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Academic Intelligence Programs in the United States: Exploring the Training and Tradecraft Debate

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Academic intelligence programs in the United States have grown markedly in the past 15 years. Their value to the U.S. intelligence community (IC) has received some attention in the literature, as has the role of training and tradecraft in those programs. The inclusion of such content has been identified and characterized as a new function of U.S. higher education in support of intelligence. Varied but limited views have been offered on the appropriateness of this sort of instruction in academic programs, a part of the value-added these programs may offer. To address this gap, we interviewed 10 intelligence educators and program directors so that a more inclusive picture of views and practices could be sketched. With their input, which certainly demonstrated variation, and consideration of current IC practice, we explore what facets of training and tradecraft can be appropriate for academic programs and offer recommendations accordingly. The article concludes that the delineation between intelligence education and training may not be so stark, largely because of the educational and social science underpinnings of analytic tradecraft and competencies, as well as various issues in IC training and tradecraft. By better connecting professional practice with social science foundations, academic intelligence programs can help create a better transition from education to training.

Key words: *intelligence education, intelligence analysis, training, tradecraft, professionalization*

Introduction

In the past 15 years, the number of civilian U.S. intelligence degrees has grown tenfold to roughly 30 programs along with dozens of minors and certificates. Before the establishment of these programs, would-be intelligence practitioners tended to come from political science, international affairs, history, regional studies, and other liberal arts programs. Many still do, which points to a key question in the

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[1] For a discussion of curricular facets of academic intelligence programs, see Stephen Coulthart and Matthew Crosston, "Terra Incognita: Mapping American Intelligence Education Curriculum," *Journal of Strategic Security* 8 (3) (2015): 46–68.

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literature and the field: are the new degree programs value-adding features of the U.S. higher education system? Some early research does suggest that the programs are a valuable addition to existing liberal arts programs, but others argue that intelligence agencies may not want to hire applicants with specialized intelligence backgrounds, preferring instead conventional academic backgrounds (Spracher 2009). This latter view is predicated on the assumption that analysts can develop the more technical facets of intelligence analysis through training and professional development.

A closely related issue is the role of training and tradecraft—namely analytical techniques—in U.S. academic intelligence programs. Given the professional orientation of some civilian intelligence curricula, it seems that a blending of training and education might prove to be part of the contributions these newer programs can make. Efforts to better harmonize education and training will require close examination of what facets of analytic tradecraft—and in what measure—could enhance the value-added of academic intelligence programs.

That academic intelligence programs in the United States have incorporated what would be considered training and tradecraft has been observed in the literature (Marrin 2009). This study will drill down into that "blurring" to get a sense of how broadly it is occurring and what form(s) it is taking. It is informed by interviews with 10 U.S. intelligence educators, several of who established and now direct intelligence programs. This is a group that has not been asked to comment on these specific issues, despite their wealth of knowledge and experience. We discussed with interviewees whether or not they feel this sort of content is useful in preparing students for intelligence careers, what instructional areas they offer in this realm, what they consider to be the more unique approaches taken in their programs, and what key facets differentiate academic intelligence programs.

We found that intelligence educators and program directors in U.S. higher education take differing views and approaches regarding training and tradecraft instruction. Some put the role of training at the center of their mission, while others disavowed it quite strongly—though often with exceptions and qualifications, which we will explore. When asked about the presence and nature of training and tradecraft in their programs, study respondents frequently cited structured analytic techniques (SATs). The article concludes that the delineation between intelligence education and training need not be so stark, largely because of the educational and social science underpinnings of analytic tradecraft and competencies, as well as various issues in IC training and tradecraft. By better connecting professional practice with social science foundations, academic intelligence programs can help create a better transition from education to training. It is important to note that our findings speak only to the U.S. context and are not definitive conclusions, although certainly the output of a diverse sample. Future research will need to determine whether these observations are present in other countries.

Before moving to the findings section, the relevant literature will be surveyed. This entails the views and opinions registered to date on the teaching of intelligence tradecraft in academic programs, as well as related empirical findings. What training and tradecraft mean, in practice, in the IC will then be briefly explored, as well as

related training and tradecraft issues and shortcomings. This will help us to frame the findings and discussion sections that follow. Having explored the parameters of training and tradecraft in various ways, we then consider what specific facets are and/or can be addressed by academic programs. This is informed by our interviews and more general considerations about the educational underpinnings of intelligence tradecraft. Some recommendations will also be made.

