



2017



National Intelligence University
Annual Report

National Intelligence University is a Federal university that offers education and degrees to the intelligence and national security communities in a classified environment. NIU offers two graduate degrees with over 15 different concentrations and programs of study, an undergraduate degree completion program, and continuing education to more than 700 students in Federal agencies and all branches of the U.S. military.



Intelligence
Community
Campus

Bethesda



TABLE OF CONTENTS

NIU Milestones	1
NIU Names New President	1
From Commandants to Presidents: The Evolution of the Selection Process 1962-2017	2
After 33 Years at DIA Headquarters, NIU Now Calls Roberdeau Hall at ICC-B Home	3
2016-17 In Review	4
Progressing Initiatives	4
Programs and Events	9
Faculty and Staff Achievement	16
The 2017 Commencement	27
Quick Facts (2017)	30
The Measure Of Our Success	38

- **1963-1964** Commandant CAPT Bruce E. Wiggin, U.S. Navy
- **1964-1965** Commandant COL Lee Wallace, U.S. Army
- **1966-1969** Commandant CAPT Clifton E. Cantlon, U.S. Navy
- **1969-1971** Commandant CAPT Robert Fuller, U.S. Navy
- **1971-1975** Commandant CAPT Wendell Furnas, U.S. Navy
- **1975-1979** Commandant CAPT Richard Bates, U.S. Navy
- **1979-1980** Commandant Col Charles Fox, U.S. Air Force
- **1980-1981** Commandant COL Bruce F. Williams, U.S. Army
- **1981** Commandant (Acting) CAPT Cyril Dearie, U.S. Navy
- **1981-1984** Commandant Col Lee Badgett, U.S. Air Force
- **1984** Commandant Col Allen Wolf, U.S. Air Force
- **1984-1987** Commandant Col John Macartney, U.S. Air Force
- **1987-1990** Commandant ADM Howard Roop, U.S. Navy Reserve (Ret.), EdD
- **1990-1991** Acting Commandant and Provost Dr. Robert DeGross
- **1991-1994** Commandant Lt Gen Charles J. Cunningham, U.S. Air Force (Ret.)
- **1994-2009** President A. Denis Clift
- **2009-2017** President RADM David R. Ellison, U.S. Navy (Ret.), PhD



NIU MILESTONES

NIU NAMES NEW PRESIDENT

DR. J. SCOTT CAMERON was named the 17th president of National Intelligence University (NIU) on August 25, 2017, succeeding Dr. David Ellison. Dr. Cameron brings extensive national security, intelligence and higher education experience to his new role. He previously served as the Director of the Office of Weapons of Mass Destruction/Counterterrorism at the National Counterterrorism Center, having entered Federal government service after serving in higher education in faculty and academic leadership roles at Washington State University from 1986-2000.

“Dr. Cameron is uniquely qualified to lead NIU as the university achieves its vision to become the center of academic life for the intelligence community,” said former Defense Intelligence Agency (DIA) Director Lieutenant General Vincent Stewart, the selecting official, in announcing the appointment. “Dr. Cameron was selected through an extensive national search,” Stewart continued, “and I am confident that he will bring further success to NIU as it continues its growth and development into a national university dedicated to the intelligence profession and to excellence in defense of the nation.”



FROM COMMANDANTS TO PRESIDENTS: THE EVOLUTION OF THE SELECTION PROCESS 1962-2017

In its early years, from 1962 to 1988, the University was led by military commandants. The commandants were mostly active duty Navy Captains or Air Force Colonels who were nominated by their services and appointed by the DIA Director. In 1988, at the encouragement of the Board of Visitors, the DIA Director hired the first of two successive senior executive civilian commandants, both of whom were retired flag officers. In 1994 with the appointment of A. Denis Clift, the title of NIU's leader was formally changed from Commandant to President.

In 2009 NIU adopted a presidential selection process with the Director of DIA as the selecting official. With the recently completed presidential search and selection, NIU further adapted the process in size, scope, inclusion, and transparency.

