, the Islamic State has specific leaders. The history of operations against ISI shows that leader targeting is one effective aspect of combating the group. First, it removes competent people, potentially leading to a pause in operations or to less effective operations as the group finds replacements. Second, it damages morale, especially when a particularly charismatic leader is targeted. ISI's contracting revenue fell steeply in October and November 2008, after the ISI deputy Abu Qaswarah was killed. Morale was also damaged.

Also, the very threat of targeting at any level pushes the group underground and makes it more difficult to coordinate actions. It can also breed fear. An ISI strategist writing in late 2007 or early 2008 noted the effects of U.S. and coalition targeting operations on group morale, cohesion, and operations:

> These kinds of Emirs started setting fear in the hearts of Muja-hidin [person who performs jihad, in this case an ISI member] through their description of American airdrops [insertion of troops by air], their air superiority and armored vehicles and Hummers, and that we are lacking the effective weapon for confronting them, to include that we are outnumbered and they are better equipped. As soon as the brother Mujahid hears these words about the Americans, fear starts creeping into his heart, as if the Americans were on foot, and one begins comforting himself with the idea of the Americans definitely pulling out and no one else being left except the apostates [the Shia and the Iraqi government and its institutions] who they will extract from their roots.[22]

Eliminating leaders has two problems. First, it can backfire by paving the way for more-effective leaders. The 2010 U.S. and Iraqi raid that killed Abu Ayyub al-Masri and Abu Umar al-Baghdadi cleared the way for Abu Bakr al-Baghdadi to take the reins of the group, and he is the current leader. This is a problem that cannot be solved, and

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[22] Harmony document NMEC-2008-612449; see "ISIL, Syria and Iraq Resources," 2015.

we suggest that, in general, the benefits of eliminating leadership have outweighed the risks.

Second, the group's records show that it establishes a deep bench of personnel, so that attacking individual leaders will not destroy the group. Organizational charts from Anbar and Mosul at different periods show committee structures, and ISI reallocated people across units and into back-office functions when needed. Therefore, any counter-personnel strategy must strive to eliminate entire layers of high-level and midlevel managers, such as an administrative emir and his administrative committee.

Countering the Islamic State's Fighters

Just as its predecessor did, the Islamic State draws its personnel from a diverse array of nationalities. Although no one, except, perhaps, the group's leaders, knows its membership numbers, membership has been estimated at anywhere from 9,000 to 200,000 throughout 2014 and 2015.[23] In September 2014, a Central Intelligence Agency spokesperson said that the group had an estimated 20,000 to 31,500 fighters and that about 15,000 foreign fighters from 80 countries, including 2,000 Westerners, had gone to Syria.[24] By early 2015, the U.S. intelligence community estimated that 20,000 foreign fighters from 90 countries have flowed into Syria since 2011, and more than 3,400 fighters from Western countries have gone to Syria or Iraq.[25] Many have joined the Islamic State. Not only do they tend to be the most ideologically committed but they also represent a threat to their own countries should

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[23] Daveed Gartenstein-Ross, "How Many Fighters Does the Islamic State Really Have?" *War on the Rocks*, February 9, 2015.

[24] Eyder Peralta, "CIA Doubles Its Estimate of Islamic State Fighters in Iraq and Syria," NPR.org, September 11, 2014; Mario Trujillo, "CIA: ISIS Has 20,000 to 31,500 Fighters," *The Hill*, September 11, 2014; Jim Sciutto, Jamie Crawford, and Chelsea J. Carter, "ISIS Can 'Muster' Between 20,000 and 31,500 Fighters, CIA Says," CNN.com, September 12, 2014; Michael Walsh, "ISIS Can Muster 20,000 to 31,500 Fighters, Triple Previous Estimates: CIA," *New York Daily News*, September 12, 2014.

[25] James R. Clapper, "Opening Statement to Worldwide Threat Assessment Hearing," Senate Armed Services Committee, Washington, D.C.: Office of the Director of National Intelligence, February 26, 2015.

they try to return home. During the period of our documents, ISI was placing people into jobs and giving them training in an apparently intentional manner. ISI was also using them rationally. Iraqis, who had local knowledge and could blend into their communities, were the primary staff members of security functions—running counterintelligence operations, handling street-level financial activities, and protecting leadership. In contrast, foreigners, more likely to be true believers, were the primary fodder for the suicide-bomber corps. However, most foreigners held regular jobs in ISI, working in military roles and conducting terrorist operations.

Since 2012, the operating environment and mission for ISI have dramatically changed, and it has rebalanced its activities to more-traditional military operations using small arms, artillery, and maneuver in numbers. Under the new scale of operations, Iraqi and Syrian recruits appear to be playing an active role in planning and leading military operations, because the Iraqi members, especially, are more educated and have more experience with traditional military affairs from their time in Saddam Hussein's military.

Even with this reliance on local members, characteristic of other periods during the group's history, the group has a continuing need and use for foreigners. For example, the group has been advertising as far as North Africa for skilled oil field technicians.[26] And it is thought that it has been recruiting chemical weapons specialists.[27]

Furthermore, the Islamic State's ideology and its outward image are based on Salafi jihadism, in the vein of what some scholars have called a *foreign-fighter ideology*. This ideology is based on the idea that an existential external threat faces the Muslim nation—in this case, the coalition force and the Shia-dominated government of Iraq—and that Islamic law demands that all Muslims fight back militarily.[28] In

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[26] John C. K. Daly, "Operation Inherent Resolve: The War Against Islamic State's Oil Network," *Terrorism Monitor*, Vol. 13, No. 1, January 9, 2015.

[27] Jane Norman, "Islamic State Recruiting 'Highly Trained Professionals' to Manufacture Chemical Weapons, Julie Bishop Warns," *ABC (Australia)*, June 6, 2015.

[28] Thomas Hegghammer, "The Rise of Muslim Foreign Fighters," *International Security*, Vol. 35, No. 3, Winter 2010–2011.

this light, the Islamic State has long had a natural tension between the skills and ideology of the local Iraqi (and now Syrian) members and the foreign fighters who have joined the fight from abroad.

The use of foreigners should raise great concern to policymakers. Contrary to reports that ISI groomed the vast majority of its foreigner fighters for suicide operations in the pre-2010 period, it trained a large share of the foreign fighters who traveled to Iraq in the arts of unconventional military operations, bomb-making, and IED attacks. Assuming that the Islamic State has continued to train foreigners in the manner we see in these documents, the organization has developed a group of trained and hardened foreign fighters with unconventional skills that could be directed against other countries. As other scholars have pointed out, a majority of transnational terrorist operatives to date began their careers as foreign-fighter volunteers, and most transnational jihadist groups are by-products of foreign-fighter mobilizations.[29] An obvious concern for Western policymakers is that Muslims are traveling from North America and Europe to Iraq and Syria to join the Islamic State in far greater numbers than were ever conceivable in the 2005–2010 period. Returned travelers pose a serious threat in terms of conducting attacks and spreading the ideology and methods of jihad in an attempt to radicalize elements of the predominantly moderate Muslim populations of these countries. These travelers also pose a continued threat, because of intelligence gaps concerning the Islamic State's radicalization and recruitment of Western citizens and the ability of Western citizens to travel to and from their home countries with few legal restrictions.

As of 2015, the Islamic State is training jihadist fighters—as many as two-thirds of them foreign—in camps it has established in Iraq and Syria at roughly ten times the rate ISI was able to. Available reporting indicates that, at times, ISI had as few as four (or possibly even fewer) training camps in Iraq. By November 2014, 46 jihadist training camps,

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[29] See Mohammed Hafez, "Jihad After Iraq: Lessons from the Arab Afghans," *Studies in Conflict and Terrorism*, Vol. 32, No. 2, February 2009, p. 77; Thomas Hegghammer, *Jihad in Saudi Arabia: Violence in Pan-Islamism Since 1979*, Cambridge, UK: Cambridge University Press, 2010.

the majority attached to the Islamic State, had been identified in Iraq and Syria.[30] We found that foreigners were more likely to have received jihadist training than were Iraqis during the ISI era. One of the causes likely was the difficulty of training ISI members inside Iraq at the time. Training is almost certainly easier to conduct at present in Iraq and especially in Syria.

Therefore, greater effort will need to be dedicated to stopping the flow of foreign fighters. This has already started but is clearly not working well, because foreign fighters are still flowing in. Several enhanced efforts are needed. The first is enhancing border controls in transit countries—Turkey, most especially. This may require greater technical assistance and further negotiations by partner countries, the United States, and North Atlantic Treaty Organization allies in Europe. Whatever benefit Islamic State action against Syrian President Bashar al-Assad brings to Turkey, the group may represent a serious future threat to Turkey itself. After all, Assad did little to stem the flow of foreign fighters through Syria to Iraq and, consequently, ISI in the 2000s, and his population is paying for that policy today.

The second effort is greater scrutiny of potential members from sending countries. For some countries, this will require a careful balancing between security needs and civil liberty requirements. Stopping people from arriving at the territory of the Islamic State also means stopping people from being trained and increasing the ability to learn about fighter-facilitation networks.

Both of these efforts will be enhanced by a third: greater information sharing among intelligence and law-enforcement organizations, both within and across countries. Here again, civil liberty requirements and values will need to be honored. However, it is likely that more sharing can take place because of various stovepipes among agencies that have not been fully overcome.

In the wake of the Lebanon and Paris attacks in November 2015, it is now clear that the Islamic State has dedicated real resources to foreign targets, including in the West. The Islamic State appeared to

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[30] Bill Roggio and Caleb Weiss, "More Jihadist Training Camps Identified in Iraq and Syria," *The Long War Journal*, November 23, 2014.

shift its posture against the West after the coalition intervened in the Iraq conflict, as signified by the group spokesperson Muhammad al-Adnani's speech in September 2014, in which he called for Muslims to strike at coalition targets—military or civilian—wherever they are found. He also specifically alluded to the group "drawing and dragging" America into a ground war.[31] Subsequent to this speech, a number of Islamic State–linked attacks occurred in coalition countries—including Canada, Belgium, France, and Australia. Al-Adnani released another speech in January 2015 lauding these attacks and encouraging more.[32] French authorities have indicated that Islamic State militants began organizing in Europe 11 months before the Paris attacks, suggesting that the attacks were authorized shortly after al-Adnani's speech some-time around January 2015.[33]

The Islamic State has long dedicated significant resources to train-ing foreign fighters for combat. If it decides to deploy more of these fighters against coalition countries to deflect battlefield losses in Iraq and Syria, for example, it could be a challenge for policymakers not to escalate their military commitment against the group, leading to a dif-ficult quandary: A significant foreign intervention could be the most militarily effective action against the group, but it could also further exacerbate the conflict by empowering the foreign-fighter ideology, mandating a defensive jihad against an external threat to the Muslim nation.

Taking Advantage of Compensation Policies

One of the biggest unknowns about the current structure of the Islamic State is how well it compensates its members. Numerous reports pub-lished in the months after the group conquered Mosul indicated sala-

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[31] Abu Mohammad al-Adnani, "Indeed Your Lord Is Ever Watchful," Al-Furqan Media Productions, September 22, 2014.

[32] Abu Mohammad al-Adnani, "Die in Your Rage!" Al-Furqan Media Productions, January 2015.

[33] Andrew Higgins and Kimiko de Freytas-Tamuranov, "Paris Attacks Suspect Killed in Shootout Had Plotted Terror for 11 Months," *New York Times*, November 19, 2015.

ries ranging from $400 to $1,000 per month.[34] If true, this would be a dramatic break from the group's previous practices. However, new evidence has arrived that suggests that, in actuality, as with other practices, compensation practices have remained similar for more than a decade.

In an interview with the BBC in 2015, a captured senior member said that of the group's 50,000 core fighters, an "Iraqi fighter would be paid $65 [a month]. If married an additional $43 [and] for each child $22." A foreign fighter would not receive a wage, but would be "given food and housing, not money."[35] Further evidence has appeared suggesting that the Islamic State has been paying fighters "$50 a month, with an additional $50 for each wife, $35 for each child, $50 for each sex slave, $35 for each child of a sex slave, $50 for each dependent parent, and $35 each for other dependents."[36] These sums are in line with what fighters received in Anbar in 2005 to 2006 and Mosul in 2008, perhaps adjusting for inflation. There are other constants. Just as a fighter in Anbar governorate in 2005 to 2006 was to receive between $500 and $1,000 upon getting married,[37] indications are that fighters getting married in 2015 receive $500 to $1,500.[38] Again, this is close to previous practice.

Even with a flat salary structure, there was some uncertainty in our documents as to whether fighters were receiving additional amounts as rewards for performance. The prevailing pattern is that, for most fight-

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[34] "Islamic State Group Sets Out First Budget, Worth $2bn," *Al-Araby al-Jadeed*, January 4, 2015; Sarah Birke, "How ISIS Rules," *The New York Review of Books*, December 9, 2014; Yaroslav Trofimov, "In Islamic State Stronghold of Raqqa, Foreign Fighters Dominate," *Wall Street Journal*, February 4, 2015; "ISIS Pays Foreign Fighters $1,000 a Month: Jordan King," *NBC News*, September 22, 2014.

[35] Heather Saul, "Senior ISIS Leader Gives Televised Interview Revealing Exactly How Group Amassed Its Fortune," *Independent*, April 22, 2015.

[36] Aymenn al-Tamimi, "A Caliphate Under Strain: The Documentary Evidence," *CTC Sentinel*, Vol. 9, No. 4, April 2016, p. 3.