Literature Review

Perspectives and Findings on Intelligence Training in Higher Education

The growth of intelligence degrees in the United States has been rapid in the post-9/11 era. Currently, there are roughly 30 such programs in existence, based on a search done by the current authors. This number seems to have continued growing in recent years and through the present (Coulthart and Crosston 2015). Given the central place the study of intelligence practice and process has taken in academic degree programs, more space is afforded for specialized content. It is this content that degrees in political science, international affairs, regional studies, and other areas cannot focus on in as much depth.

To be sure, there are critics of these programs. Mark M. Lowenthal, for example, has voiced the opinion that intelligence should not be a major, only a minor (Lowenthal 2013a). Similar sentiments were found in William C. Spracher's interview research (Spracher 2009). For example, Arthur Hulnick commented that intelligence studies should not be a "distinct program," but instead "integrated with other liberal arts subjects" (Spracher 2009, 103). Others have suggested that the analytic profession requires degrees with an explicit focus on intelligence analysis (Hendrickson 2013). Such programs emphasize a generalist approach, intending to produce graduates who have the ability to move in and out of different intelligence accounts.

These perspectives suggest a practitioner-oriented skill set, on the one hand, and a broader academic approach, on the other hand. How the more applied and practical facets of academic programs bleed into the realm of training and tradecraft remains to be explored, both conceptually and empirically. Broadly conceptualized, tradecraft, a term now used in both operational and analytical contexts, refers to the tools and methods used by intelligence practitioners to execute their responsibilities. Our focus here is on the analytical, as the tools of espionage are surely beyond the domain of higher education.

In the IC, the tools and methods of tradecraft are developed through professional experience, socialization, and development and, as we will see shortly, increasingly training. Distinguishing intelligence training and education, Stephen Marrin has made the following observation:

> In terms of intelligence analysis, the term "training" is usually associated with internal government programs intended to provide specific instruction for the implementation of job-related tasks, while the term

> "education" is normally associated with academic courses or programs geared to provide more conceptual and theoretical frameworks having less immediate effect on performance, but layering the foundation for improved performance over the longer term. (Marrin 2009, 131)

Varying—though limited—views have been registered on the issue of incorporating training into academic programs, as we will see. But, regardless of these differing views, Marrin suggests a fundamentally new facet of intelligence education has emerged: the introduction of training and tradecraft into academic programs (Marrin 2009).

Some, including Jennifer Sims and Martin Rudner, have commented that tradecraft is not well-advised to be in the purview of intelligence studies programs and is best addressed through professional training (Rudner 2009; Spracher 2009). Sims has observed, "We definitely should not be teaching tradecraft and professional practice," though does see a role for professional schools (Spracher, 2009, 118). Martin Rudner has similarly written

> What are the objectives of Intelligence and National Security Studies in higher education? Certainly not to provide training in actual intelligence tradecraft. That is something best left to the national Intelligence and Security Community itself. (Rudner 2009, 116)

Others have discussed perspectives and practices that seem more in line with training and instruction in tradecraft. Spracher found that intelligence curricula and courses do a relatively good job of addressing intelligence core competencies, as laid out by the Office of the Director of National Intelligence (ODNI) (Spracher 2009). These competencies include engagement and collaboration, critical thinking, personal leadership and integrity, accountability for results, technical expertise, and communication. The programs Spracher examined did not speak equally well to the different competency areas, however—engagement and collaboration, personal leadership and integrity, and accountability for results did not receive as much treatment as the others.

Spracher also surveyed newer IC analysts to investigate how well their academic preparation helped them to meet IC core competency standards. Respondents said that their academic backgrounds were less effective in preparing them in the competency areas of engagement and collaboration, and technical expertise (which includes professional tradecraft). Recognizing the difficulty of learning some of the core competencies in the classroom, Carl J. Jensen has suggested the IC consider establishing a university-based intelligence training corps similar to the military's Reserve Officers' Training Corp (ROTC) model (Jensen 2011).

