At tempting to neutralize terrorists is a vexing problem. Terrorists are elusive: they emerge to commit acts of terror, then blend back into their environment. Frequently they are lone individuals who travel freely, do not wear uniforms, and assiduously seek to avoid detection. Governments historically have employed a hard/soft-power approach to the problem: targeting terrorists through direct action (counterterrorism units, drone strikes, etc.), while employing soft-power mechanisms either to gain information or to create an environment that is less conducive to facilitating, supporting, and encouraging acts of terror.

The most recent significant terrorist attack against the United States—the attack on the U.S. mission in Benghazi, Libya—provides a useful illustration of the classic hard/soft approach. In the immediate wake of the attack, the United States deployed to the region agents of the Federal Bureau of Investigation (FBI), the U.S. European Command Fleet Antiterrorism Security Team Platoon, two Navy warships, drones, and other military capabilities. Shortly after that, the United States offered a ten-million-dollar reward for information leading to the capture of those responsible for the attack on the mission.

The U.S. Department of State (DOS) offered the reward under the Rewards for Justice (RFJ) program, which it has called “one of the most valuable assets the U.S. government has in the fight against international terrorism.” Together, RFJ and the
U.S. Department of Defense (DoD) rewards program have paid more than two hundred million dollars to informants since 1984.

Despite these programs’ size and scope and our reliance on them, they receive a surprising lack of scrutiny or attention from the media, academia, and the government. Indeed, no government or research entity ever has evaluated or even questioned the efficacy of these programs. While this fact is surprising on its own, it is downright astonishing given that a significant body of psychology research demonstrates that extrinsic rewards structures—such as those that underlie these rewards programs—can undermine motivation and thus prove counterproductive. To structure rewards programs better, the rewarder must appreciate the relationship between the award and information: why and when people are motivated to provide useful information. With this in mind, rewards programs can be restructured to motivate potential informants more effectively, achieving far better results at a much reduced cost.

This article then has three goals. The first is to highlight both the importance of rewards programs and the lack of critical attention they have received. The second is to review the implementation of current rewards programs through two heretofore unused lenses: research into the psychology of motivation, and the historical case study provided by what the British experienced during what they called the “Malayan Emergency.” Finally, this article introduces two suggestions for structuring rewards programs better. These approaches, termed here maximizing and minimizing, seek to provide readily implementable improvements that apply historical lessons, together with guidance taken from years of academic research on motivation.

THE EXISTING REWARDS PROGRAM

Background
The 1984 Act to Combat International Terrorism established the RFJ program. The DOS Bureau of Diplomatic Security manages the program, which permits the Secretary of State to authorize “rewards for information that leads to the arrest or conviction of anyone who plans, commits, aids, or attempts international terrorist acts against U.S. persons or property, that prevents such acts from occurring in the first place, that leads to the location of a key terrorist leader, or that disrupts terrorism financing.”

Rewards can be up to U.S.$25 million, or more if the Secretary of State “determines that a greater amount is necessary to combat terrorism or to defend the United States against terrorist acts.” Since 1984, the program has put up more than two hundred million dollars in rewards and has paid out more than $125 million.

The DoD rewards program allows the Secretary of Defense to pay rewards for nonlethal assistance that benefits the U.S. armed forces. The standard operating
procedure referred to as Money as a Weapons System implements the DoD program, which provides smaller rewards in greater numbers than RFJ. Many other countries, including Afghanistan, Argentina, China, Greece, Guinea, Kenya, Mexico, Pakistan, the Philippines, Saudi Arabia, Syria, and Yemen, offer similar rewards programs for assistance against those designated as terrorists.

**Judging Program Effectiveness**

There has never been an evaluation of the effectiveness of either U.S. program. DOS long has maintained that RFJ is both successful and effective. On the program’s web page, administrators state that the program has “provided information that has helped prevent or favorably resolve acts of international terrorism against U.S. interests and bring to justice some of the world’s most notorious terrorists.” This statement is true; then again, twenty-five-million-dollar rewards have failed, and in some cases continue to fail, to lead to the capture of Saddam Hussein, Osama Bin Laden, Ayman al-Zawahiri, Abu Musab al-Zarqawi, and Khalid Sheikh Mohammed. Further, multimillion-dollar rewards have failed to produce information on virtually any major terrorist attack on the United States, stretching from the Benghazi attack (2012) back through the attack on USS Cole (2000), the bombings of the U.S. embassies in Tanzania and Kenya (1998), the bombing of the Khobar Towers (1996), the hijacking of Pan Am Flight 73 (1986), the hijacking of TWA Flight 847 (1985), and the bombing of Pan Am Flight 830 (1982).