[37] Harmony document MNFA-2007-000566; see "ISIL, Syria and Iraq Resources," 2015.

[38] Sarah El Deeb, "For an IS Fighter, a Paid Honeymoon in the Caliphate's Heart," Associated Press, May 26, 2015.

ers, individual salaries were, and likely still are, very low and are not adjusted for performance or risk.

This suggests that many fighters are not necessarily living well and that the group is largely able to maintain morale through appeals to ideology, through victories, and through intimidation. Conflicting reporting on the salaries paid by the Islamic State to its members means that we cannot disconfirm the possibility that, after its resurgence, the Islamic State adopted a substantial policy change on compensation. If we are right, however, this fact also suggests that causing a cutoff of salaries could harm morale within, and support for, the Islamic State for a failure to deliver on promises made to recruits. This could be even more damaging if combined with evidence that some leaders were embezzling money that could have been used to deliver on promises to support families of Islamic State members who were killed or detained and unable to receive support directly from the group.

Analysis of multiple sets of ISI master financial ledgers reveals that ISI did miss or delay salary payments to its members, usually during periods of aggressive and multifaceted operations to degrade the group's senior and midlevel leadership and to push the group out of territories where it had previously enjoyed strong control.

Countering Finances

Today, as it did from 2005 to 2010, the Islamic State raises money through what can be largely characterized as criminal activities.[39] These include oil sales and smuggling, sales of stolen goods, extortion, taxation, sales of looted antiquities, kidnapping for ransom, and even, for a time, taking a cut of the money Iraq sends to its employees in Islamic State territory.[40] Donations, as before, appear to constitute only a small portion of revenues. And that is the key point: What has characterized the group throughout its history and what appears to characterize the

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[39] Shatz, 2014a.

[40] Financial Action Task Force, "Financing of the Terrorist Organisation Islamic State of Iraq and the Levant (ISIL)," February 2015. Iraq is reported to have cut off salary payments as of summer 2015, although this might have been only for Ninewa governorate, and not for Anbar governorate (Mirren Gidda, "ISIS Is Facing a Cash Crunch in the Caliphate," *Newsweek*, September 23, 2015).

group today is that it places a premium on local fundraising because that gives it maximum control. Fundraising also allows the group to look more like a state. Its taxation activities, including road tolls and export and import taxes, resemble what any state might do.

This means that control of territory will play an important role for the coalition, as will working with local and regional partners to develop better financial intelligence on the Islamic State. Short of territorial control—and even with territorial control—local fundraising means that halting financial flows will remain a challenge. But there are steps the coalition can take.[41]

Oil sales have been dealt a blow by the coalition's destruction of oil infrastructure and the recapture of some oil fields, but it still brings in considerable revenue. In addition, the Islamic State controls other resources, including gas fields and, as of May 2015, two Syrian phosphate mines.[42]

We note that the Islamic State might not be capitalizing directly from all the resources it owns. Even if it is not selling them, control of resources allows it to cut off funds that its enemies might have earned, primarily the legitimate government in Iraq or the Assad regime in Syria. Furthermore, control of resources allows the Islamic State to punish its enemies. In June 2015, an Islamic State embargo of fuel to rebel-held areas of Syria caused severe fuel shortages, harming hospitals, stopping ambulances from operating, and closing bakeries.[43] Even if the coalition cannot return resource flows and revenues to where they are most needed or to their rightful owners, there is still great value in stopping their use for revenue raising by the Islamic State.

Moving resources, such as oil, refined oil products, phosphates, and even antiquities, requires intermediaries and transport. To broaden

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[41] Patrick B. Johnston, "Countering ISIL's Financing," testimony before the Committee on Financial Services, U.S. House of Representatives, Santa Monica, Calif.: RAND Corporation, CT-419, 2014.

[42] Ruth Sherlock, "ISIL Seizes Syrian Regime's Lucrative Phosphate Mines," *Telegraph*, May 27, 2015.

[43] Ben Hubbard, "ISIS-Imposed Fuel Embargo Threatens Syria's Medical Centers," *New York Times*, June 18, 2015b.

the fight against the Islamic State's revenues, the coalition will need to identify the intermediaries and end purchasers and either target them or sanction them and their financial institutions. It is unlikely that the Islamic State is using formal financial institutions. Therefore, greater efforts against informal financial institutions and other means of transferring cash may need to be taken.[44] But somewhere along the sales chain, a formal financial institution may be involved. Sanctioning an intermediary would mean blocking access to the formal financial system and requiring formal financial institutions not to deal with this intermediary. Sanctioning a formal financial institution will cut that institution off from the international financial system. Such sanctions have been effective in the past, and in this case, a wider net should be cast.

As for transport, oil, in particular, must move by trucks from Islamic State territory. These trucks will load at an oil field and, for larger trucks, will take specific roads. Given the amount of money the Islamic State is reportedly raising from oil sales, the coalition should elevate efforts to interdict oil transport. This could involve destroying loading points, destroying road entrances to oil fields or loading points, destroying the trucks themselves, or sending a very strong signal, backed with action, that driving an oil truck would be an extraordinarily risky occupation.

Finally, it might be the case that politicians or government officials, even of the anti–Islamic State coalition, are complicit in the oil trade. Any oil truck leaving the Islamic State territory must pass through checkpoints or border crossings and should be noticed or recorded. Further investigation into how such trucks are able to get through checkpoints is merited, and official complicity in this should be addressed.

There may be little that the coalition can do regarding other Islamic State funding sources, and stopping such sources could actually be counterproductive. For example, the fact that the group had been siphoning potentially hundreds of millions of dollars per year from the

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[44] Patrick B. Johnston and Benjamin Bahney, "Opinion: Hit the Islamic State's Pocketbook," *Newsday*, October 5, 2014c.

salaries that the Iraqi government was paying its idled employees in Islamic State territory put the government in a bind. It could end payments to employees, effectively cutting off money to the Islamic State. But not only would that create a humanitarian problem, it would give the Islamic State a propaganda victory. The group could tell the largely Sunni recipients that the largely Shia government in Baghdad is abandoning them and that the Islamic State is their only protection. Or the Iraqi government could continue the payments and thereby fund the Islamic State's war effort.[45] In fact, the salary cutoff in Ninewa governorate has caused hardship.[46] Likewise, short of conquering territory that the Islamic State now holds, halting the group's taxation schemes will be difficult.

Politics and Patience

Local and regional military forces are now taking the fight directly to the Islamic State. But these forces certainly will need to be more effective to defeat the group, suggesting a strong role for a U.S. or allied advise-and-assist mission and for the provision of intelligence support.[47] Even with that help, there is some question as to whether the forces will ever be effective enough. As a result, there have been some calls for the commitment of U.S. ground troops.[48] Even if the effectiveness of local troops is increased, military action is necessary but not sufficient to defeat and destroy the Islamic State.

Any successful effort to destroy the group will involve political accommodation in which Sunni communities feel that they have a future in both Iraq and Syria. The Islamic State draws support, or at least grudging acceptance, from aggrieved Sunnis in both countries. In some ways, the Islamic State is testing the limits to which any gov-

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[45] Howard J. Shatz, "Iraq Is Bankrolling ISIL," *Politico Magazine*, May 24, 2015.

[46] Isabel Coles, "Despair, Hardship as Iraq Cuts Off Wages in Islamic State Cities," Reuters, October 2, 2015.

[47] Patrick Johnston and Benjamin Bahney, "Obama's Iraq Dilemma," *U.S. News and World Report*, June 17, 2014a.

[48] David E. Johnson, "Fighting the 'Islamic State': The Case for U.S. Ground Forces," special commentary, *Parameters,* Vol. 45, No. 1, Spring 2015.

ernment can rule without some degree of popular support. Discontent and rebellion have been met with extreme brutality, such as when the Islamic State massacred about 600 members of the Albu Nimr tribe in Anbar governorate, Iraq, in October 2014.[49] But this resistance has continued in a variety of forms, including a clandestine assassination campaign against Islamic State personnel in Mosul in the summer of 2015.[50] Although it will be difficult to find fissures inside the group, capitalizing on any that do exist will be essential in any effort to defeat the Islamic State and to ensure that the group does not reemerge as it did in 2013 and 2014.[51] Although there is little chance that the Sunnis in Iraq, in particular, can ever return to the political dominance they enjoyed until the U.S.-led coalition invasion of 2003, some measure of political accommodation will be necessary to turn the Sunnis against the Islamic State.

Defeating the Islamic State will also require persistence. One of the as yet unanswered questions is the staying power of the Islamic State. A related question is whether it is financially sustainable under current battle conditions. So far, the group has given every indication that it is: Just one year after declaring the caliphate, it had more fighters and more territory and remained well financed; although it has lost territory since then, it may well have enough money to sustain its operations for years. Despite this, the record of counter-ISI operations from 2006 through 2010 shows that military action and political accommodation can work together to degrade the group, if not defeat it. Yet such gains can be extremely fragile and may require a longer-term commitment if they are to be sustained; this can be accomplished through investments that minimize the risk of a catastrophic reversal, such as that of the Islamic State of Iraq evolving into the Islamic State. It is incumbent on host-nation and regional leaders—with international help, if necessary—to ensure that long-term commitment.

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[49] Alice Fordham, "Despite a Massacre by ISIS, an Iraqi Tribe Vows to Fight Back," *Morning Edition*, NPR, November 20, 2014.

[50] "Mosul Insurgents Challenge Islamic State Occupiers," *Iraq Oil Report*, July 22, 2015.

[51] Benjamin Bahney and Patrick Johnston, "Who Runs the Islamic State Group?" *U.S. News and World Report*, May 22, 2015.

Captured Documents: Description, Methodology, and Analysis

This report is built around an analysis of more than 140 captured documents. Analyzing captured documents entails a number of methodological challenges. First, there are the sampling challenges involved in using the U.S. Department of Defense's Harmony database, the source of our documents. Second, there are the interpretive challenges that accompany any original source material. This appendix discusses each in turn. This discussion will help provide greater context for our findings and any uncertainties regarding them, and can serve as the basis for improving document exploitation methodology in the future.

Sampling Challenges

All of our source documents were drawn from the Harmony database. The database contains more than 1 million documents captured by U.S. and allied forces during operations in Afghanistan, Iraq, and elsewhere. Roughly a quarter of these documents have been fully translated, and all are accompanied by metadata of varying quality, covering the circumstances of capture and nature of the documents. The documents run the gamut from strategic policy studies, to accounting reports, to membership lists, to technical training manuals, to draft ideological screeds, to letters between family members.

Using the Harmony data to develop a broad understanding of ISI's finances and managerial practices poses two different sampling

challenges. The first challenge is inherent to the database. Documents do not enter the database through a random sampling process. Rather, the documents in the larger database represent those documents whose custodians were either unlucky (e.g., they were arrested at a checkpoint or had their houses raided while in possession of key documents) or insufficiently careful (e.g., they buried USB drives, holding key documents, along with explosives that were found by an explosive ordnance disposal team). The documents in Harmony regarding ISI therefore might not be representative of all ISI documents produced in Iraq.

The second challenge is sampling the Harmony database in a systematic manner. One method we tried was to search via keyword in the metadata, but, unfortunately, the metadata accompanying the documents are not consistent or complete in terms of group designations, the level of detail provided in various fields, or the classification of documents by subject. We therefore searched the database for financial documents using snowball sampling on search terms found in particularly informative documents. Given this process, the documents we analyze do not represent a random sample of all ISI documents captured in Iraq from 2005 to 2010, much less a random sample of all ISI managerial documents produced during this period.

As with most archival research, the team tried to ensure that the documents used were representative of the broader data. Although we found it impossible to follow a formal sampling approach, the team, collectively, has significant experience and expertise working with the Harmony database and researching the conflicts in Iraq and ISI, and therefore has substantial expertise from which to judge the representativeness of the documents we used. Skeptical readers might adjust their confidence in our findings accordingly.

Interpretive Challenges

In addition to sampling challenges, analyzing these documents presents a number of interpretive challenges. The first is that the translations of many of the Harmony documents were done quickly, in settings where getting information out rapidly for intelligence and operational pur-

poses took priority over complete accuracy. Wherever possible, we have tried to verify translations and ensure that mistranslations of subtle nuances do not drive our interpretation of documents. The translation issue should not be too concerning, however, because we focus almost entirely on the substantive content of the documents and on quantitative data developed from them.

The second interpretive challenge is that many of the documents do not include clear indications of the time and place they refer to or the context in which they were produced. This is particularly true for handwritten ledgers found at the small-unit level. The vast majority of the documents can be classified to the governorate and year level of aggregation, but classification below that level is often impossible. For many of the correspondence documents, full context is hard to parse. We often see one side of a conversation that is carried out with shorthand references to past events and have to infer the meaning from context and other declassified documents, such as the ones available through the CTC's Harmony Program.[1]

The third interpretive challenge is that the source documents often have errors. Salary fields, for example, are inconsistently entered by different ISI subunits. Sometimes ISI administrators broke down payments into salaries and reimbursables, and sometimes they failed to do so. Handwritten documents often contained illegible portions, and transcription errors are common in the source documents (adding extra zeros and the like). These kinds of errors are understandable. Presumably, few people joined ISI because of their penchant for impeccable paperwork. However, the errors at least partly obscure the relationship between what is recorded in the documents and what happened on the ground.