The presidential search was longer and cast a much wider net than any previous search. The traditional government vacancy announcement process was substantially augmented by an NIU-led communications strategy that made extensive use of on-line messaging to reach a much larger audience, including stakeholders across the Intelligence Community (IC), affinity groups, partners in academe, and the general public. The result was a larger pool of qualified candidates than previous searches.

This most recent presidential selection committee was expanded to include representation from across the Intelligence Community, as well as representatives from the faculty senate and the Board of Visitors.

IC agency directors were afforded the opportunity to interview the top two candidates and provide their input to the DIA Director, who made his final decision in consultation with both the Director of National Intelligence and the Under Secretary of Defense for Intelligence.

1962-1988

NIU Headed by Military Commandants
Appointed by DIA Director

1994

Leadership Transition from
Commandant to President

2017

NIU Advances New President
Selection Committee & Process

1988

NIU Led by First
Civilian Commandant

2009

NIU Adopts a President
Selection Process



AFTER 33 YEARS AT DIA HEADQUARTERS, NIU NOW CALLS ROBERDEAU HALL AT ICC-B HOME

NIU completed its relocation to a new facility at the Intelligence Community Campus in Bethesda, MD in February 2017. The phased move of the NIU main campus from Joint Base Anacostia-Bolling, in Washington, DC began in November 2016. Students from the Class of 2017 had the distinction of being the first graduates from the new campus.

NIU invites all IC and DoD officers to visit the new campus and encourages everyone to take advantage of the unique professional opportunities NIU offers. Whether as a student taking classes toward certificates or degrees; a research fellow doing a deep dive into classified research topics, or a faculty member teaching future leaders, all are welcome at NIU!

“NIU is proud of its association with DIA and thankful to Director LtGen Vincent Stewart and all of his predecessors who have guided our development. The university is also thankful to all of the people and offices in the HQ building who have supported us over the years ... While NIU has left HQ, it has not left DIA. The university is proud to remain an integral component of DIA, even as the institution’s mission expands to serve as the center of academic life for the entire intelligence community.”

–Former NIU President, Dr. David Ellison

2016-17 IN REVIEW

PROGRESSING INITIATIVES

BUILDING AN INTELLIGENCE DATA SCIENCE CONCENTRATION

In 2015, the Director of National Intelligence tasked NIU to create a robust data analytics intelligence concentration within the existing Master of Science and Technology Intelligence degree program. Faculty from the School established a partnership with staff from the Pacific Northwest National Laboratory (PNNL) and the Virginia Tech Advanced Research Corporation (VT-ARC) to conduct a three-phased effort to build a new concentration.

PHASE I: VT-ARC and PNNL conducted an Academic survey from October 2016 through January 2017. The team compiled a list of data analytics needs from the IC to identify required Knowledge, Skills, and Abilities (KSAs). These were mapped according to Bloom's Learning Taxonomy to develop a list of learning objectives on which to build the new data science program. This effort involved experts from multiple Intelligence Community agencies, as well as the United States Special Operations Command, 25th Air Force, and the 318th Information Operations Group. The team then consulted with leading data science professors at academic institutions to include the University of Washington, Johns Hopkins University, Purdue University, the University of New Mexico, the University of Michigan, Stanford University, Pennsylvania State University, the Air Force Institutes of Technology, and the National Defense University. The team then assembled a study report that identified the types of graduate-level courses and programs that best addressed the Intelligence Community's needs for data science education.

PHASE II: A data science workshop at VT-ARC's facility in Arlington, VA convened in January 2017. The workshop focused on establishing teams with both IC and academic experts to address five functional areas of knowledge that were most critical for building the School's new concentration and curriculum.

This workshop brought together top academic experts from Virginia Tech, North Carolina State University, Georgetown University, George Washington University, the University of Maryland, and the University of Florida. IC experts from the Central Intelligence Agency (CIA), the National Security Agency (NSA), the National Air and Space Intelligence Center (NASIC), DIA, Federal Bureau of Investigation (FBI), and the National Geospatial-Intelligence Agency (NGA) were mixed with the academic experts in functional focus groups. The functional areas covered were:

1. **Preparatory Knowledge** – What prerequisite knowledge should students have before they can participate in a master's level data analytics program? This team concluded that students should be able to:
 - Comprehend, contrast, and appraise data science philosophy.
 - Understand the processes and uses of data science tools and techniques with various data forms.
2. **Ethics** – What constitutes the principled and ethical use and behavior of knowledge bases? This team concluded that students will need to learn to evaluate, appraise, and inherently incorporate ethics in:
 - Getting, holding, and analyzing data
 - How various communications methodologies can provide intelligence that “informs.”

