Center for International and Security Studies at Maryland

The Future of Intelligence Analysis
Volume I
Final Report

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Executive Summary

This study contains the findings and recommendations of the *Future of Intelligence Analysis Project*, an eighteen-month effort that explored what must be done to provide the US government with an effective intelligence analysis capability in the future.

Unlike most current studies, which analyzed a small number of recent intelligence failures, the project was forward-looking. It used the year 2020 as a notional date of reference because individuals currently entering the analytic workforce will be the seasoned analysts of 2020. **The project focused on <u>intelligence analysis</u> and organized its research around the themes of analyst <u>education</u>, <u>recruitment</u>, <u>training</u>, <u>management</u>, <u>organization</u>, and <u>retention</u>.** A series of four workshops and a capstone conference engaged analysts and managers from throughout the intelligence community in dialogue with nongovernment experts. Members of the following agencies and organizations participated: the Office of the Director of National Intelligence; the Central Intelligence Agency; the Defense Intelligence Agency; the National Security Agency; the National Geospatial Intelligence Agency; the Office of Naval Intelligence; Army Intelligence; the National Ground Intelligence Center; the Joint Military Intelligence College; the Sherman Kent School for Intelligence Analysis; the Foreign Broadcast Information Service; the National Air and Space Intelligence Center; Headquarters Marine Corps; Marine Corps Intelligence Activity; the National Maritime Intelligence Center; the Department of Homeland Security; the Federal Bureau of Investigation; and the U.S. Coast Guard.

A panel of distinguished experts critiqued a preliminary draft of the report. This panel consisted of the Honorable Richard Danzig, former Secretary of the Navy; John C. Gannon, former Chairman of the National Intelligence Council and former Staff Director of the House Select Committee on Homeland Security; Christopher Kojm, President of the 9/11 Discourse Project and former Deputy Director of the 9/11 Commission; John M. (Mike) McConnell, Vice Admiral, U.S. Navy (ret.), former Director of the National Security Agency; and the Honorable John E. McLaughlin, former Acting Director of Central Intelligence. Their comments have been integrated into this report, and are included in detail in Appendices B through F.

The report concluded that, if current practices continue, the intelligence community (IC) of 2020 will experience an imbalance between the demand for effective overall intelligence analysis and the outputs of the individually-oriented elements and outlooks of its various analytic communities. The world and the threats within it are becoming increasingly diffused in nature – with non-military threats increasing in relation to purely military ones – while the intelligence community is producing analysts tailored to perform specific, focused missions within an analytic enterprise that emphasizes secrecy and segregation of effort over knowledge sharing and unity of effort.

The next few years are critical because the present time offers a rare opportunity for implementing significant changes to improve the effectiveness of the intelligence enterprise. The shock of 9/11 has forced leaders and the current IC workforce to look

critically at current approaches. The pressing need to hire large numbers of entry-level analysts complements these factors by providing a receptive analytic workforce. But this window of opportunity is already closing.

Overall, this report calls for an "integrated culture" across the intelligence community in order to provide the nation with the analytic outputs that the coming environment will require. The project's findings fall into four broad categories: those dealing with **IC culture**; those pertaining to **analyst leadership, management, and career dynamics**; those concerning **education and training**; and those dealing with **implementation strategies**.

With regard to **<u>IC culture</u>**, the report calls for **establishing the basis for the profession of intelligence analyst across the IC**. The U.S. intelligence community is a series of nearly autonomous organizations, each with its own way of doing business. The analytic portion of the IC reflects the fragmentation of the overall intelligence enterprise. Such a fragmented approach is at odds with the need for greater knowledge sharing to enable effective analysis of dispersed threats and other issues. To establish the basis for the profession of intelligence analyst across the IC, the report recommends the development of mission statements for all members of the intelligence enterprise; common doctrine and standardized job descriptions for analytic positions; creation of standards for professional ethics; an institutionalized capability for analyzing both failures and successes and implementing best practices; increasing collaboration by crafting an IC-wide doctrine for knowledge sharing; and mandating rotational assignments for analysts throughout the IC.

Second, the IC must expand analysts' abilities to consult with non-government experts. The increasing importance of open source intelligence means that IC analysts must share certain information and knowledge with experts in academia, business, and research centers around the world. This need will increase significantly by 2020. The IC should provide analysts with extended external training and education, including sabbaticals. Rotational assignments should include opportunities for analysts to leave the IC and return without penalty. The IC should encourage peer review of analytic products by outside experts; expand outsourcing activities; reduce constraints preventing contractors from working at the same level as government employees; and develop mechanisms to encourage the outside world to link with analysts.

Third, the IC must develop IC-wide security, classification, and technological systems. Physical and information security and clearance systems vary across the IC and are incompatible with many important partners at the state and local levels of government. These factors, along with lack of common information technology (IT) standards, impede knowledge sharing. Security clearance policies also adversely affect analyst recruitment. The IC should develop overarching security, classification, and IT standards for the entire IC. These systems should support the analytic enterprise and must be responsive to changing conditions. Current conditions severely impede the development of a common IC culture, and knowledge sharing – both among IC agencies and with outside experts – cannot thrive as long as security, classification and IT systems

restrict it.   The IC should create common standards for information technology, standardized security and classification systems, and an IC-wide information repository. The approval system for experimenting with new information technologies should be streamlined.

With regard to **analyst leadership, management, and career dynamics**, **the report's fourth finding calls for creating compatible human resource policies across the IC.** There is a need for common standards for recruitment, hiring, retention, certification, training and promotion across the IC. The IC's number one priority should be having top people. Clear standards are essential ingredients in achieving this goal. The IC should implement standardized, collaborative IC-wide recruiting policies; emphasize "IC branding" over individual agency branding in the analyst recruitment process; institute a common IC-wide personnel system with regulations detailing how to promote and compensate analysts and managers; integrate "best practices" in IC hiring and promotion across all IC agencies; generate standardized HR data, including baseline data on intellectual capital across the IC; establish standards for firing; hire adequate numbers of analysts to support career development, training and rotation; develop policies to allow analysts who have left the IC to return without penalty; and develop a program to identify in advance and utilize on demand non-government experts and former IC analysts.

Fifth, the IC needs to draft a common IC-wide career development program. Clear career paths motivate analysts to remain engaged as members of the IC. Insofar as possible, these should be common career paths that are valid throughout the IC so that analysts and managers know what is expected of them. The IC is now hiring new analysts with different expectations than the current workforce and the IC will be challenged to give them jobs that meet these expectations. The report recommends that the IC provide multiple, standardized career paths with clear requirements and standards, including clear incentives to move into different career paths depending on the IC's needs, and clear milestones that analysts and managers must accomplish to move to the next level. Additionally, the IC should create mentoring programs and expand the use of internship programs across the IC, and should encourage transfers and rotations inside the IC. It should make the accomplishment of rotational tours a requirement for analysts and managers to be promoted.

Sixth, the IC needs to improve analyst leadership and management. Effective leadership and management are critical to ensuring an effective analytic enterprise. Managers are largely responsible for the quality of analytic products. They also decisively affect the retention of analysts by their leadership style and influence on organizational culture. Ideally, managers are agents of change in their organizations. At a minimum, they should not suppress other, informal agents of change. The IC should improve and formalize educational and training programs for its managers, including continuing training at all levels. It also should reward managers through appropriate incentive systems. Specifically, the IC should change how performance is measured to reflect quality of analysis over quantity of analytic product.

With regard to **education and training**, **the report's seventh finding identifies a crucial need to develop education and training programs that not only improve analysis directly but also professionalize the analytic workforce.** Education and training are low priority activities throughout the IC**.** The fact that managers do not receive consistent training throughout their careers probably reinforces this bias. Essentially the IC is stressing questionable short-term gains over the long-term benefits of a better-educated analytic workforce. The report's recommendations include using the National Intelligence University System to coordinate all education and training programs across the IC, including agency-specific programs and programs offered by universities; making as many education and training programs as possible IC-wide initiatives; initiating a mandatory, joint "boot camp" for all analysts in the IC within the first 6 months of employment; developing a coordinated education and training continuum for managers as well as analysts so that education and training becomes a standard, periodic feature of analysts' and managers' careers; making the accomplishment of mandatory educational and training milestones a requirement for analysts and managers to be promoted; instituting continuing education requirements across the analytic community; and sizing the analyst workforce to allow an appropriate percentage of analysts to engage in education and training without causing the rest of the workforce to be chronically shorthanded

With respect **to implementation strategies, the report's eighth finding deals with the need to develop and aggressively pursue implementation strategies**. Members of the report's review panel stressed that the project's findings and recommendations were on target and emphasized the importance of moving forward. However, they noted that some of the report's recommendations had been identified in previous studies but had not been implemented. **They cautioned to expect strong resistance to the report's recommendations in many parts of the IC. This fact made it critically important to devise appropriate implementation strategies and detailed action plans.** They recommended that a mechanism be developed to maintain continuing pressure for change and observed that use of an outside organization serving as honest broker had distinct advantages over depending on the IC to monitor its own progress toward implementation. They recommended several areas where additional work would be beneficial.

Last but not least, **the report's ninth finding addressed whether additional legislation would be necessary to bring about needed changes. The project concluded that additional legislation was <u>not</u> required as a means to compel needed changes**. Rather, existing legislation already provides the Director of National Intelligence with the necessary authority. Strong leadership by the DNI, with the explicit approval and support of the President, would not only be sufficient to bring about needed change but also would result in better overall results.

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THE FUTURE OF INTELLIGENCE ANALYSIS

Introduction

This study contains the findings and recommendations of the *Future of Intelligence Analysis Project*, an eighteen-month effort that explored what must be done to provide the US government with an effective intelligence analysis capability in the future. The year 2020 was the notional date of reference because it is near enough to make reasonably accurate forecasts possible but still far enough away to be influenced by policies enacted in the next few years. And the next few years are critical. Individuals entering the analytic workforce in the next several years will be the seasoned analysts of 2020. They will only be effective if they are properly educated recruited, trained, managed, organized – and retained, in one way or another – as assets of the U.S. intelligence community (IC).

In general, the study concludes that the *Intelligence Reform and Terrorism Prevention Act of 2004* is a necessary step – but not a sufficient one – to improve the IC's ability to detect and warn about new threats to the United States. Mark Lowenthal, former Deputy Director of Central Intelligence for Analysis and Production, summed up the situation aptly when he said, "The intelligence community currently is confronted by *insurmountable opportunities*." His clever turn of phrase captured the difficulty inherent in attempting to alter the form of a group of disparate organizations – the U.S. intelligence community – through top-down measures alone even when most agree that change is necessary. While the Intelligence Reform Act embodies many appropriate initiatives, these will fail unless intelligence agencies change the ways they do their day-to-day business and, to some degree, come to resemble one another much more than is currently the case.

The report concludes that additional legislation is <u>not</u> required as a means to compel needed changes, asserting instead that existing legislation already provides the Director of National Intelligence (DNI) with the necessary authority. Strong leadership by the DNI, with the explicit approval and support of the President, would not only be sufficient to bring about needed change but also would result in better overall results. However, it notes that many elements of the Goldwater-Nicols Defense Reorganization Act of 1986, which initiated sweeping reforms of the U.S. military by restructuring personnel incentive systems and organizational relationships, can serve as a valuable guide for developing implementation strategies for the report's recommendations.

The Problem

If current practices continue, the intelligence community (IC) of 2020 will experience an imbalance between the demand for effective overall intelligence analysis and the outputs of the individually-oriented elements and outlooks of its various analytic communities. The world and the threats within it are becoming increasingly diffused in nature – with non-military threats increasing in relation to purely military ones – while the intelligence community is producing analysts tailored to perform specific, focused missions within an analytic enterprise that emphasizes secrecy and segregation of effort over knowledge sharing and unity of effort. This development has three main components. First, the nature of many threats is changing. Second, policymakers' expectations are changing. Third, short-term intelligence is emphasized over mid- and long-term analysis.

Since the end of the Cold War, the intelligence community has contended with the emergence of new threats to national security from a number of quarters, including increasingly powerful nonstate actors such as transnational terrorist groups. Many of these actors have capitalized on the still evolving effects of globalization to threaten U.S. security in nontraditional ways. At the same time, global trends such as the population explosion, uneven economic growth, urbanization, the AIDS pandemic, developments in biotechnology, and ecological trends such as the increasing scarcity of fresh water in several already volatile areas are generating new drivers of international instability. These trends make it extremely challenging to develop a clear set of priorities for collection and analysis.[1]

Intelligence analysts are tasked with making sense of these developments, identifying potential threats to U.S. national security, and crafting appropriate intelligence products for policy makers. They also will continue to perform traditional missions such as uncovering secrets that potential adversaries desire to withhold and assessing foreign military capabilities. This means that, besides using traditional sources of classified information, often from sensitive sources, they must also extract potentially critical knowledge from vast quantities of available open source information. Significantly, the community must devise ways to monitor open source information in transformed ways. Additionally, some kinds of information currently not considered open source must be brought into the open domain.

For example, the process of globalization, empowered by the Information Revolution, will require a change of scale in the IC's analytical focus. In the past, the IC focused on a small number of discrete issues that possessed the potential to cause severe destruction of known forms. The future will involve security threats of much smaller scale. These will be less isolated, less the actions of military forces, and more diverse in type and more widely dispersed throughout global society than in the past. Their aggregate effects

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[1] For an appreciation of the uncertainty surrounding how the world of 2020 might develop, see the alternative future scenarios in *Mapping the Global Future: Report of the National Intelligence Council's 2020 Project Based on consultations With Nongovernment Experts Around the World* (Government Printing Office, December 2004). Available at http://www.cia.gov/nic/NIC_globaltrend2020.html.

might produce extremely destabilizing and destructive results, but these outcomes will not be obvious based on each event alone. Therefore, analysts increasingly must look to discern the emergent behavioral aspects of a series of events.

Second, phenomena of global scope will increase as a result of aggregate human activities. Accordingly, analysts will need to understand global dynamics as never before. Information is going to be critical, as well as analytical understanding of the new information, in order to understand these new dynamics. The business of organizing and collecting information is going to have to be much more distributed than in the past, both among various US agencies as well as international communities. Information and knowledge sharing will be essential to successful analysis, and most of the necessary sharing will need to be conducted on a voluntary basis.

Third, future analysts will need to focus on anticipation and prevention of security threats and less on reaction after they have arisen. For example, one feature of the medical community is that it is highly reactive. However, anyone who deals with infectious diseases knows that prevention is the more important reality. Preventing infectious diseases must become the primary focus if pandemics are to be prevented. Future analysts will need to incorporate this same emphasis on prevention to the analytic enterprise.

It appears evident that in this emerging security environment the traditional methods of the intelligence community will be increasingly inadequate and increasingly in conflict with those methods that do offer meaningful protection. Remote observation, electromagnetic intercept and illegal penetration were sufficient to establish the order of battle for traditional forms of warfare and to assure a reasonable standard that any attempt to undertake a massive surprise attack would be detected. There is no serious prospect that the problems of civil conflict and embedded terrorism, of global ecology and of biotechnology can be adequately addressed by the same methods.

To be effective in the future, the IC needs to remain a hierarchical structure in order to perform many necessary functions, but it must be able to generate collaborative networks for various lengths of time to provide intelligence on issues demanding interdisciplinary analysis. These networks should integrate OSINT and should contain experts from the private sector as well as the IC. The IC also should seek ways to include the knowledge of former IC analysts in these networks.

Clearly, the magnitude of this challenge means that analysts in one intelligence agency will need to share information with analysts in other parts of the intelligence community – and with outside organizations – to produce accurate intelligence about complex issues. However, achieving successful collaboration is difficult because this goal clashes with the secretive organizational cultures of the various U.S. intelligence agencies. As a result, the intelligence community has been criticized for "stovepiping" – failing to share information when appropriate—and is now wrestling with this difficult problem.

The proliferation of potential threats and the Information Revolution also have changed policy makers' expectations about intelligence products. Policy makers not only are demanding that the intelligence community provide new kinds of information about new things from new sources delivered in new ways, but also have tapped into sources of open information that compete with the products the intelligence community provides. Policy makers and their staffs are using these open sources as substitute sources of intelligence. As a result, today's intelligence analyst works in an environment that is more competitive than it has ever been, and competition is likely to intensify even further in the future. To remain effective, the IC must compete with new sources of intelligence as a unitary actor, bringing all of its strengths to bear. It will lose influence if IC agencies continue to compete destructively among themselves for the attention of policymakers by hoarding information.

Currently, the pressing requirements of short-term intelligence collection, analysis, production and distribution draw attention away from important longer-term issues. This has called into question the sustainability of the analytic enterprise itself because, as noted above, many emerging threats involve core issues of national security. These demand long-term approaches to have a chance of achieving the necessary degree of prevention.

Window of Opportunity

The present time offers a rare opportunity for implementing significant changes to improve the effectiveness of the intelligence enterprise. The shock of 9/11 has forced leaders and the current IC workforce to look critically at current approaches. The clear and present need to hire large numbers of entry-level analysts complements these factors by providing a receptive analytic workforce that will support change if initiatives are constructive, guided by effective leadership, and sensitive to the generational shift and movement toward a more culturally diverse workforce that is occurring within the IC.

This window of opportunity is temporary. Project participants cautioned that change for change's sake was a distinct possibility, and that even well-thought out initiatives would fail in the absence of strong leadership, since, like most bureaucracies, the current IC embodies a strong ability to resist change.

History shows that there is cause for optimism. Other organizations have gone through radical transformations and emerged vastly improved. For example, the Goldwater-Nichols Act successfully addressed a huge problem that plagued the U.S. armed forces: the demonstrated inability of the military services to work effectively together as a joint team in conducting military operations.

There is no reason that the IC cannot succeed as well. Significantly, it is not the only group that must deal with these considerations. Public institutions, businesses, universities and non-profit organizations also face similar uncertainty in this time of rapid change. They all need to analyze their present situations, determine their goals, and produce effective implementation and management plans under these circumstances. Like the intelligence community, these organizations must both share certain kinds of information with other organizations while keeping other types of information secret.

Project Design

Since the study is forward looking, it does not directly address the strengths or shortcomings of the many analytic works examining the 9/11 attacks, the failure to find weapons of mass destruction in Iraq, the prosecution of the War on Terrorism, and recent actions to initiate reform of the U.S. intelligence enterprise. Naturally these considerations were in the minds of project participants, but as benchmarks of current practice rather than the source of specific recommendations for change.

Rather, project participants identified trends in the international environment that might affect U.S. interests and deduced the kinds of skills that future analysts would need to possess. Participants then analyzed how developments in technology could enable the analytic enterprise. In some cases, the need to incorporate new technologies to assist analysts in identifying and understanding new threats led participants to develop new organizational structures for analysts, plus new ways of managing and leading them. Project recommendations stemmed from comparing these findings to current practices, including those embodied in the *Intelligence Reform and Terrorism Prevention Act of 2004*.

Initially, the project intended to examine the analytic enterprise by focusing on analyst recruitment, retention, and professional education and training, since all of these processes must mesh properly within a single integrated process to produce an effective analytic enterprise. Those recruited must have the appropriate skill sets, professional education must provide the right background, training must hone skills, and the retention effort must retain sufficient numbers of optimally trained, experienced, and motivated, analysts. Accordingly, participants were guided by the following key questions:

- What skills, expertise, methodologies and relationships will enable analysts to continue to provide high quality, timely analysis of both emerging and well-defined threats, at both strategic and tactical levels?
- What kind of individuals should be recruited to become intelligence analysts? What educational background/backgrounds will be necessary? Do universities produce individuals with the appropriate education? What is the degree of variation in how university programs prepare their analysts? How does the intelligence community currently recruit analysts?
- What kind of professional training and education does the intelligence community provide to analysts as they progress through their careers? Do these programs impart the skills needed to perform effectively given changing threats/conditions? Do programs for regional and functional analysts differ? What degree of variation exists in the professional education practices of the different intelligence agencies?
- Can sets of best practices be identified for the above areas, given that different intelligence agencies have different missions?
- To what extent is the intelligence community successful at retaining top analysts? How do current recruitment practices and professional education programs affect

retention? What other factors affect retention? Can a set of best practices for retaining the right people be compiled?

- Are there other important lessons the intelligence community can learn from other communities of practice such as the business community?

However, as the project progressed, it became apparent during workshop discussions among members of the IC and nongovernment experts that the ways in which analysts were led, managed, and organized were also critical ingredients for success. Accordingly, the project expanded its mandate to include these areas.

The project was organized around four workshops in which representatives of different intelligence agencies engaged in discussions with nongovernment experts from business, universities, and research centers. Members of the following agencies and organizations participated: the Office of the Director of National Intelligence; the Central Intelligence Agency; the Defense Intelligence Agency; the National Security Agency; the National Geospatial Intelligence Agency; the Office of Naval Intelligence; Army Intelligence; the National Ground Intelligence Center; the Joint Military Intelligence College; the Sherman Kent School for Intelligence Analysis; the Foreign Broadcast Information Service; the National Air and Space Intelligence Center; Headquarters Marine Corps; Marine Corps Intelligence Activity; the National Maritime Intelligence Center; the Department of Homeland Security; the Federal Bureau of Investigation; and the U.S. Coast Guard.

A panel of distinguished experts critiqued a preliminary draft of the report. This panel consisted of the Honorable Richard Danzig, former Secretary of the Navy; John C. Gannon, former Chairman of the National Intelligence Council and former Staff Director of the House Select Committee on Homeland Security; Christopher Kojm, President of the 9/11 Discourse Project and former Deputy Director of the 9/11 Commission; John M. (Mike) McConnell, Vice Admiral, U.S. Navy (ret.), former Director of the National Security Agency; and the Honorable John E. McLaughlin, former Acting Director of Central Intelligence. Their comments have been integrated into this report, and are included in detail in Appendices B through F.

In summary, the project's methodology can be broken down into seven main elements:

- <u>Organizational level of analysis</u>. While initially intending to emphasize the traits and backgrounds that contribute to individual analyst performance, the study determined that an organizational level approach would yield the most useful results for improving analysis.
- <u>Forward-looking approach</u>. The study investigated what would be demanded of analysts in the world of 2020, and then designed today's IC analytic enterprise to support these demands.
- <u>All-IC focus</u>. Representatives of the vast majority of IC agencies participated in project events.
- <u>Focused on the analyst "life cycle."</u> The project focused on analyst education, recruitment, retention, training, management, leadership, and the organizational climate in which analysts work.

