HIGHLIGHTS

- Most “jihadists” are educated and middle class, and join jihadist organizations from outside their home country—especially in Europe.
- The vast majority of politically violent actors join through kinship or friendship networks, not by more formal recruitment.
- Religious fervor is not a principal motivation for violent acts.
- Resentment at occupation or corruption by the West, and “esteem transformation” seem to be central to violence motives, as in Iraq.
- The Internet is playing an enormous role in “jihad” by helping easy entry, training, and the forging of social bonds.
- Indiscriminate repression of Islamist groups by the state may move them from non-violent strategies to violence if the costs of each are the same.

INTRODUCTION

The fourth conference in the Persian Gulf Initiative, the “Workshop on Transnational Violence,” convened experts on the history of Islamic fundamentalism, social movements, social networks, and violence to examine transnational violence as it has originated from or come to bear on the states and populations in the Persian Gulf. The resulting discussion was both creative and rare.
We summarize the workshop highlights below, and in five parts: Global Islamic Extremists; Understanding Radicalization; Dissuading, Preventing and Countering Extremist Violence; Iraq; and Implications for Policy and Academic Research. Two subjects deserve special note, as they defy widely accepted conventional wisdoms: one is the nature of Sunni extremist radicalization, as informed by data on today’s terrorists as well as a long-standing literature; the other is the often ignored or misunderstood role of emotion in these processes, and particularly its interaction with media.

Participants

John Tirman, Executive Director, MIT Center for International Studies, chair
Nichole Argo, Ph.D. candidate, Political Science, MIT, discussant and rapporteur

Presenters:
• Scott Atran, National Center for Scientific Research, Paris, France, and Research Scientist, Institute for Social Research, University of Michigan
• Mohammed Hafez, Visiting Professor of Political Science, University of Missouri, Kansas City
• Ahmed S. Hashim, Professor, Strategic Research Department, Naval War College
• Quinn Mecham, Associate Professor of Political Science, Middlebury College
• David Siddhartha Patel, Ph.D. candidate in Political Science, Stanford University
• Rueven Paz, Director, Project for the Research of Islamist Movements (PRISM), GLORIA Center at the Interdisciplinary Center, Herzliya, Israel
• Roger Petersen, Professor of Political Science, MIT

Participants:
• Ali Banuazizi, Boston College
• Barbara Bodine, MIT Center for International
Studies
- Shai Feldman, Crown Center, Brandeis University
- Augustus Richard Norton, Boston University

I. GLOBAL ISLAMIC EXTREMISTS

Previous to 9/11, Islamic terror was anchored in the Persian Gulf: Osama bin Laden was known to fund, inspire, or even orchestrate smaller terrorism movements throughout the Muslim world, and the core group around him was largely Saudi and Egyptian. This regional anchoring appears to have changed, however, as international efforts to counter terror have debilitated al Qaeda leadership, and disabled whatever hierarchical functioning existed before. Terror has by no means been decapitated; it has instead transformed. The leadership of the old Al Qaeda does not today know the individuals comprising the global terror network—which raises questions about the nature of this “network.”

We are thus presented with two questions:
- Who is joining the jihad?
- How do they come to it?

The answers to these questions are important. As proven or assumed, they are shaping global responses.

The workshop was fortunate to have two participants present findings from their independently created databases of 400-plus Sunni extremists from around the world. Given that their findings generally overlapped, they are summarized below without distinction.

Who They Are

The typical jihadi is competent, educated, and generally middle-class. He or she does not suffer depression or sociopathy, and often has not personally suffered grievances beyond—or even at the level of—their home communities. Outside of Palestine, most jihadis are married. As one presenter put it, “It is impossible to profile those who will join the jihad.”
Importantly, approximately 87 percent of today’s jihadis join the jihad from outside their country of origin. Most of them live in Europe as part of a growing Arab/Muslim diaspora. Of those living in their home countries, 14 percent have worked for their country’s security services, and 6 percent are or have been prominent local or national politicians. These are not individuals who have been left out of the system; one in five has been part of his/her country’s political or security services.

