Professionalizing Intelligence Analysis

James B. Bruce
RAND Corporation, jbruce@rand.org

Roger George
Occidental College, rzgeorge@gmail.com

Professionalizing Intelligence Analysis

Abstract

This article examines the current state of professionalism in national security intelligence analysis in the U.S. Government. Since the introduction of major intelligence reforms directed by the Intelligence Reform and Terrorism Prevention Act (IRTPA) in December, 2004, we have seen notable strides in many aspects of intelligence professionalization, including in analysis. But progress is halting, uneven, and by no means permanent. To consolidate its gains, and if it is to continue improving, the U.S. intelligence community (IC) should commit itself to accomplishing a new program of further professionalization of analysis to ensure that it will develop an analytic cadre that is fully prepared to deal with the complexities of an emerging multipolar and highly dynamic world that the IC itself is forecasting. Some recent reforms in intelligence analysis can be assessed against established standards of more fully developed professions; these may well fall short of moving the IC closer to the more fully professionalized analytical capability required for producing the kind of analysis needed now by the United States.

Introduction[1]

Since the introduction of major intelligence reforms directed by the Intelligence Reform and Terrorism Prevention Act (IRTPA) in December, 2004, we have seen notable strides in many aspects of intelligence professionalization, including analysis. But progress is halting, uneven, and by no means permanent. To consolidate its gains—and if it is to continue improving—the U.S. intelligence community (IC) should commit itself to accomplishing a new program of further professionalization of analysis. While the progress made in the decade since the passage of IRTPA is notably encouraging, we believe it will fall well short of developing the kind of analytic cadre that will be needed to deal with the complexities of an emerging multipolar and highly dynamic world that the IC anticipates it will be facing.[2]

When recent reforms in intelligence analysis are assessed against established standards of more fully developed professions, it is clear that a fully professionalized analysis capability remains a distant goal. This article assesses U.S. intelligence analysis as a nascent profession against other more fully developed professions. It argues for an intensified and sustained effort to emulate key criteria and rigorous standards that have proven effective in the professionalization of other disciplines. While the focus here is on intelligence analysis for national security, some aspects are also relevant to analysis in law enforcement, competitive intelligence for the private sector, and possibly for other nations whose intelligence services operate similarly to those in the United States.

Professionalization of analysis, toward which many practitioners have spent the past decade working, has become a major contributor to both the quality and utility of analysis. Signs of progress can be seen in nearly all the major characteristics of what constitutes a true discipline. There have been impressive strides in analytic tradecraft (the methodology of intelligence

---

[1] The views expressed here are solely those of the authors and do not reflect the views of the Central Intelligence Agency or any other U.S. Government organization. This article has been reviewed by the CIA's Publication Review Board to ensure it contains no classified information. The authors thank the *Journal*'s anonymous reviewers for their for their incisive and constructive critiques that much improved this submission. This article is based on conclusions reached in Roger Z. George and James B. Bruce (eds.), *Analyzing Intelligence: National Security Practitioners Perspectives*, 2nd ed., (Washington, D.C.: Georgetown Univesrsity Press, 2014), especially chapter 20.

[2] National Intelligence Council, *Global Trends 2030: Alternative Worlds* (Washington, D.C.: Director of National Intelligence, December 2012).

1

analysis), intelligence training and education, community-wide knowledge management, and analytic standards. Indeed, professionalization is continuing and perhaps even accelerating in some areas. Although this progress remains uneven across the U.S. intelligence community, recent milestones are real pace-setters:

- The National Intelligence University (NIU)—once only a virtual one— is now a bricks-and-mortar institution operated by the Defense Intelligence Agency. Shortly moving to Bethesda, Maryland with plans for program expansion, NIU has incorporated a variety of accredited degree programs previously offered by the National Defense Intelligence College.[3]

- Until recently, the Office of the Director of National Intelligence (ODNI) has offered sound introductory intelligence analysis training to analysts across the community. This has been particularly important for standardizing analytic tradecraft and standards across the IC, and for smaller and more resource-limited agencies not able to provide it for themselves. (IC-sponsored analyst training has recently suffered cutbacks due to budget pressures).

- The creation of the I-Space has facilitated collaboration and the Library of National Intelligence (LNI) has begun the cataloguing, sharing, and retrieval of intelligence-based information.[4]

- Some agencies have begun advanced intelligence tradecraft training and specialization, which in some cases suggests a step toward certifying analysts as being eligible to enter a more selective group of senior analysts whose skills have been demonstrated as fully proficient.

- The development of specific standards for analyst competencies in core, tradecraft, and subject matter expertise is recently underway

---

[3] A brief summary of NIU and major agencies' analyst training programs is found in Mark M. Lowenthal, "The Education and Training of Intelligence Analysts," in George and Bruce (eds.), *Analyzing Intelligence*, 2nd ed. (Washington, D.C.: Georgetown University Press, 2014), pp. 305-306.

[4] See Thomas Fingar, "Building a Community of Analysts," in George and Bruce (eds), *Analyzing Intelligence*, 2nd ed., 2014, chapter 17, for a survey of recent DNI-driven accomplishments in IC analysis.

within the ODNI, DIA, and the law enforcement community, an important prerequisite to anticipated analyst certification.[5]

As the intelligence community has moved forward with such reforms, the debate over the meaning and significance of "professionalization" has progressed as well. Scholars such as Stephen Marrin have articulated that practitioners of intelligence analysis have not moved quickly enough to adopt needed characteristics of the legal or medical professions. Moreover, he rightly laments the gap between these practitioners and intelligence studies scholars, which prevents practicing analysts from learning from the hard-won lessons gleaned from serious historical study of past intelligence operations and assessments.[6]

Is Intelligence Analysis a Discipline? [7]

Certainly the growth of intelligence studies has been remarkable. One measure is the annual International Studies Association meeting, which in 2014, for example, featured nearly 20 panels focused on all aspects of intelligence, with representation from U.S. and foreign intelligence services as well as many university scholars.[8] Other practitioner-scholars have also remarked on the need to move further along the path of professionalization if analytic performance is to improve. For example, some practitioners have argued that intelligence analysis, in comparison with medicine and law, is a nascent profession that will require time to develop key attributes such as a distinct literature, certification, governing boards, and knowledge