- <u>Interactive format</u>. The project heavily emphasized interactive workshops composed of both nongovernment experts and members of the IC. As the project progressed, the participation of IC analysts and mangers increased while the role of nongovernment experts diminished. The final workshop was entirely composed of members of the IC.
- <u>Constructive feedback via expert review</u>. A panel of distinguished experts reviewed and commented upon the preliminary version of this report.
- <u>Pragmatic goals</u>. The project aimed to optimize the analytic enterprise given real world conditions, which include considerable institutional barriers to reform. As a result, it emphasized development of realistic recommendations capable of implementation.

Findings and Recommendations

Overall, this report calls for an "integrated culture" across the intelligence community in order to provide the nation with the analytic outputs that the coming environment will require. The project's findings fall into four broad categories: those dealing with **IC culture**; those pertaining to **analyst leadership, management, and career dynamics**; those concerning **education and training**; and those dealing with **implementation strategies**.

The reviewers strongly supported the report's findings and recommendations. Some general comments:

> This is very good report. It crystallizes and states very well the agenda for the improvement of analysis across the community. – *Christopher Kojm, p. D-1*

> The *Future of Intelligence Analysis Project* draft final report does an excellent job of laying out the key problems facing the US intelligence analytic community at the beginning of the twenty-first century. It provides a thoughtful analysis of the emerging complex threat environment we face and of the formidable challenge to develop innovative methodologies, career strategies, security policies, ad relevant training to deal with it. – *John Gannon, p. C-1*

> I think the study is squarely right in its emphasis on the need for our intelligence establishment "to generate collaborative networks" with those outside the classified world, on the desirability of creating a more integrated and more self-consciously professional community of analysts, and on improving the analytic product by processes like more rigorous peer review. In general I applaud this report. – *The Honorable Richard Danzig, p. B-1*

However, the reviewers noted two general areas where more work was needed. First, they noted that some of the report's recommendations had been identified in previous studies but had not been implemented. They attributed this fact to resistance from within the IC and warned that strong resistance to the report's recommendations also was likely. This fact made it critically important to devise appropriate implementation strategies and detailed action plans. They recommended that a mechanism be developed to maintain continuing pressure for change and observed that use of an outside organization serving as honest broker had distinct advantages over depending on the IC to monitor its own progress toward implementation.

Second, the reviewers noted that, while some recommendations were sufficiently detailed to enable implementation without additional development, others required further work to make implementation possible. Their specific comments in this area have been included in Finding #8.

IC Cultural Issues

Finding #1: The U.S. intelligence community is the "Community that Isn't." It is a series of nearly autonomous organizations, each with its own way of doing business. The analytic portion of the IC reflects the fragmentation of the overall intelligence enterprise. Such a fragmented approach is at odds with the need for greater knowledge sharing to enable effective analysis of dispersed threats and other issues.

Background: Given the complexity of the intelligence enterprise, skill sets will continue to vary from analyst to analyst in the world of 2020, and the capabilities of analysts in one agency will continue to emphasize different competencies from those in another. Thus, some degree of "stovepiping" in the collection disciplines will remain a fact of life. However, the fragmented nature of the IC is a serious impediment to change, and the necessity for some degree of collection stovepiping does not present a barrier to creating a common analytic culture (see McConnell E-9). While some felt that calling the IC the "community that isn't" went too far (see Gannon C-3), all agreed that each agency has its own organizational culture, a fact that produces both psychological and concrete results. Psychologically, it leads analysts to think of themselves as NSA analysts or CIA analysts. This emphasizes differences rather than similarities and breeds competition across agencies rather than cooperation. Concretely, different cultures have produced organizations with incompatible procedures and policies. Basic level indicators such as definitions, vocabulary, position descriptions, and performance indicators vary widely from agency to agency. The agencies don't train together, work collection together, or share information systematically. This situation makes genuine cooperation very difficult, even when analysts desire it.

Project participants felt that the development of a single IC culture was the single most important variable in enabling the IC to deal effectively with future missions. Providing intelligence and warning about current threats such as transnational terrorism, nuclear proliferation, and the development of biopathogens, as well as dealing with emerging threats, require knowledge sharing using collaborative networks emphasizing teamwork. Participants felt that a common culture would go a long way to facilitate these imperatives. This culture should be characterized by, among other things, a willingness to think "outside the box" and take risks, the ability to treat U.S. policies as independent variables when analyzing issues, and a recognition of the implications that the world of the future would increasingly contain more dispersed, smaller scale threats, which requires greater relative attention to effective prevention. The new composite culture must encourage analysts to self-organize and network with others inside and outside of the community. Currently analysts are not rewarded for collaborating.

Participants believed that a common IC culture could best be achieved by "professionalizing" the IC. The analytic community would be professionalized as part of this larger process. Professionalizing analysts is both reasonable and achievable. The activities of intelligence analysts across IC agencies are sufficiently similar in spite of

differences to warrant their inclusion in a common profession. The fact that analysts do not currently perceive themselves as such is due to the historical development of the U.S. intelligence community rather than anything inherent in the analytic enterprise itself.

Being members of a common profession is not synonymous with conformity. Having a common doctrine does not mean that analysts must become doctrinaire. Professionalizing intelligence analysis must preserve the current IC's institutional capability for competitive analysis and must avoid the danger of Groupthink.

For example, intelligence analysts are to the intelligence enterprise as medical doctors are to the health care profession. All physicians consider themselves as members of the larger body of health care professionals. All physicians also recognize that they are members of a particular subset of health care professionals – medical doctors – even though the skills they practice vary widely, to the point that their skills are not always transferable across subdisciplines. For instance, a brain surgeon cannot exchange places with a cardiac surgeon, but they both possess the same underlying education and training, and appreciate and understand the contribution of each other's work.[2]

Professionalizing intelligence analysis constitutes a very important element for bringing about the greater collaboration and knowledge sharing within the community necessary for dealing with threats such as transnational terrorism. Professionalization should start a virtuous circle of increasing professionalism fueling collaboration that further enhances professionalism.

If intelligence is a profession – and intelligence analysis a subset of this profession that is sufficiently complex and discrete to be viewed as a profession in its own right – then the IC should adopt the hallmarks of other recognized professions. These include:
- A common mission statement and doctrine;
- Common position descriptions and jargon;
- Uniform standards of professional ethics;
- Joint as well as agency-specific specialized training programs;
- An ability to develop, distribute, and act upon lessons learned from both successes and failures;
- A self-policing capability to uphold standards; and
- Several independent research entities to further new developments in the field;

McConnell elaborates on the concept of a single analytic culture and discusses ways to achieve it. in Appendix E.

Recommendation: Establish the basis for the profession of intelligence analyst across the IC.

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[2] The earliest written exposition of this comparison appears to be in an unpublished paper by Stephen Marrin entitled "Professionalizing Intelligence Analysis," January14, 2004. A more detailed analysis appear in Stephen Marrin and Jonathan D. Clemente, "Modeling an Intelligence Analysis Profession on Medicine," *International Journal of Intelligence and Counterintelligence*, 18/4 (Winter 2005-2006): 707-729.

1. The DNI or suitable panel should coordinate the drafting of a mission statement for all members of the intelligence enterprise, a separate mission statement for all IC analysts, common doctrine for the analytic enterprise, and standardized job descriptions for analytic positions.

2. Create professional standards across the IC by issuing IC-wide standards of professional ethics, instituting a mechanism for enforcing them, generating a capability for culling lessons learned from both mistakes and successes; devising a method for disseminating lessons learned community-wide; developing standardized jargon to enhance communication across the IC; and instituting a standardized performance evaluation system with appropriate metrics for assessment. Professional standards don't prevent a crisis from occurring, but they help the organization identify where it made mistakes and provides core principles to guide corrective measures.

3. Increase collaboration across agencies by crafting an IC-wide doctrine for knowledge sharing. Project participants noted that there is currently no effective method for assessing experts' opinions and analysts' ability and expertise. Within the IC, analysts do not know what their relationship with analysts in other agencies or departments within their own agencies is or should be. Reward systems should be designed to encourage collaboration.

4. Mandate rotational assignments for analysts throughout the IC. Analysts and other intelligence professionals should be required to serve in different intelligence agencies during their careers to enhance their professional development and foster a knowledge sharing culture throughout the IC.

5. Make all new systems and programs flexible. New initiatives must be able to incorporate new developments readily.

6. Institutionalize the development of new ideas. The IC should establish a center – with a virtual component so that analysts can participate from any location– where analysts can test new ideas without penalty. This includes experimenting with new technologies and collaborative arrangements. Lessons learned from this playground must be recorded and distributed effectively.

Finding #2: IC dialogue with expertise outside of the IC is limited. The increasing importance of open source intelligence means that IC analysts must share certain information and knowledge with experts in academia, business, and research centers around the world. This need will increase significantly by 2020.

Background: Increasing analysts' contact with the world beyond the IC will allow them to tap the knowledge of world-class experts, which is increasingly important when analyzing threats and other issues with non-military dimensions. Greater participation by

nongovernment experts also will help imbue analyses with more culturally diverse perspectives.

Some IC agencies maintain robust contacts and interactions with the academic community, especially in the technical fields, e.g., mathematicians and computer scientists. These practices can serve as models for expanding outreach programs. For example, the CIA's new *Global Futures Forum* is a good example of an outreach program of global dimensions [3]

There are people in the outside community who are ready and willing to partner, but the IC must modify some of its security practices to avail itself fully of their expertise. Currently analysts are forced to document every nongovernment expert with whom they've spoken, and there are additional restrictions about contacts with foreign nationals.

There also is a bias against time spent outside the IC; analysts tend not to move outside of the IC because it is deleterious to their careers.

To establish a framework for developing outside partnerships on a global scale, the IC must establish the business tools and acquire the information technology to encourage both formal and informal knowledge sharing. Analysts should have multiple options for sharing information.

Recommendation: Expand and standardize analysts' abilities to consult and otherwise interface with nongovernment experts – including non-US nationals – by issuing appropriate IC-wide doctrine. This doctrine must be biased toward enabling collaboration while preserving standards for protecting secrets, sources, and methods. Increased analyst contact with outside sources needs to be an IC-wide initiative. If each agency implements such policies individually, new stovepipes might result that would decrease overall IC effectiveness.

1. Provide sabbaticals and extended external training. Policies concerning rotational assignments should include provisions for analysts to leave the IC temporarily, not just rotate within the IC. Sabbaticals at institutions outside of the IC would enhance analyst expertise and serve as a positive retention tool. Analysts should go to industry to learn and to share best practices. The IC should fund analyst study abroad programs to learn languages and study foreign cultures after their initial training. Some IC agencies already have such programs. These could be used as models for IC-wide programs.

2. Encourage peer review of analytic products by outside experts. In the academic community, a scholar might meet with 10 other experts to develop a project. Many academic journals incorporate some type of blind peer review process to

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[3]. The *Global Futures Forum* aims to produce networks of individuals from different intelligence and security services, as well as members of the academic, business, and other nongovernmental sectors, to examine global security challenges. The Forum will explore new methods for multilateral coordination. All collaboration will be at the unclassified level.

screen prospective articles. In contrast, analysts send their analyses to managers for review, but managers might know less about the subject than the analysts. The IC should expand its use of collaborative peer review tools to improve analysis.

3. Expand outsourcing activities. The IC should outsource appropriate work to think tanks, academic research centers, and companies. This technique brings different perspectives, methodologies, and expertise to bear on the analytic process. However, Kojm (D-3) cautions: "Too much government contracting is handing over key activities to others because the problem is "too hard" or there is "not enough time" for existing USG people to solve."

4. Reduce constraints preventing contractors from working at the same level as government employees.

5. Encourage the open world to link with analysts. Some nongovernment experts are willing to consult with the IC but don't want a clearance. Some leading experts might not qualify for a clearance. IC doctrine should still encourage analysts to consult with such individuals on an unclassified basis.

Finding #3: Physical and information security and clearance systems vary across the IC and are incompatible with many important partners at the state and local levels of government. These factors, along with lack of common information technology standards, impede knowledge sharing. Security clearance policies also adversely affect analyst recruitment.

Background: The personnel charged with maintaining information security throughout the IC do not understand the necessity of sharing information across the IC. They have not accepted that it is time to increase knowledge and information sharing dramatically. Part of the problem is that the IT community – not analysts or collectors – drives the security agenda. Some participants complained that the IT people are not thinking about analysts' needs; IT departments think that analysts are there to justify their existence rather than the other way around.

Current classification systems are set up to handle Cold War threats. To address new threats, there needs to be a new classification system. Security is the fundamental issue. There has to be a way to audit what analysts are doing and determine how much security considerations should constrain what they can and should do. Some participants observed that the IC has not employed a risk analysis approach to solving this problem. Currently it uses a risk adverse management approach. Participants believed that the technology and knowledge exists to perform the necessary risk analyses, but the IC had not implemented the necessary policies to shift to such an approach.

It is currently impossible to find out if analysts in other agencies are working on a specific issue. Significant problems with IT interoperability contribute to this problem.

There are so many firewalls and barriers that one analyst can't pass information along to analysts in other agencies. Control issues are at the center of this problem. Should the collectors no longer have control of the information?

Analysts are users of technology, so they should not have to become involved in IT problems and issues. However, they often find themselves lacking proper IT support. Some participants felt that analytic performance would be improved if analysts were teamed with IT specialists on projects over long periods.

Significant policy hurdles to trying out new technology can impede the adoption of IT upgrades required to make knowledge sharing systems fully interoperable across the IC. The bureaucratic approval process for new technology doesn't keep up with the speed of the IT world.

The security clearance process often rules out the very people the IC needs. For example, it is difficult to hire analysts who are not U.S. citizens, or who are first generation Americans if they retain relationships with relatives and others in their former countries. However, participants recognized that persons with close links to other countries face an ethical dilemma in that they might find it difficult to act against members who share their own culture. *Security* is necessary, but the current *security system* needs adjustment.

The current backlog of applicants waiting for security clearances – noted to be as high as 18 months in some instances –hurts recruitment, as some persons who have been hired take jobs outside the IC if they tire of the lengthy delays.

Recommendation: The ODNI – not individual agencies – should develop and monitor the implementation of overarching technological, security, and classification standards for the entire IC. These systems should support the analytic enterprise and must be responsive to changing conditions. Current conditions severely impede the development of a common IC culture, and knowledge sharing – both among IC agencies and with outside experts – cannot thrive as long as security, classification and IT systems restrict it.

1. Create common standards for IT. Any standard should be interoperable and scalable.

2. Create standardized security and classification systems across the IC. Security policy needs to reflect the idea that the IC needs to work collaboratively and hire an increasingly diverse workforce as well as protect secrets, sources, and methods. The IC should reduce the control of IT departments over security matters and separate IT problems from security issues. The feasibility of employing risk analysis approaches to information security should be tested.

3. Create an IC-wide information repository. Analysts should be able to go to one place to find out what information is available across the IC and how they can access it.

4. Streamline the approval system for experimenting with new information technologies.

Analyst Leadership, Management, and Career Dynamics

Finding #4: The IC lacks common human resource standards. There is a need for common standards for recruitment, hiring, retention, certification, training and promotion across the IC. The IC's number one priority should be having top people. Clear standards are essential ingredients in achieving this goal.

Background: Recruitment practices vary substantially across the IC and are not coordinated among agencies. Some IC agencies recruit analysts away from other IC agencies, creating a competitive environment. In some agencies, managers do not have the opportunity to meet prospective analysts before they are hired. While organizational size makes this common practice in some areas of government, e.g., the armed forces, the size of the analytic workforce in the IC should support a more personalized approach.

Each IC agency has a different personnel system. Agencies differ over what constitutes an expert, an intern, and many other categories of employee. Personnel performance reviews also are non-standard across the IC.

The IC has no standard way of keeping statistics on human capital data across all agencies. As a result, there is no consistent understanding of what skills exist in the IC analyst workforce. For instance, as noted above, there is no directory listing all of the analysts that work in a specific field. If the IC doesn't know its intellectual capital and the demographics of this knowledge base, there is no way to know how to staff to confront present and future challenges. Moreover, as many in the current analytic community reach retirement age in the next several years, the IC will lose the extensive knowledge held by senior analysts and managers. Current metrics fail to capture the impact of the loss of qualified people at any level.

Even if the IC extensively cataloged its human capital, the diffuse nature of future security threats makes it impossible to staff the analytic workforce with adequate numbers of properly trained analysts on a full-time basis based on budgetary considerations alone. For example, the IC cannot employ linguists in every language and experts on every region and ethnic group in the world. In fact, places that became trouble spots in the 1990s were not great powers and were not priorities for policy makers. This raises the apparent imperative of identifying in advance and utilizing on demand non-government experts and former IC analysts in a large-scale, organized fashion.

Despite these difficulties, participants agreed that the analyst recruiting pool should be expanded to include persons with more diverse backgrounds. As one participant said, "If the IC continues to hire the same kinds of people, it will continue to produce the same kinds of analyses."

Gannon (C-11) stressed that improvements in this area will only be possible if the DNI develops a world-class HR team that knows best business practices and that will carefully study the relevant experiences of agencies inside and outside the IC.

Recommendation: Create compatible, standardized human resource policies across the IC.

1. Implement standardized, collaborative IC-wide recruiting policies. These should be based on the best of current practices. At a minimum, lists of desirable analyst attributes should be developed (see Appendix A for a list developed over the course of project workshops) to help standardize the recruiting process and expand the diversity of the analytic workforce. HR and management should work together to implement recruiting policies. The recruiting process should include clear explanations of the analyst work environment and career options (See Recommendation #5 under Finding #5).

2. Emphasize "IC branding" over individual agency branding in the analyst recruitment process. A few IC agencies have very positive brand identification with prospective hires, but other agencies combine low brand recognition with weak HR departments. Since prospective analysts currently apply to many different IC agencies simultaneously, certain agencies are able to skim off the best candidates.

3. Institute a common IC-wide personal system with regulations detailing how to promote and compensate analysts and managers. Participants felt that the IC should consider a licensing period – distinct from a probationary period – for analysts, much as engineers achieve their professional engineer certification, or as nurses and attorneys must pass their licensing exams in order to practice. The development of professional standards across the IC would be a necessary first step in making this possible. Some participants also noted that it might be useful to require analysts to pass a series of professional qualifications during their careers. (McConnell discusses incentives to foster greater collaboration and standardization while enhancing performance on page E-12.)

4. Integrate "best practices" in IC hiring and promotion across all IC agencies. For example, some IC agencies such as the NSA, CIA, and DIA use scholarships effectively to bring in highly qualified analysts. While screening candidates for these scholarships is labor intensive, HR departments should incorporate some of these screening practices into standard hiring procedures.

5. Expand internship opportunities for prospective analysts. Many new analysts come to the job with unrealistic expectations concerning their day-to-day routine and the impact that they are likely to have on the policymaking process. Effective internship programs are one way to dispel these misconceptions before someone accepts employment with the IC. It also enables the IC to prescreen potential employees.

6. Generate standardized HR data. Collect baseline data on intellectual capital across the IC. Doing so not only will document analytic workforce skills but also will warn about the impending loss of skills through retirement. It also will provide the basis for constructing the IC-wide information repository discussed above to locate expertise and track how many people in the community are working on a specific problem.

7. Establish standards for firing. Retention is not an end unto itself. The IC wants to retain the best people, not maximize retention of all the analysts it hires. The IC is not currently an "up or out" organization. To what degree should it become one, given its mandate to be the repository of certain types of expertise in the U.S. government? Several participants felt that analysts and managers currently move up to the next grade level no matter how they are doing. Some also complained that nonproductive analysts become a burden to hard-working ones and there currently is no way to rectify the situation. McConnell (E-12) discusses the important relationship between accountability and performance.

8. Hire adequate numbers of analysts to support career development, training and rotation. The IC should hire sufficient numbers of analysts to support formal periodic educational and training programs for analysts and managers at all levels of the IC. This must include continuing training requirements. Numbers also must be sufficient to support both internal and external rotation as part of a normal career path. However, Danzig (B-3) cautioned about the potential for negative effects if all analysts receive standardized training but only a small fraction of analysts actually experience rotational tours of duty (B-3).

9. Develop policies to allow analysts who have left the IC to return without penalty.

10. Develop a program to identify in advance and utilize on demand non-government experts and former IC analysts in a large-scale, organized fashion to confront threats in areas of the world where the IC has a paucity of expertise.

11. Recruit analysts with nontraditional backgrounds. For example, Kojm (D-2) noted that the IC must recruit analysts "…not just in their 20s but in their 30s, 40s, 50s and even 60s, when they bring a huge wealth of other professional experiences to the table to benefit the quality of the analytic profession." He offered INR's rotational practices as a potential template for the entire IC.

Finding #5: *The IC must create clear career paths that motivate analysts to remain engaged as members of the IC. Insofar as possible, these should be common career paths that are valid throughout the IC so that analysts and managers know what is expected of them. Common career paths will facilitate the routine rotation of analysts among IC agencies without the career problems that currently accompany such transfers.*

Background: As with human resource issues in general, IC agencies provide different career paths with varying levels of requirements for their analysts. Not every analyst is the same or fulfills the same function. Generalists, specialists, and managers are all needed.

Participants stated that there is approximately a 4-5 percent attrition rate for analysts with less than five years experience in the IC. The project lacked the data to determine if this constituted a problem. On the one hand, most corporations and other institutions have much higher attrition rates. On the other hand, since the project did not have access to data about the demographics of analysts who resigned after five years, it was impossible to tell if the IC is losing its best and brightest, or those it would prefer to lose. Regardless of the answer to this question, the real challenge is keeping analysts professionally engaged by keeping them aware of and actively involved in their relationship to the IC as a whole. Just keeping analysts at their desks creates a good retention rate but does not necessarily mean that the IC is operating at a high level of performance.