So, determining whether RFJ is a “successful” program depends on the metric of success used. Perhaps generating a single piece of information would be deemed successful; researchers at the European Organization for Nuclear Research (known as CERN) spent an estimated $13.25 billion to discover a single Higgs boson elementary particle—by all accounts, a successful effort.

In the context of rewards programs, however, a far more important metric is the efficiency of the program. Consider the following example: a terrorist bomb injures two U.S. citizens. If the U.S. government offered a ten-million-dollar reward and received information leading to capture of the terrorists, the rewards would be successful—but not necessarily effective. If a one-million-dollar reward generated the same information, it would be both successful and more effective. Or consider a rewards program that produces one hundred pieces of information, but could produce five hundred pieces of information if its administration were changed slightly.

The goal of any rewards program should be increased efficiency: more information at a lower cost. Increasing efficiency requires first understanding a program’s costs.
Valuing Rewards Programs: The Cost of Information

Conducting an objective, academically rigorous evaluation would be the best method for understanding the costs and benefits of the programs. Interestingly, the Government Accountability Office (GAO) has conducted evaluations of rewards and incentives for federal employees, tax whistle-blowers, and those who report Medicare and Medicaid fraud. The GAO report on incentivizing federal employees provides useful guidance for evaluating the combined DOS/DoD rewards program. The report notes that “[a]gencies that fail to evaluate their incentive programs have no basis for determining whether their programs actually motivate and reward employee high performance.”

In any rewards program, the actual reward paid is the largest and most obvious cost of the program. RFJ has paid out more than $125 million in rewards. In exchange, the U.S. government has received information. Was the information worth more than $125 million? Would it have been worth a billion dollars? Or perhaps “only” one million? Might the information have been provided for free?

When information is received through a rewards program, the government often presumes that the program motivated the informant. However, informants may act out of a sense of patriotism, personal animus, or some other motivation that we falsely attribute to the reward. In such cases, a reward would be “wasted,” as the individuals would have come forward for a much smaller reward, or perhaps none at all. Without understanding what motivates an individual to come forward with information, it is impossible to fix an efficient price (the amount of the reward) for what the government is purchasing (information).

Absent objective valuations, officials must resort to subjective valuations; what makes Ayman al-Zawahiri “worth” twenty-five million dollars and Mullah Omar “worth” ten million dollars remains unclear. Government officials have indicated that there is an internal process that establishes these numbers; but given the suspiciously round reward figures, the valuation is at least somewhat subjective.

Beyond the actual cost of the reward, ancillary costs must be considered. The majority of RFJ targets are thought to be located in predominantly war-torn, rural, impoverished areas. Injecting large sums of cash into such regions has the potential to cause any number of unintended consequences. Most obviously, rewarders or others could use the money to perpetuate violence by purchasing weapons or funding violent operations that will destabilize the region further. Conversely, the rewarder may become a target for revenge or robbery. The DoD program guidance expressly discusses this possibility. A broader negative implication of a large reward is its destabilizing impact on the local economy. In theory, these unintended outcomes are more likely in some regions than others. Accordingly, rewards programs should take into account the recipient’s location.
There also exists the possibility that the offer of a reward could bolster the reputations of wanted individuals, inflating their standing among associates and possibly in the broader community, and bringing them greater support (money, personnel, and equipment). Thus, the reward may exacerbate the problem it is seeking to resolve. Some, for example, believe that offering a reward for the capture of Abu Musab al-Zarqawi increased his reputation.\textsuperscript{17} DoD has recognized this possibility, noting in its reward program guidance that “lower rewards limit notoriety for insurgents (Jesse James effect).”\textsuperscript{18}

A rewards program also may embolden or anger the target of the reward. For instance, in 1975 members of the Irish Republican Army (IRA) assassinated Ross McWhirter (a cofounder of the \textit{Guinness Book of World Records}) three weeks after he offered a reward for information leading to the arrest of members of the IRA. One of the killers, after his release in 1999, noted that McWhirter “put a bounty on our heads. He asked for it.”\textsuperscript{19} Poor rewards program execution can lead to such blowback.

Finally, it is instructive to look at the GAO report on incentivizing federal employees, which identifies several problems with rewards programs, including concerns regarding the possibility of fostering negative internal competition.\textsuperscript{20} A poorly structured or advertised program can even result in program failure. The FBI, for instance, pulled an advertising campaign for RFJ in the Seattle area following widespread complaints that the campaign promoted stereotypes.\textsuperscript{21}

The true cost of a rewards program, then, is the cost of the reward plus the cost of any follow-on effects of the program such as increasing violence; bolstering enemy reputations; angering enemies, thereby incentivizing their actions; and fostering negative competition for information. The very idea that a rewards program could have negative implications is anathema to the DOS view of its program, which is that as long as information is coming in, the program is working. Yet such costs are very real and should be considered when structuring rewards programs. This was one of the lessons the British learned in their Malayan rewards program.\textsuperscript{22}

\textbf{THE MALAYAN EMERGENCY: A REWARDS-FOR-INFORMATION CASE STUDY}

Governments long have offered monetary rewards in exchange for beneficial information or action. Letters of marque—essentially licenses for private individuals to capture enemy ships, rewarded from the sale of booty—date from as early as 1295.\textsuperscript{23} Similarly, in the sixteenth century countries began formalizing the concept of prize money—at first, money paid to crews for capturing a wanted pirate.\textsuperscript{24} Rewards for information on terrorists are a more recent development.
One of the earliest references relating to rewards for information for capturing what the British termed terrorists comes from the Malayan Emergency.