The most heavily represented nationalities were Saudis (17%), Pakistanis (8.5%), Egyptians (7%), Moroccans (6%) and Iraqis (5%). But as curious as who appears to comprise the global extremist network is who does not. One presenter said, “I have yet to find one Afghan who is genuinely part of any international movement. It’s ironic, because while Afghanistan has been a central feature in global jihad, its people never really were.” Similarly, the majority of Iraqi (61%), Indonesian (81%), Filipino (89%), and American and U.K. nationals in the intelligence sets have not been known to operate outside their own countries.

Though concerns about “the next Afghanistan” are often voiced, as of yet “we haven’t really been able to find new global hubs to which everybody of all nationalities are going,” concluded one presenter. “They’re either staying where they are [as immigrants] or going back to their own country.” That said, in a series of surveys with jihadis throughout Europe and Asia, 80 percent of jihadis expressed support for attacking the far enemy, i.e., the West, a number that includes Indonesia’s Jemaah Islamiyya.

**How They Join**

In stark contrast to conventional wisdom that organizational or educational indoctrination breeds terror, the data show that new jihadis “enlist” organically, through friendship and kinship networks (70% and 20%, respectively). Perhaps this helps to explain how newer attacks are carried out by small, decentralized groups with little physical contact with one another.

During the past two years, we have also seen an increasing number of self-constituting and self-mobilizing groups. They appear to radicalize through the Internet, and hold weak or no ties to previous terror organizations.
Who are these self-radicalizers? Like other Sunni extremists, the perpetrators of the bombings in London 2005, in Madrid 2004, or in Bali, among others, weren’t born of poverty or low education. Their religious knowledge appears to have been relatively shallow, and it is unclear whether acquisition of religious belief was a cause or consequence of their radicalization.

According to one presenter, the network responsible for the 2004 Madrid bombings is representative of findings in as many as 50 other terror network analyses they are doing. What is fascinating about the network’s evolution is its dense and random nature: the network grew by chance, contingency, and marriage—not with the strategic, ideological, or even intentionality one might have expected.

II. UNDERSTANDING RADICALIZATION

If many of the common stereotypes of jihadis are not supportable, how then do we understand “conversion,” recruitment, and the other processes at work in the human composition of militant Islam? The West’s ability to understand the complex radicalization processes claiming masses of Muslims throughout the world today may be its biggest challenge.

Stated or assumed, Islamic religious ideology is often construed to be the root cause of transnational terror. As one participant claimed, “We look at the Islamic discourse and conclude that it is the problem.” But what if this discourse and the violence associated with it is an outcome or by-product of larger structural and emotional processes?

The workshop’s Islam experts emphasized that violence is not endogenous to the message of Salafism (that which purportedly adheres to the earliest devotions of Islam). Others claimed that it is not the Salafi message itself that is motivating jihadis. Instead, once jihadis are motivated, the message appears to play a strong role in justifying and maintaining commitment to jihad.

Several facts support this argument. First, there are many Salafis who do not endorse violence, despite their belief that the malaise in the umma is the result of collaboration of Arab governments with the West and other such laments.
Moreover, we know that today’s jihadis are usually not deeply religious. In the words of one participant: “When I interview guys that have joined the jihad I find a remarkably flattened message. They don’t even know the pillars of Islam. They know a few words. But by plugging into the jihad they get the feeling that they are doing something. Their esteem changes.”

It need not be the Islamic nature of the jihadi struggle that makes this esteem transformation possible. Many others outside the religious frames of Islam or the Abraham traditions have engaged in politically violent behavior. Or consider the stories of David and Goliath and Jack and the Beanstalk. They are thematically equivalent—a grievance exists, and on some level the individual feels the need to do something. As one participant said, “Jihad is just a means.”

A third reason to question the conventional wisdom on ideology and indoctrination is that we have seen this reasoning before, and in times of similar threat: against the enemies of communism and Nazism, ideology was discredited as a causal variable. Research then asked how and why people joined communist groups, and how and why they radicalized as they did. Much like the jihadi data cited above, the answer was mundane: social networks.

A fourth arena of evidence comes from a study of weak-against-strong resistance in Eastern Europe throughout the Second World War. One of the best predictors of high-risk and high-sacrifice violence against occupation or political puppets was resentment, an emotion that depended upon inversions of group status. Even if the group that was placed in a higher status wasn’t a threat, it would be attacked. So grievance and its correlate of emotion were prerequisites to the formation of resistance.