Some participants noted that there is a gap between IC pay scales for new analysts and the higher compensation levels that private companies pay entry-level analysts. If sufficiently, large, this is a clear disincentive for IC recruitment and retention. On the other hand, representatives of RAND and CSIS noted that, although their organizations pay less than the government and the private sector, they have no difficulty hiring entry-level analysts since potential hires are attracted by the perceived opportunity to influence the policy process. This opportunity exists to an even greater degree for analysts in the IC, but the IC needs to market this fact properly to prospective hires.

Generational preferences should also be considered when designing career paths and associated incentive and reward systems. New analysts are members of the so-called Generations X and Y. Members of these generations can be recruited more effectively through marketing campaigns that appeal to their generation's specific characteristics. With respect to Generation Y, this group is considered the first global generation; which implies that an appropriately designed campaign should be able to attract members of this generation from diverse ethnic backgrounds.

Members of Generation X and Y expect access to management and even senior leadership on a regular basis. They will use these opportunities to speak frankly about organizational issues and expect management to take them seriously and act on the merits of their arguments. Participants felt that developing a robust mentoring program was one of the most effective ways to incorporate these needs into routine operations. Mentoring also serves the valuable purpose of assimilating new hires into the organizational culture in a somewhat structured way.

There is a need for structured mentoring for managers as well as analysts at all levels. However, the fact that the IC hired relatively few new analysts during the 1990s has produced a shortage of midlevel analysts to act as mentors for junior analysts. Midlevel staff also needs mentors to help them move into more senior management positions.

Entry level analysts expect a high level of IT support. Participants noted that, in some cases, the IC lags behind universities and the private sector in this regard, but they were not able to qualify to what degree inadequate IT support was causing junior analysts to leave the IC. Some lack of access to IT is due to legitimate security concerns, but some deficiencies can and should be corrected. not only for retention purposes but also to enhance analysis (see Finding #3).

Participants discussed whether new analysts had that much interest in spending their entire careers working for the IC. A case was made that younger analysts planned to switch employers several times during their careers. This was largely attributed to the fact that they wanted to pursue interesting jobs over security (another characteristic of Generations X and Y). This implies that they would stay in the IC if their careers offered sufficient opportunities to pursue interesting tasks. It also implies that some amount of undesired attrition is unavoidable. A system for utilizing on demand non-government experts and former IC analysts (see Finding #4) would help mitigate this effect.

Currently, managers say that they have "lost someone" if one of their analysts transfers to another agency. But transferring is the only option available if periodic rotations into other agencies are frowned upon and analysts desire a new experience that their agency cannot offer. Effective rotations can only occur if the IC standardizes its HR policies, including rationalizing analyst career paths.

Recommendation: Create a common IC-wide career development program. What milestones must analysts meet throughout their careers? How do new analysts know what is expected of them over the mid- to long-term? What are the incentives for them to move along that path? How are they evaluated along the way?

1. Provide multiple, standardized career paths with clear requirements and standards. Management should assist with determining the best balance between the different paths. There should be clear incentives to move into different career paths depending on the IC's requirements, and clear milestones that analysts and managers must accomplish to move to the next level. Standardized career paths are not the same as restrictive ones.

2. Create mentoring across the IC. In addition to formal requirements, managers should support a mentoring environment within the organization.

3. Encourage transfers and rotations inside the IC. Make the accomplishment of rotational tours a requirement for analysts and managers to be promoted. The IC would need to direct its analyst rotation program centrally because branding

issues affect current analysts as well as new hires. More people want to rotate into the larger, high-profile agencies than want to rotate into the smaller ones. This raises the likelihood that rotations need to be a mandatory part of an analyst's career progression; it also indicates that rotational assignments would need to be distributed according to some kind of merit system. When posted to another IC agency, analysts and managers should be given real jobs rather than merely exposed to the host organization's operations. For example, first and second level supervisors should be part of the decision making process in their host agencies to broaden their experience.

4. Manage expectations and engagement. The IC is now hiring new analysts with different backgrounds and expectations than the current workforce. New recruits have very high expectations and the IC will be challenged to give them jobs that meet these expectations. Expectations include adequate IT support and connectivity inside and outside the IC; an ability to leave the IC temporarily to pursue other interests and be rehired without penalty; and the opportunity to take sabbaticals. The management of expectations begins with what prospective employees hear during the recruitment process. This applies, in particular, to what will be required of them (See Recommendation # 1 under Finding #4).

Finding #6: Effective leadership and management are critical to ensuring an effective analytic enterprise. Managers are largely responsible for the quality of analytic products. They also decisively affect the retention of analysts by their leadership style and influence on organizational culture. Ideally, managers are agents of change in their organizations. At a minimum, they should not suppress other, informal agents of change.

Background: Many of the considerations about whether new analysts make the IC a career or leave after 5-10 years have to do with the quality of leadership and management they experience on a day-to-day basis. A number of current practices and policies constrain managers' ability to optimize the analytic enterprise. Most importantly, the current climate is one in which the demands of production limit managers' discretion to develop their analysts. Managers perceive that the pressures of production require them to keep analysts on the line producing intelligence products, even though the quality of analysis would improve if more time could be devoted to analyst training and education.

Managers do not properly mentor their analysts. An invigorated mentoring program holds the potential to improve both the quality of analysis and morale.

In general, managers are less comfortable with information technology than the junior analysts that they supervise. This is an area where focused training for managers would yield large dividends.

If analysts want to advance, they must choose either to join the Senior Analytic Service or become a manager. One result of this practice is that analysts become managers because they have been good analysts, not necessarily because they have been or have

shown the potential to become good managers. Other managers of analysts come from non-analyst backgrounds.

The IC does not emphasize training programs for managers, and, as with analyst training, the programs that exist are agency specific and vary in their quality. There is little focus on managers getting a core body of meaningful training.

In an environment that already demands increasing levels of knowledge sharing among analysts, managers should look for ways to encourage teamwork and should reward analysts who engage in collaborative networking activities. They also should create a climate in which the arguments of analysts with divergent opinions from the majority view can be heard. However, instead, some managers encourage stovepiping by the manner in which they control the information that leaves their offices. This approach apparently stems in part from managers' perception that avoiding risks improves their chances for promotion.

Recommendation: Improve analyst leadership and management across the IC.

1. Change how performance is measured to reflect quality of analysis over quantity of analytic product. Since managers are being evaluated based on the number of reports their analysts produce, managers tend to use the same standard to evaluate their analysts. This leads to the "tyranny of production" dilemma: analysts have little time to think about their analyses because they are under pressure to produce reports. The fact that analysts must be responsive to customers and clients who ask specific questions via email and require speedy responses adds further to the tyranny of production. Analysts' preoccupation with answering pointed questions and responding to demanding deadlines erodes their analytic capabilities and diminishes their attention to medium- and long-term issues. Participants observed that, for analysts to have time to analyze, they would need to be protected from day-to-day issues by their managers. Solving the tyranny of production will not be easy. There can be a large time lag before the IC knows if a piece of analysis was good work or not. Sometimes the accuracy of an analysis might never become known. Production has become the predominant metric because it is the simplest way out. Fixing this problem might require innovative solutions. For example, McConnell (E-7) discusses creating an independent analytic agency as one way to improve the quality of analysis.

2. Train managers. The IC should standardize and place greater emphasis on educating and training its managers, including continuing education at all levels. This process should begin with providing analysts selected to become managers with appropriate training before they assume their management duties. Managers also should create opportunities for their analysts to be in charge of projects whenever possible to provide them with experience and to identify analysts who display leadership and managerial talent. Under current practice, managers of analysts do not need to have been analysts themselves. If the IC chooses to retain this practice, then this group of managers must receive training in analytic skills

and processes if they are to be effective supervisors, editors, and reviewers of analytic products. Junior managers also need to receive training in leadership, particularly since many senior managers will be retiring soon and there will be a shortage of mentors.

3. Reward managers through an appropriate incentive system. Many analysts don't want to become managers because doing so means taking on increased responsibility for the same pay. Managers who exhibit exceptional management and leadership abilities reap few tangible rewards. There have been some proposals to pay managers more, but there is strong resistance to this idea. Bonuses have gone to analysts but not to managers. As one manager stated, "No matter how well I do, there is zero personal return for that effort." Managers – and analysts – should be rewarded for creative thinking just as the academic and business worlds reward it.

Education and Training

Finding #7: Education and training are low priority activities throughout the IC. If there is one cultural attitude that is uniform across the IC, it is a bias against allowing analysts to take time away from their jobs for training. Managers feel that, since everyone is overworked all of the time, it is inappropriate to give analysts "time off" for training and education. The fact that managers do not receive consistent training throughout their careers probably reinforces this bias. Essentially the IC is stressing questionable short-term gains over the long-term benefits of a better-educated analytic workforce.

Background: Education imbues approaches to thinking and solving problems. It also provides detailed knowledge about particular disciplines. Training imparts specific skills and information necessary for competently participating in the day-to-day operations of an organization. Initially, the project approached this topic with the view that universities educate while in-house programs conduct training. Future analysts would be educated at universities and then trained by their agencies following hiring according to some program. However, in terms of teaching persons to become effective intelligence analysts, the dividing line between education and training is far from clear. It is most useful to view education and training as part of a continuum rather than as separate activities conducted by universities and parent agencies respectively. In practice, universities often engage in training as well as education. Medical, dental, and accounting schools probably serve as the best examples of training-intensive professional programs.

If intelligence analysts are members of a profession, it might be appropriate for professional schools of public policy, international relations, and political science – at both the masters and bachelor degree levels – to offer curricula in "intelligence analysis," with such programs incorporating a healthy dose of training along with education. However, is this going too far? Many experts believe that the best preparation for

becoming an intelligence analyst is a solid education in international relations, political science, history, economics, literature, journalism, science, art history, or other disciplines in the humanities and sciences.

In its *Workshop on Educating Intelligence Analysts*, the project learned that university programs that currently prepare students to become intelligence analysts vary considerably in their learning objectives and content. Even when universities choose to develop curricula in intelligence analysis, these programs will bear the stamp of their parent programs and will remain quite diverse. This is a good thing, given the wide range of skills and backgrounds the IC needs in its analytic workforce. However, it means that the IC must play an active role in ensuring that its newly-hired analysts reflect aggregate IC needs for skills and backgrounds.

Universities now offer alternative educational formats in addition to traditional degree programs. For example, some universities offer certificate programs that enable midcareer analysts to gain graduate level education on focused topics. Universities also offer executive education programs tailored to IC needs. These programs can make a valuable contribution to analyst education and training.

Besides their direct role in improving the analytic enterprise by enhancing analyst proficiency, educational and training activities should be the predominant mechanism for professionalizing the analytic workforce and for fostering a common IC culture. The new National Intelligence University System (NIUS) is an ideal vehicle for coordinating educational and training activities across the IC to achieve all of these goals. In the process, the use of such an office with IC-wide authority will streamline and rationalize IC-wide educational and training offerings. NIUS also should mesh IC programs with appropriate offerings from universities to maximize benefit to the IC. NIUS will also have a research function, and is probably the best organization to coordinate IC-wide lessons learned. Gannon (C-10) argues that common analyst education and training through the National Intelligence University System is a necessary condition for developing the hallmarks of a profession of intelligence analyst; attempts to impose professionalism from above through mission statements, etc. will <u>not</u> be sufficient.

Analysts and managers will view educational requirements as important if the IC links them to promotion in some way. For example, in the military, personnel cannot reach the next rank or screen for the next significant career milestone, unless they have passed the appropriate tests and programs of instruction. This training and evaluation process should be done all the way along one's career. Each level should be more competitive so that only the best move into senior leadership positions.

<u>Recommendation</u>: *Improve education and training in the IC to improve the quality of analysis, professionalize the analytic workforce, and foster a common IC culture.*

1. Use the National Intelligence University System to coordinate all education and training programs across the IC, including agency-specific programs. In this way, one organization under the direct control of the DNI will know what educational

and training activities are available across the entire IC. The NIUS also should develop and coordinate IC-wide education and training programs offered by universities. As Gannon (C-10) observed, "…the failure of past, well conceived reform efforts will be repeated unless the DNI's organization becomes a true Community institution. The development of a robust NIU will add significantly to the DNI's prospects for success."

2. Require common training. Make as many education and training programs as possible IC-wide initiatives. This will foster collaboration and reinforce a common IC culture. Programs that remain under the control of individual agencies should be open to analysts from other agencies if they can benefit. However, Danzig (B-4) cautions that, if common training is implemented, it must be relevant and interesting. It also should be sufficiently robust to provide a "market basket" of offerings that enable analysts to take the courses that appeal to them as most useful.

3. Initiate a mandatory, joint "boot camp" for all analysts in the IC within the first 6 months of employment. Topics of instruction should include ethics and tradecraft. Such a course would help to inculcate common beliefs and culture among all IC analysts. The CIA Graduate Program – attended by all new analysts at CIA – could serve as a model for this IC-wide boot camp

4. Make use of new formats for education and training that are available in both university and IC in-house settings. These include certificate programs and executive education offerings offered by universities, as well as specializations in Intelligence Analysis as part of masters degree programs at schools offering Masters of Public Policy degrees.

5. Develop a coordinated education and training continuum for managers as well as analysts so that education and training becomes a standard, periodic feature of analysts' and managers' careers. This not only will keep analyst skills current and prepare them for more senior positions but also will re-indoctrinate them in the outlook and goals they all hold in common as members of the IC

6. Make the accomplishment of mandatory educational and training milestones a requirement for analysts and managers to be promoted.

7. Institute continuing education requirements across the analytic community. For example, most professions require several hours of continuing education per year. Both certificate and executive programs at universities could provide tailored courses for this purpose, as could short courses offered by IC agencies. IC-wide continuing education requirements are an excellent complement to periodic common education and training milestones.

8. Develop an IC-wide officer-in residence program based on the CIA's officer-in-residence program, which places serving CIA officers as visiting professors at

universities. This program will help identify prospective analysts as early as possible and help guide their educational preparations for entering the analytic workforce.

9. Explore the possibility of having university professors serve as scholars-in residence at IC agencies. This program could work particularly well in the context of the National Intelligence University System.

10. Size the analyst workforce to allow an appropriate percentage of analysts to engage in education and training without causing the rest of the workforce to be chronically shorthanded (see Finding # 4, Recommendation #8)).

11. Since newly hired analysts often must wait a considerable length of time for their security clearances to be processed, the IC should consider using this time constructively for initial, unclassified education and training.

12. Expand the Intelligence Community Academic Centers of Excellence Program.

Implementation Strategies

Finding #8. *Some of the report's recommendations have been identified in previous studies but have not been implemented. This is due to resistance from within the IC. Strong resistance to this report's recommendations also should be expected, making it critically important to devise appropriate implementation strategies and detailed action plans to guide the process and maintain continuing pressure for change.*

Background: Reviewers of the preliminary report noted that, while most recommendations were sufficiently detailed to enable implementation without additional development, others required further work to make implementation possible. Further development of these recommendations was important for overcoming expected resistance to change within the IC.

Recommendation: Develop certain report recommendations in greater detail.

1. Study the broader trends and activities that offer opportunities for improving analytic processes. This includes initiatives and trends now developing outside of the analyst community but relevant to the report's recommendations.

2. Research the relationship between collectors and analysts to identify additional ways to improve the analytic enterprise.

3. Perform additional research to obtain information concerning how analysts differ in terms of their particular disciplines and skill sets, as well as the unique problems they face. This should include research into the many initiatives under way to address these issues. Such an effort would permit the construction of

meaningful skill sets for future analysts, which, among other things, would help focus education and training programs (Finding #7).

4. Further develop the concept of "intelligence analyst professional." It is at the heart of the report's recommendations and should be examined in all its dimensions to maximize the utility of the concept.

5. Conduct further research to identify best practices for constructing a center act as a clearinghouse for new ideas, a means to test promising concepts, and a repository and distribution point for lessons learned. The center should have a virtual component to allow analysts to participate regardless of their location.

6. Perform additional research to develop an appreciation for the barriers to outreach that exist outside the analytic community in addition to devising incentives for analysts to reach out to nongovernment experts. This can best be accomplished by consulting with outsiders who might be asked to collaborate with the IC.

7. Study the reasons why past initiatives to improve intelligence analysis were not implemented so that past mistakes can be avoided.

8. Conduct further research to identify best practices in hiring and promotion practices throughout the IC.

9. Conduct a study to identify the actual number of analysts who would be affected by the report's recommendations so that budgetary implications can be identified and analyzed.

10. Further develop the concept of standardized career paths within the analytic community to enable human resource departments to begin constructing prototype models.

11. Research alternatives to using volume of production as the principal metric for assessing performance in the analytic community.

12. Develop recommendations concerning exactly how the National Intelligence University System would coordinate an IC-wide training and educational effort.

13. Several recommendations can be developed further by using current IC data about recent performance.

Finding #9: Additional legislation is not necessary to implement the report's recommendations.

Background: The report concludes that additional legislation is <u>not</u> required as a means to compel needed changes, asserting instead that existing legislation already provides the

Director of National Intelligence (DNI) with the necessary authority. Strong leadership by the DNI, with the explicit approval and support of the President, would not only be sufficient to bring about needed change but also would result in better overall results. However, the report notes that many elements of the Goldwater-Nicols Defense Reorganization Act of 1986, which initiated sweeping reforms of the U.S. military by restructuring personnel incentive systems and organizational relationships, can serve as a valuable guide for developing implementation strategies for the report's recommendations.

Recommendation: Implement the report's recommendations using existing lines of authority within the IC.

1. The DNI is empowered to bring about needed change in the IC's approach to the analytic enterprise, but strong leadership will be required to overcome expected resistance in many parts of the IC.

2. Use of an outside organization serving as honest broker to monitor implementation has distinct advantages over depending on the IC to monitor its own progress.

APPENDIX A

Competencies of Successful Intelligence Analysts
(as expressed by members of the intelligence community during the four project workshops)

Traits		Educational Background
Natural curiosity		Foreign language skills
Well-rounded		Customer/client/user insight
Clear thinker		Substantive specialty (functional or regional)
Critical thinker		Incorporate U.S. policies as independent variable
Intuitive thinker		Appreciate history
Team player		Understand the difference between intelligence and policy
"Sees beyond the obvious"		Lived overseas
Detect/appreciate complex patterns		
Grasp of the theoretical		**Skills**
Self-discipline		Effective writer
Ability to handle substantive uncertainty		Effective oral communicator
Ability to address alternative scenarios		Effective briefer
Ethics/integrity		Problem solving skills
Flexibility/adaptability		Can translate policy questions into intelligence questions
Fast learner		IT skills
Imagination		Research skills
Appreciate own biases/perspective		Social skills
Accept criticism		Knowledge of their organization & the IC
		Good interpersonal skills

APPENDIX B
Comments on the Preliminary Report by the Honorable Richard Danzig

COMMENTS FROM RICHARD DANZIG

> Here is Edward Bear, coming downstairs now, bump, bump,
> bump, on the back of his head, behind Christopher Robin. It is, as
> far as he knows, the only way of coming downstairs, but sometimes
> he thinks that there really is another way, if only he could stop bump-
> ing for a minute and think of it.

> - A. A. Milne
>   (*The Complete Tales of Winnie the Pooh*, Ch. 1)

It is the fashion of the moment to criticize the intelligence community generally, and our analytic failings particularly. A good analyst could --- and should --- readily critique many of the criticisms of intelligence analysis. What, for example, do we think of an analytic approach that takes one trauma --- 9/11 --- and generalizes about the intelligence establishment on the basis of that failure without also examining our diverse successes (and for that matter other failures)? The single incident approach distorts our sense of proportion --- it engages us in examining numerators without denominators. Moreover, the prevailing sense of urgency fuels a resort to initiatives that can be implemented quickly. In this circumstance, relabeling and reorganization --- acts that can be achieved by legislation or executive order --- beat out serious study of long-term processes. Amidst intense critiques of alleged inadequacies in anticipating 9/11, understanding Iraq, coping with the war on terror, and comprehending our risks from Weapons of Mass Destruction, is it is very welcome to see the Center for International and Security Studies stepping back, looking at analysis in a broader frame, and focusing on outcomes that will matter not just now, but in 2020.

My gratitude for this study is enhanced by agreement with its most central points. I think the study is squarely right in its emphasis on the need for our intelligence establishment "to generate collaborative networks" with those outside the classified world, on the desirability of creating a more integrated and self-consciously professional community of analysts, and on improving the analytic product by processes like more rigorous peer review. In general I applaud this report.

There are, nonetheless, some significant respects in which I would like more from this report or at any rate in which I would like readers of the report to do more, both analytically and operationally. I think the report suffers from a dearth of data (therefore, ironically, handicapping serious analysis), from focusing too narrowly on the world of analysts and therefore overlooking broader trends and activities that offer opportunities for improving analytic processes, and from failing to grapple with the hard question of the relationship between collectors and analysts. I also think the report does us a disservice in focusing on legislation as the vehicle for reform. In my opinion, most of

what is needed is within the power of a strong Director of National Intelligence. Though the Intelligence Reform Act and, as the report notes, the Goldwater Nichols Reorganization Act of 1986 understandably provide models that influence the report's authors, we should resist the tendency to think that anything important must be embedded in a legislative vehicle.

I will start with one of the report's strongest points: its emphasis on the need for broadening of the network of those engaged in the analytic enterprise. The report attributes this to the multiplication of security threats "of a smaller scale", the complexities of globalization and the increased demand for analysis that will contribute to prevention.. I agree with this view, but would explain it somewhat differently. In policing, we sometimes describe the difference between street crime and white collar crime by saying that in street crime we know what happened, but not who did it, while in white collar crime, we know who did it, but we don't know what they did. In this sense, the cold war was more like white collar crime: we knew and could watch our adversary; the key was figuring out what they were doing. Changes in routine provided some of our most significant warnings and indicators. The charge to our analytic community was, in this respect, a call for a classic intelligence function: develop a recondite and recherché expertise in these arcane matters. There was little that the laymen could add, for example, to our understanding the movements of Soviet troops or Soviet submarines. Moreover, classified information was essential to making sound judgments.