---

[5] Most progress has been made in analytic tradecraft; see ODNI Intelligence Community Directive 203, 2 January 2015 (first issued in 2007); also ODNI, ICS 610-7, Oct. 2010. See also the Department of Justice, *Law Enforcement Analytic Standards*, April, 2012. These standards are largely the product of the International Association of Law Enforcement Intelligence Analysts (IALEIA), an important new professional organization. Within the Intelligence Community, the Director of National Intelligence issues broad Intelligence Community Directives on how agencies should conduct their activities across a wide array of intelligence functions. These ICDs are published throughout the community and used by individual agencies as guidance for their own activities. Mostly accessible as unclassified, they are compiled on the DNI website, available at: *http://www.dni.gov*.

[6] Stephen Marrin, *Improving Intelligence Analysis: Bridging the Gap between Scholarship and Practice* (New York: Routledge, 2012), pp. 4-5. A related study addressing private sector competitive intelligence is Craig S. Fleisher, "Are Competitive Intelligence Practitioners Professionals?" in Craig S. Fleisher and David L. Blenkhorn (eds.), *Controversies in Competitive Intelligence: The Enduring Issues* (Westport, CT: Praeger, 2003).

[7] See Rebecca Fisher, Rob Johnston, and Peter Clement, "Is Intelligence Analysis a Discipline?" in George and Bruce (eds.), *Analyzing Intelligence*, 2nd ed., 2014, chapter 4.

[8] See the International Studies Association website, available at: *http://www.isanet.org/Conferences/Toronto2014/Program.aspx*.

3

management.[9] However, professionalization of intelligence analysis entails more than subject matter expertise, but rather involves good understanding of the operation and practice of intelligence itself, including the collection requirements and exploitation process, the epistemology and tradecraft required for accurate and reliable analysis, and the national security decisionmaking process which intelligence analysis can ably support—or entirely miss the mark.

A key premise is that professionalization will improve the quality and relevance of intelligence. Marrin rightly argues that the lack of professionalization has resulted in wide variation in analytic competence and an overall diminution in the role that analysis could play in decision-making.[10] Studies of intelligence failures also highlight impairments caused by collection gaps, foreign denial and deception, misinterpretation of information, and faulty analytic assumptions. Inadequate warning and feeble or off-target analysis provided to decisionmakers is the result.[11] These sources of intelligence failure often lie at the heart of why policymakers can feel justified when they disregard or dispute analytic judgments.   They also imply major professional deficiencies in the conduct of analysis. The reported release of a recent National Intelligence Estimate on Afghanistan – described as markedly gloomy in the press – was greeted by some White House officials as simply "a view," and not necessarily the determining one.[12] This suggests less than full confidence in the professionalism of intelligence among the most important users of its products.

Analysis for Decision Advantage

Solid and insightful intelligence analysis can provide support to decision-making of national leaders and operators in the field who execute our diplomatic and military strategies. Decision advantage—that is, the ability to give the United States an information advantage to enable the use of national power more quickly and wisely than others—has become even more important in today's globalized world of 24/7 communications and interdependency.[13] As intelligence analysts become more proficient in

---

9 Fisher, Johnston, and Clement, cited in note 7 above.
10 Marrin, *Improving Intelligence Analysis*, p. 132.
11 See George and Bruce (eds.), *Analyzing Intelligence*, 2nd ed., 2014, chapter 10.
12 Ernesto Londono, Karen DeYoung, and Greg Miller, "Afghanistan Gains Will be Quickly Lost After the Drawdown, US Intelligence Warns," *Washington Post*, December 28, 2003.
13 See Jennifer Sims, "Decision Advantage and the Nature of Intelligence Analysis," in the *Oxford Handbook on National Security Intelligence,* (ed.) Loch Johnson (New York: Oxford University Press, 2010).

4

providing informed judgments and reliable forecasts, they become more indispensible in directing the smart use of U.S national power. Senior commanders have come to rely on intelligence analysis as being an integral part of their understanding the physical as well as virtual battlefields. Likewise, national level leaders need analysis to comprehend not only the "facts" as we know them, but also to assess uncertainties of complex international developments so they can carefully weigh the risks of taking or rejecting specific actions. Increasingly, as the United States has to make resource choices on what military strategies and programs to develop, which diplomatic crises to engage in, or what contingency plans to prepare, intelligence can help to assess the urgency, signficance, and consequences or risks those decisions might entail.

Analysis for the 21st Century

Policymakers are likely to become even more reliant on intelligence as their decisions become more complex, with more second- and third-order consequences that are harder to foresee. But good analysis will be challenged by declining resources and growing complexity of the problems that policymakers will have to face:

Fiscal Constraints

Winston Churchill once said: "We have run out of money, so now we have to think." As is evident in recent American fiscal and budgetary crises, we are in an era when resources will be more constrained than the previous decade of rapid budget growth. Plans are underway to reduce spending for the coming years that may jeopardize analysis. The total intelligence budget has decreased two years in a row, falling four percent overall.[14] Additional cuts will surely continue.

Traditionally, training and outreach efforts are routinely treated as expendable, rather than reducing other "mission essential" operations. However, we believe that improved analysis based on more professional training and education as well as interaction with outside scholars and experts can be a key force multiplier for reduced U.S. military and foreign affairs budgets.