The fourth and final interpretive challenge is that the authors of the source documents often sought to obscure their activities, from adversaries, and sometimes from their own superiors. For the former, authors employed code words and ambiguous terms to refer to various activities. For the latter, we see the reporting net of the group's

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[1]   These documents from the Harmony Program are available on the CTC's website (see www.ctc.usma.edu/programs-resources/harmony-program).

internal agency problems. For example, when a unit leader reported that a given fighter has six children, we cannot be certain whether that fighter actually had six children or whether he had fewer, allowing the unit leader a possible opportunity to pocket the extra allowances. The administrative emirs responsible for reporting such information could not always sort out such problems without further investigation, and there is some evidence that unit commanders took advantage of opportunities to exploit these principal-agent dilemmas. There is thus an unknown amount of measurement error in the documented data when it comes to such things as family structure, which may be correlated with unobserved factors—for example, how well an administrator knows the units operating in his territory.

Despite these challenges, the U.S. Department of Defense's Harmony data are a uniquely rich source of information on ISI and similar groups. Ours is the most extensive and transparent effort yet to use these data to understand the finances and management of ISI. We hope that other scholars will build on the rich data we analyze through their own work with the source documents.

Documents and Data Sources

The data for this report were developed through a unique collaboration between the CTC (at West Point), the ESOC Project at Princeton, and the RAND Corporation. A team at RAND searched the Department of Defense's Harmony database for financial and organizational documents, as well as for militant correspondence and memorandums that provided context for the financial and organizational documents. The RAND team passed the documents it identified to the CTC, which worked with U.S. Special Operations Command to declassify them. Various data were then generated from the documents by the ESOC and RAND teams, including geospatial boundaries for ISI units and transaction-level records of salaries.

Declassified Documents by Group, Topic, Year, and Governorate

A total of 158 documents were declassified for use in the present study. We focus on the 143 documents pertaining to ISI (Table A.1 and Figures A.1, A.2, and A.3). In addition to variation across time and space, the documents varied significantly in density. On average, each document contained 12 pages. Some were as short as one page, and one contained 468 pages.

Violent Incident Data

Our data on the intensity of conflict come from incident-level information on 193,264 SIGACT reports by coalition forces. These reports capture a wide variety of information about "executed enemy attacks targeted against coalition, ISF, civilians, Iraqi infrastructure and government organizations" occurring between February 4, 2004, and February 24, 2009.[2] Unclassified data drawn from the MNF-I SIGACTS

Table A.1
Number of Declassified Documents, by Group

Group	Documents
ISI	143
Badr Corps	2
Jaish al-Mahdi	10
Jaish Rijal al-Tariqa al-Naqshbandiya	3
Total	158

NOTES: ISI is the Sunni group we analyze in this document. The Badr Corps is a Shia group associated with the Islamic Supreme Council of Iraq (formerly the Supreme Council for Islamic Revolution in Iraq), a political party. Jaish al-Mahdi is a Shia group associated with political leader Muqtada al-Sadr. And Jaish Rijal al-Tariqa al-Naqshbandiya is a Sunni group at least loosely associated with the Naqshbandi Sufi order.

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[2]   U.S. Department of Defense, *Measuring Stability and Security in Iraq,* Report to Congress in Accordance with the Department of Defense Appropriations Act 2008 (Section 9010, Public Law 109-289), Washington, D.C., June 2008. See also U.S. Government Accountability Office, *Military Operations: The Department of Defense's Use of Solatia and Condolence Payments in Iraq and Afghanistan*, Report to Congressional Requesters, Washington, D.C., GAO-07-699, May 2007.

Figure A.1
Number of Declassified Documents, by Year
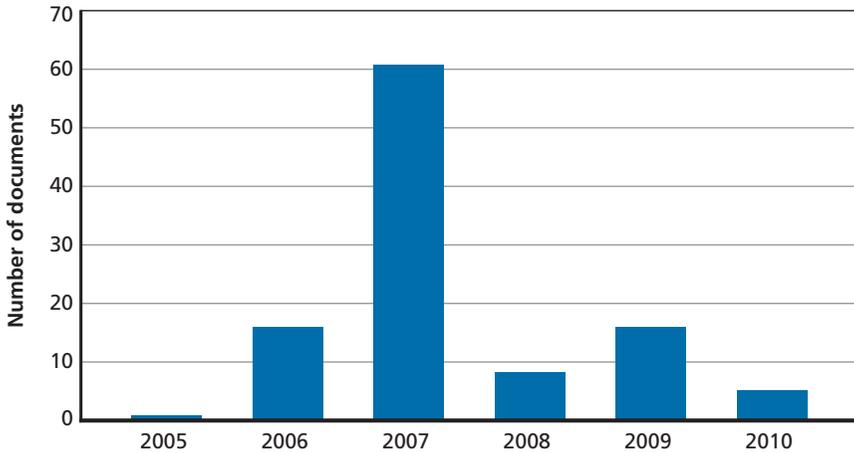
NOTES: Each bar represents the total number of documents that were specifically dated during the year shown on the x-axis. For a number of documents, we can infer the year in which they were produced from context—for example, by names of unit commanders, signature blocks, and other references embedded in the documents. In addition, year refers to the year of the date listed on a given document or our best estimate of the year in which it was produced. Year does not refer to the year the document was declassified.
RAND *RR1192-A.1*

III Database were provided to the ESOC project in 2008 and 2009.[3] These data provide the location, date, time, and type of attack incidents but do not include any information pertaining to the coalition units involved, coalition casualties, or battle damage incurred. We filtered the data to remove the attacks we identified as being directed at civilians or other insurgent groups, leaving us with a sample of 168,730 attack incidents.[4] Depending on level of analysis, we aggregated these

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[3]   Empirical Studies of Conflict Project, n.d.

[4]   We filter the attack data to focus on combat incidents, because they are systematically reported. Records of other kinds of violence suffer from various unknown reporting biases— for example, coalition forces would be more likely to produce SIGACT reports of militant attacks on civilians near major transit routes than in sparsely populated parts of Iraq, where the coalition had a smaller presence. In contrast, coalition forces were far more likely to

Figure A.2
Number of Declassified Documents, by Subject
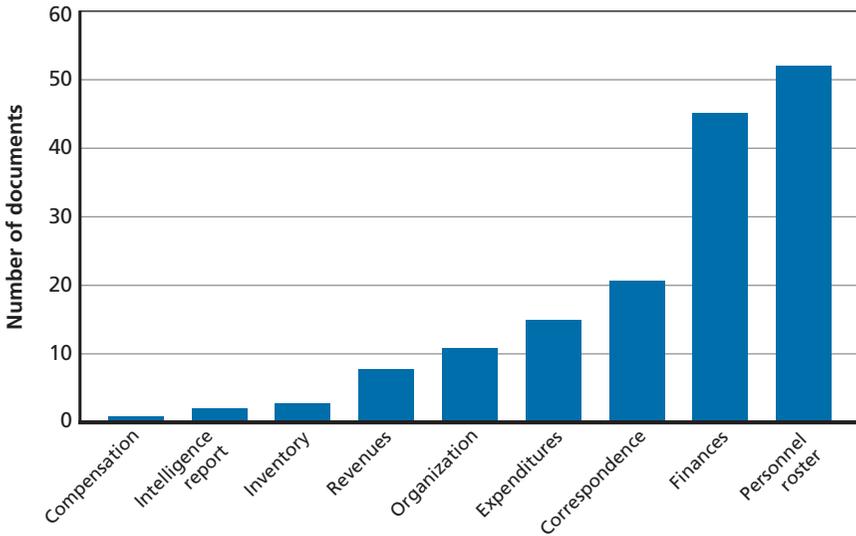
NOTES: Each bar represents the number of the 158 declassified documents
categorized according to the topics on the *x*-axis.
RAND *RR1192-A.2*

events yearly at the level of the governorate and the ISI-designated geographic unit.

It is useful to normalize measures of conflict by population density in some circumstances. We estimated the population of different areas using the fine-grained population data from LandScan, aggregated to the governorate or ISI unit level.[5]

Constructed Data Sources

Drawing on the captured documents, we created data files on salary payments, personnel, and unit boundaries.

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report significant activities in the areas in which they operated. We thank Lee Ewing for his suggestion to filter the SIGACT data to account for such reporting discrepancies.

[5]   Oak Ridge National Laboratory, "LandScan," web page, undated.

Figure A.3
Number of Documents, by Governorate
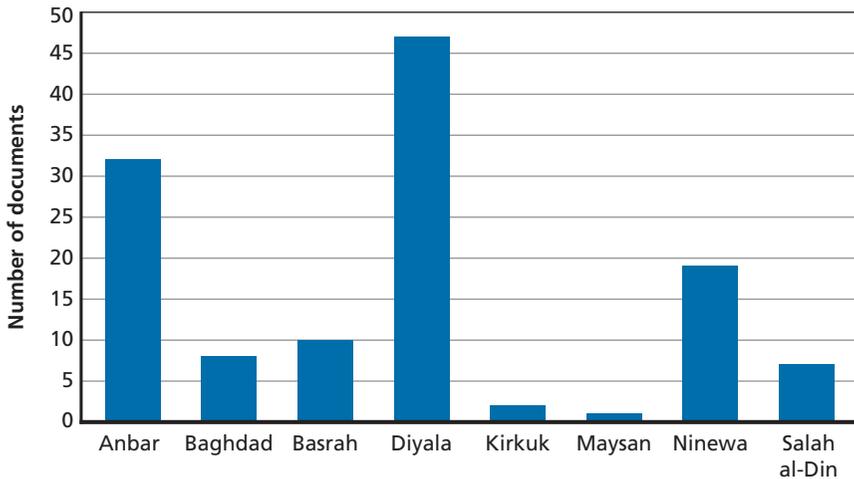
NOTE: Bars represent the total number of documents attributed to insurgent units located in the governorates shown on the *x*-axis.
RAND *RR1192-A.3*

Salaries and Personnel

Salary data were compiled from numerous ISI documents that contained membership lists and information on each member's ISI unit, status (active versus killed or detained), marital status, number of children or overall dependents, and monthly salary and rent. These files limited the need for ISI to keep both payroll files of benefits to its members and a separate membership census, particularly when the group began to standardize its use of an assigned number that would uniquely identify each member. An example of information from such a document is shown in Figure A.4. We discuss these salary data extensively in Chapter Six, in which we examine the economics of ISI compensation practices.

In some documents, additional information on individual members was given. At times, this information was detailed. Some documents contain full-paragraph descriptions of certain militants who were joining or had joined the group. This level of documentation on certain members was made independent of the payroll lists, sometimes

Figure A.4
Example of Salary Data for ISI Personnel

	Number	Alias	Marital Status	Number of Wives	Number of Children	Number of Dependents	Support	Rent	Comments	Residence
1	1003	Abu-Hudhayfah Na'im	Married	1	3		175	100		
2	1005	Abu-Nabil al-Suwaydi	Married	1	8		300			Outside Mosul
39	1065	Doctor Khalaf	Married	1	5		225	250	Receives from Mosul	
40	1068	Abu-Da'wah	Single		5		200			Outside Mosul
41	1069	Umm-Anas	Married	1	6		250			
42	1073	'Ali Abu-Ibrahim	Married	1	4		200	125	Does not have rent	
43	1075	Abu-Karam	Married	1	5		225	125	Does not have rent	
55	1093	Basir	Married	1	8		300	300		
56	1094	'Ali	Married	1	2		150	300		
57	1095	'Abbud	Married	1	2		150			
58	1096	Lu'ay	Married	1	2		150	250		Outside Mosul
59	1097	Maher	Single				75	300	Single	
72	1125	Abu-'Ammar Husam	Married	1			100	125	Does not have rent	
73	1142	Family of Thamir	Married	1	2		150			Outside Mosul
74	1143	Family of 'Amir	Married	1	3		175			Outside Mosul
75	1101	Abu-'Amshah	Married	1			100	150		
84	1131	Abu-Du'a'	Married	1	4		200			
86	1135	Abu-Shahad	Married	1	1		125	125	Does not have rent	
87	1136	Samir	Single		9		300	150		
88	1137	Abu-Layth	Married	1	6		250	150		
89	1139	Abu-Yasin	Married	1	2		150	150		
90	1140	Abu-Mukhallis	Married	1	1		125	100		
91	1145	'Adil Abu-'Umar	Married	1	1		125	230	Does not have rent	

SOURCE: Derived from Harmony document NMEC-2009-633789; see "ISIL, Syria and Iraq Resources," 2015.
NOTES: This document was discussed in Chapter Seven. The document was captured in February 2009 from a Ninewa administrative emir named Ahmed Zayd and most likely contains information from August 2008 through January 2009, his tenure in that position. It appears that the monthly salary ("Support") formula for members at this time and place was 75,000 Iraqi dinars per member, plus 25,000 per wife and 25,000 per child. No members listed had any dependents recorded. According to an earlier document, MNFA-2007-000566, dependents would have included parents, single sisters, and brothers under age 15. We assess as extremely likely that the Abu-Du'a appearing in line 84, number 1131, is Abu Bakr al-Baghdadi, the leader of the Islamic State.

RAND *RR1192-A.4*

in separate documents that read more like intelligence assessments of the backgrounds of key new recruits to the group or possibly existing al-Qaʻida members traveling to Iraq to join and support the group. Figure A.5 provides an example of a document in tabular format that contains more-detailed information on 17 ISI members, who were perhaps key individuals in the organization or the members of a certain cell. As an example, only three militants from the table are shown. But the remaining entries in the table were made in similar format and levels of detail. We examine such documents and data in detail in Chapter Five, which focuses on ISI's "human capital," particularly among the foreign fighters on whom the group appears to have collected the most-detailed information, as well as a set of more than 80 Iraqi ISI members on whom similar information was collected.