Our present circumstance in dealing with terrorists (for purposes of this commentary, I am not talking about our continuing efforts with regard to states) is more like street crime. We have a pretty good general idea of what our opponents (that is, terrorist groups) are attempting, but often we don't know who they are or where they are. Collection against this target is very different, and so is analysis. In the area of most intense focus for me, the potential for bioterrorism, I have calculated that the number of those who might be capable of making an effective aerosol weapon is over a million. The earmarks of an effort would be of very low visibility because the work can be done in rooms, without elaborate test facilities, uses of uncommon resources, or large demands for financing or supplies. No group of analysts can realistically alone cover the waterfront in interpreting the subtle clues that are available.

Another variable needs also to be considered. Biotechnology is advancing so rapidly that today's high school student can do things beyond the capabilities of a Nobel Prize winner two decades ago. Leading edge capabilities in the creation of new attributes for existing pathogens, new pathogens, biological weapons that can use proteins to distort mental and physical functions, and so forth, can be tracked and anticipated only by harnessing the expertise of those at the leading edge of these fields. So outreach of the kind recommended in this report is, in my view, imperative.

The report is perceptive in talking about some of the problems analysts will have in effecting this outreach. But I think a strong approach to this problem will also have to consider barriers to outreach that exist outside the analyst community. In this respect, the report is too narrowly focused: it may lead the reader to assume that sufficient

determination by the analyst community, if supported by superiors, could in and of itself create the necessary improvement. It would be helpful, though, also to consider the other side of the equation: it will be difficult for many members of our civil society to become actively engaged with the intelligence community. To continue the discussion of bioterrorism, for example, members of the pharmaceutical industry will have profit motives, intellectual property concerns, and concerns about how they will be perceived by their customers, colleagues and suppliers. Academics will see publication in peer reviewed journals as the route to advancement. Typically, participation in intelligence functions will not be encouraged by their home institutions and sometimes will be actively discouraged. The report would benefit from talking with these outsiders --- ironically just as it urges analysts to work more with outsiders --- to understand and propose methods for solving these problems.

Within the intelligence community, collectors can be expected to resist sharing intelligence with outsiders. But the "outsiders" will often be discouraged if they are given only watered-down, homogenized versions of material to analyze. They will want to be considered full partners. Those who recommend (and in my view correctly recommend) crossing the intelligence agency-civil society boundary and those who read this report and consider these recommendations have, in my view, an obligation to note these difficulties and to reflect on how to overcome them. Merely saying, that "increased analyst contact with outsides sources needs to be an IC-wide initiative," understates the case and doesn't come to grips with the problems. It is understandable that the report would choose diplomatic phrasing when it says "doctrine should be biased toward enabling collaboration while preserving standards for protecting secrets, sources and methods." I think though, that we will ultimately have to realize that we are too biased in our security processes to security at the expense of outreach. Even if some sacrifice of existing standards (rather than "preserving" them) is required, I think that would be worthwhile.

Similarly, I would like to see more reflection on the difficulties of creating a very desirable sense of community and professionalism amongst analysts as the report recommends. At the outset one might note some tension between this desire and the desire to make the community more outward looking. I say "tension" and not "contradiction" because both goals are laudable and ultimately compatible, but if sending all analysts through training courses and assignments in other agencies is desired, then sending a fraction of the community to assignments outside the community is a complication and a source of tension. More fundamentally, the report doesn't come to grips with the numbers of analysts and the resources involved in opening up any of these worthy opportunities. In this respect, this report on analysts is remarkably un-analytic. In the military --- rightly pointed to as a model of investment in training --- training programs are sustainable only because the Armed Services budget (and are sustained in budgeting) for personnel overages that sustain both training and ordinary course work. No such budget allocation has occurred, or support provided, in the intelligence community. It seems fair to ask: What would this cost? If ten percent of intelligence man-years are devoted to training, I estimate that the cost might exceed a billion dollars. That underscores the magnitude of the problem.

If funds are allocated to improved training, I would encourage the community <u>not</u> to invest in a single required course developed and staffed by a single institution. Training is good, but also (as the military example suggests) it can be dull, irrelevant, reinforcing of bad status quo habits, or all three. I would recommend that readers inclined to follow the report's recommendation, reflect (as the report does not) about how to create a training establishment that offers a market basket of courses and enables analysts to take those that appeal to them as most useful and engaging. This would, in turn, create a feedback mechanism enabling us to see what training was working well and what needed to be modified or terminated.

The report and its readers would also be stronger if it (or they) considered initiatives and trends now developing outside of the analyst community but relevant to the report's recommendations. For example, recent legislation created a Chief Human Capital Officer in each agency, including intelligence agencies. What is this official doing to assess recruitment, retention and training within the analyst communities? Similarly, organizations like the Partnership for Public Service are collaborating with universities and agencies to create ties for recruitment and training. (I should note that I am on the board of this organization and therefore may overrate the utility of its contribution.)

Consideration of these efforts would enhance the report. But even more significantly, they may help in identifying what the report will most require: allies in furthering and implementing its thinking. The ideas here are basically correct. They also all have some history. Others have recommended them (or things like them) without success. In the preceding paragraphs I have urged some further work that would give the report some more analytic weight and better position its advocates to cope with difficulties that will emerge. Noting parallel efforts and actors seeking similar ends may help in enlisting support to take these recommendations further than they have gone before.

Finally, as a means to implementation, I recommend that the report's authors summarize their observations and recommendations in a letter to the Director of National Intelligence, requesting his comment in a responding letter on whether he agrees and what, if any, implementing steps he might intend. As I noted above, I do not believe that legislation is required to get the benefit of the ideas in this report. Strong leadership, clear-eyed realism, and a coalition of backers are required. It is a compliment to the quality of this report that I think it can be a rallying point for achieving these. Even while urging the authors to do more, I commend them for what they have done.

Richard Danzig
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Center for Strategic and International Studies

December 2005

Comments on the Preliminary Report by John Gannon

A Critique of the Final Report
Of
Future of Intelligence Analysis Project
Center for International and Security Studies
At
Maryland School of Public Policy
University of Maryland
By
John C. Gannon
January 2006

The Future of Intelligence Analysis Project draft Final Report does an excellent job of laying out the key problems facing the US intelligence analytic community at the beginning of the twenty- first century.[4] It provides a thoughtful analysis of the emerging, complex threat environment we face (pp. 4-6) and of the formidable challenge to develop innovative methodologies, career strategies, security policies, and relevant training to deal with it. I commend the project leaders and contributors, who clearly took seriously an important mission for the DNI. I recognize that the interagency team had limited time, resources, and access to complete its work.

The draft describes (pp. 8-24) a wide range of serious problems in what it depicts as a dysfunctional Intelligence Community (IC): the lack of an IC-wide professional identity; inadequate dialogue with outside experts; uneven and ineffective technology, security, and classifications standards across the Community; conflicting human resources standards, including on career services; insufficient leadership and management training; and a low priority for education and training. In each case, thoughtful recommendations, which should provoke constructive discussion among IC leaders, follow analysis of the problem.

Critical Comments

My comments draw largely from my own 24-year professional experience at CIA, much of it in senior positions managing analysis.[5] I consciously try to move beyond the good points made in the report to ask critical questions about what, from my experience,

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[4] I commend the comprehensive and insightful work of the project's Executive Director, William J. Lahneman, and his co-directors, Jacques S. Gansler, John Steinbruner, and Ernest J. Wilson III.

[5] I began my career at CIA as a political and economic analyst on Latin America, and later served as Director of European Analysis, as Deputy Director for Intelligence, as Chairman of the National Intelligence Council, and as Assistant Director of Central Intelligence for Analysis and Production. After my retirement in 2001, I served in the White House as the team leader for the Information Analysis and Infrastructure Protection Directorate in the Transitional Planning Office for the Department of Homeland Security and later on the Hill as the first staff director of the House Homeland Security Committee.

is missing and what more would be needed to implement recommended reforms. In that spirit:

- *All seven of the project's recommendations have merit, but would benefit from additional research against current IC data and recent past performance. The list of recommendations, over all, needs prioritization and would be more useful if proposals were directed at organizations, units, or managers who could be held accountable for implementing them. While it is understandable, the report lacks relevant historic perspective and institutional memory—which simply reflects a chronic problem in a Community that, for the most part, has only a vague sense of its history and an extraordinarily weak institutional memory.*

- *The report does not differentiate adequately among IC analysts in terms of their particular disciplines and skill sets—IMINT, SIGINT, MASINT, All-Source, Open-Source, etc.—nor assess the unique problems they face, nor credit many sound initiatives under way to address them. CIA, DIA, NSA, NGA, and INR have improved their recruitment and training programs against their own specialized requirements. The IC now needs to be able to evaluate the quality of this training across the agencies, and to adopt a common curriculum for such issues as collection management, open-source intelligence, and information sharing.*

- *The report's recommendation to increase dialogue with outside experts is on the money, even though several of the suggestions are already being done. One significant disincentive for analysts to engage with outside experts is the security requirements that make it so burdensome. The report's proposals to reform security practices could not be more timely.*

- *The IC analytic community has a stronger baseline for constructive reform than the report suggests but a harder road to implementation than it implies. This is because there are no real institutions in the Community to take on these issues. The DNI is just getting started, and the National Intelligence University (NIU) is way short of where it needs to be. Who, therefore, is going to be held accountable for implementation? The DNI, I believe, should put the burden on top Community leaders who have been reluctant to support integration of analytic programs, rather than on lower-level professionals who generally have supported closer collaboration. This is an important message for the DNI. Individual agencies, and the IC as a whole, have worked hard over the past decade, though admittedly with mixed success, on the problems cited in the report. The DNI should apply lessons learned and build on this.*

- *You underestimate the major positive impact that a fully resourced National Intelligence University (NIU) could have in professionalizing the IC and in addressing most of the problems the report raises. After the DNI, this would be only our second community institution, with the potential to codify and teach IC history; to do useful, accessible and retrievable research to address current problems across the agencies; to promote serious, transmittable strategic thinking for the Community;*

and to facilitate "bonding" among IC professionals at various stages of their careers. I see this as a big deal for the IC's future. !

- *You overestimate the potential positive impact of additional legislation when strong leadership would get us closer to where the IC needs to be. The DNI, in my view, is in a solid position to establish IC priorities and to work with the Congress to fund them. The Congress actually needs his help. Lawmakers quickly ran out of good ideas in drafting the Intelligence Reform and Terrorism Prevention Act of 2004, leaving a lot of holes for IC leadership to fill. Minor legislation may be required over time to expedite IC transformation, but another major law, such as one modeled on the Goldwater-Nichols Act, would be premature and possibly counterproductive at this time.*

It is no criticism to say that this comprehensive report breaks little new ground but simply replants what the IC has failed to cultivate and harvest in recent years. That's okay. Under the DNI, there is hope that the sensible reforms proposed in the report will be harvested. And, hopefully, the project's sharp interagency team will stay in the action to both monitor the DNI's progress and to suggest new ideas to expedite the transformation of the analytic community.

Assumptions of the Report

The project team was rich in professional experience but, as noted, not in resources to investigate past programs and practices across the IC. This results in a somewhat skewed perception of where the IC is and where it needs to go. History does not start from today, even though our vague knowledge of the IC's past may make it seem so. The IC supports a number of innovative programs led by some of the brightest people in the Federal Government. And the hard experience and expertise of these analysts and managers would be indispensable in leading an effective transformation of US intelligence.

I would, therefore, question the report's glib characterization of the IC as the "Community that Isn't," even though it is right to point up the continuing need for greater interagency collaboration. Technology over the past decade has forced greater collaboration among the technical collection agencies and with HUMINT collectors. There is now a real interdependence among collectors and a collaboration among analysts that was not evident at the height of the Cold War. This is a significant, positive change.

Analytic producers across the IC have stepped up their collaboration in strategic planning and production. The establishment by statute of the position of Deputy Director of National Intelligence has added thrust to this growing interaction. We still are not where we need to be, but a lot of progress has been made in the past decade. IC analysts have no call to jump up and shout, but neither do they have cause to hang their heads.

The report assumes optimistically that the analytic community under the DNI will be able to implement reforms that have eluded the IC over the past twenty-five years. I share this optimism, though I would hasten to add that the DNI will need strong and sustained support from the Executive Branch to make a go of it.

Historic Perspective

The challenge to the IC analytic community long predates 9/11. In speaking to IC groups, I like to assert that it relates to the three distinct but intersecting revolutions faced by the Intelligence Community over the past twenty years, which have encouraged trends that continue today. The 9/11 Commission pointed to the failure of the IC, the White House, and the Congress to align their priorities in addressing the need to reform before al Qaeda struck. It is important to keep in mind that the IC does not function in a vacuum. It interacts regularly with Federal consumers and the Congress, and they directly affect its priorities.

The first revolution was geopolitical. It swept away the Soviet Union, transformed the face of Europe, and forced the Intelligence Community to confront a new, dispersed global threat environment in which non-state actors, including conventional and cyber terrorists, narcotics traffickers, and organized criminals, operated against US interest across national borders, including our own. In the decade of the 1990s, the Directorate of Intelligence at CIA and DIA were restructured in an effort to deal more effectively with a rapidly changing world.

The second revolution involves technology, primarily information technology, but also the rapidly advancing biological sciences, nanotechnology, and the material sciences—all bearing good news and "dual-use" bad news for mankind. As a Latin American analyst in the early 1980s, I had to wait at least a week to get a newspaper from the region. That was an information-scarce environment. Today, in an information glut environment, any analyst can read virtually any newspaper from anywhere in the world at the same time or before the readers of the country in which it is produced.

The third revolution related to homeland security. This is not just about the alarming proximity of the threat, but even move about the new national security stakeholders it brought to the fore, "first responders" with a legitimate need and justifiable demand for intelligence support. At great stress to our workforce and communications systems, we have broadened the norms of information sharing and produced a new population of analysts with expertise in issues such as critical infrastructure protection.

If these revolutions predated 9/11, so did the IC's response to them. The IC, the policy community, and the Congress actually began to respond to this new, distributed threat environment in the mid 1980s, with the pace picking up dramatically in the ensuing decade. The DCI established the Counterterrorism Center (CTC) at CIA in 1986, followed thereafter by the Counternarcotics Center and several iterations of a counter-proliferation center—all mandated to focus collection, integrate analysis, and promote

information sharing. Both CIA and DIA reorganized their intelligence units to meet new threats and enable technology in the mid 1990s. The White House in 1998 established the position of National Coordinator of Security, Infrastructure Protection, and Counterterrorism. Homeland security entered our vocabularies.

The technical collectors, starting from behind in the 1990s, made Herculean efforts to transform. Advancing technology drove the controversial creation of the National Imagery and Mapping Agency (NIMA) in 1996. NIMA (later named the National Geospatial-Intelligence Agency—NGA) launched a major push to get ahead of the geospatial technology curve, while the National Security Agency (NSA) began a fundamental transformation to adapt to the global revolution in communications technology. Point-to-point communications were gone and we were into the fiber-optic and wireless worlds. In 1998, the Ballistic Missile Commission, headed by Donald Rumsfeld, included with its report a "sideletter" critiquing IC analytic performance that was an impressive blueprint for reform. The FBI significantly increased its overseas presence and, prodded by the Webster Commission, developed a five-year strategic plan in the late 1990s that included goals to develop a comprehensive intelligence collection and analytic capability. Late in the decade, it established separate counterterrrorism and counterintelligence centers to integrate the input from IC and law-enforcement agencies.

Key Trends

In all this activity, three trends were clear prior to 9/11, and they all appear irreversible today. They significant implications for several of the project's proposals, especially with regard to hiring, training, and deploying analysts.

First, agencies began seriously to respond to the growing impact of **globalization.** Globalization—the interconnectedness of networks moving information, culture, technology, capital, goods, and services with unprecedented speed and efficiency around the world—came to be seen not as a passing phenomenon but as the defining reality of our age. In a shrinking world of communications, foreign and domestic intelligence know no borders. This is not to say the whole Community embraced technology to enable transformation nor that the White House or Congress made it a priority. But the direction was set and it has not wavered.

Second, pressures within the IC veered increasingly toward **decentralization,** not the centralized models often favored by the Administration and Congress. Some centralization will always be needed to establish consensus or bound the dissent on critical natural-security issues. In the 1990s, the demand grew among diplomats and warfighters for a distributed model of collection management and analysis, because they were dealing increasingly with diverse transnational threats close to their locations. And they were aware that technology existed to reduce dramatically the "distance" between the producers and users of intelligence. Combatant commander, often playing the diplomat's role, demanded real-time intelligence support and insisted that they have their own analysts in place. The defense community, in particular, accelerated its

transformation with the same determination that would later be shown after 9/11 by homeland "first responders."

Third, **DoD** in this environment, gained increasing influence in IC forums and debates, including on budget priorities. The Secretary of Defense successfully lobbied for an Undersecretary of Defense for Intelligence position, which was approved in 2002. The defense community got ahead of the national community in calling for—and developing—some centralized but mostly decentralized networks that would bring analysis and collection capabilities closer to military personnel on the front lines. This trend, which is evident today, is significantly increasing the demand for analysts to be deployed to more places in the world. This, in turn, added to the challenge of training, which needed to be tailored to specific missions and made available farther and farther her from headquarters.

Institutional Memory

Since the early 1990s, the IC has witnessed an explosion of reform initiatives affecting IT, analysis, collection, human resources, and training, all topics addressed by the preliminary draft report. If resources and time permitted, the team would benefit from a review of the most successful programs. We can review, however, a major effort by the IC analytic community just before 9/11. It is particularly instructive. It has much in common with the *Future of Intelligence Analysis* project. Despite the work that went into it, it was largely abandoned after leadership changes, which points up, again, that the IC will be permanently at a disadvantage if there are no Community institutions to carry on long-term initiatives. Individual agencies will continue to prevail against a toothless center. The DNI offers the hope of teeth!

The Future of Intelligence Analysis team has had many reformist forerunners, whose fate should e avoided. A recent case is particularly relevant. In the two years prior to 9/11, the IC analytic community, convened by the Community-wide National Intelligence Producers Board, did a baseline assessment of IC analytic capabilities in the late 1990s and followed it up early in 2001 with a strategic investment plan for IC analysis. The investment plan flagged to Congress the alarming recent decline in investment in analysis across the Community and the urgent need to build or strengthen interagency training, data-base interoperability, IC collaborative networks, a system of issue prioritization, links to outside experts, and an effective open-source strategy.[6]

The Plan described the environment for analysts this way in the months prior to 9/11:

"The stress on IC analytic resources today literally comes from all sides. The demands from both customers and collectors in the policymaking, defense, and law enforcement communities have grown significantly in volume and complexity over the

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[6] Assistant Director of Central Intelligence for Analysis and Production, <u>Strategic Investment Plan for Intelligence Community Analysis</u> , Washington, D.C., Central Intelligence Agency, February 2001. Unclassified version available on the web.

past decade. Analysis today must support the intelligence process end to end: identifying customer needs and the information gaps for clandestine collection; assisting collectors in targeting assets and evaluating raw reports; processing and exploiting increasing output from technical collection; engaging in procurement decisionmaking; and producing first-rate analysis for consumers. The analytic community recognizes that it also has a special overriding responsibility to make sense of a fast-moving world for the benefit of both consumers and collectors. Substance must come first.

- *We face a dispersed, complex, and "asymmetric" threat environment in which information technology makes everything move faster; in which strategic and tactical requirements are becoming more blurred; and in which diverse and shifting priorities increase the demands from consumers for expert analysis in real time and from collectors who, more than ever, need sustained guidance on priorities and greater assistance with exploitation.*
- *Our military commanders, reflecting a convergence of the national and warfighting communities, are increasingly doubling as diplomats who need more and better intelligence estimates, as well as stronger tactical intelligence support to cover fast-breaking developments in their vast areas of responsibility.*
- *Our diplomats need more effective intelligence support to do their jobs in increasingly complex situations. Diplomatic reporting, meanwhile, is in high demand but steady decline, as the State Department cuts back in response to diminishing resources.*
- *Analysts at the National Security Agency (NSA) and the National Imagery and Mapping Agency (NIMA) require greater assistance in prioritizing issues as they confront increasing ex0ploitation challenges from new collection capabilities.*

All the IC's analytic program managers today are struggling with resource issues as they attempt to prioritize their work; to enhance skills and tradecraft training; to deploy more analysts to policy agencies and to the field; to improve consumer support; to exploit rapidly advancing technologies to help analysts do their jobs and to meet growing requirement from collectors for guidance; and to develop outside partnerships as a source of technology and substantive expertise."

The Strategic Investment Plan went on to recommend six budgetary priorities for investment:

- *"Establishing an interagency training program to recapitalize analytic expertise.*
- *Ensuring that databases are accessible and interoperable to enhance collaboration and leverage expertise across the IC.*
- *Creating a collaborative working environment to link analysts and connect them to collectors, customers, allies, and outside experts.*
- *Building an agile framework and process to help in prioritizing substantive requirement for analysis and collection.*
- *Leveraging outside expertise to broaden our knowledge base and enhance analytic capability.*

- *Developing an effective open source strategy to take advantage of the wealth of unclassified information, which is often critical to analysis."* [7]

All of this should have a familiar ring. The point here is not that the current team's work has been done before. The team should see the prior effort merely as a case study to critique or a foundation to build on. The point I want to stress is that the hard research and worthy recommendations of the strategic planners had no institutional means to make it enduring. This explains my enthusiasm for a National Intelligence University.

National Intelligence University

I strongly advocate a real rather than virtual National Intelligence University (NIU) because it would be a Community institution—only the second after the DNI. If properly resourced, it would have the DNI backing and the interagency intellectual firepower to look ahead strategically as a Community. And it would develop the "institutional memory" to look back in a constant process of learning lessons. If the team succeeded in advancing this one recommendation, it would have achieved a major breakthrough that has eluded comparable task forces for generations. And it would improve prospects of the team's other recommendations.

Over my career, especially in the senior analytic positions I held, I saw the good work of countless task forces perish over time—and become virtually irretrievable-- because no organization or leader took ownership. This is especially true of IC task forces, which program managers have often been quick to disown or ignore. In this sense, we have not made ourselves a "learning organization." And we have lacked credibility and resolve in stating where we want to go because we have been unable to say where we have been.