This scholar then found that communities that were small and home to a significant number of social (rather than political or economic) groups were more likely to get involved in risky rebellion. The best predictor of getting involved was friendship groups. In short, and contrary to popular perceptions then, rebellion was bottom-up, community based, and a product of local norms of reciprocity. As in the studies of communism, ideology was important, but not until after people organized. Through friendship bonds, they were sucked into small cells, and
once there, they grabbed an ideology that helped maintain their actions and beliefs.

The additional finding in this study was that emotion was more important than traditional narratives. As presented, “It wasn’t that longstanding ethnic myths didn’t exist, but certain structural factors were required to bring them to salience.”

Together, these four insights suggest that we need to rethink the role of ideology, if not in sustaining and justifying global terrorism, then in motivating it. The appeal of jihad appears to be as metaphor—specifically a metaphor of social protest. On the one hand, it says, “you are being oppressed,” and that is resonating for Muslims in a broad array of circumstances. On the other hand, it says, “you can and should do something about it,” and that seems to confer dignity to those who feel diminished. There is even some fascinating evidence that, once established, the metaphor appears to be adopted by outsiders. A cursory review of white supremacist websites reveals shocking new language—including headlines on “Aryan Jihad.”

Whatever the mechanism, jihad has created new options for social and military action. One participant interviewed a European extremist who joined the jihad because his sister was insulted. When asked what he would have done had the insult occurred 10 years ago, he said, “I don’t know, we didn’t have jihad then.”

**Rethinking Emotion**

Emotion is noteworthy in the discussions of motivation and mobilization above: alienation, anger, and shame have been used as descriptions of Europe’s diaspora Muslims, many of which comprise the Sunni extremist network. Emotion exists in the seemingly benign social bonds that gradually radicalize decentralized terror networks, and even today’s self-starters. Emotion galvanizes populations in response to a clear change in group status. And emotion fosters the type of risk acceptance and sacrifice necessary for weak groups to take on strong militaries. Importantly, emotion in these cases is not invoked in an irrational/pathological sense, but as a normal response to the political events and social structure of daily life.
Though rarely acknowledged in the rational choice models of much social science, emotions appear integral to all the processes surrounding terror: networks, motivation, and ideology. They are central to the radicalization story because changes in structure (e.g., wars in Afghanistan or Palestine, political repression throughout the Arab world, occupation in Iraq, etc.) affect emotion, and emotion affects the formation of one’s beliefs and the salience of one’s preferences.

Emotions play a role in two additional processes tied to radicalization. The first is the use of emotion in jihadi videos, the second, its “invisible hand” over the Internet.

One participant, whose current project is to review jihadi videos on the Internet, finds them to follow a common narrative consisting of three themes.

1) **Humiliation** is the heart of the narrative, with images of the West in concerted effort to target the Muslim world. It attacks without justification, killing innocent children, storming civilian homes and defiling Muslim women. It is heart-wrenching, even to the Western observer. These images attempt to personalize the struggle.

2) **Impotence and collusion**. Having prompted the emotion that something terribly wrong is happening, most jihadi videos then make the point that Arab leaders are doing nothing about it. Arab leaders shake hands with the West. Some have images of the Star of David on their foreheads. The message is clear: the leaders will not act, so common Muslims must.

3) **Sacrifice and victory**. The last part of the videos show devout commoners preparing jihad in the name of the people, successfully bombing a Western stakeout, and attributing the victory to God. In these frames, the jihadis have flipped the stakes: they have gone from “we are humiliated” to “we have humiliated the oppressor.”

This scholar noted that the marketers of jihad use imagery, poetry, and biography to attract recruits, not theological argumentation. These are emotional narratives. Their images adhere to cultural fidelity, cut across ideological commitments, and offer diagnostic, prognostic, and motivational frameworks. They also serve as facilitators of moral disengagement—by dehumanizing the enemy and pitching
the struggle in terms of defense, fighting back is the only moral thing to do. They seek to shame bystanders into action, and they give legitimacy to those who are acting.

The Role of the Internet

In the past six years, the number of jihadi websites has grown from fewer than 20 to more than 4,000. Web designers are savvy, clearly targeting a 15 to 30-year-old audience with an MTV-like model of graphics and messaging.

As one participant noted, “The people reading these websites are in many cases people whose understanding and knowledge of Islam is very poor. They are attracted to symbols and slogans…They are asking ‘What does Islam have for me, based on the world today? How do I do jihad?’”