Both Spracher and Jensen see a place for training and tradecraft in academic intelligence programs. Similarly, James G. Breckenridge has suggested that, when properly prepared, new graduates of intelligence degree programs

> [M]ay be able to test out of or spend less time in basic courses offered by the IC, and resources can be redirected to advanced and career IA [intelligence analysis] courses. The question then becomes how best to prepare students for eventual work in the IA community and, at the same time, reduce the burden of training for the IC? (Breckenridge 2010, 320–321)

What such content can and should be remain quite open questions, and this article will give a better, if preliminary, sense of what university intelligence educators do, and feel comfortable doing, in the realm of training and tradecraft.

Training and Analytic Tradecraft in the U.S. Intelligence Community

As William C. Spracher observes, intelligence tradecraft can mean quite different things to different stakeholders and organizations (Spracher 2009). In his 2005 ethnographic study of analytic culture and practice in the U.S. IC, Rob Johnston found analytic tradecraft to be a "catchall" term for a wide range of "idiosyncratic" techniques (Johnston 2005). In fact, Johnston objects to the use of the term tradecraft to describe analytic methods. To him, such terminology suggests mysterious, inscrutable techniques—and perhaps an effort to bolster prestige vis-à-vis intelligence collection and operations. But rather than an opaque process not accessible to outsiders, analytic tradecraft shares many creative features of social science research, such as hypothesis generation and refutation (Johnston 2005).

While analytic tradecraft could in some ways be a misnomer, it should probably not be surprising that analytic techniques were so divergent in the IC that Johnston studied (it seems they still are). Formal analytic training in the IC is still a surprisingly new phenomenon, with the Central Intelligence Agency (CIA) first introducing more extensive approaches in just the last two decades (Marrin 2003). As of 2003, CIA analytic training stressed critical thinking, writing and briefing, collaboration, the business of intelligence, organizational issues, and agency history and values. It provides introductions to other intelligence functions and emphasizes the works of Richards J. Heuer and Sherman Kent. Kent's "Principals for Intelligence Analysis" include a number of facets that would connect rather comfortably to the IC's current Analytic Tradecraft Standards, including efforts to bolster intellectual rigor, avoid bias, consider alternative judgments, and recognize personal and analytical shortcomings (Marrin 2003).

Other agencies have certainly followed suit (Campbell 2011; Marrin 2003) and the National Intelligence University has expanded its offerings (Spracher 2016). However, regarding the various IC programs in this area, James B. Bruce and Roger Z. George have commented:

> 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. (Bruce and George 2015, 7)

In addition to more formalized, extensive analytic training, the IC has increasingly stressed a range of techniques—generally labeled SATs—as well as new analytic standards and competencies. These efforts have essentially been part and parcel of the introduction of the ODNI. The Analytic Tradecraft Standards, a core facet of Intelligence Community Directive (ICD) 203, require analysts and agencies to address issues of quality, credibility, and uncertainty; make assumptions explicit and consider the implications of those assumptions being incorrect; differentiate assumptions from information; explain conditions of change and continuity; apply alternative analyses; and present products that employ likelihoods, are customer relevant with key information upfront, and contain logical, accurate judgments.

ICD 203 is intended to "govern the production and evaluation of analytic products" in the IC (Office of the Director of National Intelligence 2015, 1). The standards represent the "core principles of intelligence analysis and are to be applied across the IC" (Office of the Director of National Intelligence 2015, 1). They are also meant to inform IC approaches to analytic education and training.

The SATs devised for use in the IC can generally be categorized as contrarian, imaginative, or diagnostic techniques (Central Intelligence Agency 2009). These techniques include the following: brainstorming, key assumptions check, devil's advocacy, quality of information check, brainstorming, team A/team B, indicators and signposts of change, high-impact/low-probability analysis, what if analysis, analysis of competing hypotheses, outside-in thinking, red team analysis, and alternative futures analysis (Central Intelligence Agency 2009). The use of SATs seems to vary across the IC. Federal Bureau of Investigations analysts are required to demonstrate some use of SATs for promotional advancement (Gentry 2015) while other IC elements use SATs very minimally (Coulthart 2016).