Unit Boundaries

Finally, we constructed a geospatial data set of ISI sectors, or district boundaries, based on a document seized in a raid on the compound of ISI senior leader Abu Qaswarah. The document contains a description of the boundaries delineating 31 ISI sectors. Within ISI, sectors were an administrative level beneath the governorate level. They reported up the administrative chain of command to ISI officials responsible for overseeing all ISI sector-level subsidiaries.

Based on the document's description of ISI sector boundaries, we consulted with numerous subject-matter experts to overlay ISI's sector boundaries onto a standard shapefile map of Iraq, creating a spatial-polygon data set of ISI sectors. We then assigned other data on sector leadership and administration of ISI sectors to the spatial-polygon data set (referred to as a *spatial polygon dataframe* in R, the language in which we programmed the map), as well as other geospatial data of interest, including data from the MNF-I SIGACTS III database. We filtered the SIGACTS to a data set that included SIGACTS in 2008—the year the ISI sector-boundary document was most likely generated—and we joined the georeferenced SIGACTS as points on the ISI sector map to assess the extent to which ISI conducted attacks across its declared sectors, both unconditionally and conditional on its leadership and administrative presence in these areas. These data are described at length in Chapter Four.

Figure A.5
Example of Detailed Documentation of ISI Personnel

No	Full name	Code	Alias	Date	Address	Passport	Skills	Guest house	Destination	Notes
1	[Redacted]	ت غ\1 Tunis	Abu-'Abdallah	2004/04/07	[Redacted]	used with authorization	Fighter from Fallujah	Al-Himmah		Strained left leg muscle in Fallujah-Pledged allegiance
2	[Redacted]	س\2 Syria	Abu-Khattab al-Basuni	2004/11/05	[Redacted]	Abu-Mazin	Administration experience - Training camp graduate	Al-Himmah		
3	[Redacted]	س\3 Syria	Abu-'Abdallah	2004/11/05	[Redacted]	Abu-Mazin	Turkish language- Training camp graduate	Al-Himmah		

SOURCE: Harmony document NMEC-2007-633795; see "ISIL, Syria and Iraq Resources," 2015.

RAND *RR1192-A.5*

Research on Covert and Clandestine Organizations

The literature drawing from primary data sources on individual and organizational changes in covert and clandestine organizations is limited, in large part because source information is difficult to obtain. The literature that exists focuses largely on street gangs rather than insurgent or terrorist organizations. Two studies have been able to track gang members over time to assess the economic and social fates of gang members in various ways.

In the first study, an economist and a sociologist collected data on 105 of 118 residents of one high-rise housing-project building in Chicago, retrospectively reconstructing in 2000 the economic and social histories of young men who spent their adolescence in the housing project during the early 1990s. The researchers carried out this reconstruction through the use of community contacts and self-reporting by many of the men who lived in the building, most of whom were then in their late twenties or early thirties. This approach enabled the researchers to study and compare the career paths of gang members and non–gang members from the building over nearly a decade. The researchers found in their follow-up survey that one-quarter of those in their sample were not employed in the legitimate sector and that those who reported income brought in 20 percent from illegal sources. They also found that the returns to education were quite large in the legiti-

mate sector. Physical strength was an important determinant of illegal income.[1]

A separate study focuses on the selection of youth into Brazilian favela (lower-income neighborhoods, or slums) drug-selling gangs, the occupational structure of favelas, and the typical "careers" of their members.[2] The researchers show, from a sample of Brazilian gang members surveyed in 2004, that gang members earned on average $300 per month, or about 23 percent more than other youth from the favelas, and typically worked more than ten hours a day. There were large risks associated with these jobs: More than half of those interviewed had participated in armed confrontations with rival gangs, and roughly two-thirds had participated in gunfights with the police. At the end of the two-year study period, 20 percent of the initial sample had died. Job characteristics varied according to occupation within the gang. For example, the risks were even larger for more-elite members in the drug-trafficking hierarchy. Members at the top of this hierarchy earned 90 percent more than members in entry-level occupations. They were, however, also 10 percentage points more likely to die within two years.[3]

No extant study drawing on primary sources has spanned the breadth and depth of a clandestine militant organization to the same extent as this one. This study should serve as a useful point of departure for further studies of ISI in its current incarnation as the Islamic State, or of other militant organizations.

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[1] Steven D. Levitt and Sudhir Alladi Venkatesh, "Growing Up in the Projects: The Economic Lives of a Cohort of Men Who Came of Age in Chicago Public Housing," *American Economic Review*, Vol. 91, No. 2, May 2001.

[2] Leandro Carvalho and Rodrigo Reis Soares, *Living on the Edge: Youth Entry, Career and Exit in Drug-Selling Gangs*, Discussion Paper Series, Bonn: Institute for the Study of Labor, January 2013.

[3] Carvalho and Soares, 2013, pp. 2–3.

Compensation Documents List

Chapter Six explores the compensation patterns of ISI members, drawing data on 9,271 payments from 87 documents. Table C.1 provides the complete list of source documents.

Table C.1
Number of Salary Payments, by Document

Document Number	Payments	Governorate
NMEC-2008-614685	1,327	Ninewa
NMEC-2008-614687	1,070	Ninewa
MNFV-2007-000322	590	Diyala
NMEC-2009-633789	504	Ninewa
NMEC-2008-614561	480	Ninewa
NMEC-2008-617456	466	Anbar
MNFV-2007-000378	368	Anbar
JDECB-2008-002857	360	Salah al-Din
NMEC-2007-633679	345	Anbar
NMEC-2008-614563	332	Anbar
NMEC-2008-614447	316	Anbar
MNFA-2007-000562	275	Anbar
MNFV-2007-000331	238	Diyala
MNFV-2007-000379	235	Diyala

Table C.1—Continued

Document Number	Payments	Governorate
MNFV-2007-000325	152	Diyala
MNFV-2007-000327	152	Diyala
MNFV-2007-000326	133	Diyala
NMEC-2008-614562	118	Anbar
MNFV-2007-000373	98	Diyala
MNFV-2007-000328	97	Diyala
NMEC-2007-632101	83	Anbar
NMEC-2007-631819	75	Anbar
NMEC-2007-000326	71	Anbar
MNFV-2007-000330	67	Diyala
MNFF-2008-002536	66	Anbar
NMEC-2007-631687	62	Anbar
MNFV-2007-000323	61	Diyala
INFZ-2006-00012	59	Salah al-Din
MNFV-2007-000332	56	Diyala
MNFV-2007-000333	55	Diyala
MNFT-2007-005311	52	Salah al-Din
MNFT-2007-005312	48	Salah al-Din
NMEC-2007-631494	48	Anbar
NMEC-2007-658070	39	Ninewa
NMEC-2008-614650	37	Ninewa
NMEC-2007-631954	34	Anbar
NMEC-2007-632448	33	Anbar
NMEC-2007-657683	32	Ninewa
NMEC-2007-657775	32	Ninewa
NMEC-2007-657850	32	Ninewa

Table C.1—Continued

Document Number	Payments	Governorate
NMEC-2007-657921	32	Ninewa
NMEC-2007-657927	32	Ninewa
NMEC-2008-614338	32	Anbar
NMEC-2007-631750	31	Anbar
MNFF-2008-002537	30	Anbar
MNFV-2007-000344	28	Diyala
NMEC-2008-614625	27	Salah al-Din
NMEC-2008-614405	24	Anbar
NMEC-2008-614422	24	Anbar
NMEC-2007-632520	22	Anbar
NMEC-2007-633559	21	Anbar
MNFV-2007-000364	20	Diyala
MNFV-2007-000484	20	Diyala
MNFV-2007-000413	18	Diyala
MNFV-2007-000336	16	Diyala
NMEC-2008-614354	14	Anbar
MNFV-2007-000324	13	Diyala
MNFV-2007-000397	13	Diyala
MNFV-2007-000414	13	Diyala
MNFV-2007-000485	13	Diyala
MNFV-2007-000478	12	Diyala
MNFV-2007-000376	11	Diyala
NMEC-2008-614545	11	Anbar
MNFV-2007-000370	10	Diyala
MNFV-2007-000438	10	Diyala
NMEC-2008-614368	10	Anbar

Table C.1—Continued

Document Number	Payments	Governorate
MNFV-2007-000418	6	Diyala
MNFV-2007-000435	6	Diyala
MNFV-2007-000389	5	Diyala
MNFV-2007-000424	5	Diyala
MNFV-2007-000433	5	Diyala
MNFV-2007-000481	5	Diyala
MNFV-2007-000402	4	Diyala
MNFV-2007-000428	4	Diyala
MNFV-2007-000468	4	Diyala
NMEC-2007-631571	4	Anbar
MNFV-2007-000430	3	Diyala
MNFV-2007-000459	3	Diyala
MNFV-2007-000383	2	Diyala
MNFV-2007-000422	2	Diyala
MNFV-2007-000429	2	Diyala
MNFV-2007-000461	1	Diyala
MNFV-2007-000462	1	Diyala
MNFV-2007-000463	1	Diyala
MNFV-2007-000464	1	Diyala
MNFV-2007-000465	1	Diyala
MNFV-2007-000466	1	Diyala

Abbreviations

AQI	al-Qaʿida in Iraq
CTC	Combating Terrorism Center
ESOC	Empirical Studies of Conflict
IED	improvised explosive device
IRA	Irish Republican Army
ISF	Iraqi security forces
ISI	Islamic State of Iraq
ISIL	Islamic State in Iraq and the Levant
ISIS	Islamic State in Iraq and al-Sham
MNF-I	Multi-National Force–Iraq
MSC	Mujahidin Shura Council
SIGACT	significant activity
SOI	Sons of Iraq

References

Acemoglu, Daron, Simon Johnson, and James A. Robinson, "The Colonial Origins of Comparative Development: An Empirical Investigation," *American Economic Review*, Vol. 91, No. 5, 2001, pp. 1369–1401.

Adams, James, *The Financing of Terror*, New York: Simon and Schuster, 1986.

Adnan, Duraid, and Tim Arango, "Suicide Bomb Trainer in Iraq Accidentally Blows Up His Class," *New York Times*, February 10, 2014. As of June 17, 2015: http://www.nytimes.com/2014/02/11/world/middleeast/suicide-bomb-instructor-accidentally-kills-iraqi-pupils.html

al-Adnani, Abu Mohammad, "Indeed Your Lord Is Ever Watchful," speech, Al-Furqan Media Productions, September 22, 2014.

———, "Die in Your Rage!" Al-Furqan Media Productions, January 2015. As of May 2, 2015: https://pietervanostaeyen.files.wordpress.com/2015/01/al-adnani-say-die-in-your-rage.pdf

Aisch, Gregor, Joe Burgess, C. J. Chivers, Alicia Parlapiano, Sergio Peçanha, Archie Tse, Derek Watkins, and Karen Yourish, "How ISIS Works," *New York Times*, September 15, 2014.

Akerlof, George, "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism," *The Quarterly Journal of Economics*, Vol. 84, No. 3, August 1970, pp. 88–500.

"Al-Furqan Media Wing Declares the Members of the Cabinet of the Islamic State of Iraq," Al-Furqan Media Wing, April 19, 2007.

Allam, Hannah, "Records Show How Iraqi Extremists Withstood U.S. Anti-Terror Efforts," *McClatchy News*, June 23, 2014.

AlMukhtar, Sarah, "ISIS Finances Are Strong," *New York Times*, May 19, 2015. As of May 19, 2015: http://www.nytimes.com/interactive/2015/05/19/world/middleeast/isis-finances.html

"Al-Qaeda in Iraq," *Jane's World Insurgency and Terrorism*, October 2013.

"Al Qaeda in Iraq Tightening Economic Grip on Mosul," *Albawaba Business*, May 3, 2011.

Anderson, John Ward, and Salih Dehima, "Offensive Targets Al-Qaeda in Iraq," *Washington Post*, July 20, 2007.

Anderson, Liam, and Gareth Stansfield, "The Implications for Federalism in Iraq: Toward a Five-Region Model," *Publius*, Vol. 35, No. 3, 2005, pp. 359–382.

"AQI's Swedish Emir," *Jane's Terrorism and Security Monitor*, October 27, 2008.

Arango, Tim, "Escaping Death in Northern Iraq: Video Feature: Surviving an ISIS Massacre," *New York Times*, September 3, 2014. As of June 28, 2015:
http://www.nytimes.com/2014/09/04/world/
middleeast/surviving-isis-massacre-iraq-video.html?_r=0

al-Badrani, Jamal, and Jim Loney, "Asiacell Building Bombed in Iraq City of Mosul," Reuters, February 3, 2012. As of June 11, 2014:
http://in.reuters.com/article/2012/02/03/
iraq-violence-asiacell-idINL5E8D32PK20120203

al-Baghdadi, Abu Umar, "Eulogy for the Martyr, Abu Qaswarah al Maghribi," English translation, October 2008. As of January 21, 2016:
https://archive.org/stream/
EulogyForTheMartyrAbuQaswaraAlMaghribi/Eulogy%20for%20the%20
Martyr,%20Abu%20Qaswara%20al-Maghribi_djvu.txt

Bahney, Benjamin W., Radha K. Iyengar, Patrick B. Johnston, Danielle F. Jung, Jacob N. Shapiro, and Howard J. Shatz, "Insurgent Compensation: Evidence from Iraq," *American Economic Review*, Vol. 103, No. 3, 2013, pp. 518–522.