For the most part, the West laments the Internet’s content—specifically its ability to canonize the jihad’s martyrs long after they have died. But going beyond content, workshop participants emphasized two other critical means by which the Internet is reshaping the social organization of today’s terror: network connectivity and solidarity.

Websites run by jihadists, or “web agents,” are “assuming central roles as actors, bridges and hubs in jihadi social networks,” said one contributor who has begun entering websites into his database and modeling them as agents in a social network. “We’ve found web agents to control resources and information much like physical agents, even as bin Laden did before.”

This does not mean that web agents are becoming anonymous virtual leaders, however. Indeed, the network has shifted more generally to a “leaderless resistance” model, with the online teachings of men like Mustafa Setmariam Nasar (also known as Abu Mus‘ab al-Suri), the new global jihadi Web “star” and principal theoretician of “leaderless jihad,” at its forefront.

Perhaps most striking of all is that the Internet appears to foster social bonds with more speed and durability than the bonds we form in daily life. Indeed, the unique properties of Internet bonding extend beyond jihad: studies show that dating over the Internet tends to lead to more stable relationships than meetings in person. But the jihad has capitalized on this, and has led to new forms of social
organization within it. For instance, women traditionally had a hard time entering jihad because they weren’t allowed to mix with men in person, but they are now entering networks via the Internet, where they quickly form and cement relationships. The Internet also facilitates a branching of networks. “When a Tamil guy takes a job somewhere, we find the internet facilitates the new groups that follow him as he makes new connections. Individuals bring their friends online and re-bond in stunning ways,” shared the researcher.

Why is Internet bonding quicker and stronger than in real life? It is a question for further research. “It’s because groups don’t have to do the alpha male thing,” suggested one presenter. Neither, when you join a group online, are the risks and costs associated with joining a group ever before you, suggested another. “You have no idea how big your virtual community is. Your threshold for joining the world is pretty low.” Whatever the reason, research is needed to better understand a phenomenon that is transforming terror as well as the rest of our world.

Sacred Values

Fascinating surveys have been done with imprisoned jihadis that reveal values—specifically, sacred values. Sacred values are held in every culture as those values without tradeoff, values that are uncompromising. Honor or dignity could be one, putting your military unit before yourself another, or, in civilian life, prohibition against selling your children yet another. In a series of surveys, one researcher found that allegiance to jihad trumps everything else for jihadis, except profession of faith.

The realm of sacred values is fundamentally different from the realm of utilitarian tradeoffs. In fact, surveys show that if you offer an instrumental concession in return for a sacred value, respondents become angry, and support for violence increases. Tools such as dissuasion and deterrence offer nothing in this realm. Only a token, symbolic tradeoff pushes their support for violence down.

Unfortunately, there is little research on the cognitive or emotional structure of sacred values. We do not understand how sacred values are acquired or accommodated in one’s system of prior beliefs, but it could be a critical research path for the future.
III. DISSUADING, PREVENTING, AND COUNTERING EXTREMIST VIOLENCE

Workshop planners posed the following questions to participants: Why do groups become violent? Why do violent groups become transnational? Once the move towards violence or across borders has happened, can organizations go back?

“The vast majority of Islamic mobilization is not violent,” noted one participant. Further, history shows that even violent movements are seldom committed to violence irrespective of conditions. The question is, what conditions foster choosing violence?

Violence can and often does start as a result of internal fighting. In such cases, one faction of the group is able to hijack the agenda of the movement through the use of violence. But according to one presenter, we also should heed the structure of incentives between the state and the Islamic group. Under some repressive conditions, the costs of violence may not exceed nonviolent tactics for the organization. Some groups become violent because, in order to maintain themselves, illegal means are necessary.

Repression is a difficult for reasons of geography, financing, and consistent political will, among others. Moreover, the question is not whether or not to repress, but how the state applies repression (e.g., discriminately or indiscriminately) and the timing of the repression. In the case of Egypt, the state repressed everyone, but the way it applied repression against the Muslim Brotherhood left available more options than did the repression applied to Islamic Jihad. This explains why the Muslim Brotherhood in Egypt never really turned to violence. Regarding the timing of repression, there appears to be a link between resistance and repression when repression is reactive rather than proactive, and when repression is inconsistent.