The NIU recommendation has been kicking around in various forms for some time The analytic community, in its Strategic Investment Plan of 2001, recommended the establishment first of a virtual university to connect the training programs of the IC agencies, to develop an inventory of course offerings, and to establish a common core curriculum that could bring the intelligence disciplines together more often for training and education. The IC top analysts viewed the virtual campus as transitional to a university system in which a strong central institution would dominate agency-specific programs and would naturally draw students from across the Community for high-quality training at various stages in their careers.

The motivating principle behind the NIU, as I came to appreciate it, is that the best way to professionalize the Intelligence Community is to have intelligence officers learn about each other—the whole profession-- rather than just about their own discipline. The SIGINT analyst should study the world of the IMINT and all-source analyst with the objective of understanding the contributions of the other disciplines to the broader intelligence mission. The NIU would be a leading factor in professionalizing

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[7]All material in quotes from _Ibid_, pp7-9.

the IC because it would provide the intellectual environment and rigorous curriculum to produce a generation of intelligence officers who could define and defend the whole intelligence business as a profession.

The NIU would be a major center for engaging outside experts. As the head analysts conceived it, it would develop a strong core curriculum focusing on collection management, language and cultural studies, analytic tradecraft, leadership and management, career development, security, serving policymakers, open-source strategies, and effective Congressional relations. It would teach the principles of information sharing, with all its legal and bureaucratic complexities. It would look back thoroughly at intelligence successes and failures, and it would look ahead boldly at where geopolitics and technology are likely to take us. And, most important to IC analysts, it would bring professionals from different agencies together to deepen their professional knowledge but also to get to know and respect one another at multiple stages of their careers. For the IC professional, the NIU would be about "us" in the Community, not "me" in my agency.

I have the pleasure of teaching a graduate course at Georgetown on intelligence analytic successes and failures. We have had many of both. The failures would include Pearl Harbor, the Cuban missile crisis in 1962, the Arab-Israeli War of 1973, the Soviet biological weapons program, the Soviet invasion of Afghanistan in 1979, India's nuclear test in 1998, and, of course, Iraq WMD in 2002. When good students study these issues, they do not come away with a cynical view of the IC. Instead, they come to appreciate the unrelenting challenge of intelligence officers to deal with high-stakes issues with limited information amidst vast uncertainties in a high-pressure environment in which tradecraft, policy, and politics interact. Many of my students end the course excited about the prospects of working in the IC.

The fact today, however, is that there is minimal effort within the IC to teach its own history. Few analysts know much about the history of intelligence successes and failures. Not many, in fact, could tell you the names of the last half dozen directors of their agency, let alone any leader but the incumbent of other IC agencies. If we want to call ourselves professionals, this has got to change.

Project's Other Recommendations

- *New Legislation:* I say no to major legislation, perhaps to "fixer-upper" bills along the way. This is the time to support the DNI to stabilize the transformation process in consultation with the White House and the Congress. I was working on the Hill during the drafting of the Intelligence Reform and Terrorism Prevention Act of 2004. It was put together hastily by members of Congress with different agendas. It left a lot of holes that only smart leaders can fill. Its principal provision, the creation of the DNI, should be seen in a positive light, but only as opportunity, not a done deal for transformation. Further legislation at this time, including a Goldwater-Nichols type law for the IC, would run into

counterproductive interplay between the Administration and the Congress, and we would likely end up with a result way short of what its proponents intended. And this leaves aside any discussion of whether a Goldwater-Nichols approach is applicable to the IC. My own judgment is that there it would prove long on promise, short on delivery.

- *Cultural Issues:* The report accurately describes a constellation of separate IC agencies that resist a common identity. It proposes an effort to professionalize the IC through such measures as:

  --"a common mission statement and doctrine;
  --Common mission descriptions and jargon;
  --Uniform standards of professional ethics;
  --Joint as well as agency-specific specialized training programs;
  --An ability to develop, distribute, and act upon lessons learned from both successes and failures;
  --A self-policing capability to uphold standards; and
  --Several independent entities to further new developments in the field"

These are all worthy suggestions, but they are more likely to be the effects of a healthy Community rather than drivers in creating one. Endless precedents, I believe, make my case. I would argue that the transformation to a strong IC will need an institutional center of gravity, which I would place with the DNI and the NIU. The DNI would have the authority to mandate such proposals and a staff to monitor implementation over the long term. The NIU would be critical in research, analysis, evaluation, and as the substantive underpinning of sound strategic planning.

We cannot beat powerful institutions, i.e, the principal intelligence agencies, with disembodied ideas, however powerful and persuasive. The IC needs its own institutions to integrate the Community.

- *Dialogue With Outside Experts:* The analytic community has no choice but to pursue outside expertise in today's complex world that is so glutted with information but short of easy access to the right answer. In my four years as Chairman of the National Intelligence Council, virtually every estimate we did required collaboration with outside experts who knew more than we did on important issues. The IC's analysis will be degraded if its analysts cannot benefit from regular interaction with subject matter experts in their fields. The team makes useful suggestions to address this problem, though I would look for more work on this. I would offer that the IC needs to deal frontally with outdated security policies that hinder this dialogue.

- *Overarching Technological, Security, and Classification Standards:* This is a longstanding, persistent problem that only can be addressed by strong and sustained intervention by the DNI. I would recommend that the DNI establish IC governance of these priority issues, which would include technical and

substantive folks, producers and users at the policymaking table. On Security, I would advocate governance that would include senior analytic managers in collaboration with security professionals in developing and adopting policy.

- *Leadership, Management, and Career Dynamics:* This is an epic mission for the DNI, with some help from the NIU. If we examine the recent efforts at HR reform at CIA, DoD, and DHS, it is clear that the best laid plans run into formidable roadblocks when employees' careers and compensations are involved. The team has made useful suggestions but, to implement them, the DNI needs to develop a world-class HR team that knows best business practices and that will carefully study the relevant experiences of agencies inside and outside the IC.

- *IC-wide Career Development Program:* A laudable goal. Good suggestions from the team. Past IC efforts have stumbled. The DNI would need a powerful HR staff to carry this off.

- *Improve Analyst Leadership and Management Across the IC:* The team had identified a core problem here. Again, useful suggestions. Lasting solutions would require the DNI to make leadership accountable throughout the IC, and the NIU to make leadership training a top priority—both achievable if the DNI and NIU are "institutionalized."

- *Make Training a Priority:* The team describes a chronic problem in the IC, and a growing one in the warp-speed era of globalization. Operational requirements invariably trump training needs, just as current intelligence tends to push aside goals for strategic analysis. The DNI is now positioned to monitor this misallocation of resources across agencies, and to redress the balance. The goal should be to minimize the negative impact of these problems, not eliminate them—which cannot be done.

Perspective on the Future

The US Intelligence Community today is one on the world's largest information companies, not just a technical-collection or espionage service. It is directly challenged by the IT revolution to exploit the glut of open-source information; to access the best source of expertise on national security issues, wherever they reside and to make the operation focus global. The IT Revolution has literally transformed the IC workplace, significantly raised it customer's expectation in Washington and in the field, and fast-forwarded the movement of the complicated and dangerous world it covers.

Transformation affects all players in the IC, who must see intelligence more as a collaborative and less a competitive business. Technical collectors, primarily the National Security Agency and the National Geospatial-Intelligence Agency, are

challenged as never before to combine resources, to exploit together technologies of common application, and to integrate their collection strategies. And the espionage service, in its vital mission to "steal secrets," is impelled to blend foreign and domestic perspectives, to fuse classified and unclassified information, and to collaborate with other collection disciplines in the difficult effort to penetrate evasive, fast-moving targets.

Congress and the White House now want a national intelligence capability integrating Federal, state, and local governments, and, when appropriate, the private sector in a secure collaborative network to stop our enemies before act and to confront all those adversaries capable of using global networks to attack our people, our physical and cyber infrastructure, and our space systems. These include proliferators, international terrorists, organized criminals, narcotics traffickers, and countries big and small— working alone or in combination against US interests. We also must be prepared to deal with the impact of potentially catastrophic events such as global pandemics and financial crises like that of 1998.

We are challenged, then, to build a national collaborative network—including Federal, state, and local governments, and the private sector—that can bring together in real time the best information, the foremost experts, and well-trained first responders to meet any threat to the homeland. This is the goal. Achieving it is a long-term proposition in which we must confront the twin obstacles of smarter, more capable adversaries and of persistent, change-resistant US bureaucracies. And it will require intelligence officers who are more knowledgeable than ever of their profession.

My core argument in this paper is that the failure of past, well conceived reform efforts will be repeated unless the DNI's organization becomes a true Community institution. The development of a robust NIU will add significantly to theDNI's prospects for success. Geopolitics, technology, and the rapid-fire requirements of smart consumers are forcing greater collaboration, including across the national and defense communities. Intelligence is no longer, if ever it was, a job for "singletons." Today's intelligence officer is more and more part of an interagency team, contributing his or her particular skills and expertise to the broader IC effort that preserves America's edge in the world. The more intelligence becomes a team effort, the more it becomes a distinct profession that can be codified, taught, and celebrated by its proud adherents. But it will take IC institutions to make all this stick.

December 21, 2005

To: William J. Lahneman

From: Christopher A. Kojm

Re: Comments on the Final Report of the Future of Analysis Project
        (November 30, 2005)

This is a very good report. It crystallizes and states very well the agenda for the improvement of analysis across the community. None of its ideas are shocking or new; most of them have been in circulation for the past decade; few of them have been achieved.   They have been supported in reports by the Senate Select Committee on Intelligence, by the Congressional Joint Inquiry, and by the 9/11 Commission; many of these ideas have been written into the Intelligence Reform and Terrorism Prevention Act. None of them are inconsistent with the work of worthy commissions, panels, and oversight committees. They have wide support from inside the analytic community, and yet they remain undone. Why?

Analysis has simply not been a priority for the leadership of the intelligence community over the past two decades. Attention has been focused on big-ticket technical systems, and the collection those big-ticket items can produce.   The needs of the analyst and the analytic profession have not been a priority.

The paper is right – it is a hopeful time, when people inside and outside the community believe that great things can be accomplished.   The Director of National Intelligence, in his first extensive public speech in September 2005, said that his three priorities are (1) improving analysis; (2) building a sense of community; and (3) getting his arms around the budget process. If the DNI achieves # 2 and # 3, he will be in a far better position to achieve #1. There is a window of opportunity, and the DNI can make very significant strides in improving the quality of analysis.   But the paper is right that the window is temporary, and requires forthright action now.

Description of the Problem in this paper (pp.4-6) is very good. It encapsulates exceptionally well – as well as I have seen it stated – the changing nature of the threat environment.   Prevention of security threats as a goal for the analytic profession is a powerful metaphor from the world of medicine and infectious diseases; how to achieve it is more problematic, and I am not sure you want to keep this point in the paper unless you develop it further in a constructive and tangible way.

The changing nature of policymaker expectations is also stated very well. Policymakers have their own sources of information; they develop and use those sources and rely on them. The analyst is in a competitive information environment, most of which is open source or at any rate outside of intelligence channels, and so the analyst today has a higher bar to cross for him to be relevant.   At the same time, the more the policymaker leans on the analyst to do his job in terms of day-to-day intelligence support, the harder it is for the analyst to focus on the critically important medium- to long-term issues.   When an issue is hot and/or the policymaker appetite for information is whetted, no manager I know has yet has been able to balance successfully the short versus long term analytic requirement.

Project design. I think the authors made exactly the right judgment in expanding the scope of the project from the human capital issues (recruitment, education, training and retention) to management, organization and leadership. The human capital questions are necessary but alone not sufficient to transform the analytic community. The paper is absolutely right about the importance of leadership, both to bring about change and to sustain those changes.

IC Cultural Issues.   I found myself in strong agreement with the findings and recommendations in this section. I wrote "I agree" and put exclamation points next to most paragraphs.

The return of the medical analogy again is a very powerful one. I agree: there must be a system of professional development for analysts – with its own education, training, code of ethics and professional élan – just as there is for the medical profession. The analogy is powerful also in recognizing that Middle East analysts cannot replace East Asia analysts in the same way that an internist cannot replace a brain surgeon, yet they are all part of the same profession and share education and values.

Even as I cheer on this notion professional development, it must be noted that the analogy fails on a crucial point: We need analysts entering the profession not just in their 20s but in their 30s, 40s, 50s and even 60s, when they bring a huge wealth of other professional experiences to the table to benefit the quality of the analytic profession.   For the analytic profession to be vital, there must be very considerable ease of entry into it – and analysts must be encouraged to depart it for years at a time to pick up new skills so they are more valuable when they return.   The analytic profession needs to have an ease of entry in the same way that political life does in this country -- where political leaders come from all backgrounds at all ages.   We would not want to be governed by a political caste that was trained in its twenties and then held all political leadership positions for the next 40 years; why do we think the quality of our analysis would be better from within the confines of a rigidly structured professional class?

The State Department's Intelligence and Research Bureau, widely recognized as a small but exceptionally high quality analytic shop, benefits from precisely this ease of entrée, exit and return. A significant portion of the analytic staff (approximately 1/3rd) is made up of Foreign Service officers who bring to bear their language and country expertise and

recent on-the-ground experience are enormously valuable when blended with the longer term, almost academic expertise of civil servants who have been on the same account sometimes for decades.   These Foreign Service officers serve for a time as intelligence officers, leave, and then often come back again to refresh the work of the analytic community.   Each analytic shop in the community needs to draw on a similar wealth of talent outside the immediate confines of its own personnel.

Two points under Finding # 1 (p.11) that I found unhelpful: "Make all systems and programs flexible (point number 5)."   Sounds great; I am all for it. I don't have the slightest idea what you mean. Unless you develop the point, I would just drop it. Point 6: the IC should establish a "playground." This possibly very valuable idea should be developed in greater detail – or just dropped.   The real value of this paper should be to give senior leadership in the IC tangible, actionable plans -- to tell them what it is they should do and how to get it done.

Finding #2 on dialogue with expertise outside the IC is an absolutely essential point (pp.11-12). I found myself almost shouting in response to all the good ideas included – robust contacts and interactions outside the community, multiple options for information sharing, sabbaticals, studying foreign languages and culture, encouraging consultation on an unclassified basis. I could add even more: the need for constant interaction with FOREIGNERS – from all professions, and from all countries, including Russia, China, Israel, and many others. Yet everything under Finding and Recommendation 12 is stymied by security rules that block it from happening.

Unless and until the Security Regime is changed - -and preferably with someone put in charge with a strong analytic background, or non-intelligence community security background – NONE of these changes will ever occur, and analysis will NEVER get better in the ways that this paper deems essential.

Even security officials today talk a good game about "risk management," but the DNI needs to take the courageous step to transform the entire definition of security to recognize that the information business is too important and too dynamic to led outmoded security structures confine it. No scientific community has ever made progress behind closed doors and national barriers: why do we think that the information analysis endeavor is any different?

On recommendation #3 (p.12) on outsourcing, be careful: The analytic profession shouldn't give over its essential core activity to contractors.   The work should be defined as essential tools or techniques that the IC needs to develop or learn to enhance its central mission. Too much government contracting is handing over key activities to others because the problem is "too hard" or there is "not enough time" for existing USG people to solve. Too often a lot of money is spent and no new knowledge is incorporated within the USG's own human capital.

Finding # 3 on physical and information security. Comments about people in charge of IT security hindering analysts, and comments about the bureaucratic approval process for

IT running far behind changes in the IT world are accurate and, if anything, too mild. The system does not need reform: It needs revolution. The heart of the new system must be to let analysts go forth and do their profession – and that every electronic communication and page or web site visited is always and everywhere open to tracking and inspection. Confidence needs to be placed in analysts, and at the same time analysts need to know their electronic life is an open book (to security). We need a system of "Trust but Verify" – instead of "Mother, May I?" where the answer is always no.

Standardized security clearance systems and standardized classification systems are essential. Every clearance in every IC agency must be reciprocally recognized and accepted by every other agency. No exceptions. Every exception harms building a unified IC culture and identity, and harms analytic cooperation. Every failure to share information potentially costs lives. The adage today should be "closed lips sink ships" because somebody failed to share the information that could get timely warning to the captain and crew.

Finding #4 Analyst Leadership, Management and Career Dynamics (pp.14-16) Most of these recommendations are exactly on the mark: standard and collaborative IC-wide recruiting policies, generating standard personnel data, developing a common personnel system, standards for firing, and policies to enable analysts to leave and return without penalty (an essential step).

Internships (p.16) are absolutely vital to bring new blood into a profession, at low cost and a low transaction cost. You don't spend a fortune on recruitment and clearances to give an intern a chance. Every profession has interns, and uses the practice to very great benefit in (mutually) attracting the right personnel.

Also important here – and the paper is exactly right – is the importance of an adequate numbers of analysts so that there can be rotations for career development and training. The analytic profession will never get better – and arguably will get worse – if there are not planned, scheduled rotations for professional development and training.

Some disappointments in this section are recommendations on behalf of things that (I thought) had been accomplished years ago. On page 14, bottom paragraph: Wasn't the whole point of John Gannon's effort in the late 1990s to create an "analytic baseline" precisely to inventory the analysts in given fields? Likewise, page 16, number 10 at the bottom: during the 1990s, much was made of the effort to create a "Global Reserve" of non-government analysts in various fields where the IC itself did not have depth. The question becomes: Since these good ideas have been in circulation for some time, why weren't they accomplished? We know that leaders tried to accomplish them: what went wrong? What can we learn from the failure to implement these good ideas that can help us with implementation the next time?

Another place to press the paper's authors further: Page 15, number 4 at the bottom: the paper says integrate "best practices." I am all for best practices. The question is: what

are they? The paper really should spell out precisely what it believes to be best practices – listing them – and explaining why they should be adopted.

Finding #5 and recommendations on career paths (pp.16-19): My key comment on the findings section simply would be the importance of ease of entry and exit into the Community at all ages, from junior analysts in their 20s all the way to renowned world-class experts in their 50s and 60s. The Community needs them all.

My key comment would be on recommendation #1: It speaks about multiple, standardized career paths with "clear requirements and standards," "clear incentives," and "clear milestones." Everything is clear except what you mean. It would be more helpful to spell out in detail precisely what is meant by such a career path. No one can disagree at the current level of generality.

I strongly agree (p.18) that IC officials, when posted to another agency, must be given real responsibility in that position so that they can broaden their experience. They will learn very little, and will learn mostly frustration, if they are "observers" and not integrated into the organization.

I strongly agree (p.18) that new hires will have high expectations for IT support, ease of exit and re-entry, and the opportunity to take sabbaticals. These high expectations should be met, not as a favor to employees, but because these policies are beneficial to the Community and to the quality of analysis.

Finding #6 and recommendations (leadership and management). I believe the findings are very strong and capture accurately the critical problems of leadership and management in the analytic community.

Recommendation number #1 really isn't a recommendation. It provides no guidance on a solution to a genuine problem. We all agree with the proposition of the tyranny of day-to-day production. What is the proposed solution for protecting the analysts' ability to address medium- and long-term issues?

I agree strongly with recommendation #2 on training managers. Also, it should be self-evident (#3) that increased responsibility merits increased compensation.

Finding #7 and recommendations (education and training) are very strong and well done. The paper is exactly right that managers view it as giving "time off" to analysts when they take up training and education, and that this bias reflects the fact that they have not had much access to training and education in their own careers.

I agree strongly with recommendations #2 through #11.   Recommendation #1 sounds OK – using the National Intelligence University System to "coordinate all education and training programs across the IC." I am just not altogether sure what "coordinate" means in this context and it might be helpful to spell out exactly what the NIUS would do, and just as importantly, not do, to "coordinate."

<u>Closing Comments.</u> The paper overall is very, very good. It needs more specificity in certain places, as identified above.

Two notes of caution:

First, I am doubtful that "another major piece of legislation dealing with intelligence reform" (p.1) is either necessary or desirable. The DNI needs to exercise the authorities he has, and he needs to issue DNI Directives to carry out his writ. To the extent he needs to, he can engage the White House to issue NSPDs or Executive Orders.

Intelligence reform is a once-a-generation process, and the current reforms will take several years to digest and incorporate. It only adds to confusion to contemplate another round of intelligence reform on Capitol Hill. As Richard Danzig pointed out so well, "you are likely to get many changes you didn't ask for" once you go up to Capitol Hill.

Second, the study writes that "the shock of 9/11…has produced a willingness to increase funding to the IC, an essential ingredient for implementing the study's recommendations."   I am not at all confident that budget increases for the IC will continue -- given budget deficits, Katrina, and Iraq. Leaders in the analytic community will be tested to implement reform in a slow growth or even possibly no growth environment for the IC budget in the 2-3 years ahead.   The test of leadership here really rests with the DNI, who will be called upon to apportion additional resources for the traditionally short-changed analytic mission.

APPENDIX E
Comments on the Preliminary Report by J. M. (Mike) McConnell

Creating Incentives to Build a Stronger Analytic Culture

Panelist Conference Paper
December 2005

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This paper contains the personal views of the author and does not represent the views of Booz Allen Hamilton.

Creating Incentives to Build a Stronger Analytic Culture

Having served in and for the U.S. Intelligence Community (IC) for over 30 years, I have spent some time thinking about how to improve intelligence analysis. Most of my career was spent as an "all-source" analyst focused on the Soviet Navy during the Cold War and hot spots to which the U.S. Navy would be tasked to respond when carriers were needed to demonstrate U.S. resolve. I have witnessed instances – particularly at the height of the Cold War – where the intelligence community performed superbly, and, regrettably, others where the community fell short of the mark. I have thought about the intelligence failures, but what I find more instructive is to consider the circumstances which contributed to the intelligence successes. Is it possible to replicate those conditions, and if so, how?

The intelligence community is, after all, a community of analysts focused on the threats to the nation, our allies and our interests. Analysis is what we do, so it is not surprising that when we turn the microscope inward, we think of good ideas about what the analytic community should do to improve. The 9/11 and WMD Commissions also have provided exhaustive checklists of what we can do to be better. The Commission reviews identify problems that need to be corrected but they do not tell us how to make the needed changes.