The ICD 610 series sets out core competencies across a range of intelligence occupations and positions. The baseline set, used by Spracher in his study of academic intelligence curricula, was presented above. The competency set for analysis and production include understanding collection systems capabilities and customer operations and requirements (Arant Kaspar 2014). Processing and exploitation, research, and tools and methods round out this competency set (Arant Kaspar 2014).

Criticisms and Concerns: U.S. Analytic Training, Tradecraft, and Standards

Some have voiced skepticism about current IC analytic training, and the tradecraft that training tends to focus on, as well as propositions relating to analytic professionalization. Matthew Herbert has suggested that contemporary intelligence analysis, specifically in the U.S. context, is so varied as to defy efforts at a clean, uniform

professional model (Herbert 2013). To Herbert, such efforts are more connected to academic compulsions and excesses around precise definitions than meaningful avenues to improved intelligence analysis. John A. Gentry has observed

> The concern about analyst professionalization seems related to the reasonable perception that many contemporary analysts do in fact need the basic training provided by entry courses on 'tradecraft,' including SATs. My conclusion is that the professional credentials and tradecraft skills of the analyst corps have deteriorated appreciably in recent years, leading to a perceived need to address deficiencies with unorthodox techniques of questionable utility. (Gentry 2015, 651)

As it stands, "No codified process for entry into the profession, standards in terms of educational requirements, professional development processes, or ways to accumulate and transfer knowledge from generation to generation currently exist" (Marrin 2009, 139). Bruce and George similarly observe that the IC is only in the most rudimentary stages of establishing intelligence analysis governing bodies, institutionalizing robust education and training, developing certification requirements, standardizing analytic methods, managing knowledge, and cataloguing best practices (Bruce and George 2015).

Chang and Tetlock are critical of IC analytic training that they characterize as focusing on certain analytic issues (at the expense of others) and the SATs intended to address those issues (Chang and Tetlock 2016). They write, "The *Psychology of Intelligence Analysis* was groundbreaking for its time, but revisions are now necessary" (Chang and Tetlock 2016, 3). Contemporary IC training and tradecraft are seen as overly concerned with countering analytic over-confidence and rigidity, while essentially ignoring other biases, such as under-confidence and volatility.

As alluded to above, SATs are also seen as lacking scientific, empirical demonstration, and likely to introduce new issues and problems (Chang and Tetlock 2016; Gentry 2015). John A. Gentry has suggested that SATs may have their best application in helping junior, inexperienced analysts avoid basic mistakes, some of which stem from a lack of social science foundations (Gentry 2015). To Gentry, SATs are largely social science methods in disguise—a view our intelligence educators reiterated below. In his view, SATs can be seen as a stealth effort to "address an anti-intellectual streak in the analyst corps that finds academics and academic methods unattractive" (Gentry 2015, 651).

Chang and Tetlock also point to the limited evidence available relating to the successful transfer of training to on-the-job performance (Chang and Tetlock 2016). They conclude, "For too long the intelligence community has shackled itself to a system of training that it never tested – and that almost certainly does not deliver promised performance benefits" (Chang and Tetlock 2016, 14).

James Marchio has found that the IC has used many of the analytic standards and tradecrafts set out by the Intelligence Reform and Terrorism Prevention Act and the ODNI, including ICD 203, dating back to the early Cold War era (Marchio

2014). While this use has been intermittent and thus sometimes limited, Marchio demonstrates that most of the ICD 203 analytic standards were present in analytic products from the early years of the IC through the 1990s. While the IC does have a history of establishing groups to evaluate the value and accuracy of analytic products (Marchio 2014), John A. Gentry has noted that the current IC does not, in a systematic way, evaluate the accuracy standard (Gentry 2015). Thus, analysts can meet all other standards while still falling short, and not being measured, on perhaps the key standard. Doing so would no doubt be extremely challenging, to be sure. Mark M. Lowenthal has similarly commented that ICD 203 and sourcing requirements can place more emphasis on process than content, putting sometimes unhelpful requirements and restraints on analysts (Lowenthal 2013b).