Non-state organizations that have switched from violence to nonviolence share a few factors in common: (1) they faced constraints on and consequences for continued violence; (2) they were simultaneously offered a chance to influence policy and the bureaucracy; and (3) such conditions were instituted for a lengthy period, thus giving the organization time to appraise its constituency and act.
Participants generally viewed organizational choices to use violence as malleable—meaning that political policies of constraint and opportunity can influence them.

They also highlighted the role of opportunities and constraints in organizational decisions to become transnational. For instance, global movements provide training, resources, and prestige. They allow an organization to show it is doing something, which is especially appealing in a context abroad, where it might be easier to operate than in the context of home repression. Organizations often cross borders for refuge. In a sense, they become transnational by default, but in the process they develop contacts that can be quite influential. Likewise, financing from other states or movements might start out as an initial contact or grant. But over time, the increasing interaction between organizations creates a different institution. This appears to be the case with early Al Qaeda: bin Laden simply offered money to disparate groups fighting local jihads, and a network grew.

Of course, states can sometimes incorporate violent groups to the effect of eliminating violence. But the challenge in the coming years will be creatively exploring if or how states can incorporate transnational organizations—be they violent or not.

**IV. IRAQ**

The workshop panel on Iraq began with an update on the insurgency. Suicide bombers do not attack coalition forces as often as they once did, however coalition forces are still attacked regularly. While attacks on Iraqi security forces still do not number those against coalition forces, their success rate is much higher.

At the time of the workshop, there had been 443 known suicide attackers in Iraq, 102 of whom had been identified. Almost half of those identified came from Saudi Arabia. It is difficult to say whether the 102 known bombers are representative of the 300 we don’t know about. What is striking, aside from the proportion of Saudis, is the small number of Iraqis in suicide bombings. Indeed, some have inferred from this that the foreigners are of a different ideological strain. Yet one participant, who was instrumental in crafting the successful counterinsurgency
strategy in Tel Afar, cautioned that motivation and logic is more strategic than that:

It’s about bang for the buck...Some insurgents tell us about the foreign people who come to the insurgency. They say, “The Saudis we get are these frail little fanatical men devoid of training. We don’t have time or resources to train them, so we give them the bombs...When the Egyptians, Algerians and Syrians come in...they’ve had military service, they can handle an AK-47. We put them on guard duty to see how they do and give them tasks to see how good they are.”

Statistics on foreign insurgents in Iraq are hard to get at, but Saudis are also well represented here. Interestingly, those who were identified on a list of captured insurgents inside Iraq were linked to the royal family and/or were part of the Saudi state. There is a recent rise of Palestinian volunteers from Lebanon who are killed in Iraq. The wave of volunteers from other parts of the world is still taking place.

Is there a rhyme or reason to when and where they attack? Insurgent attacks tend to spike after counter-insurgency operations and amidst major political developments. “They are sending a message,” said one participant, “that ‘no matter what you do, we control the situation on the ground.’” This seemed to be borne out during the summer of 2006 after the jihadi leader Al-Zargawi was killed in early June.

In response to the considerable confusion over insurgent numbers, one participant noted that most insurgents are not full-time. “You don’t need a lot of full-time fighters to maintain an insurgency—in the 1970s, Hezbollah only had 450 at any given time. There is a reserve system, and forces swell at certain points. Like an accordion, insurgency can stretch.”

Conventional wisdoms about post-war Iraq point to two reasons for the insurgency: one, Saddam’s removal lifted the lid from a boiling pot of sectarian hatred; and two, mistaken and poorly executed U.S. policies created general outrage against the Coalition.

But if research on status change is correct, what really gave the insurgents legitimacy (and appears to be more important than transnational action) is the powerful emotion of resentment that arose in response to occupation.
Iraqi Sunnis, specifically, suffered a sectarian blow. The majority of Iraq Sunnis believe that Sunnis are the majority in the country, making it especially hard to accept international intervention that strengthened the Shia. The actions of the Coalition forces exacerbate this resentment, or intensify it, by indiscriminate actions, which have included high rates of civilian casualties.

Another participant encouraged the viewing of sectarian organization from the perspective of community structure. “In order to act, communities need shared expectations and common knowledge,” he argued. “But such common knowledge in post-war Iraq was difficult . . . During Saddam it was dangerous to have opinions . . . It was difficult for Iraqis to know what other Iraqis knew.”