The Malayan Emergency traces its origins to the establishment of the South Seas (Nanyang) Communist Party in 1925; the organization was renamed the Malayan Communist Party (MCP) in 1930. The party, comprising primarily ethnic Chinese, garnered widespread popular support after Japan’s invasion of Malaya in 1942. The MCP established the Malayan People’s Anti-Japanese Army (MPAJA), which the United Kingdom and the United States officially recognized as the “foremost resistance organization behind the Japanese lines.” At the end of the war, the MPAJA “had established de facto control of many areas.” The British sought to control MPAJA forces by placing them under British military command—paying, clothing, and otherwise providing for all MPAJA forces. By 1946, however, relations between the British and the MCP were collapsing rapidly. In February 1948, the communists—now styling themselves the Malayan Races Liberation Army—launched a series of major labor strikes, followed by a terror campaign, and eventually an insurgency that became protracted.

The British initially responded with military force, but shifted to a whole-of-government approach with the implementation of what was called the Briggs Plan, named after British lieutenant general Sir Harold Briggs, the commander of British forces. The overall intent of the plan was to cut off the insurgents from their support base. While the plan was, at its essence, a population-control program, a major component of the program was a psychological warfare campaign, with an associated rewards program. Briggs enlisted the assistance of Hugh Carleton Greene, whose mission was “to persuade the terrorists to surrender, disrupting their organization and spreading disaffection in the process, and to encourage the civilian population to oppose them.”

Before Greene arrived, the British had attempted—disastrously—an amnesty plan and were contemplating a rewards program. Greene conducted a cultural assessment of the communist fighters and their sympathizers and found that—ironically—they were motivated by “greed.” Greene recognized that properly targeting the motivation could incentivize peasants to provide information, and those recruits tired of the jungle lifestyle to quit. In December 1950, Greene secured funding for large increases in the size of rewards. In March 1952, Briggs’s successor, Sir Gerald Templer—who is thought to have coined the phrase “hearts and minds”—further increased the size of the rewards.

Large reward size was one factor that made the Malaya rewards program successful. Rewards ranged from three times the average Malayan worker’s annual income to as much as eighty-five times the annual figure. In one example from 1956, an informant who supplied information that led to the ambush of three terrorists received an award equivalent to seventeen years of pay. By contrast, in
2010 the gross domestic product per capita in Iraq was $6,594, yet the vast majority of rewards under the DoD program are below ten thousand dollars. Granted, there are complications with advertising very large rewards (discussed later in the article), but both the British in Malaya and the Americans in Iraq recognized the problem.

While the size of the reward the British paid was important, so too was the structure of the program: it provided rewards for nearly everything and everybody. The program paid rewards both for surrenders and for information leading to captures. Personnel who surrendered were rewarded at a rate commensurate with their importance; for instance, a surrendering platoon leader might receive double the reward provided to a surrendering platoon sergeant. Informants who provided information leading to the capture of a wanted person were given a reward equal to 75 percent of the “surrender value” of the person. Further, voluntarily surrendered insurgents who provided information still were provided rewards, but at a 50 percent discount on their “surrender value.”

The program proved extraordinarily successful. In 1953, for instance, 372 insurgents surrendered, compared with only seventy-three captured. During the entirety of the program, 2,702 insurgents surrendered, compared with only 1,287 captured. Seventy percent of defectors cited the program as having influenced their decisions to defect. This number, a RAND study notes, “leaves out of account those who were captured, wounded, or killed on the basis of defector intelligence. It also ignores the profound effect which surrenders had on morale in the insurgents’ camps.”

What can the Malayan Emergency tell us with regard to modern rewards programs? Among other lessons, three are particularly instructive. First is the program’s recognition that “large public bounties on the heads of terrorist leaders, coupled with their continued immunity from the government, were inadvertently turning them into objects of hero worship among the rank and file.” So British authorities stopped advertising maximum rewards; instead they announced base reward amounts, with the provision that the reward could be much higher.

The second lesson learned is that rewards can generate or encourage vigilante justice—a rewards program is a modern-day “Wanted Dead or Alive” campaign. While this would be a valid critique of the Malayan rewards program, both the DoD and DOS rewards programs are limited by statute to “nonlethal” assistance.