Study Methodology and Data

We do not think of our sample as representative—though our sampling was designed to include diverse perspectives and programs—but more as a "roundtable" of educators who, to date, have not been queried in a focused way on this important topic. We do not offer definitive conclusions to these questions and issues, but rather seek to move the dialogue forward in a more inclusive, empirical fashion. The intelligence educators and program directors we interviewed come from graduate and undergraduate programs, online and brick-and-mortar schools, programs with minors to standalone degrees, and the east and west coasts—and several places in between. Our purposive sampling was intended to make our group of 10 as diverse in perspective as possible, asking each participant to name individuals who approach and view intelligence education differently than they do. It is also important to note that we are focused only on the U.S. context, and findings about practice and perspectives would surely vary in other parts of the world.

Training and Tradecraft: Views and Practices from Higher Education

In our conversations, each of the 10 intelligence educators and program directors were asked, among other questions, what aspects of their program's approach or offerings could be characterized as training or tradecraft. Many respondents asked what we meant by those terms. Prior to beginning our interviews, we made the decision to defer to their views and examples, allowing them to set the terms rather than us. We felt that this would allow for a more organic picture to emerge. Respondents also discussed the role of training and tradecraft more generally, the unique approaches found in their programs, and what attributes distinguish different types of academic intelligence programs.

Not surprisingly, interviewees from various kinds and levels of programs stressed the educational role of their programs, while often also assigning training a role, be it large or small. Some said that as a matter of policy, they do not engage in training or instruction on analytic tradecraft, though often with caveats such as providing introductions to or needed methodological foundations in analytical

techniques. The following quotes demonstrate variations or points along this spectrum, with some fully disavowing training and others fully embracing it.

> *We make it specific that we don't do training.*

> *We really don't [do training]…I'm a firm believer in education, not the training side…We tend to stray away from the training aspect because… that piece is far less enduring than…the educational piece.*

> *We don't want to be, and we're not good at, training them to do exactly what the CIA does in certain analytic tradecraft…So we expose them to it, but, really the emphasis is getting back to the liberal arts, social science methodology type emphasis we have.*

> *No, we're very academic-oriented…they get real-time work, there's a training aspect in that they learn the important things, the basics, and the advanced techniques for analysis and research…they do learn about writing for intelligence…otherwise it's a full academic program…the graduate program, purely academic.*

> *Our program is an academic program, but it still has that practical, what I would call training, aspect to it. I find it to be, I would say, a very good combination of traditional training and academics.*

A number of respondents viewed certain (other) programs as being heavily, even fundamentally, training-oriented, and as the quote immediately above demonstrates, some openly took on that identity. These programs were described as focusing on analytic tradecraft to be applied to "hands-on," "hard" security issues and problems, a key distinction some interviewees noted between different kinds of academic intelligence programs. Some of our respondents praised this approach, though more were critical. Some called this a philosophical difference and were also skeptical about how the IC viewed such programs. Along these lines, some of our respondents said:

> *Unlike many, my impression is most programs, we are not following, "let's pump out fully trained intelligence analysts out the other side"…that was done strategically, the notion being that that doesn't go over super well with employers.*

> *Theirs is far more hands-on, OJT [on-the-job-training] type stuff. They're just going to get you ready to start the job…we resist that tendency, that push.*

Most of the intelligence educators we spoke with would not suggest that their program is intended to produce immediately job-ready intelligence professionals.

Some respondents told us that "bottonology" is more perishable than educational and social science foundations and that their students will be more employable if they also specialize in a substantive area (meaning regional or functional). These educators seek to inculcate skills and mentalities that will transcend specific agency training and culture. To be sure, some programs do introduce their students to explicit analytic methods and tools, such as the software program Analyst's Notebook, as early as their freshman year. Others "specifically look at, how does one perform the functions of an intelligence officer, at the undergraduate level." And even those who were skeptical of the role of training and tradecraft cast some of their programs' aspects in those terms. One such respondent, speaking about a graduate-level course in intelligence analysis, commented it had

> *[S]trong elements of both training and education to it. There is a lot of discussion of secrets versus puzzles versus mysteries…and let's do it in groups because that's how things work in the real IC…that is probably our most directly, training-like…no-kidding practical course.*

Our discussions about specific curricular facets that intelligence educators considered to be training- or tradecraft-centered frequently turned to SATs, often coupled with critical thinking and/or social science methodology. So, while the efficacy of such techniques remains something of an open question, among other noted issues, SATs (with caveats) have been incorporated into some civilian intelligence education programs. For example, one graduate-level faculty member told us