Bahney, Benjamin, and Patrick Johnston, "Who Runs the Islamic State Group?" *U.S. News and World Report*, May 22, 2015.

Bahney, Benjamin, Patrick B. Johnston, and Patrick Ryan, "The Enemy You Know and the Ally You Don't," *Foreign Policy*, June 23, 2015.

Bahney, Benjamin, Howard J. Shatz, Carroll Ganier, Renny McPherson, and Barbara Sude, *An Economic Analysis of the Financial Records of al-Qaʿida in Iraq*, Santa Monica, Calif.: RAND Corporation, MG-1026-OSD, 2010. As of August 22, 2015:
http://www.rand.org/pubs/monographs/MG1026

Bairin, Pierre, and Mohammed Tawfeeq, "Military: Mastermind of Samarra Mosque Bombing Killed," CNN.com, August 6, 2007. As of August 22, 2015:
http://www.cnn.com/2007/WORLD/meast/08/05/iraq.main

Baker, George, Michael Gibbs, and Bengt Holmstrom, "The Internal Economics of the Firm: Evidence from Personnel Data," *The Quarterly Journal of Economics*, Vol. 109, No. 4, November 1994, pp. 881–919.

Banuri, Sheheryar, and Philip Keefer, "Intrinsic Motivation, Effort and the Call to Public Service," Policy Research Working Paper 6729, World Bank, 2013. As of November 20, 2015:
http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2013/12/19/000158349_20131219132546/Rendered/PDF/WPS6729.pdf

Bassem, Wassim, "IS Massacre Leaves Families of Victims Stunned," trans. Sahar Ghoussoub, *Iraq Pulse*, Al-Monitor, August 28, 2014. As of June 28, 2015:
http://www.al-monitor.com/pulse/originals/2014/08/iraq-saladin-spiker-base-massacre-islamic-state.html#

Bendor, Jonathan, and Adam Meirowitz, "Spatial Models of Delegation," *American Political Science Review*, Vol. 98, No. 2, 2004, pp. 293–310.

Benotman, Noman, and Roisin Blake, *Jabhat al-Nusra: A Strategic Briefing*, London: Quilliam Foundation, January 2013. As of September 8, 2015:
http://www.quilliamfoundation.org/wp/wp-content/uploads/publications/free/jabhat-al-nusra-a-strategic-briefing.pdf

Berger, J. M., and Jonathon Morgan, *The ISIS Twitter Census: Defining and Describing the Population of ISIS Supporters on Twitter*, Washington, D.C.: Brookings Institution, U.S. Relations with the Islamic World, Analysis Paper No. 20, March 2015.

Berman, Eli, *Radical, Religious, and Violent: The New Economics of Terrorism*, Cambridge, Mass.: MIT Press, 2009.

Berman, Eli, Michael Callen, Joseph H. Felter, and Jacob N. Shapiro, "Do Working Men Rebel? Insurgency and Unemployment in Afghanistan, Iraq, and the Philippines," *Journal of Conflict Resolution*, Vol. 55, No. 4, 2011, pp. 496–528.

Berman, Eli, and David D. Laitin, "Religion, Terrorism, and Public Goods: Testing the Club Goods Model," *Journal of Public Economics*, Vol. 92, 2008, pp. 1942–1967.

Berman, Eli, 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, 2011, pp. 766–819.

Biddle, Stephen, Jeffrey A. Friedman, and Jacob N. Shapiro, "Testing the Surge: Why Did Violence Decline in Iraq in 2007?" *International Security*, Vol. 37, No. 1, 2012, pp. 7–40.

Birke, Sarah, "How ISIS Rules," *The New York Review of Books*, December 9, 2014. As of August 23, 2015:
http://www.nybooks.com/blogs/nyrblog/2014/dec/09/how-isis-rules/

Blanchard, Christopher M., *Al Qaeda: Statements and Evolving Ideology*, Washington, D.C.: Congressional Research Service, November 2004.

———, *Al Qaeda: Statements and Evolving Ideology*, Washington, D.C.: Congressional Research Service, updated July 2007.

Bradley, Gerry, and Brian Feeney, *Insider: Gerry Bradley's Life in the IRA*, Dublin: The O'Brien Press, 2009.

Braniff, Bill, and Assaf Moghadam, "Towards Global Jihadism: Al-Qaeda's Strategic, Ideological and Structural Adaptations Since 9/11," *Perspectives on Terrorism*, Vol. 5, No. 2, May 2011, pp. 36–49.

Bresnahan, Timothy, and Jonathan Levin, "Vertical Integration and Market Structure," in Robert Gibbons and David J. Roberts, eds., *Handbook of Organizational Economics*, Princeton, N.J.: Princeton University Press, 2012.

Bueno de Mesquita, Ethan, "Rebel Tactics," *Journal of Political Economy*, Vol. 121, No. 2, 2013, pp. 323–357.

Buettner, Russ, "Resentenced to Life in Prison, Terrorist Plans to Appeal," *New York Times*, April 23, 2013. As of June 16, 2015:
http://www.nytimes.com/2013/04/24/nyregion/
resentenced-to-life-in-prison-wadih-el-hage-plans-to-appeal.html

Bunzel, Cole, *From Paper State to Caliphate: The Ideology of the Islamic State*, Washington, D.C.: Brookings Institution, U.S. Relations with the Islamic World, Center for Middle East Public Policy, Analysis Paper No. 19, March 2015. As of June 28, 2015:
http://www.brookings.edu/~/media/research/files/papers/2015/03/
ideology-of-islamic-state-bunzel/the-ideology-of-the-islamic-state.pdf

Burke, Jason, *Al-Qaeda: The True Story of Radical Islam*, London: I.B. Tauris, 2004.

Bush, George W., "Transcript: President Bush Addresses Nation on Iraq War," January 10, 2007. As of November 20, 2015:
http://www.washingtonpost.com/wp-dyn/content/article/2007/01/10/
AR2007011002208.html

Cambanis, Thanassis, "In Mosul, Kurdish Militia Helps Keep Order," *Boston Globe*, November 18, 2004.

Carvalho, Leandro, and Rodrigo Reis Soares, *Living on the Edge: Youth Entry, Career and Exit in Drug-Selling Gangs*, Discussion Paper Series, Bonn: Institute for the Study of Labor, January 2013.

Cassman, Daniel, "Islamic Army in Iraq," Mapping Militant Organizations, Stanford University Center of International Security and Cooperation, 2010.

Central Bank of Iraq, *Key Financial Indicators*, Baghdad, updated regularly between September 2007 and January 2009. As of December 21, 2015:
http://www.cbi.iq/index.php?pid=Statistics

Central Organization for Statistics and Information Technology, Kurdistan Region Statistics Office, Nutrition Research Institute (Ministry of Health), and United Nations World Food Programme Iraq Country Office, *Comprehensive Food Security & Vulnerability Analysis (CFSVA): Iraq*, Rome: United Nations World Food Programme, 2008.

Central Organization for Statistics and Information Technology, Kurdistan Region Statistics Organization, and World Bank, *Iraq Household Socio-Economic Survey: IHSES—2007*, Baghdad, 2008. As of November 29, 2011: http://go.worldbank.org/GMS95L4VH0

Chai, Sun-Ki, "An Organizational Economics Approach to Anti-Government Violence," *Comparative Politics*, Vol. 26, No. 1, October 1993, pp. 99–110.

Chandler, Alfred D., *Strategy and Structure: Chapters in the History of the American Industrial Enterprise*, Cambridge, Mass.: MIT Press, 1969.

Clapper, James R., "Opening Statement to Worldwide Threat Assessment Hearing," Senate Armed Services Committee, Washington, D.C.: Office of the Director of National Intelligence, February 26, 2015. As of July 20, 2015: http://www.dni.gov/files/documents/ 2015%20WWTA%20As%20Delivered%20DNI%20Oral%20Statement.pdf

Cocks, Tim, "U.S. Says Troops May Have to Stay in Iraq's Mosul," Reuters, May 1, 2009.

Coles, Isabel, "Despair, Hardship as Iraq Cuts Off Wages in Islamic State Cities," Reuters, October 2, 2015.

Combelles Siegel, Pascale, "Islamic State of Iraq Commemorates Its Two-Year Anniversary," *CTC Sentinel*, Vol. 1, No. 11, October 2008, pp. 5–7. As of August 23, 2015: https://www.ctc.usma.edu/posts/ islamic-state-of-iraq-commemorates-its-two-year-anniversary

Condra, Luke N., and Jacob N. Shapiro, "Who Takes the Blame? The Strategic Effects of Collateral Damage," *American Journal of Political Science*, Vol. 56, No. 1, 2012, pp. 167–187.

Connable, Alfred B., interview, in Timothy S. McWilliams and Kurtis P. Wheeler, eds., *Al Anbar Awakening: Volume I, American Perspectives—U.S. Marines and Counterinsurgency in Iraq, 2004–2009*, Quantico, Va.: Marine Corps University Press, 2009, pp. 120–137.

Coogan, Tim Pat, *The I.R.A.*, 5th ed., London: HarperCollins, 2000.

Cooley, Alexander, *Logics of Hierarchy: Problems of Organization in Empires, States, and Military Occupations*, Ithaca, N.Y.: Cornell University Press, 2005.

Cordesman, Anthony, *Iraqi Security Forces: A Strategy for Success*, Westport, Conn.: Praeger Security International, 2006.

Crenshaw, Martha, "1920s Revolution Brigades," Mapping Militant Organizations, Stanford University Center of International Security and Cooperation, 2010.

Dagher, Sam, "Al Qaeda Goes North: Police Chief Killed in Mosul," *Christian Science Monitor*, January 25, 2008a.

———, "Fractures in Iraq City as Kurds and Baghdad Vie," *New York Times*, October 28, 2008b.

———, "Tensions Stoked Between Iraqi Kurds and Sunnis," *New York Times*, May 18, 2009.

Daly, John C. K., "Operation Inherent Resolve: The War Against Islamic State's Oil Network," *Terrorism Monitor*, Vol. 13, No. 1, January 9, 2015. As of June 29, 2015:
http://www.jamestown.org/programs/tm/single/
?tx_ttnews%5Btt_news%5D=43381&cHash=
ecee37e41dbbe3745cfda06ecec08d5f#.VZGKiPlViko

Davis, Craig, "Reinserting Labor into the Iraqi Ministry of Labor and Social Affairs," *Monthly Labor Review*, Vol. 128, No. 6, 2005, pp. 53–61.

Dixit, Avinash K., *Lawlessness and Economics: Alternative Modes of Governance*, Princeton, N.J.: Princeton University Press, 2007.

Dodwell, Brian, Daniel Milton, and Don Rassler, *The Caliphate's Global Workforce: An Inside Look at the Islamic State's Foreign Fighter Paper Trail*, West Point, N.Y.: Combating Terrorism Center, West Point, April 18, 2016. As of May 2, 2016:
https://www.ctc.usma.edu/posts/the-caliphates-global-workforce-an-inside-look-at-the-islamic-states-foreign-fighter-paper-trail

Duffy, Michael, and Mark Kukis, "The Surge at Year One," *Time*, January 31, 2008.

Education for All Global Monitoring Report, *Regional Fact Sheet: Education in the Arab States*, Paris: UNESCO, January 2013.

Edwards, Sean J. A., *Swarming on the Battlefield: Past, Present, and Future*, Santa Monica, Calif.: RAND Corporation, MR-1100-OSD, 2000. As of August 23, 2015:
http://www.rand.org/pubs/monograph_reports/MR1100

Eisenstadt, Michael, and Jeffrey White, *Assessing Iraq's Sunni Arab Insurgency*, Washington, D.C.: Washington Institute for Near East Policy, Policy Focus No. 50, December 2005.

El Deeb, Sarah, "For an IS Fighter, a Paid Honeymoon in the Caliphate's Heart," Associated Press, May 26, 2015.

Empirical Studies of Conflict Project, "ESOC Iraq Civil War Dataset (Version 3)," Princeton, N.J.: Princeton University, n.d. As of January 21, 2016: https://esoc.princeton.edu/files/esoc-iraq-civil-war-dataset-version-3

al-Fadl, Jamal, testimony in *United States v. Usama bin Laden*, No. S(7) 98 Cr. 1023 (S.D. N.Y.), February 6, 2001.

Farrall, Leah, "How Al Qaeda Works: What the Organization's Subsidiaries Say About Its Strength," *Foreign Affairs*, Vol. 90, No. 2, March/April 2011.

Faucon, Benoit, and Margaret Coker, "The Rise and Deadly Fall of Islamic State's Oil Tycoon," *Wall Street Journal*, April 24, 2016. As of May 2, 2016: http://www.wsj.com/articles/ the-rise-and-deadly-fall-of-islamic-states-oil-tycoon-1461522313

Fearon, James D., "Iraq's Civil War," *Foreign Affairs*, Vol. 86, No. 2, March/April 2007, pp. 2–13.

———, *Governance and Civil War Onset*, Washington, D.C.: World Bank, World Development Report Background Paper, August 2011.

Fearon, James, and David D. Laitin, "Explaining Interethnic Cooperation," *American Political Science Review*, Vol. 90, No. 4, 1996, pp. 715–735.