3. **Tools and Techniques** – How can technologies, modelling tools, assumptions, and visualization methods incorporate data and algorithms to go from “data” to “information?” This team determined that students should:

- Learn to describe, recognize, and understand the role of mathematics in both data engineering and data science.

4. **Emerging Technologies & Directions** – How should the IC prepare for the future of data science, rather than simply uploading the next version of software? This team agreed that students should:

- Learn to evaluate and understand new and emerging data science technologies to include extensions, visual analytics, discovery, and artificial intelligence.

5. **Communications and Visualization** – How can intelligence professionals communicate the results of their intelligence data analysis to best support the needs of policy-makers and commanders? The team identified the need for students to:

- Learn the strengths and weaknesses of several different data visualization tools, so that they can apply the most appropriate solutions for their customers.

Key results of the workshop are shown in Figure 1. The teams identified the foundational elements of data science that the School of Science and Technology Intelligence must cover in its new program. These include cross-disciplinary topics in mathematics, computer science, and visualization.

PHASE III: The final phase of the data science effort was for NIU faculty to work with PNNL and VT-ARC staff to build a curriculum for the new Data Science Concentration. The team chose to apply the curriculum model used by North Carolina State University for its master’s degree program in data science. The result is Figure 2, which depicts NIU and School of Science and Technology Intelligence core required courses and the new courses for the concentration, laid out across NIU’s academic year schedule. Unlike other NIU graduate programs, this curriculum includes a capstone exercise to enable students to pull together and apply concepts from the various component courses.

This will be an ambitious and rigorous program of study, which will develop future IC leaders who can understand and apply data analysis against critical national security intelligence problems. The School plans to start offering new courses as electives in the spring of academic year 2018 (AY 2018), with the full concentration available to students in AY 2019, contingent upon having sufficient faculty members with the appropriate skills and knowledge.