After the war, Sunnis and Shiites were differentially equipped. Sunnis had been privileged under Saddam, and never needed to develop common knowledge institutions. For the Shiites, mosques became a way to coordinate messages. Thus, after the war, Shiite preachers stood up and said, ‘We have lots of issues in our neighborhood, here’s what we’re going to focus on. Here’s the group that will do this...’ When someone hears something in a Sistani mosque, they know that thousands of other Shiites will hear that message. It creates an imagined community, and coordinates people on priorities and norms. To date, Sunni Arabs don’t have that same capacity. The messages of sermons are not coordinated centrally or informally, and this decentralized nature of the communicative functions of the mosque has tended to inflame insurgencies because of local “bidding up” of pro-violence rhetoric.

V. IMPLICATIONS FOR POLICY AND ACADEMIC RESEARCH

Once the physical center of Islamic terrorism, the Persian Gulf is now its ideological anchor. But its future depends less on military actions against it than upon its ability to resonate and radicalize Muslims around the world. Workshop participants agreed: Islam is currently a language of social protest. We’re witnessing a social phenomenon, not a religious one. In the battle to destroy terror motivation and capability, they cautioned, motivation should be our primary focus.
We might need to rethink our approach. Police responses to organized terror and self-radicalizers have so far been to arrest clerics or other designated “inciters”—in Saudi Arabia, Iraq, Britain and the United States. But the empirics say that organized Islamic groups do not officially recruit, and self-radicalizers don’t rely directly upon them. Therefore, arresting clerics will not stem the tide of radicalization. Also, this approach often reinforces feelings of prejudice or unfair treatment within communities.

We should pay greater attention to the way we use military force. Specifically, calculations for using force may need to give greater weight to the costs of expected and unexpected civilian casualties. Media images of callous destruction are ubiquitous throughout the Arab world—not just in jihadi videos. Easily interpreted as offensive attacks, these play right into the hands of jihadi narratives.

In Washington, it is hard to escape calls for a “war of ideas.” As one participant noted, “the implication is that we should just sell ourselves better—that with more information, people will see we’re good.” But current proposals evince little understanding of social psychology, and seem bound for failure. For instance, one explicit U.S. goal is to counter Salafism. Yet studies show that the only way we have managed to bring people away from jihad was to show them a different Salafi way.

Likewise, proposals to plant stories in foreign presses or to build a coherent propaganda message are naïve. This is because people—and especially people trying to interpret actions across cultures—weigh consequences more than intentions as predictors of future behavior. Consider this in our own lives: Despite several communiqués following 9/11, what the terrorists wanted to do with their attacks is irrelevant to Americans. We paid attention to consequences.

What then can we do? The only successful strategy of the United States so far was successful because it wasn’t a strategy at all: Tsunami relief in Indonesia. Before the tsunami, 80 percent of Indonesians felt the United States was going to invade Indonesia. Then the tsunami hit, and Indonesians saw the United States giving aid without conditions. Indonesians understood for the first time in a
long while that America was capable in principle of doing something outside of its direct national security interests. Support for a war against terror increased, and support for terror went down. The key to the tsunami success is that it wasn’t a strategy for hearts and minds. Because foreigners are mistrusting of U.S. intentions, any efforts construed as part of a U.S. strategy are like to fail.

The workshop also produced suggestions for academics and think tanks. The key motivational question facing the academy in terror studies is: How do you get from the soup of grievances in the Muslim world to the behavior of jihadis? It is not a linear equation, so we need to go to the actual networks and figure it out. Specifically, we need more social network analyses. To do this, academics need a publicly available, people-based database—this currently doesn’t exist. The databases used by governments and think tanks are incident-based, offering no longitudinal data on individuals.

The implications of this kind of research and discourse go far beyond these brief comments. In the West, policy makers, intellectuals, journalists and the public at large entertain many outdated or wrong-headed stereotypes about violent jihadi actors. These stereotypes feed poorly conceived policy and military solutions. By understanding, without prejudice, motivations and ideational contexts for actions of politically violent Muslims (and others), we stand a much better chance to respond to such threats effectively.

--- Nichole Argo

Nichole Argo is a Ph.D. candidate in political science at MIT, and was Research Assistant to the Persian Gulf Initiative in 2005-2006.