---

[14] Pam Benson, "Intelligence Budget Continues to Drop," *CNN Security Blog*, October 30, 2012, Testimony of James Clapper Before the Congress, available at: *http://security.blogs.cnn.com/2012/10/30/intelligence-budget-drops-for-first-time-since-911/.*

Shifting Global Power

Another major challenge facing the United States is the dynamic international environment. Chairman of the Joint Chiefs of Staff General Martin Dempsey has described the future as an "increasingly competitive environment" marked by persistent conflict.[15] DNI James Clapper's 2013 worldwide brief to the congressional oversight committees likewise stressed the unpredictability of the current environment, and the DNI's 2014 *National Intelligence Strategy* described the security environment as complex and evolving, with "extremely dangerous, pervasive, and elusive threats."[16] Reinforcing this, the National Intelligence Council's (NIC) *Global Trends 2030* describes our future world this way:

> "The diffusion of power among countries will have a dramatic impact by 2030. Asia will have surpassed North America and Europe combined in terms of global power, based upon GDP, population size, military spending, and technological investment. China alone will probably have the largest economy, surpassing that of the United States a few years before 2030…. The shift in national power may be overshadowed by an even more fundamental shift in the *nature* of power. Enabled by communications technologies, power will shift toward multifaceted and amorphous networks that will form to influence state and global actions. Those countries with some of the strongest fundamentals—GDP, population size, etc.—will not be able to punch their weight unless they also learn to operate in networks and coalitions in a multipolar world."[17]

A nation's learning curve—aided by intelligence—will help establish its place in the international pecking order, and do much to shape its relative security amid turbulence. Both the topics and types of analysis will have to shift.

---

[15] Martin Dempsey, *Chairman's Strategic Direction to the Joint Force,* February 2012, p. 6, available at:
http://www.public.navy.mil/donhr/Documents/Strategic%20Plans/CJCS%20Strategic %20Direction%20to%20the%20Joint%20Force.pdf.
[16] Office of the Director of National Intelligence, James Clapper Testimony Before the Senate Select Intelligence Committee, March 5, 2013; *The National Intelligence Strategy of the United States of America*, Sept. 18, 2014, p. 4. Both available at *http://www.dni.gov.*
[17] National Intelligence Council, *Global Trends 2030: Alternative Worlds*, December 2012 (Washington: Director of National Intelligence), Executive Summary, iii.

Additionally, so-called "wicked problems" such as global climate change, crisis-driven mass migrations, healthcare, pandemics, nuclear weapons, human and drug trafficking, and social injustice will become routine analytical tasks. But their dimensions are poorly defined, nearly impossible to readily solve without a change in attitudes by affected populations, and have interdependencies with other critical issues. Such daunting problems as these will demand higher-order intelligence analysis. Satisfying increasing intelligence demands cannot be accomplished without greater professionalization and expertise building over the coming decade.

Analysis and the Metrics of Professions

Attributes of Established Professions

Established or more mature professions such as law and medicine, as well as others such as engineering, accounting, airline pilots, and career military service (the "profession of arms") demonstrate certain attributes that imbue their practice—the work of their practitioners—as "professional." Six of the most important attributes are summarized below.[18] They are important for their heavy integral presence in mature professions, but relative underdevelopment in intelligence analysis:

1. ***Governing bodies that set quality standards for professional performance*** of their members, for example, the American Bar Association and American Medical Association whose members cannot practice without association membership, or perform at substandard levels and still retain membership.

2. ***Rigorous education and continuous training*** for practitioners throughout the duration their professional practice to acquire, sustain, and refine their knowledge and skills.

3. ***Certification requirements*** that limit admission— that is, prevent their employment—to only those who qualify, and also levy professional growth requirements

---

[18] Fisher, Johnston, and Clement identify most of these attributes, which together constitue a "discipline," in law, medicine and library services, citing extensive literature documenting the development of these disciplines, pp. 57-66. Marrin's half-dozen attributes of professionalization mostly correspond with ours, but he also includes human capital management and ethics. Marrin, *Improving Intelligence Analysis*, pp. 134-138. See also the standard Ernest Greenwood, "Attributes of a Profession," *Social Work* 2 (July 1957): 45-55; cited in Lowenthal, in *Analyzing Intelligence*, 2nd ed., 2014, p. 317.

7

on career practitioners in order to continue their practice.

4. ***Knowledge management*** systems to organize information in their domains such as West's Key Number system for lawyers, the National Library of Medicine and the Medical Subject Heading index for MDs, and Dewey's Decimal System for librarians, and to facilitate information retrieval and expansion.

5. Systematic, rigorous, and ***reliable research methods*** to build and advance durable knowledge. And

6. Institutionalized **lessons-learned** or **best practices** studies conducted to support continuous organizational learning.

Assessing Analysis

How well does intelligence analysis stack up when assessed by these attributes? In general, initial steps are promising, but preliminary and unsteady. Specifically, while we can see notable progress in the direction of professsionalization as identified in the attributes of the more mature professions cited above, it is also clear that intelligence analysis remains some distance from professional maturity as seen in such professions as law and medicine. What follows are some notable highlights and shortfalls on the path to professionalizing analysis:

1. Governing bodies: The ODNI has begun to establish IC-wide standards in Intelligence Community Directives ICD 203 (analytic standards) and ICD 610 (competencies for professionals), and in Intelligence Community Standards ICS 610-7 (needed competency standards for analysts). However, the DNI has no real authority to set or enforce IC-wide standards. In practice, analysts' governing bodies are their agency or component management chains. In general, most agency leadership and management chains seem discernibly more interested in short-term analytic production than in longer-term development of analytic professionalization. A commited leadership would have to make professionalization goals specific, and implement metrics or other measures of effectiveness to assess and monitor progress toward that goal. Promotion boards would have to include senior trainers or managers more focused on technique and insight than on production files. An IC-wide issue, professionalization will require a substantial commitment not only

8

within the ODNI, but also from intelligence managers in the agencies, and at all levels, from first-line managers through the senior ranks.[19]

2. Training and education: The new National Intelligence University (NIU) represents a promising start, but little available evidence suggests any connection between curricular development and analytic professionalization. To our knowledge, there is little specific "analyst" track of courses with established standards designed to achieve a specific level of analytic sophistication.   Individual agency-developed training programs vary enormously in scope, depth, duration, and quality; some agencies support new analyst training for several months and some shorter mid-career courses in advanced analysis that qualify analysts for more senior positions, while other agencies offer almost none or very tailored training that does not directly support a well-rounded, "complete" analyst. Such professional development seems at best implicit and ad hoc.