The most well-intentioned reforms from the top will be ineffective if the intelligence professionals throughout the community do not internalize the need for change to achieve a cultural transformation, i.e., create an Intelligence Community analytic corps that demonstrates tenacious resolve in attacking real and potential threats to the nation and our interests. To be successful, the nation's political, policy and operational leadership must engage with and partner with the IC to achieve and sustain success. The difference between a set of reforms that work and one that does not comes down to incentives for members of the community to embrace the right changes for success. Analysts in the community are bright and want to do the right thing to warn and advise the nation. How can we structure a system that incentivizes behavior that would create the culture for consistent intelligence successes? In my view, three simple steps are required:

1. Commitment and involvement by the nation's top leadership to truly set well-defined priorities, goals and objectives and to engage in active dialogue with the IC. (Note: Accountability by the IC will result from leadership engagement, i.e., leadership will hold the IC accountable and the IC will establish cultural norms to hold itself accountable.)

2. Commitment of adequate resources commensurate with the tasks and expectations of the nation's leadership.

3.   Establishment of a "cultural identity" for the IC analytic corps and commitment by the IC to identifying and sharing lessons learned in its business for all members to learn and improve.

Where we want to be and how to get there

Leadership engagement

As noted above, for the IC analytic corps to be successful, the nation's political, policy and operational leadership must partner with the IC to achieve and sustain success. Leadership in the White House, the Congress, DOD, DOJ, State, and other Cabinet agencies must consistently engage to set priorities and determine objectives to provide clear guidance to the IC. If the White House had made counter-terrorism truly a top priority with intense focus in the early and mid-90's, the tragedy of 9/11 and the wars in Afghanistan and Iraq likely would have different outcomes.

Failing to prioritize the terrorism threat was partly a function of timing – after the fall of the Soviet Union, it took time for the general public and the political leadership to become aware of newly emerging threats and respond accordingly. In the Congress and the Administration, there was significant focus on capturing the "peace dividend" for other priorities rather than focusing on new and emerging threats to the nation. Tragically, in the case of 9/11, it took far too long for the right focus and priorities to emerge.

The major root of the policymakers' failure to identify and prioritize rests in part with inconsistent communication between the IC and political leadership which vary depending on political circumstances and personalities of the principal players. Well before 9/11, the IC had identified terrorism as a significant threat to U.S. interests, but it took the 9/11 tragedy to build sufficient national political consensus around the war on terror and to focus the nation's leadership on IC reform and the additional resources needed.

Now that the nation's attention is focused, the political, policy and operational leadership of the nation has:

- ❖ *identified and prioritized* the most important key intelligence targets and missions;
- ❖ *set up reasonable performance measures* which define success against these targets and missions by the various members of the IC community; and
- ❖ established consistent communication channels for engaging with the IC and *continually adjusting the targets and missions* **in** partnership with the IC.

This level of communication and engagement with the IC cannot be reduced in the future or the situation which resulted in the 9/11 tragedy will likely re-emerge in the future.

Importantly, such levels of engagement by the senior political, policy and operational leadership is one of the main "incentives" that will mobilize the highest level of service from the IC. Nothing can be more stimulating for an analyst than producing brilliant work and engaging with senior leadership to effect their understanding and actions. Conversely, nothing can be more debilitating than producing brilliant work and having it ignored.

Prioritization results in choices and therefore produces risk. Prioritization takes toughness, resolve and the willingness to be accountable for making choices with incomplete information. Nonetheless, for a successful IC in the future, our nation's leadership must choose the most important threats and focus resources against them. We will not be able to guarantee success against every conceivable threat, but if our leadership will identify the most important threats or engage with the IC to do so, we have a much greater chance of preventing a repeat of a large-scale national or global tragedy. To draw on my own experience, when the Navy was able to single out the Soviet submarine threat as its greatest priority in the 70's and 80's, the IC was able to apply its resources and efforts with outstanding results. That focus enabled the Navy to overcome numerous technical obstacles to counter the threat of a Soviet submarine-launched nuclear first strike.

Without goals, there is no means for measuring success or failure. Later in this paper, I discuss my views on accountability measures for the intelligence community in more detail. But it will take engagement by the political, policy and operational leadership to define specifics to produce real and lasting change in the IC. Regular engagement will serve as one of the main incentives that will drive performance in the professional IC analytic community that the UMD's project envisions and which I endorse in this paper.

Political, policy and operational leadership must understand that priorities require continuous adjustment; therefore, regular and continuous dialogue with the IC analytic community is necessary. The 9/11 Commission concluded that one of the problems for the analytic community was a lack of imagination.[8] The Commission judged there was a lack of creative analysis of "over the horizon" threats. This presents a dilemma for IC analysts. In their struggle to be relevant to the policymaker, analysts have created a voracious policymaker appetite for current intelligence which distracts analytic resources from more in-depth research. Strategic in-depth intelligence analysis (also referred to as "term analysis") and current analysis should not be a zero sum game. Strategic, in-depth analysis serves at least two purposes - it infuses current intelligence products with value-added perspective *and* also is key to long term national security strategy, the avoidance of surprise, doctrinal and operational planning, and technological development. Strategic in-depth analysis – correctly done and persuasively presented – will help the policymaker adjust priorities for a more agile national security policy. Regular reviews of long-term intelligence analysis and adjustment of strategic policy should be institutionalized – in consultation with the IC -- at the policymaker level to avoid strategic surprise.

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[8] *The 9/11 Commission Report: Final Report of the National Commission on Terrorist Attacks upon the United States* (New York: W.W. Norton, 2004) 339-44.

Adequate budgetary and resource support

Attaining measurable and sustainable improvement of the IC's performance against these goals and in support of our national security policy requires the ultimate commitment – the power of the purse. The IC needs the necessary budgetary support to accomplish reforms in support of clearly articulated goals.   Notwithstanding the additional spending since 9/11, the IC must be maintained at a sufficient level over time. I would assert causing the IC to absorb large budget cuts in the early to mid-90s was a mistake. With the declines in the U.S. military at the end of the Cold War, we needed, at a minimum, to sustain the IC as the eyes and ears of the nation to discover and illuminate emerging threats.   Instead, budgetary cuts, lack of specific focus and the institution of voluntary severance packages resulted in an exodus of many of the IC's best analysts and severe reduction in crucial collection efforts.   Expecting dramatically improved performance without commensurate budgetary support puts the IC and the nation's security at risk.

I do not advocate writing a blank check to the IC. Tying budgetary allocations to performance goals goes hand in hand with good management. As I mention below, the U.S. military embraced this philosophy when it was reorganized around the jointness concept by the Goldwater Nichols Act passed in the 1980s. The services were forced to justify spending allocations by tying them to performance goals linked to jointness objectives. A similar system could be put in place for the IC.

A professional analytic culture – the role of competition

A professional analytic culture is the cornerstone of my argument for improved performance in the IC. Based on personal experience and long observation, when the leadership is meaningfully engaged and resources are adequate, a strong, self governing analytic culture will emerge. In my time in the Navy, this culture was described as Operational Intelligence or OPINTEL. The clear mission was to penetrate, understand, anticipate and when required, defeat an adversary. OPINTEL was successfully embraced by the Navy's senior leadership and its intelligence analysts for over 30 years. The unifying thread running through the various reports in the Project on the Future of Intelligence Analysis is the call for professionalization of the intelligence analyst. What would the ideal professional analytic community look like, from a functional perspective?

What we need in the IC today is a professional corps of all-source intelligence analysts, with a cultural identity and loyalty to the analytic mission above all others, including the missions and bureaucratic imperatives of individual agencies. In today's intelligence community, analysts are a subset of professionals at each of the major intelligence agencies – CIA, DIA, State/INR, FBI, NSA, NGA, and others. Essentially, the current model for much of the intelligence production is a competitive model highlighting the contribution of a single intelligence collection discipline – analysts are loyal to their home agency; each agency competes for time and access with the policymakers and/or the war-fighters. This in itself is not a negative – our society, our markets and our laws are built on the principle of healthy, dynamic competition. But the playing field for competition among the agencies is not level. The agencies who control development of

collection systems compete to produce analysis to demonstrate the efficacy of their systems, whether they be SIGINT, imagery, MASINT or HUMINT. These factors can skew the type and volume of data collected. In a worst case scenario, the data may not be relevant to pressing intelligence requirements, and the collection systems may not be agile and responsive enough to provide the data analysts need to provide the answers to significant intelligence problems.

At the other end of the spectrum, the CIA, whose Director formerly had the responsibility to report directly to the President on all intelligence matters, used its prestige and access to advantage. The CIA's position as the central repository of all-source intelligence and as the agency that directly supported the Director in his role as the President's principal intelligence adviser, allowed "CIA analysts and officials to provide the Agency's intelligence analysis to senior policymakers without having to explain dissenting views or defend their analysis from potential challenges from other Intelligence Community agencies."[9]

The competitive analysis model is very powerful when constructively used.   Properly harnessed, competitive analysis can provide a dynamic, thoughtful analytic environment. Intelligence analysis by its very nature is conducted with incomplete information; therefore, varying points of view in interpretation are natural and should be presented so that the leadership understands the ambiguity. The National Intelligence Strategy notes the need to explore methods of alternative analysis as one of the requirements of the intelligence community.[10]   However, a structure which incentivizes showcasing some intelligence sources over others will produce inconsistent or skewed results. Over time, any system will be "gamed" by its participants to protect personal and bureaucratic prerogatives. The goal should be to produce the best analysis and that goal has to be given primacy above the success of each individual intelligence organization.

More than brains

What would an IC culture that produces the best analysis look like? It would consist of a cadre of smart, brilliant people dedicated to the service of the nation, who place mission first and who will make the personal sacrifices to ensure success. These gifted, perceptive and sophisticated individuals should start or soon become experts in languages, foreign area studies, military operations, social studies or the sciences. In addition, they should be taught to be superb communicators, equally at ease whether interfacing with technical experts in collection systems, or with senior policymakers in the government, the private sector or academia. The depth of expertise required over a wide range of subject matters would produce a community as diverse in its composition as the subjects it is responsible for understanding. Most importantly, this community would generate its own leadership – the best of the best, for intellectual leadership in

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[9] Schmitt, Gary J., *Truth to Power? Rethinking Intelligence Analysis*, Hoover Press, 61.
[10] The *National Intelligence Strategy*, October 2005, at 5, cites as its Enterprise Objective No. 2: "Strengthen analytic expertise, methods and practices; tap expertise wherever it resides; and explore alternative analytic views."

analytical areas.   It would become a self-sustaining body whose home-grown leadership would instill a sense of esprit de corps, professionalism and public service.

We should consider whether this group of überanalysts needs its own separate agency or organization. Adding a national analytic agency as the sixth or seventh major player at the table when the DNI makes resource or substantive decisions gives the analytic community some teeth, but it also risks negative bureaucratic implications. Nonetheless, the topic should be investigated and debated as we enter in an age of "intelligence uncertainty" very different from the Cold War era.   The analysts also need enough stature to be able to demand – and receive – answers from the collectors on potential issues and problems with sources which affect the quality of analytic conclusions. There must be zero tolerance of evasion or manipulation of source material by collector agencies and components.

A less drastic alternative to an independent analytic agency would be the creation of a corps of professional analysts who rotate through a series of positions at various agencies. An analyst who followed this track would be better versed and experienced in the contributions of various sensor systems and analytical techniques. Our best analysts of the past each demonstrated mastery of their subject matter and the potential contribution of any collection system. These analysts developed keen senses about the reliability of sensor information and how to factor it into their analytical judgments.

Critical to the development of the professional analytic corps would be two types of rotation, reflecting the two most important relationships in the analytic function – relationships with and understanding of the collectors or sensor managers and relationships with the policymaker/consumers. Rotations both at "forward deployed" positions as analysts in support of the policymaker or war-fighter (at the military commands) and with collectors should be essential professionalization requirements for these elite "all-source" analysts. [11]   In terms of specific training for the analytic corps, the training should be the prestige equivalent of the National War College and the Command and Staff College, to prepare senior level analysts for high-level interface with policymakers.[12]

In addition to intimacy with all classified sources and methods, open source analysis must be embraced since it is critical to solving transnational intelligence issues. With no complex collection systems required to access this information, and with no secret code words to inflate its importance, open source analysis has previously lacked stature and advocates in the intelligence community. Yet knowledge derived from open sources is imperative to our complete understanding of current threats. As an example, for the terrorist threat coming from radical Islam, we need experts who are steeped in the culture,

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[11] There are precedents for professionalization requirements already in place. For example, to advance to SIS ranks, language proficiency in one of several target (difficult) languages is required (locate citation – Intelligence Reform Act). The military's Foreign Area Officer program is another example of a streaming program which developed analytical and regional competencies in a subset of the officer corps.

[12] Various agencies have had rotational programs to the military staff colleges, but this has been primarily for those analysts focused on military intelligence and has not been a systematic requirement for advancement.

language, politics and history of Islam. This requires extraordinary facility with information that is not secret – it is in plain view – but which is obscured or hidden by our lack of cultural insight and language ability. Immersion in the local dialects, culture, politics and mindset of the intelligence target will influence the analyst's view of the technical and human source collection, and can better guide the collectors.   Elevating the stature of the all-source analytic profession to influence collection is one avenue to ensure critical sources of information receive appropriate attention, whether they are classified technical collection, HUMINT or open sources.

Another key factor that is not obvious to onlookers is that the so-called "intelligence cycle" is not a circle. I prefer to look at it as a series of feedback loops, with the analyst at the center. Initial problem definition may come from either a policymaker request or an analyst's assessment that an issue merits analytic attention. The analyst then looks at the data available and ideally may engage in a series of interactions with collectors, a series of feedback loops. While in the collection phase, the analyst should be simultaneously engaging with the policymakers or the war fighters, as appropriate, to refine the questions as conditions change. When a finished intelligence product is produced, it should generate further questions from the consumer, and the feedback loops continue. The process operates on a continuum, as opposed to a discrete series of events with a defined beginning and end.

The position of the analyst at the fulcrum of this process means the analyst plays a critical role in advising the collectors in not only collection targeting, but on the design and capabilities of future collection systems. For an analyst to perform these crucial tasks well, sophisticated understanding (produced by the embedded rotations at different agencies) of the functions of collector agencies is as essential as the link with the policymakers or other consumers.   Contrary to the popular view that the "stovepipes" of collection agencies are bad, I see them as providing depth, technical excellence and context that could not be achieved otherwise. The highly specialized technical subcultures of the various collector agencies need to be preserved with their expertise undiluted, but the right incentives need to be applied to require them to engage in a collaborative, interactive manner with members of the community. The professional analytic corps would be the glue or conductive material that would enable specialized knowledge to flow out of the stovepipes and--once translated, synthesized and analyzed—be passed on to the consumer. Is there room for direct sensor reporting? Most definitely, yes, especially in time sensitive operations. However, history has shown that the vast majority of intelligence collection needs to be given context and analytical substance to be most useful.

The linkage to the policymaker advocated in this structure of continuous feedback is controversial. Over the years the analytic community has struggled with recurrent charges of "politicization." This has led some to correlate "professionalization" of analysis with isolation, an "ivory tower" mentality. While there clearly need to be checks and balances to preserve analytic integrity, to avoid connection with the consumer would result in irrelevance. The current competitive agency model, however, also risks loss of integrity if agencies are tempted to provide the answer most attractive to the policymaker,

rather than the right one, in an effort to strengthen their institutional position. The answer may lie, again, in the creation of "self-correcting mechanisms" within the professional analytic corps itself. In my view, the senior leadership of the IC should serve in an apolitical manner similar to the way the military serves while in uniform.

Finding the right incentives to collaboration

The solution to drive collaboration is to design a set of incentives to produce the multiple levels of interaction and sharing needed. The U.S. military's work to promote expertise in joint operations offers some useful parallels. The UMD Project Report cites the Goldwater-Nichols DoD Reorganization Act of 1986 (Goldwater-Nichols), which reorganized the Defense Department in the mid-80s, as an example of principles that could be adopted by the intelligence community. Goldwater Nichols implemented sweeping change in many aspects of the military, with varying degrees of success. What we should draw on from Goldwater Nichols are the aspects relevant to promoting "jointness."

After WW II, much as the intelligence community is struggling today with maintaining the multi-faceted expertise of its many collection and analytic disciplines, the military struggled with the tension between maintaining the separate identities and unique skills of the various military departments and the need to enhance the ability of US forces to jointly plan and execute military actions efficiently and effectively. The main personnel provisions of the Act aimed at improving the jointness of the military included:

> ❖ Increasing the quality of officers in joint assignments;
> ❖ Enhancing the stability and increasing the joint experience of officers in joint assignments;
> ❖ Enhancing the education and training of officers in joint matters and strengthening the focus of military education in preparation of officers for joint duty assignments;
> ❖ Ensuring that general and flag officers are well versed in joint matters; and
> ❖ Ensuring that officers are not disadvantaged by joint service, but are, in fact, rewarded for it. [13]

Goldwater-Nichols elevated the status of joint assignments in the military by creating a special category for them: the Joint Specialty Officer or JSO. By requiring potential JSOs to graduate from an accredited Joint Professional Military Education program and to serve at least one joint duty tour, the act fostered the perception that JSOs were elite and that JSO designation was desirable. The act also required that officers could not be selected for promotion to brigadier general or rear admiral (lower half) unless they served in a joint assignment. Joint officers were also required to be promoted at the same rate as those who were not joint – effectively forcing the cream of the crop into joint billets. This further enhanced the prestige and desirability of joint service, in effect creating a professional cadre of personnel within the ranks of the military services who were

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[13] Department of Defense Reorganization Act of 1986, P.L. 99-433, 10 USC 38 (as amended).

perceived as the leaders of tomorrow's military and drove the changes envisioned by the Act.

The move to increase "jointness" is credited with dramatically improving the operational capabilities of the US Armed Forces, and in the opinion of General Colin Powell, making the Joint Staff one of the best staffs in the world. After Operation Desert Storm in 1991, General Norman Schwartzkopf testified before the Senate Armed Services Committee that "the quality of the people that were assigned to Central Command at all levels changed dramatically as a result of Goldwater-Nichols."[14]

Although the Goldwater-Nichols initiatives faced strong resistance in the individual services for many years, one key to its eventual success was the fact that the legislation provided very detailed guidance for every aspect of the joint corps, from the selection process and number of billets, to promotional requirements. This "micromanagement" initially raised the ire of many senior military leaders, but regardless of these initial misgivings, the jointness provisions of Goldwater-Nichols have been so successful they have now been completely internalized by the military, and have contributed greatly to its present operational success.

Avenues to power and influence

Goldwater-Nichols type personnel reforms for the IC would incentivize individual agencies to stream and promote the formation of the professional intelligence corps, but the talented and gifted pool of individuals that we hope will populate the corps would be unlikely to choose membership unless that membership brings some reward. In government, where the range of financial incentives is necessarily limited, reward is principally measured in terms of professional advancement. And mere advancement will not be sufficiently attractive to retain individuals if the organization within which the advancement occurs lacks any real power or influence.

Today, along with a lack of common performance standards across the analytic community, the analyst lacks real stature or voice. Usually analysts work in relative obscurity, with their only claim to fame a footnote mention in a politician's autobiography or, more gratifyingly, a historic account of US foreign policy. The classified nature of their work often means normal authorship rights are not available. The number of intelligence analysts who have risen from the ranks to Cabinet-level positions (including CIA Director) has been very few. Reforms along the lines of Goldwater-Nichols would help advance intelligence analysts within the various agency power structures. However, absent a seat at the table equivalent to that of other agency heads (potentially possible if a separate analytic body were created), other means of raising the stature of analysts within the community need to be explored. The analytic corps needs to be enough of an independent body to attract, motivate and influence decisions and behaviors outside its boundaries. It must be able to draw people to its sphere of influence and bind them to it, creating a set of symbiotic relationships in the process.

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[14] Locher, James R. III, "Taking Stock of Goldwater-Nichols", Joint Forces Quarterly, Autumn 1996.

In corporate terms, this type of power is viewed as a set of "decision rights." One way to pursue this might be to create an analyst "board of directors" with voting rights over certain types of community decisions. The board chair might be a leader of the analytic corps, chosen for his or her stature and standing as a former government official and relationship to and understanding of the intelligence community mission. Although "bottom up" incentives such as enforcing equal promotion rates and providing a clear professional analytic career path which fosters advancement to the highest levels are the most likely to produce lasting reform, some top-down restructuring is needed to ensure the analytic corps is vested with sufficient influence to protect the growth and development of the corps in its infant stages.

Another source of authority is budgetary control.   Goldwater-Nichols provides another useful reference here, because provisions of the law mandated that the Joint Staff collect information on Combatant Command priorities (known as the Integrated Priority List) and these were then aligned to the individual service budgets. The services were required to show how their budgets fit with the Combatant Command Integrated Priority List, which were in turn tied to Goldwater-Nichols objectives. A similar mechanism could be instituted through the DNI staff in addressing budgetary and programmatic issues with the IC Agencies.

Today there are limited mechanisms which give the analyst sufficient power to direct intelligence collection to solve critical problems. Although the intelligence agencies currently meet, in various configurations, to discuss targeting and budget priorities, and the analytic corps plays a role (varying in influence by target depending on the forcefulness of the players involved), the analyst is not on a par with agency heads, the policymakers or war fighters as a customer of intelligence data. The DNI should consider tying the current DDNI for Collections' collection tasking activities more closely to the analytical community. Ideally, collection would be managed on a 7x24 basis and largely driven by a 7x24 analytical community focused on the top issues of the day as defined by political, policy and operational needs.

Performance accountability

A final set of incentives revolves around accountability. These include negative as well as positive incentives. To legitimately claim elite status, the barriers to entry to the professional corps must be appropriately high, and there must be sustained quality controls and performance assessments throughout an analyst's career. Unlike the military officer corps, currently the civilian analytic community does not have an up or out policy based on performance requirements. Other professions commonly viewed as elite are either governed by professional requirements, market forces, or a combination of both (lawyers in law firms typically must make partner or find other employment after a given number of years; doctors in private practice are subject to ethical and legal restrictions plus the rigors of finding a market for their practice; investment bankers must make performance targets or risk demotion; CEOs of public firms must please stockholders). The analytic community lacks any such governmental or external regulation. Apart from

a devotion to public service (to ignore the selflessness and patriotism of the many dedicated and talented personnel in the intelligence community would not be fair or balanced), there are few regulators to reliably instill continuous performance measures. In particular, the leadership of the analytic community would have to have regular performance assessments to determine if the performance and transformation goals of the community were being met.