———, "Ethnicity, Insurgency, and Civil War," *American Political Science Review*, Vol. 97, No. 1, 2003, pp. 75–90.

Felter, Joseph, and Brian Fishman, *Al-Qaʿida's Foreign Fighters in Iraq: A First Look at the Sinjar Records*, West Point, N.Y.: Combating Terrorism Center, West Point, 2007.

Few, Mike, "The Break Point: AQIZ Establishes the ISI in Zaganiyah," *Small Wars Journal*, April 17, 2008.

Financial Action Task Force, "Financing of the Terrorist Organisation Islamic State of Iraq and the Levant (ISIL)," February 2015. As of August 25, 2015: http://www.fatf-gafi.org/topics/methodsandtrends/documents/ financing-of-terrorist-organisation-isil.html

Fishman, Brian, "After Zarqawi: The Dilemmas and Future of Al Qaeda in Iraq," *The Washington Quarterly*, Vol. 29, No. 4, 2006, pp. 19–32.

———, *Fourth Generation Governance—Sheikh Tamimi Defends the Islamic State in Iraq*, West Point, N.Y.: Combating Terrorism Center, West Point, May 23, 2007. As of August 25, 2015: https://www.ctc.usma.edu/posts/ fourth-generation-governance-sheikh-tamimi-defends-the-islamic-state-of-iraq

———, ed., *Bombers, Bank Accounts, and Bleedout: Al-Qaʿida's Road in and out of Iraq*, West Point, N.Y.: Combating Terrorism Center, West Point, 2008.

———, *Dysfunction and Decline: Lessons Learned from Inside al-Qaʿida in Iraq*, Harmony Project, West Point, N.Y.: Combating Terrorism Center, West Point, March 16, 2009.

———, "Redefining the Islamic State: The Fall and Rise of Al-Qaeda in Iraq," New America Foundation, August 2011. As of August 25, 2015: https://www.newamerica.org/international-security/redefining-the-islamic-state/

———, "Syria Proving More Fertile Than Iraq to al-Qaʿida's Operations," *CTC Sentinel*, November 26, 2013.

———, "The Islamic State: A Persistent Threat," prepared testimony to the House Armed Services Committee, July 29, 2014. As of August 25, 2015: https://www.newamerica.org/downloads/IS_testimony_islamic_state.pdf

Flanigan, Shawn Teresa, "Nonprofit Service Provision by Insurgent Organizations: The Cases of Hizballah and the Tamil Tigers," *Studies in Conflict and Terrorism*, Vol. 31, No. 6, 2008, pp. 499–519.

Fordham, Alice, "Despite a Massacre by ISIS, an Iraqi Tribe Vows to Fight Back," *Morning Edition*, NPR, November 20, 2014. As of July 28, 2015: http://www.npr.org/sections/parallels/2014/11/20/364942169/despite-a-massacre-by-isis-an-iraqi-tribe-vows-to-fight-back

Forest, James J. F., Jarret Brachman, and Joseph Felter, *Harmony and Disharmony: Exploiting al-Qaʿida's Organizational Vulnerabilities*, West Point, N.Y.: Combating Terrorism Center, West Point, 2006.

Gambill, Gary, "Abu Musab al-Zarqawi: A Biographical Sketch," *Jamestown Terrorism Monitor*, Vol. 2, No. 24, December 2004. As of August 25, 2015: http://www.jamestown.org/single/?tx_ttnews[tt_news]=27304#.Vdzx0SSyPWY

Gartenstein-Ross, Daveed, "How Many Fighters Does the Islamic State Really Have?" *War on the Rocks*, February 9, 2015. As of June 29, 2015: http://warontherocks.com/2015/02/how-many-fighters-does-the-islamic-state-really-have/

Gibbons, Robert, "Four Formal(izable) Theories of the Firm?" *Journal of Economic Behavior and Organization*, Vol. 58, No. 2, 2005, pp. 200–245.

Gidda, Mirren, "ISIS Is Facing a Cash Crunch in the Caliphate," *Newsweek*, September 23, 2015. As of November 20, 2015: http://europe.newsweek.com/isis-are-facing-cash-crunch-caliphate-333422

Glover, James M., *Northern Ireland: Future Terrorist Trends*, London: UK Ministry of Defence, 1978.

Gordon, Michael R., "Pushed Out of Baghdad Area, Insurgents Seek Hub in North," *New York Times*, December 5, 2007.

———, "Archive of Captured Enemy Documents Closes," *New York Times*, June 21, 2015. As of June 28, 2015:
http://www.nytimes.com/2015/06/22/world/middleeast/
archive-of-captured-terrorist-qaeda-hussein-documents-shuts-down.html

Gordon, Michael R., and Eric Schmitt, "U.S. Steps Up Its Attacks on ISIS-Controlled Oil Fields in Syria," *New York Times,* November 12, 2015.

Griffin, Jennifer, "Zarqawi Map Aided Successes Against Iraqi Insurgency," *Fox News*, November 21, 2007.

Gunaratna, Rohan, and Aviv Oreg, "Al Qaeda's Organizational Structure and Its Evolution," *Studies in Conflict & Terrorism*, Vol. 33, No. 12, 2010, pp. 1043–1073.

"Gun Safety, Self Defense, and Road Marches—Finding an ISIS Training Camp," *Bellingcat*, August 22, 2014. As of June 17, 2015:
https://www.bellingcat.com/resources/case-studies/2014/08/22/
gun-safety-self-defense-and-road-marches-finding-an-isis-training-camp/

Gutiérrez Sanín, Francisco, and Antonio Giustozzi, "Networks and Armies: Structuring Rebellion in Colombia and Afghanistan," *Studies in Conflict & Terrorism*, Vol. 33, No. 9, 2010, pp. 836–853.

Hafez, Mohammed, "Suicide Terrorism in Iraq: A Preliminary Assessment of the Quantitative Data and Documentary Evidence," *Studies in Conflict and Terrorism*, Vol. 29, No. 6, 2006, pp. 591–619.

———, *Suicide Bombers in Iraq: The Strategy and Ideology of Martyrdom*, Washington, D.C.: United States Institute of Peace, 2007.

———, "Jihad After Iraq: Lessons from the Arab Afghans," *Studies in Conflict and Terrorism*, Vol. 32, No. 2, February 2009, pp. 73–94.

Hamilton, Eric, "The Fight for Mosul: March 2003–March 2008," Institute for the Study of War, April 2008a.

———, "Expanding Security in Diyala," Institute for the Study of War, August 2008b.

———, "The Fight for Mosul," Iraq Report VIII, *The Weekly Standard*, 2008c.

"Harmony Program," database of declassified documents, Combating Terrorism Center, 2015. As of November 20, 2015:
https://www.ctc.usma.edu/programs-resources/harmony-program

al-Hashimi, Hisham, and Telegraph Interactive Team, "Revealed: The Islamic State 'Cabinet,' from Finance Minister to Suicide Bomb Deployer," *Telegraph*, July 9, 2014. As of June 29, 2015:
http://www.telegraph.co.uk/news/worldnews/middleeast/iraq/10956193/Revealed-the-Islamic-State-cabinet-from-finance-minister-to-suicide-bomb-deployer.html

Hassan, Hassan, "The Secret World of ISIS Training Camps—Ruled by Sacred Texts and the Sword," *Guardian*, January 24, 2015. As of June 17, 2015: http://www.theguardian.com/world/2015/jan/25/inside-isis-training-camps

Hegghammer, Thomas, *Jihad in Saudi Arabia: Violence in Pan-Islamism Since 1979*, Cambridge, UK: Cambridge University Press, 2010.

———, "The Rise of Muslim Foreign Fighters," *International Security*, Vol. 35, No. 3, Winter 2010–2011, pp. 53–94.

Helfstein, Scott, "Governance of Terror: New Institutionalism and the Evolution of Terrorist Organizations," *Public Administration Review*, Vol. 69, No. 4, 2009, pp. 727–739.

Hendrix, Cullen S., "Measuring State Capacity: Theoretical and Empirical Implications for the Study of Civil Conflict," *Journal of Peace Research*, Vol. 47, No. 3, May 2010, pp. 273–285.

Hertling, Mark, U.S. Department of Defense news briefing, video teleconference from Iraq, November 19, 2007. As of November 20, 2015: http://www.globalsecurity.org/military/library/news/2007/11/mil-071119-dod01.htm

Higgins, Andrew, and Kimiko de Freytas-Tamuranov, "Paris Attacks Suspect Killed in Shootout Had Plotted Terror for 11 Months," *New York Times*, November 19, 2015.

"History of the Shrine of Imam Ali Al-Naqi and Imam Hasan Al-Askari," Al-Islam.org, n.d. As of August 18, 2014: http://www.al-islam.org/history-shrines/history-shrine-imam-ali-al-naqi-imam-hasan-al-askari-peace-be-upon-them

Hoffman, Bruce, "The Changing Face of Al Qaeda and the Global War on Terrorism," *Studies in Conflict & Terrorism*, Vol. 27, No. 6, 2004, pp. 549–560.

———, "The Myth of Grass-Roots Terrorism: Why Osama Bin Laden Still Matters," *Foreign Affairs*, Vol. 87, No. 3, July/August 2008.

Horgan, John, and Max Taylor, "The Provisional Irish Republican Army: Command and Functional Structure," *Terrorism and Political Violence*, Vol. 9, No. 3, 1997, pp. 1–32.

———, "Playing the Green Card: Financing the Provisional IRA—Part 2," *Terrorism and Political Violence*, Vol. 15, No. 2, 2003, pp. 1–60.

Hubbard, Ben, "Offering Services, ISIS Digs Deeper in Seized Territories," *New York Times*, June 16, 2015a.

———, "ISIS-Imposed Fuel Embargo Threatens Syria's Medical Centers," *New York Times*, June 18, 2015b. As of June 29, 2015: http://www.nytimes.com/2015/06/19/world/middleeast/isis-imposed-fuel-embargo-threatens-syrias-medical-centers.html?_r=0

Human Rights Council, *Report of the Independent International Commission of Inquiry on the Syrian Arab Republic*, Geneva: United Nations General Assembly, A/HRC/27/60, August 13, 2014. As of June 17, 2015:
http://www.ohchr.org/Documents/HRBodies/
HRCouncil/CoISyria/A.HRC.27.60_Eng.pdf

"In Iraq's Mosul, Pay Qaeda Tax or Pay the Price," *Middle East Online*, September 15, 2011.

International Crisis Group, *In Their Own Words: Reading the Iraqi Insurgency*, Amman, Middle East Report No. 50, 2006.

"Iraq: Al-Qaeda Extorting Businesses in Mosul," *Asharq al-Awsat*, September 9, 2010.

"Iraqis' 'Cruel Dilemma': Pay Qaeda Tax or Pay the Price," Agence France-Presse, September 14, 2011.

"ISIL, Syria and Iraq Resources," database of declassified documents, Combating Terrorism Center, 2015. As of September 2, 2015:
https://www.ctc.usma.edu/isil-resources
[These documents are contained within the broader "Harmony Program," database of declassified documents, Combating Terrorism Center, 2015. As of January 5, 2016:
https://www.ctc.usma.edu/programs-resources/harmony-program]

"ISIS Pays Foreign Fighters $1,000 a Month: Jordan King," *NBC News*, September 22, 2014. As of June 29, 2015:
http://www.nbcnews.com/storyline/isis-terror/
isis-pays-foreign-fighters-1-000-month-jordan-king-n209026

"Islamic State Group Sets Out First Budget, Worth $2bn," *Al-Araby al-Jadeed*, January 4, 2015. As of August 25, 2015:
http://www.alaraby.co.uk/english/news/2015/1/4/
islamic-state-group-sets-out-first-budget-worth-2bn

Johnson, David E., "Fighting the 'Islamic State': The Case for U.S. Ground Forces," special commentary, *Parameters*, Vol. 45, No. 1, Spring 2015, pp. 7–17.

Johnston, Patrick B., "The Geography of Insurgent Organization and Its Consequences for Civil Wars: Evidence from Liberia and Sierra Leone," *Security Studies*, Vol. 17, No. 1, 2008, pp. 107–137.

———, "Countering ISIL's Financing," testimony before the Committee on Financial Services, U.S. House of Representatives, Santa Monica, Calif.: RAND Corporation, CT-419, 2014. As of August 25, 2015:
http://www.rand.org/pubs/testimonies/CT419

Johnston, Patrick, and Benjamin Bahney, "Obama's Iraq Dilemma," *U.S. News and World Report*, June 17, 2014a.

———, "Hitting ISIS Where It Hurts: Disrupt ISIS's Cash Flow in Iraq," *New York Times*, August 13, 2014b.

———, "Opinion: Hit the Islamic State's Pocketbook," *Newsday*, October 5, 2014c.

Jones, Candace, William S. Hesterly, and Stephen P. Borgatti, "A General Theory of Network Governance," *The Academy of Management Review*, Vol. 22, No. 4, October 1997, pp. 911–945.