3. Certification: The IC has barely begun in this area. The ODNI could take the lead in both certification and in developing an analytic governing body at the IC level, but centralization may be controversial. Some agencies are entertaining the concept of analyst certification, but rather than having it done independently, there should be some overall, IC-wide, direction given to agencies to set and meet some common standards. Entrance to the analytic cadre, like any other intelligence occupational speciality, requires security certification. But competency or standards in the performance of analysis are not yet tested in the IC, and no real certification process beyond routine and agency-specific periodic performance appraisals affects entrance to or ability to stay in the analytic ranks.[20]

4. Knowledge Management: The National Intelligence Library (NLI) represents a tentative but promising start, but security classification levels and need-to-know criteria impose daunting limits on information access and retrieval by analysts. Comprehensive knowledge management in intelligence

---

[19] The role of management in analysis, especially its professionalization, is central, understated, and little understood. See John A. Gentry, "Managers of Analysts: The Other Half of Intelligence Analysis," *Intelligence and National Security*, 2014; available at: *http://dx.doi.org/10.1080/02684527.2014.961244.* See also John C. Gannon, "Managing Analysis in the Information Age," in George and Bruce (eds.), *Analyzing Intelligence: Origins, Obstacles, and Innovations* (Washington, D.C.: Georgetown University Press, 2008), chapter 13.

[20] The International Association for Intelligence Education (IAFIE) has begun an effort to certify courses and programs in training and education, but not practicing analysts. See the IAFIE website at: *http://www.iafie.org*.

can never be fully implemented similarly to unclassified disciplines such as law or medicine, and the Snowden and Manning disclosures highlight the risks of internal repositories to the insider threat, and make advances more difficult. Better use of unclassified work by intelligence scholars as well as additional leeway in reaching out to non-government experts would assist in having more readily available resources for analysts.

5. Research methods: Major strides in the tradecraft, i.e., methodology, of intelligence analysis have been made since 2000, especially in the development and training of structured analytic techniques, and in growing acceptance of their use in finished intelligence products. The use of tradecraft groups to support line analysis is also now gaining acceptance in some agencies, and others have expressed growing interest in this form of methodological advancement. Still, current training in analytic methods reflects a largely cookbook approach to practical application (how to do it). The IC should move toward training programs that develop a deeper understanding of the epistemological rationale for such tradecraft. It should also bring into play the power of social and behavioral theories, now largely absent in intelligence analysis. Such theories can highlight hidden relationships, generate untested hypotheses, and help connect intelligence studies with other fields of social and political inquiry in building knowledge and understanding.[21]

6. Learning organizations: Organizations must learn just as individuals do. Lessons-learned to identify best practices (and prevent bad ones) is only recent to the IC (CIA's formal effort began only 10 years ago), but this effort appears to have not yet reached critical mass. It has not yet been systematically adopted throughout the IC, nor has its potential value even begun to be realized by agencies. Courses in intelligence successes and failures have been offered over the years, but any "lessons" are still largely implicit and applied superficially to analysis, if at all, and are not yet institutionalized in a way to support learning organizations. Despite the classified publication of several relevant studies of analytic failures and successes, few practicing analysts seem aware of lessons learned from such studies of the successes and failures of their predecessors in their own agencies much less in others. More importantly, there is little research

---

[21] See especially the two volume study produced by the National Academy of Sciences, National Research Council, *Intelligence Analysis for Tomorrow* (Washington, DC: National Academies Press, 2011); and Baruch Fishhoff and Cherie Chauvin (eds.), *Intelligence Analysis: Behavioral and Social Scientific Foundations* (Washington, DC: National Academies Press, 2011).

conducted routinely of what "best practices" were employed or should have been. The fledgling Lessons Learned center at CIA, for example, has focused far more on operational studies than on analytic ones. In general, the Community is hard pressed to identify proven "best practices" learned from past analyses as a guide to improving future analysis. Additionally, periodic "analytic line reviews" which some agencies have tried in a limited way also have lessons-learned value for both substantive and methodological evaluation of a body of analytic reporting on particular topics or issues.

Next Steps in Professionalization

Given the present state of intelligence analysis as briefly characterized here, and guided by both the attributes of established professions and the notable gaps they highlight in the emerging profession of analysis, we suggest the following five recommendations as measures that can help reduce those gaps. Implementation of the following five recommendations can help appreciably in advancing the goal of professionalization of intelligence analysis.

Recommendation 1: A Joint Professional Analysis Education (JPAE) Program

Maximizing the contribution of intelligence analysis to informed national security policies will demand that a much higher priority be placed on professionalization than presently exists across the intelligence community. Not only must current training and education programs be protected from ongoing budget cuts, but new and better integrated programs will be needed. Something akin to the Joint Professional Military Education (JPME) system of training and certification should be considered as a model for fully professionalizing the cadre of intelligence analysts.[22] Many of the current programs, and indeed the expansion of the National Intelligence University campus (and its relocation to Bethesda, proximate to Washington, D.C.), would lend themselves to such a long-term objective. Unlike the profession of arms, the profession of analysis has no progressive set of training requirements through which all future senior analysts must move. It would be worth considering how the ODNI could develop such a career-long program of training and education that would both develop individual analysts' skills and expertise but also create more of a joint analytic culture.

---

[22] See Anne Daugherty Miles, "Thinking Holistically: PIE in the Sky?" a 2012 IAFIE award -winning paper, available at:
http://www.iafie.org/resource/resmgr/2012_essay/miles_2012_iafie.pdf.

Joint Professional Military Education: A Possible Model?

The elaborate system of Joint Professional Military Education (JPME) is built around the "profession of arms," which began as in the early 1800s, with the establishment of the Military Academy at West Point (1802), the Naval Academy (1845) and later the Naval War College (1884) and the Army War College (1901). In the twentieth century it blossomed to include other senior service colleges, along with specialized command and staff colleges.