One useful approach would be to institute an annual performance assessment conducted by someone outside the analyst's direct organization and based on inputs from seniors, peers, clients (users of the intelligence provided) and subordinates. This suggestion is likely to provoke resistance from the analytic community, however, the intelligence community is a mature bureaucracy which does not attract risk takers. Risk-taking needs to be incentivized. Accomplishing this means, within reason, removing the negative incentives to risk-taking as well as instituting positive ones.   Analysts would need to become accustomed to an environment where healthy constructive criticism is aired on a regular basis. Constructive feedback and development objectives for analysts should be routinely provided rather than simply when an intelligence failure (or the perception of an intelligence failure) occurs.

Those who are unwilling to take risks fail to see that accountability builds professionalism. Currently the community appears so traumatized by criticism it is afraid to do anything other than take the most cautious road. For example, since 9/11, the prediction of another major terrorist incident in the U.S. has been that it will happen within a year or two. Four years on from 9/11 we are incident free within the U.S. This type of analytical paralysis does not well serve policymakers or the American public.

Others may argue that risk-taking is inappropriate when American safety and security are at stake.   One organizational approach to balance risk-taking with public responsibility is to instill cultural values – a professional code of ethics – across the analytic organization. When these common ethical and cultural values are instilled across the organization, they optimize behavior at all levels of responsibility.   In a time of extraordinary stress and challenge, it is not surprising that many have called for the institution of such codes for the analytic profession. At best, the professional code becomes a touchstone, or, as one of the participants described it "a place to go when you get lost." A professional code is an enabler to help the organization become self-correcting. Self-correction is attainable only if contribution and performance can be measured and motivation, reward and punishment can be effected. These may be revolutionary – even scary – changes for a community unaccustomed to accountability, but they form the core of meaningful change.

APPENDIX F
Summary of Oral Presentation by the Honorable John E. McLaughlin

John McLaughlin observed that the report's findings and recommendations contained nothing objectionable. They constituted a good inventory of things that the IC wants to do. In fact, one could probably find most of its recommendations in previous IC reports and studies. This led him to ponder why, if all of the recommendations made sense, very little had been done to implement them. He asserted that:
1. Some progress in these directions had in fact been made;
2. Proven methods for accomplishing some of the report's recommendations were not well understood;
3. It is very difficult to attempt large-scale, multiple reforms at the same time because of the complexity of the problem;
4. The IC never had enough personnel to undertake large-scale efforts given the demands of its missions; and
5. There remains the issue of weighing one or two failures against a hundred successes. How drastic and comprehensive should reforms be if the basic institutions of the IC are sound?

McLaughlin stated that the report placed too much emphasis on the idea that the IC resists change. He personally had found a great recognition of the need for change within the IC, and he knew of dramatic examples of successful change. He agreed that the current time offers a rare window of opportunity from increased change, but noted that, since the IC can't institute all of the recommended changes at once for the reasons given above, it was necessary to prioritize them. He recommended identifying those recommendations that would have a force multiplier effect on the intelligence enterprise. He offered the following list:
- Emphasize technology. So much of what the IC wants to do needs appropriate IT to enable it. The focus should be on providing these capabilities. He recommended that the DNI carry out a Manhattan Project on this issue.
- Emphasize common education. Teaching analytic tradecraft and epistemology should be a priority.
- Develop a greater sense of community within the IC, but keep initiatives simple. For example, to be promoted, require that analysts must have served in more than one intelligence agency and in more than one discipline. Then be sure to enforce these requirements consistently throughout the IC. If the system gets too complicated, it will be too difficult to administer.
- In terms of implementing recommendations, McLaughlin stressed the need to think about the environment in which the current intelligence enterprise exists. He emphasized that the IC must look outward and engage both intelligence oversight committees to obtain their support. Otherwise, there will be hearings the first time reforms stumble and the process might lose momentum or be derailed. He stressed that it also is necessary to get the buy-in of major policymakers.

McLaughlin concluded by saying that the report was "a terrific articulation" of things we would like to do, but it needs additional work to make its recommendations capable of implementation, including prioritization of recommended initiatives.

Biographical Sketches of Project Participants (Nongovernment)

Gordon M. Adams
George Washington University
Gordon M. Adams is Professor of the Practice of International Affairs and Director of the Security Policy Studies Program at the Elliot School of International Relations of the George Washington University. His areas of expertise include security policy, national security budgeting, defense industry, transatlantic defense cooperation, and defense industrial cooperation.

A native Californian, Dr. Adams attended Stanford University (magna cum laude, Political Science). He received his Ph.D. in Political Science from Columbia University. Dr. Adams came to GW from the International Institute for Strategic Studies in London, where he held the position of Deputy Director. Before moving to London, he served as the Associate Director for National Security and International Affairs of the Office of Management and Budget in the White House.

Dr. Adams previously taught at Rutgers University and Columbia University. He has held positions at the Council on Economic Priorities, the Council on Foreign Relations and the Social Science Research Council. He was founder and director of the Defense Budget Project, which became one of Washington's leading analytical institutions working on the defense budget and defense policy issues from 1983 to 1993. In addition to being widely published on the areas of security policy, defense policy and budgets and transatlantic defense trade and investment policy, Dr. Adams has testified extensively before various committees of both houses of the U.S. Congress, and is widely quoted in the media on defense issues.

Ramon C. Barquin
Barquin International
Ramon C. Barquin, PhD is the President and CEO of Barquin International. He is a former IBM executive and an internationally known expert in the field of knowledge management. Dr. Barquin co-founded and was the first President of the Data Warehousing Institute, the leading professional organization in the field. He also founded and heads the Computer Ethics Institute.

An electrical engineer and mathematician by training, Dr. Barquin has taught at MIT, the University of Maryland, and the Chinese University of Hong Kong. He edited the Prentice Hall series on Data Warehousing, co-edited two books on Knowledge Management in the public sector, and has published over 100 technical and management articles on information technology. He organized and chaired the E-Gov Knowledge Management conferences in 2000 and 2001, and has conducted executive seminars in electronic government and knowledge management for the Brookings Institution.

Richard K. Betts
Columbia University
Richard K. Betts is the Arnold A. Saltzman Professor and Director of the Saltzman Institute of War and Peace Studies at Columbia University. He has also taught at Harvard University and Johns Hopkins' Nitze School of Advanced International Studies,

and was a Senior Fellow at the Brookings Institution in Washington for fourteen years. He has been Director of National Security Studies at the Council on Foreign Relations and served long ago on the staffs of the original Senate Select Committee on Intelligence (the Church Committee), the National Security Council, and the Mondale Presidential Campaign. For six years in the 1990s he was a member of the National Security Advisory Panel of the Director of Central Intelligence and in 1999-2000 he was a member of the National Commission on Terrorism (the Bremer Commission). Betts has published numerous articles on U.S. foreign policy, military strategy, intelligence operations, security issues in Asia and Europe, terrorism, and other subjects, and is author four books – *Soldiers, Statesmen, and Cold War Crises; Surprise Attack; Nuclear Blackmail and Nuclear Balance;* and *Military Readiness* – and co-author or editor of *The Irony of Vietnam; Cruise Missiles: Technology, Strategy, and Politics; Conflict After the Cold War;* and *Paradoxes of Strategic Intelligence*.

James G. Breckenridge
Mercyhurst College

James G. Breckenridge graduated from Virginia Tech and received a Master's Degree in Middle Eastern and European History from the University of Virginia, and a MBA from Gannon University. Heserved in the United States Army for 22 years in a variety of intelligence and operations assignments. These assignments included nine years of overseas duty in Europe and the Middle East. Mr. Brekenridge taught Middle Eastern History and served as the course director for the World History program at West Point. After retirement from the Army, he served as the director of marketing and training for a manufacturing company before pursuing his real passion, which is teaching intelligence and history at Mercyhurst College.

Duncan Clarke
American University

Professor Clarke, a specialist in U.S. foreign and national security policy, is coordinator of the United States Foreign Policy field in the School of International Service. He is the author of several books on foreign policy and arms control, including *Send Guns and Money: Security Assistance and United States Foreign Policy* (Praeger, 1997) and *American Defense and Foreign Policy Institutions* (Harper and Row, 1989). His articles have appeared in numerous journals, including *Foreign Policy* , *Political Science Quarterly* , *Middle East Journal* , and *Orbis* . Professor Clarke has been chosen one of American University's Ten Best Professors, and lauded as the Scholar/Teacher of the Year by the School of International Service.

Dale Copeland
University of Virginia

Dr. Dale Copeland is Associate Professor of Politics at the University of Virginia. His fields of interest include International Relations Theory, security studies and international political economy. He is the author of *The Origins of Major War*, (Cornell U.P., Cornell Studies in Security Affairs, 2000), a study of the link between the rise and decline of great powers and the outbreak of devastating system-wide wars. His second book project, *Economic Interdependence and International Conflict*, examines the conditions under

which inter-state trade will lead to either war or peace. Other research interests include the origins of economic interdependence between great powers, the realist-constructivist divide, in-group/out-group theory and the logic of reputation-building, and the interconnection between international political economy and security studies. Recent articles include: "The Constructivist Challenge to Structural Realism" (International Security, Fall 2000); "Economic Interdependence and War" (International Security, Spring 1996); "Trade Expectations and the Outbreak of Peace" (Security Studies, Autumn 1999/Winter 2000). Dr. Copeland is the recipient of numerous awards, including MacArthur and Mellon Fellowships and a post-doctoral fellowship at the Center for Science and International Affairs, Harvard University.

The Honorable Richard Danzig
Center for Strategic and International Studies

Richard Danzig is the Nunn Prize Fellow at the Center for Strategic and International Studies , a Senior Fellow at the CNA Corporation, and a consultant to the Department of Defense on terrorism generally and bioterrorism particularly. Mr. Danzig served as the 71st Secretary of the Navy from November 1998 to January 2001. He also was the Under Secretary of the Navy between 1993 and 1997.

Mr. Danzig is a director of Human Genome Sciences Corporation (NASDAQ), National Semiconductor Corporation (NYSE), and Saffron Hill Ventures (a European Venture Capital Fund). He has ongoing relationships on business and political matters with several businesses, including a leading nanotechnology start-up and a large Japanese trading company.

Mr. Danzig's recent pro-bono activities include service as Chairman of the Board of the Center for Strategic and Budgetary Assessments, and as member of the Boards of Directors of Public Agenda and the Partnership for Public Service.

Mr. Danzig was born in New York City in 1944. He received a B.A. degree from Reed College, a J.D. degree from Yale Law School, and Bachelor of Philosophy and Doctor of Philosophy degrees from Oxford University, where he was a Rhodes Scholar. Upon his graduation from Yale, Mr. Danzig served as a law clerk to U.S. Supreme Court Justice Byron White.

Between 1972 and 1977, Mr. Danzig was an Assistant and then Associate Professor of Law at Stanford University, a Prize Fellow of the Harvard Society of Fellows, and a Rockefeller Foundation Fellow. During this period he wrote a book on contract law and articles on constitutional history, contracts, criminal procedure, and law and literature.

From 1977 to 1981, Mr. Danzig served in the Office of the Assistant Secretary of Defense, first as a Deputy Assistant Secretary and then as the Principal Deputy Assistant Secretary of Defense for Manpower, Reserve Affairs and Logistics. In these roles, he contributed particularly to the development of the Department's ability to mobilize manpower and materiel for deployment abroad. In 1981, he was awarded the Defense Distinguished Public Service Award. He received that same honor—the highest Department of Defense civilian award—twice more in 1997 and 2001 for his work with the Navy and Marine Corps.

Between 1981 and 1993, Mr. Danzig was a partner in the law firm of Latham and Watkins. Resident in Washington, his unusually broad legal practice encompassed white-

collar crime defense work, civil litigation, and corporate work, including heading the firm's Japan practice. During this time he co-authored a book on National Service, taught contracts at Georgetown Law School, and was a Director of the National Semiconductor Corporation, a Trustee of Reed College, and litigation director and then vice chair of the International Human Rights Group. In 1991, he was awarded that organization's Tony Friedrich Memorial Award as pro-bono human rights lawyer of the year.

Mr. Danzig and his wife, Andrea, reside in Washington, DC, where Mrs. Danzig has an active practice as a psychotherapist. They have two adult children, David and Lisa. Mr. Danzig is completing a book on management, anticipated for completion in 2006.

Articles about Mr. Danzig's tenure as Navy Secretary, as well as his speeches, testimony, and further biographical material can be found at www.chinfo.navy.mil/navpalib/people/secnav/danzig.

G. Edward DeSeve
University of Maryland

G. Edward DeSeve, former Deputy Director for Management of the U.S. Office of Management and Budget (OMB), is Professor of the Practice and Director of the Management, Finance and Leadership program at the School of Public Policy, University of Maryland. He also works closely with the school's Center for Public Policy and Private Enterprise.

Mr. DeSeve has held senior posts at all three levels of American government and in the private sector. He has served as Chief Financial Officer of the U.S. Department of Housing and Urban Development, Controller of OMB, and in 1997, he was appointed Deputy Director for Management at OMB, the highest management position in the federal government. He began his career with the City of Philadelphia serving as a junior budget analyst, Budget Director, Deputy Director for Finance and later became Director of Finance. In 1990, he served as Assistant to the Governor of Pennsylvania.

Mr. DeSeve's ability to work across sectors led him most recently to KPMG Peat Marwick as a partner and national industry director. He previously served as Management Director of Merrill Lynch Capital Markets, and has established and led several consulting firms, including Public Financial Management Incorporated, which provided technical assistance to more than a dozen states and localities.

Mr. DeSeve made his mark on academia as a senior lecturer and faculty member at the University of Pennsylvania's Fels Center of Government. He holds a Master of Government Administration in Public Finance from the University of Pennsylvania, and a Bachelor of Science in Labor Economics from Cornell University.

Jay C. Farrar
Center for Strategic and International Studies

Jay Farrar is senior vice president of external relations and congressional affairs. In this role, he acts as the primary CSIS liaison with Congress, the media, and foreign embassies. He also has been the principal researcher at CSIS on issues and projects in the areas of military export controls and international trade.

Prior to joining CSIS, Jay Farrar was at the Department of Defense where he was the Deputy Assistant Secretary of Legislative Affairs. At the Defense Department, Farrar

was the primary liaison with the Senate. He produced and conducted legislative campaigns including program assessments and updates on issues and programs as diverse as high technology export controls and defense procurement, to military personnel and long-range strategy. He was also responsible for Senate confirmations of senior defense appointees as well as the primary point of contact for interagency deliberations. For his service, Farrar received the Department's medal for Exceptional Public Service.

Prior to joining DoD, Farrar served as director of legislative affairs for the National Security Council from 1998 to 1999. In this role, he was a principal congressional liaison for the White House and the National Security Council. He played a central role in White House and interagency deliberations regarding encryption export regulations, and long-range constructive engagement on operational military matters and crisis situations. From 1994 to 1998 Farrar was a legislative assistant to the chairman of the Joint Chiefs of Staff, where he concentrated on operational, program and budget issues, joint-flag officer Senate confirmations, and legislative action involving global crises.

Farrar served on active duty in the U.S. Marine Corps for over 22 years, where he participated in operations in Beirut (1983) and in Southwest Asia (1990-1991). He is a member of the Council on Foreign Relations, and holds a master's degree in management from Central Michigan University and a bachelor's degree in communications from Marquette University.

Ann A. Fishman
Generational-Targeted Marketing Corporation

Ann A. Fishman is a nationally-known speaker and consultant on how to connect to American's six distinct generations.

During the Bush 41 and Clinton Administrations, Fishman received four U.S. Senate Fellowships to study generational trends. She authored three Senate white papers, created Federal legislation and headed up a national workshop on intergenerational mentoring. Currently, she is president of New Orleans-based Generational-Targeted Marketing Corporation and also serves as a member of the adjunct faculty at New York University.

She has presented or consulted to a wide range of clients, including Allstate Financial, Time Warner Cable, The National Geographic Society, Tulane University, The Governor's Conference on Tourism (State of Nevada), PBS, Reader's Digest, Volvo Car Company, The American College of Cardiology and Color Marketing Group.

Ms. Fishman has been featured in almost every major newspaper in the U.S., appeared on CNN-TV, Fox News Network, National Public Radio and BBC Radio. For additional information on Ann A. Fishman, Generational-Targeted Marketing Corporation and generational marketing, visit www.annfishman.com.

John C. Gannon
BAE Systems

John C. Gannon is Vice President for Global Analysis at BAE Systems. Prior to this position, he served as Staff Director of the House Select Committee on Homeland Security (2003-2005); in the Department of Homeland Security's Transition Planning Office, where he headed the White House team standing up the Information Analysis and

Infrastructure Protection Directorate (2001-2002); and as Vice Chairman of Intellibridge Corporation (2001-2002).

Prior to these activities, Dr. Gannon served for twenty-four years at the Central Intelligence Agency, attaining the senior-most analytic positions. In particular, Mr. Gannon was Chairman of the National Intelligence Council (1997-2001); Assistant Director for Analysis and Production (1998-2001); and Deputy Director for Intelligence (1995-1997).

Dr. Gannon is an Adjunct Professor at Georgetown University. He is a former naval officer and Vietnam veteran. He is a recipient of several awards, most notably the President's National Security Medal, the highest US intelligence award, as well as CIA's Distinguished Intelligence Medal, the Distinguished Career Intelligence Medal, and the CIA Director's Medal.

Dr. Gannon holds a Ph.D. and an MA in History from Washington University in Saint Louis, and a BA in Psychology from Holy Cross College. Recent publications include "The Strategic-Use of Open Source Information" in *Intelligence and National Security Strategist: Enduring Issues and Challenges* (Washington, DC: National Defense University Press, 2004) and "Intelligence Community Reform: Let Form Follow Function" in *Intelligencer: Journal of Intelligence Studies*, Vol.13, No.1 (Spring-Summer 2002).

The Honorable Jacques S. Gansler
University of Maryland
Project Co-Director

The Honorable Jacques S. Gansler is Vice President for Research at the University of Maryland. He holds the Roger C. Lipitz Chair in Public Policy and Private Enterprise in the School of Public Policy where he teaches graduate school courses and leads the School's Center for Public Policy and Private Enterprise. Dr. Gansler is also the Glenn L. Martin Institute Fellow of Engineering at the A. James Clarke School of Engineering; an Affiliate Faculty member at the Robert H. Smith School of Business; and a Senior Fellow at the James MacGregor Burns Academy of Leadership (all at the University of Maryland).

Previously, Dr. Gansler served as the Under Secretary of Defense for Acquisition, Technology and Logistics from November 1997 until January 2001. In this position, he was responsible for all matters relating to Department of Defense acquisition, research and development, logistics, acquisition reform, advanced technology, international programs, environmental security, nuclear, chemical, and biological programs, and the defense technology and industrial base. (He had an annual budget of over $180 Billion, and a workforce of over 300,000.)

Prior to this appointment, Dr. Gansler was Executive Vice President and Corporate Director for TASC, Incorporated, an applied information technology company, in Arlington, Virginia (from 1977 to 1997) during which time he played a major role in building the company from a small operation into a large, widely-recognized and greatly-respected corporation, serving both the government and the private sector.

From 1972 to 1977, he served in the government as Deputy Assistant Secretary of Defense (Material Acquisition), responsible for all defense procurements and the defense

industry; and as Assistant Director of Defense Research and Engineering (Electronics) responsible for all defense electronics Research and Development.

His prior industrial experience included: Vice President (Business Development), I.T.T. (1970-1972); Program Management, Director of Advanced Programs, and Director of International Marketing, Singer Corporation (1962-1970); and Engineering Management, Raytheon Corporation (1956-1962).

Dr. Gansler serves (and has served) on numerous Corporation Boards of Directors, and governmental special committees and advisory boards: including Vice Chairman and member, Defense Science Board (17 years); member of the Federal Emergency Management Agency (FEMA) Advisory Board (10 years); and senior consultant to the "Packard Commission" on Defense Acquisition Reform; Chairman, Board of Visitors, Defense Acquisition University; Director, Procurement Round Table; Chairman, Industry Advisory Board, University of Virginia, School of Engineering; Chairman, Board of Visitors, University of Maryland, School of Public Affairs; and member of the FAA Blue Ribbon Panel on Acquisition Reform. He is a Member of the National Academy of Engineering and a Fellow of the National Academy of Public Administration.

Additionally, from 1984 to 1997, Dr. Gansler was a Visiting Scholar at the Kennedy School of Government, Harvard University (a frequent guest lecturer in Executive Management courses). He is the author of 3 books, a contributing author of 26 other books, author of over 100 papers, and a frequent speaker and Congressional witness.

Dr. Gansler holds a BE in Electrical Engineering from Yale University, a MS in Electrical Engineering from Northeastern University, a MA in Political Economy from the New School for Social Research, and a Ph.D. in Economics from American University.

Christopher Kojm
9/11 Public Discourse Project
Chris Kojm is the president of the 9/11 Public Discourse Project and former deputy director of the 9/11 Commission. Prior to that, he served from 1998 until February 2003 as Deputy Assistant Secretary for Intelligence Policy and Coordination in the State Department's Bureau of Intelligence and Research. He served previously in the Congress on the staff of the House International Relations Committee, under Ranking Member Lee Hamilton as Deputy Director of the Democratic staff (1997-98), as Coordinator for Regional Issues (1993-1997) and under Chairman Hamilton on the Europe and Middle East subcommittee staff (1984-92). From 1979-1984, he was a writer and editor with the Foreign Policy Association in New York City. He has a Masters in Public Affairs from the Woodrow Wilson School at Princeton University (1979) and an A.B. from Harvard College (1977).