> *The closest we get to training is, we teach structured analytic techniques… but it's not so much to train them to use it, as it is to complement what we do. We do research methods, so, social science methodology. I do a lot of critical thinking…in my courses.*

Similar to the above quote, several other respondents highlighted teaching the fundamental social science methods or theory underlying SATs and critical thinking. The emphasis on social science frames more than practical application was seen to some as a key difference between intelligence education and training programs. This addresses an issue that has been noted by many in recent years, namely that intelligence programs and professionals lack needed social science foundations (Collier 2005; Gentry 2015; Landon-Murray 2011; Marrin 2012). The emphasis placed on social science methods by our interviewees suggests that academic programs are addressing these competencies, certainly a positive indicator. A couple educators suggested that SATs really fall into social science and educational domains. Along these lines, other respondents added:

> *We certainly do talk about SATs and the methodologies related to intelligence analysis, but we're not talking about specific software packages…I guess you could argue that some of the specific techniques…*

could be construed to some degree as training. But I think at the end of the day, because those are problem-solving skill sets, they really still are pretty much in the education basket.

They [methods courses] are somewhat related to stuff that's in Structured Analytic Techniques…but, for example, hypothesis testing is a course, and it's not ACH [Analysis of Competing Hypotheses], it's hypothesis testing, it's a more fundamental approach...

I don't…consider [any offerings] training in nature only because we can't teach tradecraft in our open source courses…they'll teach of course critical thinking techniques…these are all things that are all open source and nothing specific to tradecraft training.

We go into the theoretical side of critical thinking…we teach critical thinking almost as if it's the scientific method…they get that background and then when they're doing the case studies that we teach them, we're always adding different material that has a theoretical basis that you wouldn't see in a training course.

An educator from a university that had received Intelligence Community Centers for Academic Excellence (ICCAE) funding told us that while their program began teaching SATs on their own, they received signals and guidance from the ICCAE program office on the inclusion of SATs in academic courses. The respondent found the ICCAE workshops and seminars extremely helpful. Other ICCAE events for intelligence educators served to encourage the establishment of additional academic programs.

Writing and communicating competently for a professional intelligence context was another area that a number of our respondents addressed, in some cases with the IC explicitly stating its importance to program directors. One respondent told us simply that intelligence agencies want people who know how to write well—a challenge many educators are probably well aware of. The building of these competencies was a frequent focus across programs. This included a current intelligence briefing club explicitly modeled on IC practice (this became a course), an express focus in each class on intelligence writing, and the completion of "real intelligence type work" that can include written and oral briefings for actual consumers in various sectors. Some of those we spoke with differentiated academic programs on the basis of the role accorded to writing for professional intelligence uses.

A number of other instructional areas were identified when we asked what programmatic aspects were considered to be associated with training and tradecraft. This included coursework in open source intelligence, security operations and management, counterintelligence, financial investigations, intelligence collection and collection management, and cyber operations. But, these areas, like SATs and critical thinking, were often mentioned with similar caveats.

Discussion

Now that we have discussed training and tradecraft as conceptualized and practiced in the IC, as well as the views and practices of intelligence educators in U.S. colleges and universities, we will discuss what facets of training and tradecraft academic programs can address. We are guided by intelligence educators' input and more generally what comfortably seems to fit in the educational realm. In this way, the new class of U.S. intelligence programs may move closer to realizing their full contribution to higher education and the IC. By considering what facets, and in what measure, can be broached in an academic setting, we also move closer to populating the instructional areas that may be used to transfer some content from IC training to higher education, as James G. Breckenridge has suggested.