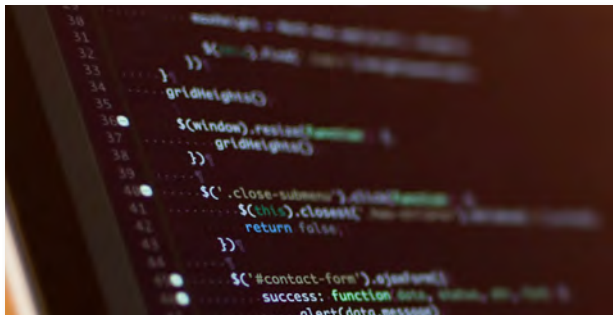


FIGURE 1. DATA SCIENCE FOUNDATIONAL ELEMENTS



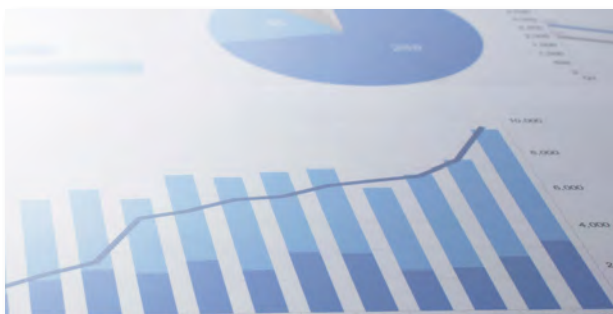
Mathematics

- Statistics
- Algebra/ Linear Algebra
- Graph Theory



Computer Science

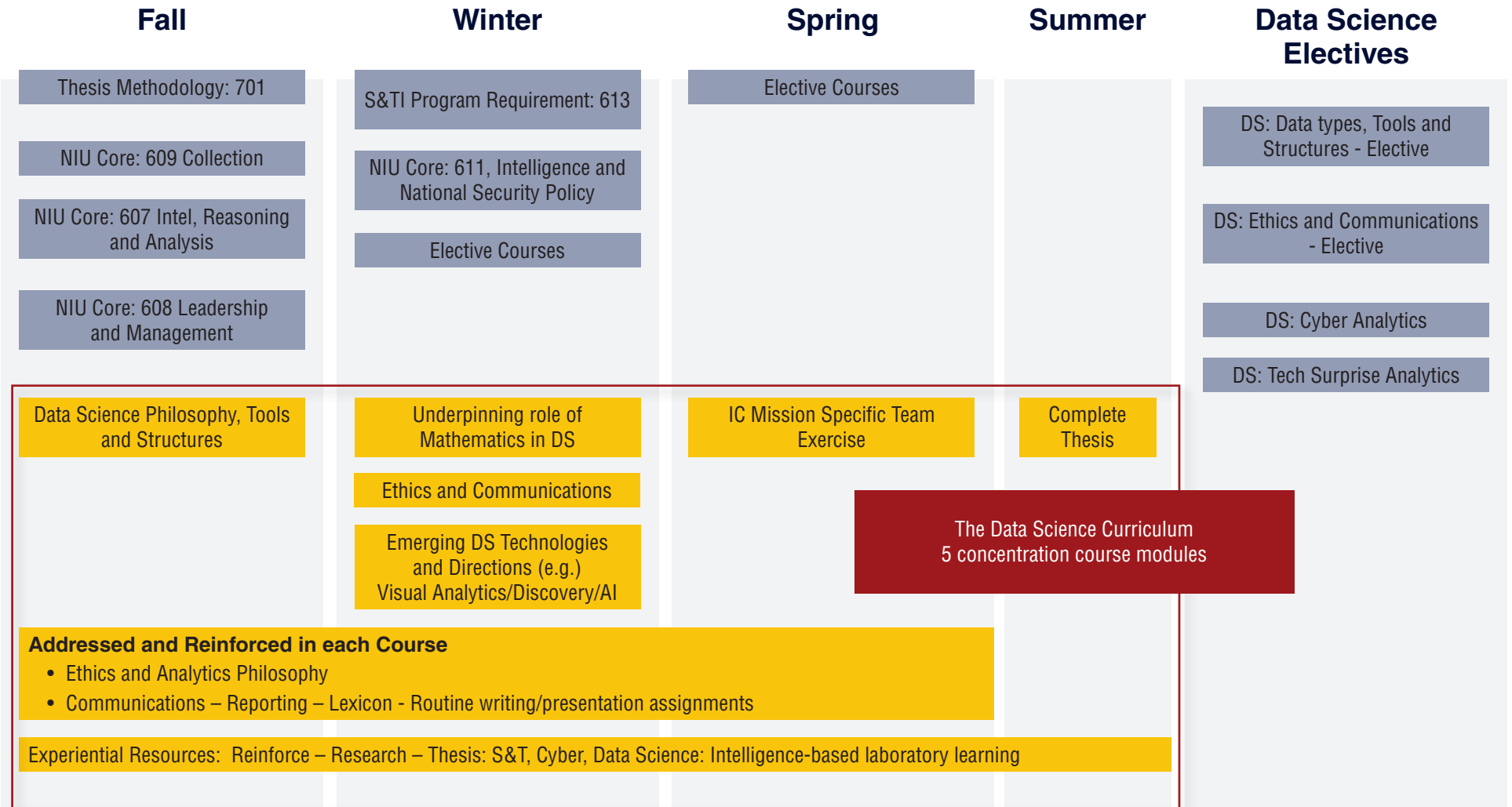
- Python/R
- Underpinning Role in Data Analytics



Visualization

- Visual Analytics
- Communication of Data Findings

FIGURE 2. DATA SCIENCE CONCENTRATION CURRICULUM



NIU RESEARCH SHORTS

NIU's Office of Research (OOR) spent 2017 preparing a new line of publications, NIU Research Shorts, for dissemination to the IC. The new line of two to six page publications debuts in AY 2018. The publications are a cross between academic occasional papers and conventional analytic products, and are intended to be punchy and insightful.