Finally, the British program highlighted the “blood on the hands” issue. Should a reward be paid to an individual who has participated in acts of terrorism or violence? If so, is there a limit to the acceptable level of violence? For instance, what if, in 2002, Ayman al-Zawahiri had offered to give up Osama Bin Laden? The answers to such questions likely are situation dependent. The British in Malaya struggled with this question, modifying their position several times over
the course of the program. One commentator summarized the moral quandary as follows:

[T]o the soldiers on the ground it seemed almost surreal that “terrorists who were caught were treated like murderers, while those who surrendered were treated like kings.” That this dilemma was keenly felt by the men on the spot cannot be overemphasized. Many argued that it was morally indefensible that a man caught with a truckload of supplies intended for the terrorists could be prosecuted and sentenced to death, whereas a terrorist with “several brutal murders to his discredit” could decide to surrender, “walk out of the jungle and get a job.”

Reasoning that anything that brought the war to a faster conclusion was morally justified, the British in August 1950 stopped prosecuting those with “blood on their hands.”

MOTIVATION

Motivating People

A rewards program constitutes a government attempting to entice a person to do something (provide information assistance) in exchange for an incentive (money). Understanding a person’s motivation allows the rewarding government to aim its rewards programs better, such that they produce the maximum amount of information for the minimal cost. Hugh Greene, for example, understood that the Malayan insurgents were motivated by money, and he structured the British program accordingly.

Psychologists generally categorize motivation as either internal or external. Intrinsic motivation is internal—it arises from within the individual. External motivation is the result of outside pressures on the individual, such as rewards and punishments. An intrinsically motivated person receives satisfaction from the activity itself, whereas the externally motivated person receives satisfaction from the result.

Rewards programs are external motivations designed to encourage action (providing information) toward the desired outcome. While the desired outcome is easy to understand, it is devilishly difficult to predict the behaviors that will lead to that outcome—and, by extension, the incentives that will encourage these behaviors. Many rewards programs target complex environments in which myriad internal and external motivations may be in play. Misidentifying motivations for providing information can render a rewards program ineffective quickly.

Studies by psychologists in the early 1970s were “the first of many to illustrate the paradox that extrinsic rewards can undermine intrinsic motivation.” The relationship between reward and motivation, however, is exceedingly complex. When the reward is external to the activity, for instance, numerous studies have
found that “using an extrinsic reward to motivate someone to do something that the person would have done anyway could have detrimental effects on the quality and creativity of the person’s performance and on the person’s subsequent motivation to perform the activity once the extrinsic reward was received.” External rewards can cause people to “lose touch with their natural interests, psychological needs, and intrinsic satisfactions.”

Edward Deci and Richard Ryan published a seminal paper on the subject in 1985. In it they argue that, in instances where “the primary significance of [the] event for [the rewardee] is that it conveys [the rewardee is] being controlled,” it will “decrease [the rewardee’s] subsequent motivation.” This paper generated a flood of studies and papers reaching varying conclusions. A comprehensive review of the research in 1996 concluded that “(1) the detrimental effects of rewards occur under highly restricted, easily avoidable conditions; (2) mechanisms of instrumental and classical conditioning are basic for understanding incremental and detrimental effects of reward on task motivation; and (3) positive effects of rewards on performance are easily attainable using procedures derived from behavioral theory.”

Deci and Ryan formulated their work into a theory they dubbed cognitive evaluation theory, which holds that “events that negatively affect a person’s autonomy or competence diminish intrinsic motivation, whereas events that support perceived autonomy and competence enhance intrinsic motivation.” Again conducting a meta-analysis of their theory and its scholastic progeny, Deci and Ryan concluded that “tangible rewards made contingent on task behavior tend to be experienced as controlling and to undermine intrinsic motivation.” The solution is to structure rewards that “minimize the control in the situation by making the rewards nonsalient, by using an autonomy-supportive interpersonal style, and by highlighting competence clues.”

Surprisingly, the research that Deci and his colleagues conducted came up with findings that were even more unexpected with regard to the person providing the reward. In a study of teachers and students and the effects of rewards on performance, the researchers found that teachers who endorsed the concept of rewards for performance had a negative effect on their students’ performance. The researchers found that other measures of external control (e.g., grades) were “highly detrimental to . . . self-motivation.” A further conclusion was that where external mechanisms (e.g., grades) were motivating, they often motivated the wrong behavior (e.g., a desire to get a good grade as opposed to a desire to master the material).

Deci, Ryan, and others also have conducted a great deal of research on the separate but related issue of intrinsic versus extrinsic aspirations. RFJ and all
similar rewards programs presume that the rewards offered (money) will motivate persons to provide information. These programs offer, in effect, a promise to fulfill what Deci refers to as the "American Dream"—where "wealth and fame are believed to produce happiness and well-being."