As a result of studying the lessons from World Wars I and II, and after considerable inter-service consideration, the concept of *joint* education rather than single-service education took hold. After the Second World War, General Eisenhower and other wartime flag officers determined that there was a need for advancing senior officers from all the services to be educated together and develop more interagency cooperation, and thus, under the auspices of the Joint Staff, the National War College was founded in Washington D.C. in 1946. Since then, the JPME programs have expanded well beyond military officers to include senior civilians in the national security enterprise as well as senior officers from foreign militaries. Many have become fully accredited degree-granting institutions.

The military leadership has recognized the need to develop professional military skills throughout an officer's career, from basic training courses to specialized disciplines (infantry, artillery, air, naval, amphibious, and other operational specialties) and ultimately to senior-level education that prepares officers for national-level responsibilities. At the earlier stages of an officer's career, "skills" training is emphasized; however, as the officer is promoted, the JPME objectives shift to "educating" the officer into the art of national security strategy development, interagency cooperation, and multinational operations. These steps in the JPME ladder are considered prerequisites for promotion to higher commands and ultimately to national-level decision-making. Indeed, the Goldwater Nichols Military Reform Act of 1986 makes joint professional military education a statutory requirement for promotion to flag-officer rank.

In the course of a 20-year career, an officer can minimally assume two-to-three years' full-time equivalent of training and education, often more. At particular ranks, they undergo specified types of training and education, typically required for further advancement. To be considered for promotion to General or Admiral, officers must move out of the field to gain an understanding of the broader national security context in which their missions have to be performed, as well as to comprehend the roles and missions of other civilian departments and agencies with which they will have to work. The stress on "jointness" – especially since the Goldwater-Nichols reforms – has become accepted practice, with other civilian agencies also recognizing the importance of their senior officers gaining joint duty experiences on the way to executive-level positions of responsibility.

Source: Cynthia Watson, Military Education: A Reference Handbook, 2007

In "jointness," we advocate a common understanding of the analytic profession, its attributes, and its standards across the entire IC, analogous to the earlier impact of Goldwater-Nichols on the military services and the specific intent of IRTPA—not force a homogenization of all analysts that removes the unique skills and work practices required for different agencies.

Such a JPAE system need not slavishly copy all aspects of the joint professional military education system, but it should strive to integrate the varous training programs directed by individual agencies and establish some common standards for the training each agency gives its analysts. Accordingly, as analysts progress through their careers, different training and education goals could be set; at various points in their careers they would be assigned to complete those programs in order to advance further in their chosen analytic track.

For example, an analyst entering on duty might be expected to take a basic analysis course, offered by an individual agency or, if not available there, then by the ODNI. Having completed this entry-level basic training, the analyst might then work on an account for a period of time, before next being expected to take additional full-time training. We believe there are several areas, where additional training might be considered, which we touch on briefly:

Basic Understanding of Epistemology. Knowledge-building requires that analysts understand the basis for what constitutes reliable knowledge or information.[23] Postmortems of intelligence failures—highlighted most recently by the 2002 Iraq WMD NIE—demonstrate that analysts often rely too heavily on unsubstantiated information, merely because it came from what had been thought to be either authoritative sources or because it fit a current mind-set. Likewise analysts' judgments can be swayed by the authority of their more senior managers or the organization's current assessment of a problem (the "analytical line"), without considering whether such judgments are based on something more empirically or scientifically based. Too few analysts have been schooled in the nature of knowledge or think about the basis on which they are reaching conclusions. Hence, concerted attention to basic epistemology that underpins the analytic profession should be a foundational element of every analyst's training.

---

[23] See James B. Bruce, "Making Analysis More Reliable: Why Epistemology Matters to Intelligence," in George and Bruce, *Analyzing Intelligence,* 2nd ed., 2014, pp. 135-155.

Science-based analysis. As part of this training, analysts should be exposed to the power of a more science-based production of knowledge. The only proven method of correcting errors in judgment is one which relies on hypothesis testing, validation of information, transparency, and peer review. Such features afford science uniquely self-correcting techniques. The trend toward using Structured Analytic Techniques (SATs) can not only improve relibility of analysis, but also accelerate the analytic profession's advancement to becoming a true discipline. Hand-in-hand with a basic understanding of epistemology, the further development of an accessible repository of organized, searchable, and retrievable information will facilitate a more complete and reliable knowledge-base from which lessons can be learned by future generations of analysts.[24]

Analysis and Collection Disciplines. A vital area for analyst training will provide a deeper understanding of the collection sources on which intelligence judgments rest. As suggested above, too few analysts truly understand how they know what they know. Most are limited by inadequate understanding of the methods underlying HUMINT, SIGINT, and GEOINT. Too few analysts invest the time needed to grasp the complexities of these disciplines or appreciate the strengths, weaknesses, or biases that such information sources bring to the analytic process. More analysts should spend time working with the major collection agencies. Additionally, training is needed on how collection systems work, how analysts can best use them, and how much confidence to place in the raw intelligence reporting that each produces.

Basic Warning Training. Numerous investigations and postmortems have highlighted the classic intelligence warning failures that analysts have encountered. Yet training and education on warning has not kept pace with the expanding scope of warning problems, nor the recent decentralization in how the warning function is conducted. Too few analysts understand warning as a principal responsibility, nor understand the warning process and perils detailed in the many studies conducted on intelligence failures. At a minimum, basic analytic training should include a focus on the warning function, greater understanding of how adversaries might employ denial and

---

[24] This progress will, however, be slowed by the lack of a developed taxonomy of intelligence topics and the multiple layers of classification and clearance requirements that are part of a "need to know" intelligence culture. More efforts on these fronts will also be needed.

14

deception, and best practices for communicating warning to the broader intelligence community and policymakers.

Expertise-building. Another step in an analyst's career-long training should be expertise-building, clearly an important theme in DCIA Brennan's proposed reorrganization emphasizing Mission Centers. Fewer analysts today are hired at the Ph.D. level, though most have had some courses on their regional, country, or functional accounts as part of undergraduate or master's level education. Some agencies currently offer time-off or tuition-reimbursement for master's level graduate studies. This approach is haphazard and does not build expertise in a systematic or planned way. A more regulated educational program of subject matter expertise would expose analysts to new analytic methods as well as to leading experts in their fields outside the intelligence community.