Jones, Seth G., *A Persistent Threat: The Evolution of al Qaʻida and Other Salafi Jihadists*, Santa Monica, Calif.: RAND Corporation, RR-637-OSD, 2014. As of August 25, 2015:
http://www.rand.org/pubs/research_reports/RR637

Jones, Seth G., and Martin Libicki, *How Terrorist Groups End: Lessons for Countering al Qaʻida*, Santa Monica, Calif.: RAND Corporation, MG-741-1-RC, 2008. As of August 25, 2015:
http://www.rand.org/pubs/monographs/MG741-1

Jung, Danielle F., Jacob N. Shapiro, Jon Wallace, and Pat Ryan, *Managing a Transnational Insurgency: The Islamic State of Iraq's "Paper Trail," 2005–2010*, Occasional Paper Series, Harmony Program, West Point, N.Y.: Combating Terrorism Center, West Point, December 15, 2014. As of August 25, 2015:
https://www.ctc.usma.edu/posts/managing-a-transnational-insurgency-the-islamic-state-of-iraqs-paper-trail-2005-2010

Kagan, Kimberly, "The Battle for Diyala," Iraq Report IV, *The Weekly Standard*, 2007a.

———, "Securing Diyala," Iraq Report VII, *The Weekly Standard*, 2007b.

———, "Expanding Security in Diyala," Iraq Report X, *The Weekly Standard*, 2008.

Kami, Aseel, and Michael Christie, "Al Qaeda's Iraq Network Replaces Slain Leaders," Reuters, May 16, 2010.

Kaufmann, Chaim, "A Security Dilemma: Ethnic Partitioning in Iraq," *Harvard International Review*, Vol. 28, No. 4, 2007, pp. 44–63.

Keller, Andrew, "Documenting ISIL's Antiquities Trafficking: The Looting and Destruction of Iraqi and Syrian Cultural Heritage; What We Know and What Can Be Done," remarks at the Metropolitan Museum of Art, New York, U.S. Department of State, September 29, 2015. As of December 28, 2015:
http://www.state.gov/e/eb/rls/rm/2015/247610.htm

Kilcullen, David J., "Field Notes on Iraq's Tribal Revolt Against Al-Qaʻida," *CTC Sentinel*, Vol. 1, No. 11, 2008, pp. 1–5.

Kirdar, M. J., *Al Qaeda in Iraq*, Washington, D.C.: Center for Strategic and International Studies, AQAM Futures Project Case Study Series, June 2011.

Knack, Stephen, and Philip Keefer, "Institutions and Economic Performance: Cross-Country Tests Using Alternative Institutional Measures," *Economics and Politics*, Vol. 7, No. 3, 1995, pp. 207–227.

Knights, Michael, "Al-Qaʿida in Iraq: Lessons from the Mosul Security Operation," *CTC Sentinel*, Vol. 1, No. 7, June 2008a.

———, "Pursuing Al-Qaʿida into Diyala Province," *CTC Sentinel*, Vol. 1, No. 9, August 2008b.

Kohlmann, Evan F., *State of the Sunni Insurgency in Iraq: August 2007*, New York: The NEFA Foundation, 2007.

Kreps, David M., "Corporate Culture and Economic Theory," in James Alt and Kenneth Shepsle, eds., *Rational Perspectives on Political Science*, Cambridge, UK: Cambridge University Press, 1990a, pp. 90–143.

———, *A Course in Microeconomic Theory*, Princeton, N.J.: Princeton University Press, 1990b.

Kuehl, Dale C., *Unfinished Business: The Sons of Iraq and Political Reconciliation*, Carlisle, Pa.: U.S. Army War College, Strategy Research Paper, March 2010.

Lamb, Christopher, and Evan Munsing, *Secret Weapon: High-Value Target Teams as an Organizational Innovation*, Washington, D.C.: Institute for National Strategic Studies, National Defense University, Strategic Perspectives 4, 2011.

Lavetti, Kurt J., "The Estimation of Compensating Differentials and Preferences for Occupational Fatality Risk," unpublished manuscript, Ohio State University, 2012.

Lazear, Edward P., "Personnel Economics: Past Lessons and Future Directions: Presidential Address to the Society of Labor Economists, San Francisco, May 1, 1998," *Journal of Labor Economics*, Vol. 17, No. 2, 1999, pp. 199–236.

Levitt, Steven D., and Sudhir Alladi Venkatesh, "An Economic Analysis of a Drug-Selling Gang's Finances," *Quarterly Journal of Economics*, Vol. 115, No. 3, 2000, pp. 755–788.

———, "Growing Up in the Projects: The Economic Lives of a Cohort of Men Who Came of Age in Chicago Public Housing," *American Economic Review*, Vol. 91, No. 2, May 2001, pp. 79–84.

Londono, Ernesto, "No. 2 Leader of Al-Qaeda in Iraq Killed," *Washington Post*, October 16, 2008.

Long, Austin, "The Anbar Awakening," *Survival*, Vol. 50, No. 2, April–May 2008, pp. 67–94.

Lynch, Rick, weekly press briefing, Multi-National Force–Iraq, May 4, 2006.

Malas, Nour, "Iraqi City of Mosul Transformed a Year After Islamic State Capture," *Wall Street Journal*, June 9, 2015.

Malet, David, "Foreign Fighter Mobilization and Persistence in a Global Context," *Terrorism and Political Violence*, Vol. 27., No. 3, 2015, pp. 454–473.

Malkasian, Carter, "Counterinsurgency in Iraq: May 2003–January 2007," in Daniel Marston and Carter Malkasian, eds., *Counterinsurgency in Modern Warfare*, New York: Osprey Publishing, 2008, pp. 241–258.

Manwaring, Max G., and John T. Fishel, "Insurgency and Counter-Insurgency: Toward a New Analytical Approach," *Small Wars & Insurgencies*, Vol. 3, No. 3, 1992, pp. 272–310.

McChrystal, Stanley, *My Share of the Task: A Memoir*, New York: Portfolio/Penguin, 2013.

McDonald, Henry, and Jim Cusack, *UDA: Inside the Heart of Loyalist Terror*, Dublin: Penguin Ireland, 2004.

McGurk, Brett, "Al-Qaeda's Resurgence in Iraq: A Threat to U.S. Interests," testimony to the House Foreign Affairs Committee, February 5, 2014. As of April 7, 2014:
http://www.state.gov/p/nea/rls/rm/221274.htm

———, "Iraq at a Crossroads: Options for U.S. Policy," statement for the record, Senate Foreign Relations Committee hearing, July 24, 2014. As of June 17, 2015:
http://www.foreign.senate.gov/imo/media/doc/
McGurk%20Testimony%20072414-Final%20Version%20REVISED.pdf

Mendelsohn, Barak, "Al-Qaeda's Franchising Strategy," *Survival*, Vol. 53, No. 3, 2011, pp. 41–46.

Miller, Gary J., *Managerial Dilemmas: The Political Economy of Hierarchy*, New York: Cambridge University Press, 1992.

MNF-I—*See* Multi-National Force–Iraq.

Moghadam, Assaf, "How Al Qaeda Innovates," *Security Studies*, Vol. 22, No. 3, 2013, pp. 466–497.

"Mosul Insurgents Challenge Islamic State Occupiers," *Iraq Oil Report*, July 22, 2015.

Multi-National Corps–Iraq, *Money as a Weapons System (MAAWS)*, MNC-I CJ8 SOP, January 2009. As of August 26, 2015:
http://publicintelligence.net/money-as-a-weapon-system-maaws/

Multi-National Division–North Public Affairs, "Operation Raider Reaper Concludes with Tribal Reconciliation," Army.mil, December 31, 2007. As of November 20, 2015:
http://www.army.mil/article/6808/
Operation_Raider_Reaper_Concludes_With_Tribal_Reconciliation/

Multi-National Force–Iraq, "IA, CF Units Clear Jabouri Peninsula of Terrorists," press release 20070217-12, Multi-National Division–North Public Affairs Office, February 17, 2007a.

———, "Tribal Leaders Continue Reconciliation Efforts Across Diyala," press release, Multi-National Division–North Public Affairs Office, August 4, 2007b.

———, "Coalition Forces Target Foreign Terrorist Facilitators, 11 Detained," press release A071213a, December 13, 2007c.

———, "Al-Qaʻida in Iraq's Number Two Leader Killed," press release, October 15, 2008.

"Nasir al-Wuhayshi: From Bin Laden Aide to AQAP Chief," *VOA News*, June 16, 2015. As of June 16, 2015:
http://www.voanews.com/content/
nasir-al-wuhayshi-rose-from-bin-laden-aide-to-aqap-chief/2824280.html

National Commission on Terrorist Attacks upon the United States, "Overview of the Enemy," Staff Statement No. 15, 2004. As of August 26, 2015:
http://govinfo.library.unt.edu/911/staff_statements/staff_statement_15.pdf

Neumann, Peter, Ryan Evans, and Raffaello Pantucci, "Locating Al Qaeda's Center of Gravity: The Role of Middle Managers," *Studies in Conflict & Terrorism*, Vol. 34, No. 11, 2011, pp. 825–842.

Nordland, Rod, "Exceptions to Iraq Deadline Are Proposed," *New York Times*, April 27, 2009.

Norman, Jane, "Islamic State Recruiting 'Highly Trained Professionals' to Manufacture Chemical Weapons, Julie Bishop Warns," *ABC (Australia)*, June 6, 2015. As of June 29, 2015:
http://www.abc.net.au/news/2015-06-06/
is-recruiting-professionals-to-make-chemical-weapons-bishop/6527020

Oak Ridge National Laboratory, "LandScan," web page, undated. As of November 20, 2015:
http://web.ornl.gov/sci/landscan/

Obeid, Hamza, "Governor of Baghdad in al-Qaeda Organization Reveals Details About It," *Islamic Times*, June 6, 2010. As of August 21, 2014:
http://www.islamtimes.org/vdcenf8w.jh8fwik1bj.html

Odierno, Raymond, "DoD News Briefing with Lt. Gen. Odierno from Iraq," January 18, 2008.

Office of the Director of National Intelligence, "Letter from al-Zawahiri to al-Zarqawi," news release No. 2-05, October 11, 2005. As of June 2, 2014:
https://www.ctc.usma.edu/posts/zawahiris-letter-to-zarqawi-english-translation-2

Oghanna, Ayman, "Corruption Stemmed at Beiji Refinery—But for How Long?" *Iraq Oil Report*, posted by Alice Fordham, February 16, 2010.

"Oil Smuggler and Al Qaida Supplier Arrested in Bayji," *Al Mashriq Newspaper*, November 22, 2007.

Oppel, Richard A., Jr., "Iraq Reports Capture of Senior Al Qaeda Figure," *New York Times*, September 3, 2006. As of November 20, 2015: http://www.nytimes.com/2006/09/03/world/middleeast/03cnd-iraq.html

———, "Iraq's Insurgency Runs on Stolen Oil Profits," *New York Times*, March 16, 2008.

Oppel, Richard A., Jr., and Mark Mazetti, "Hunt Ends with Pair of 500-Lb. Bombs," *New York Times*, June 8, 2006. As of June 29, 2014: http://www.nytimes.com/2006/06/08/world/middleeast/08cnd-raid.html

Osgood, Patrick, and Rawaz Tahir, "Iraq's Yezidi Minority Faces Massacre," *Iraq Oil Report*, August 6, 2014.

Peralta, Eyder, "CIA Doubles Its Estimate of Islamic State Fighters in Iraq and Syria," NPR.org, September 11, 2014. As of July 28, 2015: http://www.npr.org/sections/thetwo-way/2014/09/11/347796283/cia-doubles-its-estimate-of-islamic-state-fighters-in-iraq-and-syria

Petraeus, David, MNF-I commander briefing to Congress, Washington, D.C., April 8, 2008a.

———, *Report to Congress on the Situation in Iraq: Testimony Before the Senate Armed Services Committee*, Washington, D.C., April 8–9, 2008b.

Piazza, James A., "Is Islamist Terrorism More Dangerous? An Empirical Study of Group Ideology, Organization, and Goal Structure," *Terrorism and Political Violence*, Vol. 21, No. 1, January 2009, pp. 62–88.

Posen, Barry, "The Security Dilemma and Ethnic Conflict," *Survival*, Vol. 35, No. 1, Spring 1993, pp. 27–47.

Prendergast, Candice, "The Motivation and Bias of Bureaucrats," *American Economic Review*, Vol. 97, No. 1, 2007, pp. 180–196.

Rabasa, Angel, Peter Chalk, Kim Cragin, Sara A. Daly, Heather S. Gregg, Theodore W. Karasik, Kevin A. O'Brien, and William Rosenau, *Beyond al-Qaeda: Part 1, The Global Jihadist Movement*, Santa Monica, Calif.: RAND Corporation, MG-429-AF, 2002. As of August 26, 2015: http://www.rand.org/pubs/monographs/MG429.html

Report of the Borders of the Sectors, NMEC-2009-602145, captured and declassified ISI document, Harmony Database, Washington, D.C.: U.S. Department of Defense, 2009.

Reynolds, John, "French Airstrikes Target ISIS Training Camps in Raqqah," *Guardian*, November 16, 2015.

Rider, Kirky, "Fierce Thrasher Helps Displaced Families Return Home," *The Desert Raider*, Vol. 1, No. 10, 2008, pp. 4–5.

Robertson, Campbell, and Stephen Farrell, "Iraqi Sunnis Turn to Politics and Renew Strength," *New York Times*, April 17, 2009.

Roddy, Michael, "Qaeda Confirms Deaths of Leaders in Iraq: Statement," Reuters, April 25, 2010.

Roggio, Bill, "The Diyala Salvation Front," *The Long War Journal*, May 10, 2007a.

———, "Iraq Report: The Salahadin Awakening Forms," *The Long War Journal*, May 21, 2007b.

———, "Al Qaeda in Iraq's Second in Command Was Swedish Citizen," *The Long War Journal*, October 16, 2008.