Unsurprisingly, this may not be the desired end state for everyone. The research suggests that "overinvestment in the extrinsic 'having' goals may be harmful to, rather than the foundation for, well-being and life satisfaction." This phenomenon appears to have cross-cultural application. Deci, Ryan, and others argue that "intrinsic pursuits such as relatedness, growth, and community are likely to directly satisfy basic psychological needs for autonomy, relatedness, and competence[,... while] placing heavy emphasis on pursuit of extrinsic goals and rewards such as money ... can provide only indirect satisfaction of these basic needs and may actually distract from or interfere with their fulfillment."

Identifying the importance of intrinsic motivation is only half the equation; it is equally important to understand how to structure a rewards program to target intrinsic motivation. With regard to the latter, there are, of course, various schools of thought. Adherents of cognitive evaluation theory hold that "intrinsic motivation springs from two innate sources (the need for competence and the need for self-determination)."

The psychologist Abraham H. Maslow provides another perspective. Maslow theorized that humans are driven by wants and needs—specifically, unsatisfied needs. Satisfied needs, Maslow argued, do not motivate behavior. Maslow organized all needs in a hierarchy and theorized that the needs at each level must be satisfied in full before the individual will be motivated by higher-order needs. At the base level are physiological needs (breathing, food, water, etc.), followed by safety (of self, family, food, property, etc.), love (friendship, family), esteem (confidence, achievement, respect, etc.), and finally self-actualization. In other words, if a person is starving, his or her entire motivation for action will be to satisfy that unsatisfied need.

Interestingly, a study of the U.S.–South Vietnamese rewards program Chieu Hoi found that the program attracted defectors, "since it provided for all their needs such as shelter, food, medical care, clothing, and also saved them from the threat of the US army." Soldiers, Vietcong or otherwise, are not motivated by other needs until these fundamental needs are met. Once that level of need is satisfied, the individual is motivated by subsequent unfulfilled needs at higher levels of the hierarchy. Unsurprisingly, a RAND study of the British rewards-for-information program in the Malayan Emergency found that "[u]ntil the government could provide a defector or informer the protection he needed, the program got nowhere."
Motivating Informants
Applying Maslow’s model to a rewards paradigm produces some interesting insights. Take, for example, a farmer living in Pakistan’s Federally Administered Tribal Areas who knows the location of Sirajuddin Haqqani and the existence of a reward for him. The farmer realizes that his life will be upended if he provides the information about Haqqani—doing so has the potential to disrupt his hierarchy of needs. Being a rational person, the farmer will weigh that potential cost (disruption) against the benefits of providing the information (cash). A cash reward can provide for the basic needs (e.g., food, water, shelter, clothing). Then the farmer will consider his other needs, specifically his personal and financial security.

Here is where the current rewards systems break down. The farmer recognizes that his personal security will be threatened once he provides information against the Taliban—a concern that will be heightened if he is paid an in-kind reward (e.g., a new goat suddenly shows up on his doorstep). He quickly realizes that a reward cannot guarantee physical security, so his only realistic option would be to move away. The DoD rewards program acknowledges this problem, noting in the case of Iraq that “[l]arge reward amounts for the Iraqi people primarily provide an expeditious means to leave the country, and an average citizen and their family are at risk if they come into a sizeable amount of U.S. dollars.” Moving away, however, would disrupt the farmer’s familial relationships and his sense of belonging in the community. His attention then will shift to whether and how a reward can fill these unsatisfied hierarchical needs. Current rewards programs provide nothing in this regard; not only do they fail to fulfill an informant’s unsatisfied needs, but they have the potential to disrupt needs that currently are fulfilled.

Another interesting case study is the Taliban foot soldier living day to day in the same camp as Sirajuddin Haqqani. How can a rewards program incentivize him? Or, viewed another way, what is motivating the soldier not to provide information? To answer this question, it can be instructive to look at what put the foot soldier in the camp in the first place. To recruit a member successfully, the Taliban must be able at a minimum to convince him that it can satisfy his basic needs (e.g., food, water, and shelter). If the recruit is truly destitute and starving, this may be the only motivation he needs. The Taliban offers further incentives to motivate behavior, such as a sense of belonging, friendship, recognition, self-esteem, and even the prospect of self-actualization.