Senior Service College Experience. A final step in the JPAE might then be participation in a year-long CAPSTONE-style course at a senior service college, or at an NIU-equivalent program for rising senior analysts. These programs are "joint" by their very nature, as they bring together mid-career military and civilian officers from services, the national security agencies, and the intelligence community, whose parent agencies expect might become future leaders of their instituions. This year-long exposure to the "whole-of-government" system would give intelligence analysts an entirely different perspective on how they can best serve warriors, diplomats, and law enforcement officials as well as the NSC and other very senior customers. An NIU-equivalent program bringing together officers from across the IC would have the benefit of creating a more common culture and networks of senior officers now more prepared to work collaboratively.[25]

Recommendation 2: Standardize and Test Analytic Methods

Were a JPAE to be established, it would also need to establish a more uniform and recognized set of training objectives for all analysts. One of the key attributes of the analytic profession is "how we do our work." Analytic methods, techniques, and skills are often what set analysts apart from subject

---

[25] In the military system, a CAPSTONE course is offered to those officers selected as flag-officers, who will need to understand higher-level strategy and will be operating at the national-level. The course is of shorter duration (roughly six weeks) than longer-full time service college programs, is led by serving and former three-star officers, and each class is much smaller, facilitating more of a seminar-style of learning. The State Department once had a similar program, called the Senior Seminar, which drew in promising senior foreign services officers as well as select officers from the intelligence community and the military.

matter experts outside the intelligence community. Many structured analytic techniques already exist[26] and they should become more utilized across the intelligence community. Structured analytic techniques have also been developed for tactical-level military appllictions.[27] This is happening—slowly and unevenly—but it could be further encouraged if the ODNI were to go beyond the community-wide standards now in ICD 203 by further developing structured analytic tradecraft curricular materials, and courses for those agencies not able to support their own analysis training. Workshops in using specific techniques should be ongoing, with the development of case studies on specific examples of how a Structured Analytic Technique (SAT) was used, with what success—or failure—and why. Building up a body of SAT case studies would not only be a good training tool, but it would also permit more evaluation of the techniques themselves. Indeed, one of the current weaknesses of using SATs is that there is almost no research on whether these techniques result is more accurate judgments and forecasts, or even more insightfiul or useful analysis.[28] It should, therefore, be the goal of the ODNI to support more research into effective analytic methods, more documentation of their utility and limitations, and consideration of how to further expand the set of analytic methods used by analysts.

Recommendation 3: A More Robust Lessons-Learned Capability

The currently modest Lessons Learned capability that CIA and the DNI have developed at CIA's Center for the Study of Intelligence, along with DIA's similar Knowledge Laboratory, have not been widely emulated elsewhere in the IC. And none has the stature of the lessons-learned organizations in the military. It is our distinct impression that this emerging capability has been hugely underutilized for learning about and improving analysis. Thus, there would seem to be ample opportunities for a "Lessons Learned" library of analytic cases.[29] Case study writers could be assigned to an analytic team focused on a particular analytic challenge. The case writers would observe the analytic process from beginning to end, noting how the analysts collaborated, what analytic methods they employed, how they reached judgments, and

---

[26] See Richards J. Heuer, Jr., and Randolph H. Pherson, *Structured Analytic Techniques for Intelligence Analysis* 2nd ed. (Washington, D.C.: CQ Press, 2015); and their related chapter in George and Bruce (eds), *Analyzing Intelligence*, 2nd ed., 2014, pp. 231-248.
[27] See Stewart, Cukor, Larson, and Pottinger, in George and Bruce (eds.), *Analyzing Intelligence,* 2nd ed., 2014, chapter 15.
[28] See Marrin, *Ibid,* pp. 24. A forthcoming study by the RAND Corporation identifies arguments for and against the use of SATs and acknowledges the difficulty of validating them. Based on a pilot study, its prelimimary assessment generally finds that improved analysis can result from their use.
[29] See Sarah Miller Beebe and Randolph H. Pherson, *Cases in Intelligence Analysis: Structured Analytic Techniques in Action*, 2nd ed. (Washington, D.C.: CQ Press, 2014).

16

finally how they delivered their findings to policymakers. They could also follow-up and record the analytic effort's accuracy and impact, and also collect whatever feedback policymakers might be willing to provide. This would be far superior to the past attempts to "evaluate" the quality of a product's analytic tradecraft after the fact, or solicit policymakers' general satisfaction levels with analytic support anecdotally and typically long after the policymaker has forgotten a specific analytical product.[30]

Recommendation 4: A New Journal for Intelligence Analysis

Few true professions exist in the absence of true professional journals. New findings, new research techniques, or controversial issues can be aired within a community of practice. Such could exist for the intelligence community as well. The ODNI has made good strides in developing more community-wide data bases of analysis and enabling greater collaboration among analysts across the community. The technology available today makes this much easier both to share as well as retrieve analytic products remotely across both time and distance. The I-Space and Library of National Intelligence analysis are two such examples of what is now possible. No doubt there can be additional such initiatives that further exploit technology to improve these data bases and make them more user-friendly to a larger number of analysts.

Where the intelligence community might devote more attention, however, is in the development of a true "peer review" journal of analytic practices. Sherman Kent spoke of this more than 50 years ago. The closest that the CIA and intelligence community have come to this is the Center for the Study of Intelligence's *Studies in Intelligence.* This quarterly journal, long published in both classified and unclassified issues, has been the principal journal of record of what the CIA and other agencies have learned from their operations and analysis. Owing to its largely military interests and readership, the *American Intelligence Journal*, somewhat like the no-longer-published *Defense Intelligence Journal*, is likely to remain, at least for a while, a less well-known or cited publication. Outside the IC, there are two relevant academic journals that publish articles on a full range of intelligence topics, to include historical cases of operations, analytic issues, historical topics, and intelligence-policy challenges, namely the refereed *Intelligence and National*

---

[30] A notable exception to this "after-the-fact" feedback, is the way PDB briefers daily present intelligence analysis and get new taskings as well as comments on those PDB items. This instant feedback is of course valuable, but seldom can put the contribution of such analysis into a broader context of ongoing support on a particular issue, which is what a case study might do more systematically.