William J. Lahneman
University of Maryland
Project Executive Director
William J. Lahneman is Associate Director for Programs at the Center for International and Security Studies at Maryland (CISSM), School of Public Policy, University of

Maryland, College Park. He is an adjunct faculty member at the School of Public Policy, American University's School of International Service, and the Naval Postgraduate School's Center for Homeland Defense and Security. Dr. Lahneman has held academic positions as Associate Chair of the Political Science Department at the U.S. Naval Academy and as Adjunct Professor at Towson University. He has consulted on energy and environmental security issues for the World Bank, the US government, and the private sector. A former career naval officer, Commander Lahneman, U.S. Navy (ret.) was a Surface Warfare Officer with specializations in Strategic Planning, International Negotiations, and Nuclear Propulsion.

Dr. Lahneman's recent publications include "Knowledge Sharing in the Intelligence Community After 9/11," *International Journal of Intelligence and Counterintelligence* 17/4 (Winter 2004-05); "Outsourcing the IC's Stovepipes?" *International Journal of Intelligence and Counterintelligence* 16/4 (Winter 2003-04); and *Military Intervention: Cases in Context for the 21st Century* (ed.) (Lanham, MD: Rowman and Littlefield, 2004). He holds a Ph.D. in International Relations from the Johns Hopkins University's School of Advanced International Studies (SAIS), an M.A. in National Security Affairs from the Naval Postgraduate School, and a B.S. (with Distinction) from the United States Naval Academy.

Martin C. Libicki
RAND

Dr. Libicki, a Senior Policy Analyst at RAND since 1998, works on the relationship between information technology and public policy, notably national security.

This work is documented in numerous monographs, the most recent of which is *Scaffolding the New Web: Standards and Standards Policy for the Digital Economy*. It follows the commercially published *Information Technology Standards: Quest for the Common Byte*. His most recent assignments were to develop a post-9/11 information technology strategy for the U.S. Department of Justice and an information security analysis for the FBI; as well as to conduct a technological critique of CIA's R&D venture, In-Q-Tel. Other work has examined information warfare and the revolution in military affairs. Prior employment includes twelve years at the National Defense University, three years on the Navy Staff as program sponsor for industrial preparedness and three years as a policy analyst for the GAO's Energy and Minerals Division.

Dr. Libicki received his PhD from U.C. Berkeley (1978) writing on industrial economics. He has also received a Master's in City Planning from U.C. Berkeley (1974), and a Bachelor's degree in Mathematics from MIT (1972).

John M. (Mike) McConnell
Booz Allen Hamilton

Mike McConnell, a Senior Vice President with Booz Allen Hamilton based at McLean, VA, is focused in the Defense and National Security business. Mike joined Booz Allen in 1996, after retiring from the U.S. Navy as Director of the U.S. National Security Agency. He also served as the Intelligence Officer for Gen. Colin Powell, Chairman JCS, during Desert Shield/Storm and the dissolution of the Soviet Union.

He led NSA at the end of the Cold War in addressing the agency's transformation to adapt to the multi-polar threats posed by the changing international environment.

Under Mike's leadership, the NSA routinely provided global Intelligence and Information Security Services to the President and his cabinet in addition to military and civil departments and intelligence customers. While serving as NSA's Director, Mike was one of the first senior officials to identify information assurance (IA) and information defense as major strategic issues in our increasingly networked society. His discussions in the Department of Defense, the White House, the Congress, and in industry in 1994 laid the foundation for the significant changes initiated since 1996.

After bringing Booz Allen's Information Assurance Business Campaign to fruition, Mike is currently leading the national security arena focused on policy, transformation, homeland security, and intelligence analytics. He is also leading a new business initiative focused on making intelligence information more timely and relevant to policy, operations, and tactical decision makers. His clients include intelligence departments and agencies of the Department of Defense, the Military Services, and the U.S. Unified Combatant Commanders.

Mike retired as a Vice Admiral after serving 29 years as a career Intelligence Officer. He holds a M.P.A. from George Washington University, is a graduate of the National Defense University (Global Telecoms), the Joint Military Intelligence College (Strategic Intelligence), and holds a B.A. in Economics from Furman University. In addition to many military awards, Mike holds the nation's highest award for service in the intelligence community. Consulting Magazine selected Mike as one of the top 25 most influential consultants in 2002. He currently serves on the Board of Directors of CompuDyne.

The Honorable John E. McLaughlin
Johns Hopkins University
John E. McLaughlin is a Senior Fellow in the Merrill Center for Strategic Studies at the Paul H. Nitze School of Advanced International Studies (SAIS) of the Johns Hopkins University.

Mr. McLaughlin, a 1966 graduate of SAIS, most recently served as Acting Director of Central Intelligence from July to September 2004 and as the Deputy Director of Central Intelligence at the Central Intelligence Agency, Vice Chairman for Estimates and Acting Chairman of the National Intelligence Council.

Earlier in his career with the CIA, which spanned three decades, Mr. McLaughlin focused on European, Russian, and Eurasian issues in the Directorate of Intelligence. In the late 1980s and early 1990s, he served as Director of the Office of European Analysis during the period marked by the fall of the Berlin Wall and the collapse of communism in Eastern Europe and the Soviet Union.

Then, four months after the break-up of the Soviet Union, he became Director of the CIA Office – Slavic and Eurasian Analysis – that was responsible for CIA's analysis of the fifteen independent states that emerged from the USSR. During this time, he frequently represented the Intelligence Community on the US diplomatic missions that established initial relations with these newly-independent countries.

While Deputy Director for Intelligence from 1997 to 2000, he created the Senior Analytic Service, a CIA career track that enables analysts to rise to very senior rank without branching out into management. He also founded the Sherman Kent School for

Intelligence Analysis, an institution dedicated to teaching the history, mission, and essential skills of the analytic profession to new CIA employees.

In addition to earning his masters degree in international relations from SAIS/Johns Hopkins, he received a bachelors' degree from Wittenberg University and completed graduate work in comparative politics at the University of Pennsylvania. He served as a US Army officer in the 1960s, completing a tour in Vietnam from 1968 to 1969, where he was awarded the Bronze Star and the Army Commendation Medal with Oak Leaf Cluster.

Mr. McLaughlin is the recipient of the Distinguished Intelligence Community Service Award and the National Security Medal. He is a member of the Council on Foreign Relations, a non-resident senior fellow at the Brookings Institution, and a national security advisor to the Cable News Network (CNN).

Kenneth T. Stringer, Jr.
Booz Allen Hamilton

Dr. Kenneth Stringer joined Booz Allen Hamilton in 2004 after 20 years of distinguished service with the Central Intelligence Agency.

During his career with the CIA, Dr. Stringer served in a variety of analytic and managerial positions in the Directorate of Intelligence, including overseas assignments in South Asia and Europe. From 1997 to 2000, while stationed in Europe, he developed and implemented a groundbreaking pilot program to deepen and enhance Directorate of Intelligence expertise on Near Eastern, South Asian, and African issues through regular exchanges with European experts. He returned to Washington in 2000 to become the first Director of the Sherman Kent Center for Intelligence Analysis, where he established an entirely new organization dedicated to building and sharing knowledge on the profession of intelligence analysis.

In August 2001, Dr. Stringer was selected to lead the South Asia Issue Group in the Office of Near Eastern and South Asian Analysis and, in the aftermath of the 9/11 terrorist attacks, he led a multi-disciplinary group of supervisors and analysts providing critical all-source analysis to the President and other senior US decision makers, as well as direct analytic support to CIA officers and the US military in the field, throughout Operation Enduring Freedom and during subsequent developments crucial to US policy interests in South Asia.

Prior to his career with the CIA, Dr. Stringer served with the Multinational Force and Observers monitoring the Egyptian-Israeli Peace Treaty in the Sinai. He has a Ph.D. in military and diplomatic history from The American University, and is a decorated combat veteran of the Vietnam Conflict.

John D. Steinbruner
University of Maryland
Project Co-Director

John D. Steinbruner is Professor of Public Policy at the School of Public Policy at the University of Maryland and Director of the Center for International and Security Studies at Maryland (CISSM). His work has focused on issues of international security and related problems of international policy.

Steinbruner was Director of the Foreign Policy Studies Program at the Brookings Institution from 1978-1996. Prior to joining Brookings, he was an Associate Professor in the School of Organization and Management and in the Department of Political Science at Yale University from 1976 to 1978. From 1973 to 1976, he served as Associate Professor of Public Policy at the John F. Kennedy School of Government at Harvard University, where he also was Assistant Director of the Program for Science and International Affairs. He has held the positions of Executive Director of the Research Seminar on Bureaucracy, Politics, and Policy at Harvard's Institute of Politics, and of Assistant Professor of Political Science at the Massachusetts Institute of Technology.

Steinbruner has authored and edited a number of books and monographs, including most recently: *The Cybernetic Theory of Decision: New Dimensions of Political Analysis* (Princeton University Press, originally published 1974, second paperback edition with new preface, 2002); *Principles of Global Security* (Brookings Institution Press, 2000). His articles have appeared in *Arms Control Today*, *The Brookings Review, Foreign Affairs, International Security, Scientific American, Soviet Economy*, and other journals.

Steinbruner is currently Vice-Chair of the Committee on International Security and Arms Control of the National Academy of Sciences, Co-Chair of the Committee on International Security Studies of the American Academy of Arts and Sciences and Chairman of the Board of the Arms Control Association. He is a fellow of the American Academy of Arts and Sciences and a member of the Council on Foreign Relations.

Born in 1941 in Denver, Colorado, Steinbruner received his A.B. from Stanford University in 1963, and his Ph.D. in Political Science from the Massachusetts Institute of Technology in 1968.

Phil Williams
University of Pittsburgh

Dr. Phil Williams is Professor of International Security in the Graduate School of Public and International Affairs at the University of Pittsburgh. From 1992 until April 2001, Dr. Williams was the Director of the University's Matthew B. Ridgway Center for International Security Studies and he is currently the Director of the Ridgway Center's Program on Terrorism and Transnational Crime. Professor Williams has published extensively in the field of international security including *Crisis Management*, (1976) *The Senate and US Troops in Europe*, (1986) and (with Mike Bowker) *Superpower Detente: A Reappraisal* (1987). He has edited or co-edited books on the Carter, Reagan, and Bush Presidencies, as well as on Classic Readings in International Relations. During the last ten years his research has focused primarily on transnational organized crime and he has written articles on various aspects of this subject in *Survival*, *Washington Quarterly*, *The Bulletin on Narcotics*, *Temps Strategique*, *Scientific American*, *Criminal Organizations,* and *Cross Border Control*.

In addition, Dr. Williams is editor of a journal entitled *Transnational Organized Crime*. He is a consultant to both the United Nations and United States government agencies on organized crime and transnational threats and has also given congressional testimony on the subject. Most recently he has focused on alliances among criminal organization, global and national efforts to combat money laundering, and trends and developments in cyber-crime. Dr Williams has edited a volume on *Russian Organized*

Crime and a book on *Illegal Immigration and Commercial Sex: The New Slave Trade.* He is also co-editor of a recent volume on *Combating Transnational Crime* He is currently completing a book for Polity Press on *Transnational Organized Crime*. In 2001-2002 he was on Sabbatical from the University of Pittsburgh and was a Visiting Scientist at CERT/CC Carnegie Mellon University, where he worked on computer crime and organized crime. Dr Williams is currently directing a project for the Defense Intelligence Agency on the Financing of Terrorism. He is also focusing on methods of degrading criminal and terrorist networks.

Ernest J. Wilson III
University of Maryland
Project Co-Director

Ernest J. Wilson III is Professor of Government and Politics, and Senior Research Scholar at the Center for International Development and Conflict Management, University of Maryland, College Park. From 1993-1995, Dr. Wilson served in senior policy positions in the public and private sector as Director of International Programs and Resources on the National Security Council, The White House (1993-1994); Director of the Policy and Planning Unit, Office of the Director, U.S. Information Agency (1994); and as Deputy Director of the Global Information Infrastructure Commission (1994-1995). He has also served as a Visiting Senior Fellow at the Council on Foreign Relations in New York.

Prior to joining the University of Maryland Faculty in 1992, Dr. Wilson taught at the University of Michigan, serving as the Director of the Center for Research on Economic Development and teaching the core foreign policy course at the Institute for Public Policy Studies. Wilson is also Visiting Scholar in Public Diplomacy at USC, and an advisor to the World Bank. Dr. Wilson is the author of "What Social Science Theory Can Do For Policy Makers: The Relevance of Theory For Foreign Policy" in *International Relations Theory and U.S. Foreign Policy*; of *Diversity and U.S. Foreign Policy* (Routledge, 2004); and the *Information Revolution and Developing Countries* (MIT, 2004); and co-author of *The Decade of Energy Policy*. He holds degrees from Harvard and Berkeley.

Appendix H.
Summary of Findings and Recommendations

I. IC Cultural Issues

Finding #1: *The U.S. intelligence community is the "Community that Isn't." It is a series of nearly autonomous organizations, each with its own way of doing business. The analytic portion of the IC reflects the fragmentation of the overall intelligence enterprise. Such a fragmented approach is at odds with the need for greater knowledge sharing to enable effective analysis of dispersed threats and other issues.*
Recommendation: Establish the basis for the profession of intelligence analyst across the IC.

1. The DNI or suitable panel should coordinate the drafting of a mission statement for all members of the intelligence enterprise, a separate mission statement for all IC analysts, common doctrine for the analytic enterprise, and standardized job descriptions for analytic positions.
2. Create professional standards across the IC
3. Increase collaboration across agencies by crafting an IC-wide doctrine for knowledge sharing.
4. Mandate rotational assignments for analysts throughout the IC.
5. Make all new systems and programs flexible. New initiatives must be able to incorporate new developments readily.
6. Institutionalize the development of new ideas. The IC should establish a center – with a virtual component so that analysts can participate from any location– where analysts can test new ideas without penalty.

Finding #2: *IC dialogue with expertise outside of the IC is limited. The increasing importance of open source intelligence means that IC analysts must share certain information and knowledge with experts in academia, business, and research centers around the world. This need will increase significantly by 2020.*
Recommendation: Expand and standardize analysts' abilities to consult and otherwise interface with nongovernment experts – including non-US nationals – by issuing appropriate IC-wide doctrine. This doctrine must be biased toward enabling collaboration while preserving standards for protecting secrets, sources, and methods.

1. Provide sabbaticals and extended external training. Policies concerning rotational assignments should include provisions for analysts to leave the IC temporarily, not just rotate within the IC.
2. Encourage peer review of analytic products by outside experts. The IC should expand its use of collaborative peer review tools to improve analysis.
3. Expand outsourcing activities. The IC should outsource appropriate work to think tanks, academic research centers, and companies. This technique brings different perspectives, methodologies, and expertise to bear on the analytic process.
4. Reduce constraints preventing contractors from working at the same level as government employees.
5. Encourage the open world to link with analysts.

Finding #3: Physical and information security and clearance systems vary across the IC and are incompatible with many important partners at the state and local levels of government. These factors, along with lack of common information technology standards, impede knowledge sharing. Security clearance policies also adversely affect analyst recruitment.
Recommendation: Develop overarching technological, security, and classification standards for the entire IC. These systems should support the analytic enterprise and must be responsive to changing conditions.

1. Create common standards for IT. Any standard should be interoperable and scalable.
2. Create standardized security and classification systems across the IC. Security policy needs to reflect the idea that the IC needs to work collaboratively and hire an increasingly diverse workforce as well as protect secrets, sources, and methods.
3. Create an IC-wide information repository. Analysts should be able to go to one place to find out what information is available across the IC and how they can access it.
4. Streamline the approval system for experimenting with new information technologies.

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II. Analyst Leadership, Management, and Career Dynamics

Finding #4: The IC lacks common human resource standards. There is a need for common standards for recruitment, hiring, retention, certification, training and promotion across the IC.
Recommendation: Create compatible, standardized human resource policies across the IC.

1. Implement standardized, collaborative IC-wide recruiting policies.
2. Emphasize "IC branding" over individual agency branding in the analyst recruitment process.
3. Institute a common IC-wide personal system with regulations detailing how to promote and compensate analysts and managers.
4. Integrate "best practices" in IC hiring and promotion across all IC agencies.
5. Expand internship opportunities for prospective analysts.
6. Generate standardized HR data. Collect baseline data on intellectual capital across the IC. Doing so not only will document analytic workforce skills but also will warn about the impending loss of skills through retirement. It also will provide the basis for constructing the IC-wide information repository.
7. Establish standards for firing. Retention is not an end unto itself. The IC wants to retain the best people, not maximize retention of all the analysts it hires.
8. Hire adequate numbers of analysts to support career development, training and rotation. This must include continuing training requirements and both internal and external rotation as part of a normal career path.
9. Develop policies to allow analysts who have left the IC to return without penalty.

10. Develop a program identify in advance and utilize on demand non-government experts and former IC analysts in a large-scale, organized fashion to confront threats in areas of the world where the IC has a paucity of expertise.
11. Recruit analysts with nontraditional backgrounds.

Finding #5: *The IC must create clear career paths that motivate analysts to remain engaged as members of the IC. Insofar as possible, these should be common career paths that are valid throughout the IC so that analysts and managers know what is expected of them.*
Recommendation: *Create a common IC-wide career development program.*
1. Provide multiple, standardized career paths with clear requirements and standards.
2. Create mentoring across the IC. In addition to formal requirements, managers should support a mentoring environment within the organization.
3. Encourage transfers and rotations inside the IC. Make the accomplishment of rotational tours a requirement for analysts and managers to be promoted. When posted to another IC agency, analysts and managers should be given real jobs rather than merely exposed to the host organization's operations.
4. Manage expectations and engagement. The IC is now hiring new analysts with different backgrounds and expectations than the current workforce.

Finding #6: *Effective leadership and management are critical to ensuring an effective analytic enterprise. Managers are largely responsible for the quality of analytic products. They also decisively affect the retention of analysts by their leadership style and influence on organizational culture.*
Recommendation: *Improve analyst leadership and management across the IC.*
1. Change how performance is measured to reflect quality of analysis over quantity of analytic product. Production has become the predominant metric because it is the simplest way out.
2. Train managers. The IC should standardize and place greater emphasis on educating and training its managers, including continuing education at all levels. This process should begin with providing analysts selected to become managers with appropriate training before they assume their management duties. .
3. Reward managers through an appropriate incentive system. Managers who exhibit exceptional management and leadership abilities reap few tangible rewards.

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III. _Education and Training_

Finding #7: *Education and training are low priority activities throughout the IC. If there is one cultural attitude that is uniform across the IC, it is a bias against allowing analysts to take time away from their jobs for training.*
Recommendation: *Improve education and training in the IC to improve the quality of analysis, professionalize the analytic workforce, and foster a common IC culture.*
1. Use the National Intelligence University System (NIUS) to coordinate all education and training programs across the IC, including agency-specific

programs. The NIUS also should develop and coordinate IC-wide education and training programs offered by universities.

2. Require common training. Make as many education and training programs as possible IC-wide initiatives. This will foster collaboration and reinforce a common IC culture.
3. Initiate a mandatory, joint "boot camp" for all analysts in the IC within the first 6 months of employment. Topics of instruction should include ethics and tradecraft.
4. Make use of new formats for education and training that are available in both university and IC in-house settings. These include certificate programs and executive education offerings offered by universities.
5. Develop a coordinated education and training continuum for managers as well as analysts so that education and training becomes a standard, periodic feature of analysts' and managers' careers.
6. Make the accomplishment of mandatory educational and training milestones a requirement for analysts and managers to be promoted.
7. Institute continuing education requirements across the analytic community.
8. Develop an IC-wide officer-in residence program based on the CIA's officer-in-residence program.
9. Explore the possibility of having university professors serve as scholars-in residence at IC agencies.
10. Size the analyst workforce to allow an appropriate percentage of analysts to engage in education and training without causing the rest of the workforce to be chronically shorthanded .
11. Since newly hired analysts often must wait a considerable length of time for their security clearances to be processed, the IC should consider using this time constructively for initial, unclassified education and training.
12. Expand the Intelligence Community Academic Centers of Excellence Program.

IV. Implementation Strategies

Finding #8. Some of the report's recommendations have been identified in previous studies but have not been implemented. This is due to resistance from within the IC. Strong resistance to this report's recommendations also should be expected, making it critically important to devise appropriate implementation strategies and detailed action plans to guide the process and maintain continuing pressure for change.
Recommendation: Develop certain report recommendations in greater detail.
1. Study the broader trends and activities that offer opportunities for improving analytic processes.
2. Research the relationship between collectors and analysts to identify additional ways to improve the analytic enterprise.
3. Perform additional research to obtain information concerning how analysts differ in terms of their particular disciplines and skill sets, as well as the unique problems they face.

4. Further develop the concept of "intelligence analyst professional." It is at the heart of the report's recommendations and should be examined in all its dimensions to maximize the utility of the concept.
5. Conduct further research to identify best practices for constructing a center act as a clearinghouse for new ideas, a means to test promising concepts, and a repository and distribution point for lessons learned.
6. Perform additional research to develop an appreciation for the barriers to outreach that exist outside the analytic community.
7. Study the reasons why past initiatives to improve intelligence analysis were not implemented so that past mistakes can be avoided.
8. Conduct further research to identify best practices in hiring and promotion practices throughout the IC.
9. Conduct a study to identify the actual number of analysts who would be affected by the report's recommendations so that budgetary implications can be identified and analyzed.
10. Further develop the concept of standardized career paths within the analytic community to enable human resource departments to begin constructing prototype models.
11. Research alternatives to using volume of production as the principal metric for assessing performance in the analytic community.
12. Develop recommendations concerning exactly how the National Intelligence University System would coordinate an IC-wide training and educational effort.
13. Several recommendations can be developed further by using current IC data about recent performance.

Finding #9: Additional legislation is not necessary to implement the report's recommendations.
Recommendation: Implement the report's recommendations using existing lines of authority within the IC.
1. The DNI is empowered to bring about needed change in the IC's approach to the analytic enterprise, but strong leadership will be required to overcome expected resistance in many parts of the IC.
2. Use of an outside organization serving as honest broker to monitor implementation has distinct advantages over depending on the IC to monitor its own progress.