To motivate the foot soldier to give up his comrade, friend, or leader or to quit the Taliban, the rewarding agent must be able to satisfy these needs of the reward recipient that suddenly no longer will be fulfilled once he takes action against the Taliban. In a study of the Chieu Hoi program, researchers found that the reasons cited most frequently for defecting were “the physical hardships, the economic
needs of the family back home, the desire to evade criticism or punishment, fear of death, and homesickness.\textsuperscript{69} The British in Malaya distributed “thousands of leaflets carrying photographs showing healthy-looking [former insurgents], apparently happy and reunited with their families.”\textsuperscript{70}

In contrast, the U.S. programs, as currently structured, fail to satisfy even the most basic need of personal safety. Proponents of the program would argue that the cash payment allows the recipient to move to ensure his and his family’s security. This argument assumes they have the ability and desire to travel. There also may be physical, bureaucratic, and political impediments (e.g., health, passports, visas, finding a new home country that will take them) that would prevent such individuals from traveling. But even assuming a wardee and his family can and will travel, when they move away from their community the hierarchical needs that community formerly supplied (love, esteem, achievement, etc.) no longer will be fulfilled.

Like the hypothetical farmer, the foot soldier is a rational actor who will weigh the benefits and costs of providing the information. Unless the reward can mitigate the disruption to his hierarchy of needs, the reward will do little to motivate him. With regard to awards, Professor John Esposito has noted that “[y]ou have to be sure that people are protected . . . , because in order for the system to work well, there should be complete anonymity.”\textsuperscript{71}

It is worth noting that Maslow’s theory does not apply perfectly to this subject. Organizations rooted in religious doctrine have the capacity to attract adherents who are willing to forgo basic needs in exchange for self-actualization. A monk, for example, may be willing to forgo physical comfort and secular community acceptance in a quest for spiritual fulfillment. Al Qaeda may attract individuals willing to forgo the fulfillment of basic needs such as physical safety in exchange for self-actualization (i.e., martyrdom). Maslow’s hierarchy provides little guidance about how to motivate such individuals.

Yet despite the gaps in Maslow’s theory, it provides a relevant and useful illustration of a fundamental point: in most instances, money alone will not motivate people to provide information if their personal safety cannot be guaranteed.

On the broader point of applying psychological models to the structuring of rewards programs: no model can provide the details. Even if one accepts that rewards must address hierarchies of needs, those needs are very situation dependent. Consider two hypotheticals. In the first, the informant is a U.S./Afghan citizen whose family lives in the United States; in the second, the informant is an Afghan citizen whose family lives in Afghanistan. The needs of these two individuals are different. Similarly, programs have to be adapted to the cultural environment in which they are implemented. Wisely, the DoD rewards program in Afghanistan is based on Afghan culture.\textsuperscript{72}
Program Models

Minimizing the Reward Profile. Given the issues addressed above, consideration should be given to approaches that address these issues. The first approach would seek to provide rewards in a way that minimizes the conspicuousness of the reward. A minimized-profile rewards approach provides the dual benefits of reducing threats to an informant’s safety and reducing the appearance of control, to avoid undermining intrinsic motivation. Various methods are available to minimize a reward’s profile. For instance, rather than soliciting information from individuals, information can be solicited from and rewards paid through organizations (neighborhoods, companies, government agencies), with the organization reaping the benefits collectively in the form of in-kind rewards.

Providing rewards across a large organization significantly reduces the threat of retribution, thereby reducing individual members’ concerns for their safety. Naturally, under this reward paradigm, the organization as an entity will reap a greater short-term reward than the individual members of the organization; the owners of a factory, for instance, benefit from a new piece of equipment. The long-term benefit, however, accrues to everyone: a more productive business leads to economic stability and long-term security.

Another method would be to provide rewards in the form of annuitized payments. Rather than being paid in a lump sum that would increase scrutiny on the informant, the reward would come in small payments over a long span of time (e.g., a few dollars a week for many years). A related tool could be the use of “micro” rewards. A micro rewards program would seek small bits of seemingly inconsequential information. The idea is that the information requested would be so innocuous that it would not cause the informant any of the concern about potential disruption to his life that might result from giving up more-significant information. For instance, how many cars pass a given intersection in a given day? When was the last time you saw somebody in the village you did not know? The key to this program is the relative anonymity of the rewarding party’s involvement in the program and restricting the requests to very low-level, seemingly innocuous information. The downside to this model is the possible flood of information, much of which will be useless.

On this point, a relevant case study concerns a competition that the Defense Advanced Research Projects Agency (DARPA) sponsored in 2009. DARPA was interested in exploring how social networking can be applied to solving problems. For the competition, it required participating teams/individuals to find “10 8-foot balloons moored at ten fixed locations in the continental United States.” Just before the competition began, the balloons were floated surreptitiously at random locations in nine states. The winning team found all ten balloons in less
than nine hours. Its performance beat that of the other four thousand participating teams so roundly that it shocked DARPA, which had scheduled the competition to last two weeks.74

This case study is interesting and relevant for two reasons. Critical to the winning team’s success was its ability to work through thousands of tips in an extremely short period. Over the course of the competition, the four thousand teams’ social networks were churning out significant amounts of information; indeed, many of the teams engaged in disinformation campaigns intended to mislead other teams. Despite this, the winning team was able to parse all the information coming in and separate the quality information from the useless or misleading.75 This demonstrates that there is a mechanism that can be applied to a problem set such as this, allowing the user to evaluate lots of small bits of information and identify the valuable ones.