Security and the *International Journal of Intelligence and Counterintelligence.*

While these publications are important to the general field of intelligence, none is fully devoted to the study of analytic methods and practices. Such a journal can become a vehicle for exchanging views on the utility of different forms and methods of analysis, on new analytic challenges, or on important analytic findings and their implications for the intelligence community. This "Journal of Intelligence Analysis" could fill a gap that presently exists, becoming the discussion board for analysts who might take different positions on the utility of certain SATs, or have minority views regarding analytic judgments reached by most intelligence analysts or agencies. The periodic complaint that not enough research has been conducted on the effectiveness of SATs might be better addressed if such a journal were established to encourage analysts to share their own experiences using these methods.

Most logically, such a journal could become part of the newly expanding National Intelligence University. Like the National Defense University which produces a variety of publications, including the *Joint Forces Quarterly*, NIU might direct its own academic press to support journals dedicated to analysis and possibly other fields of specialization. It could be a refereed journal published in hard copy and available on-line, and include blog-like discussions of analytic issues. Additionally, any classified studies that may address how analytic failures can be averted and successes achieved might be declassified to facilitate a wider circulation among uncleared researchers not in the IC whose "outsider" perspectives could bring value to the discussions.

Like the current *Studies in Intelligence*, there would be value in producing unclassified issues in order to expose analysts' views to outside examination and commentary and, fostering outreach, to invite non-official participants into discussions of analysis. One continuing problem for analysis is its insularity owing principally to classification. Having more contact—another form of analytic outreach—with outside experts in both methodology as well as substantive expertise would be a desirable objective of such a journal. It would also support a number of university programs in intelligence studies which are eager to improve their curricula and make their courses more relevant to students aspiring to become intelligence analysts.

18

Recomnmendation 5: Establish Analyst Entry and Certification Processes

Intelligence analysis is an odd profession as it has historically not been one of those "callings" for which students in college take preprofessional (such as pre-law or pre-med) training. Across the country a wide range of courses is offered at both undergraduate and graduate levels on intelligence and analysis. While such offerings fall short of established professional degree programs, IC analysts can still augment their internal training and professional growth through select university curricular opportunities, especially at the graduate level.[31] This "accidental" profession – as one colleague has described it[32]—could benefit if it became more purposeful earlier in an analyst's career development, including in the entry-level requirements as well as the standards one must maintain during in one's career. Given the broad scope of occupational disciplines within professional analysis—military, political, economic, S&T, leadership, and now targetting, to speak of the broader categories—the notion of a single set of preprofessional educational requirements for an incoming analyst is perhaps too narrow.

A successful WMD analyst, for example, might have entered with a degree in chemistry, biology, or even political science depending on which aspects of WMD he or she might be following. However, any analyst expecting to focus on the foreign policy aspects of even a functional issue like WMD should be able to demonstrate an interest, if not a specialization, in national security affairs, foreign countries and languages. So, developing a profile of an applicant who might mature into a successful analyst could include not only their proficiency in their own academic discipline, but also in their general knowledge of the world and their analytic skills.[33] Individual agencies now require online applications, possibly writing samples, and documentation of

---

[31] The International Association For Intelligence Education (IAFIE, cited in note 20) was formed in 2004 bringing together several hundred scholars, practitioners and teachers of intelligence analysis. They represent colleges and universities whose offerings range from a single course on intelligence to a "minor" or "certificate" in intelligence studies. Analysis is often addressed in these programs.

[32] See Lowenthal, "The Education and Training of Intelligence Analysts," in George and Bruce, *Analyzing Intelligence*, 2nd ed., 2014, pp. 304.

[33] To get the right blend of general world affairs knowledge on top of an area specialization, agencies might consider a general "entrance exam" along the lines of the type currently used by the U.S. Foreign Service.

applicants' experience or skills that are appropriate to the analytic profession could support professionalization objectives.

As mentioned above, few entry-level analysts are true "experts" in their fields when they are hired since they are neophytes in the discipline and still have much to learn. Thus, agencies need to know if such applicants have the capacity to deepen their expertise and have sufficient intellectual curiousity and drive that will ensure their success in the future. Some way of measuring such characteristics would be useful.[34] Similar to the Foreign Service, applicants might be asked to take a standardized test to see what prospective analysts know about the world; this might be used in conjunction with any specific academic discipline that they would bring to intelligence analysis. Furthermore, the entrance exam could include questions regarding their research and work styles to give recruiters a better feel for their abilities to conduct research and collaborate in analytic teams.

Testing analysts, once hired, has never really been part of the analytic culture. On-the-job training through "doing analysis" and being observed and evaluated by peers and supervisors has been the sole measure of whether an analyst is progressing in his or her development. This "trial" or "probationary" period of time is used to determine if an analyst has what it takes, but is often fairly subjective. Likewise, many training courses offered by intelligence agencies are still non-graded. That is to say, the analysts typically pass by merely showing up and signing in. There is little effort to determine whether they have learned anything. A more empirical basis for evaluating analysts' proficiency in conducting analysis is now in order.

A first step is to adopt, as military service colleges and military intelligence curricula do, training programs that include evaluation standards. Some have letter grades, while others adopt the philosophy that a student has "met" the standards expected or was "above" or "below" them. Constructing course evaluation standards, which would be included in an analyst's annual fitness report, would incentivize more engagement in training and education opportunities as well as give supervisors a stronger basis for promoting or not

---

[34] One study identifies core competencies for intelligence analysts in four areas: abilities, characteristics, knowledge, and skills. See David Moore and Lisa Krizan, "Core Competencies for Intelligence Analysts at at the National Security Agency," in Russell Swenson (ed.), *Bringing Intellignce About: Adding Value to Information in the U.S. Intelligence Community* (Washington DC, Joint Military Intelligence College, 2002), pp. 81-113; cited in Mark Lowenthal, "The Education and Training of Analysts," in *Analyzing Intelligence*, 2nd ed., 2014, p. 307.

promoting analysts. In skills-based training, there should be a way to measure whether an analyst can actually employ an analytic technique or not; similarly, in more seminar-style courses or simulations, instructors should be able to evalute how well or poorly an analyst contributes, collaborates, and leads in a group setting.