As we have seen, analytic tradecraft, in practice, has been found to be idiosyncratic (Johnston 2005) and more extensive analytic training in the IC is still a relatively recent, limited, and flawed phenomenon (Bruce and George 2015; Campbell 2011; Chang and Tetlock 2016; Marrin 2003; 2009). Additionally, the practice of intelligence analysis shares key characteristics with social science methodology (Johnston 2005; Office of the Director of National Intelligence 2015). This all suggests that analytic training and tradecraft may not be so specialized, or frankly, special, and not necessarily beyond the capacity of academic programs. And as we have seen, some programs and educators have embraced training and tradecraft, and several in our sample said some programs have fully crossed into that territory. As one educator told us, exemplifying what was certainly one of the most training-oriented approaches:

> *The idea is that what we wanted to produce was somebody who had the skills to actually produce intel…it's like an engineering program…we provide our students with the tools that they need for their toolkit, we give them the practical experience, and when they graduate they walk out the door and they're ready to build intelligence…*

SATs seem to have taken on a noticeable role in academic intelligence programs, often with an emphasis on the social science techniques that underpin them. This seems like an especially ripe area for the IC and higher education to cooperate around in order to design a more purposive approach to teaching students these techniques and their foundations. This would not only promote a deeper understanding of SATs, and continually reinforce that understanding, but could also help support a better shared understanding of SATs and address issues that both trainers and educators find problematic. On this latter point, IC trainers will, in certain cases, be apprehensive about the tradecraft instruction students are receiving, and could be well-served by a voice in that instruction. This may be somewhat attenuated by the reality that many instructors in intelligence programs and courses are former intelligence professionals (Smith 2013). Conversely, the shortcomings and blind spots of SATs can be more explicitly recognized and covered. This would—and does—also afford an opportunity to demonstrate and teach the practical importance of rigorous social science methods, countering both the

limited knowledge of social science methodology (Gentry 2015; Marrin 2012) and the perceived anti-intellectualism in the IC's analytic corps (Gentry 2015; Lowenthal 2013b).

There are several other skill sets and competencies found in IC training and tradecraft that would seem to fit well into the purview of academic education. These include grappling with uncertainty in assessments and findings, the explicit recognition of assumptions (and their limits, contingencies), separating those assumptions from information, working to manage personal and analytic shortcomings, thinking carefully about the quality of information and methods, and thinking about alternative views and possibilities. It is hard to imagine any educator suggesting it would be acceptable for students to graduate without these skills, regardless of their discipline and career intentions. However, the broad value and impact of higher education for students and society has come under increased scrutiny in recent years (Arum and Roksa 2010; Berg and Seeber 2016; Ginsberg 2011). Perhaps the most common concern is that the "administrative bloat" of higher education has diminished in different ways the role of faculty members, with important implications for students (Berg and Seeber 2016). If students are leaving academic intelligence programs with these competencies well-developed, however, they will have a head start on key IC tradecraft and standards and will be better positioned to learn others and practice them in the longer term.

These types of skills and competencies—and mindsets, really—are not always expressly reflected in the current standards of the International Association for Intelligence Education (IAFIE). IAFIE standards are largely the same for graduate and undergraduate programs, with standards for the former increasing "depth and rigor in the instruction of" undergraduate outcomes (International Association for Intelligence Education 2011). Thus, as academic programs seek guidance or certification from the association, such outcomes and objectives may not be given a central role in intelligence curricula. And while US IC-emphasized competencies and practices should, of course, not drive IAFIE academic standards, they can contain rather basic guidelines for the improved conduct of intelligence analysis. IAFIE members and officers might, over time, arrive at additional standards by engaging stakeholders on an international basis. Any such standards could deviate from professional intelligence communities when those competencies or practices are found to have important limits or not to be appropriate for academic programs. Examining those limits can also be important, helping future practitioners identify potential pitfalls. These standards might be revisited somewhat regularly as knowledge grows.

A number of additional initiatives could be pursued, or extended, to help integrate this and other content into academic programs in a broad, successful way. The IC could expand its reach to schools outside of the ICCAE program, providing guidance and even training to academic intelligence educators. Our respondents involved in ICCAE spoke positively of ICCAE (and other IC) events and trainings. An expanded, more inclusive approach of this kind may also prove successful. Additionally, the IC could certify intelligence educators to indicate their ability to teach to IC standards and practices. Likewise, the IC, perhaps via the ODNI, could help establish or certify certain courses—for example, pre-professional training in analytic methodologies, writing, and sourcing practices.