Furthermore, the DARPA competition itself could provide a model for rewards programs. The key to the winning team’s success was its incentive structure. DARPA offered a total of forty thousand dollars in prize money. The winning team allocated this evenly among the ten balloons, giving each a “value” of four thousand dollars. Two thousand dollars went to the person who found each balloon. This was hardly unique; most other participating teams offered some reward for finding balloons. What set the winning team apart is that it then gave one thousand dollars to the person who had referred the balloon finder to the team’s website (if there was no referral, the finder received two thousand dollars and the other two thousand dollars went to charity). Then the team gave five hundred dollars to the person who referred the referrer, $250 to the person who referred that person, and so on.76

This diffuse incentive structure essentially propagated itself over existing social networks: people were incentivized to get as many friends working for the winning team as possible. The speed with which this propagated itself is remarkable. Each of the five members of the team sent out an e-mail explaining the competition and the incentive structure. Within forty-eight hours, team members had five thousand people signed up to assist them.77 This likely could be replicated to address any discrete problem or pursue any piece of information. While networked computers, e-mail, and websites make this incentive structure easier to manage and propagate, it could be done in the absence of computers through phone networks or even word of mouth. The British rewards-for-information program employed a similar model, paying members of the public a cash reward for assisting terrorists in surrendering.

The minimized-profile rewards model is not without its downsides. Substantially increasing the number of rewards paid greatly complicates management of the program. Rewards must be tracked and paid. Regardless of the sophistication
of the algorithm used to sort the data, each piece of the data would have to be entered into the system. Further, providing small payments over a long period creates an ongoing concern for the safety of the informant.

**Maximizing the Reward Package.** A program that minimizes the reward profile seeks to satisfy an informant’s need for security by keeping the reward clandestine. An alternative model would address this need by maximizing the reward. *Maximizing* does not refer to the dollar value of the reward; as noted above, money alone rarely satisfies a person’s psychological needs, and may have the opposite effect. Rather, *maximizing* refers to a program that creates award packages that, along with providing monetary rewards, also ensure the informant’s safety.

In a rare congressional hearing on RFJ, Representative Brad Sherman noted that after giving the United States information, some informants “might find their country of origin to be a dangerous place.” He asked DOS’s Robert A. Hartung whether the department has the authority to provide visas as part of the reward. After some back-and-forth, Sherman summed up the issue: “But if we really provided the fine print on the Web site the way you would in a securities offering, we would have to asterisk and say whether or not we help you avoid death is subject to our sole determination as to whether you are in danger[,] and whether or not we can let you live in the United States, even if we think that is necessary for your protection, is subject to the determination of other agencies.”

The most obvious maximized rewards package would combine a cash award with the guarantee of a new identity and permanent residency in another location. The RAND report on the Chieu Hoi program found that one of the major deficiencies of the program was a failure to “aid [defectors’] reintegration into South Vietnam.” While informants today are relocated in some instances, a potential informant may not know this, or may not want to entrust his safety to the bureaucratic vagaries of the rewards system. Thus, the State Department should advertise the possibility of visa packages, citizenship, and similar benefits.

Further, the broader the incentive package, the more psychological needs it will fulfill. For instance, money and moving expenses may satisfy an informant’s physiological and safety needs, but accepting them obliterates the fulfilling of needs that his family and community currently perform. Moving the family with the informant satisfies a portion of the informant’s needs, but fails to address needs that the community satisfies (a sense of belonging, self-esteem, respect, etc.). A maximized reward would protect the informant and his immediate family, plus his extended family, his close friends, or both. For example, rather than paying a ten-million-dollar reward and moving five people, the rewards package might pay five million dollars and move a dozen people. The greater the chance that an informant can live safely with his family and friends, the greater the chance the informant will consider coming forward.
Implications for the Commander

While commanders on the ground have no control over the structure or administration of DOS's RFJ program, they should be aware of the program's existence—and its limitations. Commanders may well find themselves in circumstances in which they are recommending a reward from RFJ. Further, DoD regulations require coordination between DOS and the combatant commanders on rewards programs.

Combatant command staffs should structure their rewards programs to allow for minimized-profile rewards. Commanders on the ground should think of ways to minimize rewards' profiles while considering the various negative aspects of the rewards-for-information programs. Finally, all users of the DoD rewards program should track rewards given and information provided rigorously so the effectiveness of a program can be measured objectively.