Whatever system of standards is adopted, it should be tied directly to the kinds of tasks analysts are likely to face, and those standards should then drive the development of curricula. Some intelligence analysis schools believe they achieve this by sending "seasoned" analysts to become instructors in their basic analyst courses. However, such analysts may not necessarily be the best teachers, even if they have come from the analytic front lines. Instead, intelligence schools and the NIU should be looking for instructors who have had practical analytical experience but also who are both interested and talented in instructing.

Once a set of standards in both training as well as in analytic performance is well established, a certification program will become more achievable and acceptable. Without micro-managing every agency, the ODNI should be able to articulate basic, journeyman, and senior analyst skill levels, which are also tied to the completion of a comparable set of training and education courses as well as to a production history that reflects progressively more sophisticated understanding of intelligence analysis in the analyst's occupational discipline. To this we add policy and operational impact when the analyst reaches that level.

Conclusions: Analysis and Policy

The foregoing discussion has suggested that professionalizing analysis will advance proficiency, expertise, and ultimately the quality of the analysis we provide to policymakers. Good analysts will have a "prepared mind" to deal with their own cognitive biases, and also pierce the shroud of secrecy and deception which adversaries use to obscure or distort their intentions and capabilities. Preparing both analysts and their organizations to overcome these hurdles to good analysis is the best way to avert new strategic surprises and intelligence failures, and better serve intelligence customers. Since 2001 the United States has not suffered another attack on a scale of 9/11, or an intelligence blunder on the scale of the 2002 Iraq WMD NIE. But there is no guarantee that such events could not occur tomorrow. While most policymakers will take little interest in how the intelligence community

21

prepares itself today, they will most certainly hold analysts and agencies accountable for tomorrow's surprises.

Among the obstacles that face the recommendations urged here, two are prominent: Scarce resources, and organizational cultures which do not fully embrace the more rigorous training and education vital to professionalization. In the first case, budget cuts historically fall hardest on those elements deemed less critical or immediate. Perhaps inevitably, training and education throughout the U.S government—and most assuredly in intelligence—is usually an early victim of downturns in agency budgets, and any monies for new training programs are also slashed in favor of higher priority projects deemed to satisfy immediate needs or have greater visibility with policymakers. Unlike the military services that steadily assign a sizable proportion of their forces to training and education no matter the spikes in manpower demands, intelligence agencies typically view training as a nuisance or distraction rather than an investment in professionalization. In the IC, analysts often cannot be spared for training when they are in short supply relative to perceived insatiable consumer demands for greater production. This subordination of training and education to putative higher priorities is partly explained by organizational cultures which have not traditionally valued education.

Since most analysts come to their jobs with some subject matter expertise, managers often presume they will learn whatever else they need "on the job" just as they did. On-the-job training throughout the IC historically trumps formal training and education both inside and outside the IC. This cultural bias reinforces a sense that training and education is properly a secondary priority. Moreover, agencies' perennial insularity from academe fosters poor understanding about educational opportunities to improve such professional skills as critical thinking and even subject matter expertise. Both of these hurdles, resource competition and cultural resistance, will need to be overcome if the professionalization of analysis is to advance.

In the end, the measure of the analytic profession's performance is assessed by how its results are received and used. We hasten to suggest that without further professionalization the intelligence community is more at the mercy of partisan and bureaucratic politics, which can increase the misuse and misrepresentation of intelligence analysis. The intelligence controversies swirling around the 9/11 attacks and the 2002 Iraq WMD estimate painfully remind us how blame for policy failures can be left at the doorstep of intelligence analysts when their professional skills have been found wanting.

In concert with demonstrated competence levels in the more mature professions such as medicine is the adoption of a code of ethics.[35] Intelligence analysis needs such a code, not only to ensure the integrity and cognitive neutrality of analysis, but also to help shield analysts from later accusations when they've done their professional level best to deliver accurate, reliable, and objective results, no matter the policy stakes involved.

While intelligence failures are sure to happen, the development of more professional skills, and standards of conduct that go with them, will mitigate the chances that poor analytic tradecraft or lapses in integrity will be at the center of those future controversies. As one scholar has put it, politicization of intelligence is most likely to occur when intelligence is important to national security policies.[36] It is a safe bet that U.S. intelligence analysis on the current pressing issues apart from terrorism—e.g., Iran's nuclear program, along with that of North Korea, or the mess in Syria, the Middle East, and indeed, political unrest in any number of key countries—will also remain important and sometimes controversial as those judgments will be based on limited information and shrouded in the secrecy and deception used by such states. Often assessments must rest on important assumptions that analysts are required to make about those foreign actors and their activities. The more transparent, rigorous, and open-minded analysts can be with policymakers about the limitations of their knowledge and insight, the better informed will be U.S. decisions and associated risks regarding those programs.

Similarly, the rise of China—potentially America's next peer economic, if not military, rival—will bedevil U.S. strategists, making them frustrated at times with the limits of what we can know about Beijing's intentions and capabilities. Most likely, the debate over China is going to heat up, placing intelligence at the center of those debates over the proper U.S. response (containment, engagement, or something inbetween). Thus, adopting the highest professional standards for analysis, maintaining analytic integrity, and being as candidly self-critical of our performance as our critics can sometimes be will help safeguard the intelligence community's credibility with the American public and future administrations. The future is too uncertain and too important to expect anything less from our intelligence community.

---

[35] Marrin, *Improving Intelligence Analysis*, 129.
[36] Joshua Rovner, *Fixing the Facts: National Security and the Politics of Intelligence* (Ithaca, NY: Cornell University Press, 2011).

23