———, "Iraq Attacks and the Syria Connection," *The Long War Journal*, August 29, 2009.

———, "Islamic State Touts Training Camp in Northern Iraq," *The Long War Journal*, July 22, 2014.

Roggio, Bill, Daveed Gartenstein-Ross, and Tony Badran, "Intercepted Letters from al-Qaeda Leaders Shed Light on State of Network in Iraq," *The Long War Journal*, September 12, 2008.

Roggio, Bill, and Caleb Weiss, "More Jihadist Training Camps Identified in Iraq and Syria," *The Long War Journal*, November 23, 2014. As of January 8, 2016: http://www.longwarjournal.org/archives/2014/11/more_jihadist_traini.php

Ryan, Patrick, *The Efficacy of Leadership Targeting Against Al Qaeda in Iraq*, master's research project, Washington, D.C.: Georgetown University, May 2013.

Sageman, Marc, *Understanding Terror Networks*, Philadelphia: University of Pennsylvania Press, 2004.

———, *Leaderless Jihad: Terror Networks in the Twenty-First Century*, Philadelphia: University of Pennsylvania Press, 2008.

Sageman, Marc, and Bruce Hoffman, "The Reality of Grass-Roots Terrorism [with Reply]," *Foreign Affairs*, Vol. 87, No. 4, July/August 2008, pp. 163–166.

Salama, Ahmad, "Kidnapping and Construction: Al-Qaeda Turns to Big Business, Mafia Style," *Niqash*, April 6, 2011.

Samuels, Lennox, "Al Qaeda in Iraq Ramps Up Its Racketeering," *Newsweek*, May 20, 2008a. As of June 3, 2014: http://www.newsweek.com/al-qaeda-iraq-ramps-its-racketeering-89733

———, "Al Qaeda Nostra," *Newsweek*, web exclusive, May 21, 2008b.

Sanger, David E., and Julie Hirschfeld Davis, "Struggling to Starve ISIS of Oil Revenue, U.S. Seeks Assistance from Turkey," *New York Times*, September 13, 2014.

Saul, Heather, "Senior ISIS Leader Gives Televised Interview Revealing Exactly How Group Amassed Its Fortune," *Independent*, April 22, 2015. As of June 29, 2015:
http://www.independent.co.uk/news/world/middle-east/
senior-isis-leader-gives-televised-interview-revealing-exactly-how-group-amassed-
its-fortune-10196045.html

Sciutto, Jim, Jamie Crawford, and Chelsea J. Carter, "ISIS Can 'Muster' Between 20,000 and 31,500 Fighters, CIA Says," CNN.com, September 12, 2014. As of July 28, 2015:
http://www.cnn.com/2014/09/11/world/meast/isis-syria-iraq/

Shaheen, Kareem, "US Drone Strike Kills Yemen al-Qaida Leader Nasir al-Wuhayshi," *Guardian*, June 16, 2015.

Shapiro, Jacob N., "Terrorist Organizations' Vulnerabilities and Inefficiencies," in Harold Trinkunas and Jeanne K. Giraldo, eds., *Terrorist Financing in Comparative Perspective*, Stanford, Calif.: Stanford University Press, 2007.

———, *The Terrorist's Dilemma: Managing Violent Covert Organizations*, Princeton, N.J.: Princeton University Press, 2013.

———, "108 Terrorist Memoirs, Analyzed," *Boston Globe*, January 19, 2014.

Shapiro, Jacob N., Eli Berman, Luke N. Condra, and Joseph H. Felter, "Empirical Study of Conflict Project's Iraq War Dataset (ESOC-I)," Version 3, Empirical Studies of Conflict Project, Princeton, N.J.: Princeton University, 2014.

Shapiro, Jacob N., and David A. Siegel, "Underfunding in Terrorist Organizations," *International Studies Quarterly*, Vol. 51, No. 2, 2007, pp. 405–429.

Shatz, Howard J., "How ISIS Funds Its Reign of Terror," *New York Daily News*, September 8, 2014a.

———, "To Defeat the Islamic State, Follow the Money," *Politico Magazine*, September 10, 2014b.

———, "Iraq Is Bankrolling ISIL," *Politico Magazine*, May 24, 2015.

Sherlock, Ruth, "ISIL Seizes Syrian Regime's Lucrative Phosphate Mines," *Telegraph*, May 27, 2015. As of May 28, 2015:
http://www.telegraph.co.uk/news/worldnews/middleeast/syria/11633289/
IsilseizesSyrianregimeslucrativephosphatemines.html

Silke, Andrew, "In Defense of the Realm: Financing Loyalist Terrorism in Northern Ireland—Part One: Extortion and Blackmail," *Studies in Conflict and Terrorism*, Vol. 21, No. 4, 1998, pp. 331–361.

———, "Drink, Drugs, and Rock'n'Roll: Financing Loyalist Terrorism in Northern Ireland—Part Two," *Studies in Conflict and Terrorism*, Vol. 23, No. 2, 2000, pp. 107–127.

Sly, Liz, "Top Two Al-Qaeda in Iraq Leaders Are Dead, Officials Say," *Los Angeles Times*, April 20, 2010.

Smith, Daniel W., "Asiacell Targetted by 'Islamic State of Iraq': Attacks/Claims of Government Surveillance Target Popular Mobile Company," *Iraq Slogger*, March 23, 2009. As of September 28, 2014:
http://iraqslogger.powweb.com/index.php/post/7349/
AsiaCell_Targetted_by_Islamic_State_of_Iraq

Smith, Greg, operational briefing, Multi-National Force–Iraq, March 2, 2008.

Smith, Niel, and Sean MacFarland, "Anbar Awakens: The Tipping Point," *Military Review*, March–April 2008, pp. 41–52.

Solomon, Erika, Guy Chazan, and Sam Jones, "ISIS Inc.: How Oil Fuels the Jihadi Terrorists," *Financial Times*, October 14, 2015.

Solomon, Erika, and Ahmed Mhidi, "ISIS Inc.: Syria's 'Mafia-Style' Gas Deals with Jihadis," *Financial Times*, October 15, 2015.

Spence, A. Michael, "The Learning Curve and Competition," *Bell Journal of Economics*, Vol. 12, No. 1, 1981, pp. 49–70.

Squires, Nick, "Yazidi Girl Tells of Horrific Ordeal as ISIL Sex Slave," *Telegraph*, September 7, 2014.

Stern, Jessica, and Amit Modi, "Producing Terror: Organizational Dynamics of Survival," in Thomas Biersteker and Sue Eckert, eds., *Countering Financing of Terrorism*, New York: Routledge, 2008, pp. 19–46.

Stout, Mark, "Understand Our Wars and Enemies? Nah . . ." *War on the Rocks*, August 21, 2013. As of June 28, 2015:
http://warontherocks.com/2013/08/understand-our-wars-and-enemies-nah/

al-Tamimi, Aymenn, "A Caliphate Under Strain: The Documentary Evidence," CTC Sentinel, Vol. 9, No. 4, April 2016. As of May 2, 2016:
https://www.ctc.usma.edu/posts/
a-caliphate-under-strain-the-documentary-evidence

Tavernise, Sabrina, and Dexter Filkins, "Local Insurgents Tell of Clashes with Al Qaeda's Forces in Iraq," *New York Times*, January 12, 2006.

Thompson, Grahame, *Between Hierarchies and Markets*, New York: Oxford University Press, 2003.

Tilly, Charles, "War Making and State Making as Organized Crime," in Peter B. Evans, Dietrich Rueschemeyer, and Theda Skocpol, eds., *Bringing the State Back In*, Cambridge, UK: Cambridge University Press, 1985, pp. 169–191.

Todd, Lin, W. Patrick Lang, Jr., R. Alan King, Andrea V. Jackson, Montgomery McFate, Ahmed S. Hashim, and Jeremy S. Harrington, *Iraq Tribal Study— Al-Anbar Governorate: The Albu Fahd Tribe, the Albu Mahal Tribe and the Albu Issa Tribe*, Arlington, Va.: Global Resources Group and Global Risk, 2006. As of November 20, 2015:
http://www.comw.org/warreport/fulltext/0709todd.pdf

Tønnessen, Truls Hallberg, "Training on a Battlefield: Iraq as a Training Ground for Global Jihadis," *Terrorism and Political Violence*, Vol. 20, No. 4, 2008, pp. 543–562.

Trofimov, Yaroslav, "In Islamic State Stronghold of Raqqa, Foreign Fighters Dominate," *Wall Street Journal*, February 4, 2015.

Trujillo, Mario, "CIA: ISIS Has 20,000 to 31,500 Fighters," *The Hill*, September 11, 2014. As of July 28, 2015:
http://thehill.com/policy/217514-cia-isis-made-of-20000-to-31500-fighters

U.S. Department of Defense, *Measuring Stability and Security in Iraq*, Report to Congress in Accordance with the Department of Defense Appropriations Act 2008 (Section 9010, Public Law 109-289), Washington, D.C., June 2008.

U.S. Government Accountability Office, *Military Operations: The Department of Defense's Use of Solatia and Condolence Payments in Iraq and Afghanistan*, Report to Congressional Requesters, Washington, D.C., GAO-07-699, May 2007.

Walsh, Michael, "ISIS Can Muster 20,000 to 31,500 Fighters, Triple Previous Estimates: CIA," *New York Daily News*, September 12, 2014.

Walt, Vivienne, "How Guns and Oil Net ISIS $1 Million a Day," *Fortune*, June 24, 2014. As of October 5, 2014:
http://fortune.com/2014/07/24/isis-guns-oil/

Weaver, Mary Anne, "The Short, Violent Life of Abu Musab al-Zarqawi," *The Atlantic*, July/August 2006.

Weinstein, Jeremy, *Inside Rebellion: The Politics of Insurgent Violence*, Cambridge, UK: Cambridge University Press, 2007.

Weiss, Michael, and Hassan Hassan, *ISIS: Inside the Army of Terror*, New York: Regan Arts, 2015.

West, Bing, *No True Glory: A Frontline Account of the Battle for Fallujah*, New York: Bantam Dell, 2005.

White House, "Fact Sheet: The New Way Forward in Iraq," January 2007.

Williams, Phil, *Criminals, Militias, and Insurgents: Organized Crime in Iraq*, Strategic Studies Institute Monograph 930, Carlisle, Penn.: Strategic Studies Institute, U.S. Army War College, 2009.

Williams, Timothy, "Attacks Occur as Iraq Takes Control of Key Sites," *New York Times*, January 1, 2009. As of July 14, 2014:
http://www.nytimes.com/2009/01/02/world/middleeast/02iraq.html?_r=0

Williamson, Oliver E., *Markets and Hierarchies: Analysis and Antitrust Implications*, New York: Free Press, 1975.

Winter, Charlie, *The Virtual "Caliphate": Understanding Islamic State's Propaganda Strategy*, London: Quilliam Foundation, 2015.

Wong, Edward, "Insurgents Attack Fiercely in North, Storming Police Stations in Mosul," *New York Times*, November 12, 2004.

"World's Richest Terror Army," reported by Peter Taylor, *This World*, BBC Two, April 22, 2015.

al-Zarqawi, Abu Mus'ab, "Zarqawi Letter: February 2004 Coalition Provisional Authority English Translation of Terrorist Musab al Zarqawi Letter Obtained by United States Government in Iraq," U.S. Department of State, 2004. [Also available as "Letter from Abu Musab al-Zarqawi to Osama bin Laden," Council on Foreign Relations, February 1, 2004.] As of June 25, 2015:
http://2001-2009.state.gov/p/nea/rls/31694.htm

"The Al-Zarqawi Beliefs: 'Allah Has Permitted Us to Repay Them in Kind,'" *Irish Times*, September 24, 2004. As of June 25, 2015:
http://www.irishtimes.com/news/
the-al-zarqawi-beliefs-allah-has-permitted-us-to-repay-them-in-kind-1.1158951

Zelin, Aaron, "The Islamic State's Model," *Monkey Cage*, *Washington Post*, January 28, 2015a. As of June 29, 2015:
http://www.washingtonpost.com/blogs/monkey-cage/wp/2015/01/28/
the-islamic-states-model/

———, "Full List of the 33-Officially-Claimed Wilayat of the Islamic State as of Today," Twitter, June 20, 2015b. As of June 29, 2015:
https://twitter.com/azelin/status/612299140735856641

Zelinsky, Aaron, and Martin Shubik, "Terrorist Groups as Business Firms: A New Typological Framework," *Terrorism and Political Violence*, Vol. 21, No. 2, March 2009, pp. 327–336.

This report draws from more than 140 recently declassified documents to present a comprehensive examination of the organization, territorial designs, management, personnel policies, and finances of the Islamic State of Iraq (ISI) and al-Qa'ida in Iraq (AQI), both predecessors of the Islamic State. These records paint a clear picture of ISI practices and standard operating procedures. Leadership consciously designed the organization not just to fight but also to build an Islamic state governed by the laws dictated by its strict Islamist ideology.

An analysis of the Islamic State predecessor groups is more than a historical recounting. The lessons from examining the group's history are useful for setting expectations about the strengths and vulnerabilities of the Islamic State and its ability to combat its opponents, designing a coordinated and effective campaign against it, and understanding why it might be able to survive such an effort and sustain itself in the future, albeit perhaps at a lower level of threat. Defeating the Islamic State will require persistence. The record of counter-ISI operations from 2006 through 2010 shows that military action and political accommodation can work together to degrade the group substantially, if not defeat it.

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