Rewards programs plainly have a role in a counterterrorism fight. The British program in Malaya provides a powerful example of a dynamic rewards program, one carefully constructed to target the motivation of the targeted individuals. Several factors contributed to the success of the British program, foremost a keen understanding of the motivational and cultural components of the program and a willingness to adapt the program continually to changing circumstances.

The U.S. rewards programs have tremendous potential. They are firmly established, well organized, and well funded. It is also clear that rewards can yield information leading to the capture of terrorists. Where programs focus on “success” rather than effectiveness, however, their full potential is left unrealized. All rewards programs would benefit from objective evaluations and functional definitions of success that take into account the benefits and costs of a given program. The work that psychologists have produced since the 1970s provides a useful model from which to construct a better rewards program—or, at a minimum, a good place to begin the conversation on how best to employ rewards to catch more terrorists.

NOTES

1. The program most recently has offered rewards for five senior leaders of the Islamic State of Iraq and Syria, sometimes known as ISIS.
3. A search on EBSCOhost returned two articles in peer-reviewed journals that mention "Rewards for Justice," and then only in passing. A search on JSTOR returned a single article, again mentioning the program in passing. A search on Google Scholar returned several articles referencing "Rewards for Justice," but no piece critically examining the program. A search on Westlaw found five court cases and forty-two law review articles that mention...
the phrase. Of these forty-seven instances, all except a handful mention the program in passing.


6. Ibid.


10. There are contradicting reports on whether a reward was paid for the information that led to the capture of Khalid Sheikh Mohammed. The RFJ website does not indicate a reward was paid.


15. The majority of wanted persons are located in the tribal areas of Afghanistan, Iraq, Pakistan, the southern Philippines, Somalia, and Syria. See generally U.S. State Dept., Rewards for Justice.

16. The possibility of this outcome is expressly discussed in DoD’s guidance for its rewards program. “[A]n average citizen and their family are at risk if they come into a sizeable amount of U.S. dollars.” Multinational Forces Iraq, Money as a Weapon System (MAAWS) (January 26, 2009), p. 2-2.


20. The Effectiveness of Federal Employee Incentive Programs (Brostek statement).


22. The other major flaw was the fixed reward structure, which British officials felt "did not truly stipulate a ‘proper relationship’ between the amount paid and ‘degree of risk’ incurred by the informant or ‘effort involved in elimination’ of the wanted terrorist." Kumar Ramakrishna, “‘Bribing the Reds to Give Up’: Rewards Policy in the Malayan Emergency," War in History 9, no. 3 (2002), p. 342.

24. See, for example, the Cruisers and Convoys Act of 1708, discussed in John H. Owen, *War at Sea under Queen Anne: 1702–1708* (New York: Cambridge Univ. Press, 1938), app. F.


26. Ibid., p. 3.

27. Ibid., p. 4.

28. Ramakrishna, “‘Bribing the Reds to Give Up,’”


31. The Briggs Plan is not a perfect analogy, because it sought both defectors and information. The plan remains instructive, as the psychological factors resulting in defection or information are the same.


33. The plan was “both ambiguous and disingenuous—ambiguous because terrorists who wanted to leave the jungle were not clear what degree of involvement in capital crimes constituted culpability in the eyes of the police; disingenuous because police brutality against captured terrorists . . . did not inspire confidence on the part of [defectors] that the government would treat them even-handedly if they gave themselves up.” Ramakrishna, “‘Bribing the Reds to Give Up,’” p. 337.

34. “In the conditions which existed, and still exist, in many parts of the country the only human emotion which can be expected to be stronger than fear among a terrorised population with very little civic consciousness is greed.” H. Carleton Greene, “Report on Emergency Information Service, September 1950–September 1951,” September 14, 1951, ref. KV 4/408, The National Archives, Kew, United Kingdom.

35. Ramakrishna, “‘Bribing the Reds to Give Up,’” p. 334.


37. British authorities preferred defectors over information leading to the capture or killing of a wanted individual, and advertised accordingly.


40. Ibid., p. 75.

41. Ibid.


45. Ramakrishna, “‘Bribing the Reds to Give Up,’” pp. 351–52.

46. Ibid.


49. Hogarth, *Educating Intuition*, pp. 76–77; Good and Brophy, *Contemporary Educational Psychology*.


52. Ibid., p. 3.


57. Ibid., pp. 32–33.

58. Ibid.

59. Ibid., p. 39.

60. Ibid., p. 43.

61. Ibid., p. 44.

62. Ibid., pp. 44–45.


65. Ibid.


70. Ramakrishna, “‘Bribing the Reds to Give Up,’” p. 338.


73. "We Have a Winner! MIT Red Balloon Challenge Team," *DARPA Network Challenge*, archive.darpa.mil/.


75. Ibid.

76. Ibid.

77. Ibid.


79. Ibid.