Measures of this kind would seem a necessary step for the sort of waiver system promoted by James G. Breckenridge (Breckenridge 2010). Such steps would also be a good complement to what Carl J. Jensen has suggested on a collegiate intelligence corps (Jensen 2011). One can imagine practical limits and reasons not to do these things—for example, many enrolled students would not likely end up in the IC. However, such measures could help those students who do go on to intelligence careers better develop and retain key skill sets, while also inculcating the shared language, understanding, and identity that initiatives like Analysis 101 are meant to accomplish (but may not, for example, if intelligence agencies opt not to participate).

However, there will likely be instances when intelligence educators resist the teaching of certain analytic tradecraft, even if it is endorsed by the IC. As Chang and Tetlock have pointed out, IC training may not reflect the most current, complete understanding of analytic process and related insights (for example, from psychology) (Chang and Tetlock 2016). Thus, intelligence curricula and educators can likely maintain instruction and coursework more continually up-to-date than their professional counterparts. This will raise awareness and skills in intelligence analysts that may be missing in IC-wide and agency-specific training. Speaking to this sort of independence, one of our respondents told us that their approach to instruction on intelligence analysis is "not drawn from the IC's understanding of how to do intelligence analysis."

Even across specific INTs and analytic positions, there are unifying frameworks and techniques that are applicable. It may be in the successful use those frameworks and techniques that more robust analysis will emerge—or not, in their absence. These, for example, could include the IC's Analytic Tradecraft Standards, which certainly have some critical roots in social science methodology. It is a possibility that the particulars and technicalities of the specific INTs could serve to obscure the use of the more broad, underlying facets of analytic tradecraft. And as Bruce and George have written, analytic training is quite varied in the IC and could be prone to underemphasizing certain content and approaches (Bruce and George 2015).

A key, then, is finding an appropriate middle ground between training and education, and then within training and tradecraft, in academic programs. It is toward this middle ground that this article has sought to help us move; although as more specialized intelligence degrees emerge in areas like geospatial and cyber intelligence, this navigation and balance will be further challenged. Again, the full realization of the benefits afforded by academic intelligence programs will depend on how these programs are designed. It is very difficult to imagine a graduate degree in geospatial intelligence analysis that does not get heavily into training and tradecraft.

We believe that conventional education and training can be melded in ways that do not erode either, but in fact strengthen both. Other professions employ such an approach (Finckenauer 2005), and a more purposive combination should come with long-term professional development and performance benefits. The input from the 10 intelligence educators we spoke with, on net, tended to agree. Of course, there were different views about the degree to which programs should take on a more professional coloring, with some seeing their role as providing needed foundations and others as

getting a jump on IC training. Several of our respondents noted an aversion to training but still described training-like program features.

Conclusion

This article has been an effort to clarify the views and practices of those teaching in civilian intelligence curricula in the United States regarding the role of training and tradecraft in their (and other) programs. As we built our sample, we purposefully sought out varying viewpoints based on asking interviewees who they think views and approaches intelligence education differently than they do. So, although comprising 10 interviewees, our sample was constructed to be inclusive of the constructs and views of the broader intelligence education community.

This study has confirmed that in concept and in practice, the delineation between intelligence education and training may not be so stark. It has also argued that there is good reason for this. As has been discussed, analytic tradecraft and competencies sometimes fit into the "education basket" and have important foundations in social science. There are also noted limits and gaps in IC training and tradecraft, and academic programs can provide a venue for future intelligence practitioners to get sensitized to such issues. When academic programs take on appropriate facets and fundamentals of training and tradecraft, they can more explicitly connect professional practice with social science foundations, counter the uneven nature of IC training, and make explicit key issues and problems in contemporary tradecraft (such as those identified by Chang and Tetlock 2016). In general, colleges and universities can help create a more seamless transition from intelligence education to training.

A number of possible steps that might help academic intelligence programs better prepare graduates for careers in the IC have been outlined, and some represent a complement to the current ICCAE program. But more than anything, our hope was to offer a somewhat inclusive empirical look at a topic that has thus far received only passing comments in the literature. Ours is just a single set of findings, but one capturing the views of 10 intelligence educators—including what could be considered thought or industry leaders. It is our hope that such conversations will continue and help keep important issues out front and out in the open. This will propel the continual enhancement and refinement of academic programs meant to prepare America's next generation of intelligence professionals.

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