"The new line supports the University's faculty research emphasis and will help keep NIU faculty and student research visible to our colleagues throughout the IC."

--OOR Deputy Vice President, Dr. Robert Smith

THE SIX TYPES OF NIU RESEARCH SHORTS

1. **Insight**, the most common format, is built around new research or a compelling insight.
2. **Point/Counterpoint** is a debate in article form where one contributor argues one side of an issue and another takes the opposing view.
3. **Opportunities** address potential solutions to challenges or problems.
4. **Sounding Board** gives writers an opportunity to present research that is not yet fully formed and to elicit feedback, context, or a missing part of the puzzle from others in the IC. This may help researchers find collaborators from throughout the IC.
5. **Contrarian** takes an alternative analysis, or "red-cell," approach.
6. **Catalyst** is designed to spark positive conversations on the future of analysis and other topics.

OOR plans to coordinate this new publication line to compliment other publishing efforts. For some contributors, writing a Research Short may be a stepping stone to writing a longer product. For others, it may be a way to share work with a different readership or to share portions of ongoing research projects.

PROGRAMS AND EVENTS

THE PRESIDENT'S LECTURE SERIES

The President's Lecture Series (PLS) is a weekly guest speaker program where Cabinet level officials, agency directors, senior intelligence and national security leaders, and other experts speak on important intelligence topics and share their thoughts and lessons learned with NIU faculty members and students. It is designed to supplement the classroom experience and provide a broad and diverse base of exposure to key IC topics and senior leadership. A key value of the PLS is that students have the rare opportunity to interact with these senior intelligence leaders personally during a question and answer period. This informative and candid interactive exchange brings the material home to the students in a real way and greatly enhances the students' broader understanding of the intricacies within and around the IC. As one student in the Class of 2017 put it:

"[The] Speaker provided insights to current and future issues, which are not always apparent to us in class. That makes this speaker very valuable to the students who are going to have to deal with these issues in the near future."

The AY 2016-17 PLS featured the most impressive array of senior leaders participating in recent history, all of whom were asked to speak on 21st Century intelligence challenges facing their organizations. Of note, the last three speakers in this year's series were alumni leaders: Assistant Secretary of State for Diplomatic Security, Bill Miller '02; U.S. Marine Corps (USMC) Director of Intelligence, Brigadier General William Seely '04; and Coast Guard Director of Intelligence, Rear Admiral Robert Hayes '93.



AY 2016-17 PLS TOPICS SCHEDULE

August	Future Intelligence Challenges
September	21st Century Intelligence Challenges The Challenges of Intelligence Integration with Alliance of Intelligence Operations
October	Intelligence Reform and the Way Ahead The Challenges of Intelligence Support to Law Enforcement
November	The Challenges of Intelligence and Journalism in the 21st Century The Value of Demography in Predictive Intelligence 21st Century NSA Intelligence Challenges
December	Interdiction of Nuclear Proliferation Networks 21st Century Department of Homeland Security Intelligence Challenges Complexities of Counterterrorism in the Post Arab Spring
January	21st Century NGA Intelligence Challenges
February	Intelligence Challenges of Supporting Diplomacy in the 21st Century
March	21st Century Challenges of Intelligence Support to the Warfighter Challenges of HUMINT in the Age of Social Media and Biometrics Space and Technical Intelligence The Future of Intelligence
April	21st Century Marine Corps Intelligence Challenges: USMC Intelligence, Surveillance, and Reconnaissance (ISR) Balancing Diplomacy vs. Security: The Challenges of Diplomatic Security Abroad Intelligence Challenges for the U.S. Coast Guard

NIU RESEARCH FELLOWS

NIU hosted four Research Fellows from across the IC; Mr. Peter Courtney, Dr. Alan Dugger, Dr. Neguib Hassan, and CDR Shawn Koch. These Fellows spent the entire academic year at NIU's Center for Strategic Intelligence Research (CSIR) working on their specific topics.

MR. PETER COURTNEY FOREIGN INFLUENCE EFFECTS

An intelligence analyst at the FBI, Mr. Courtney researched how best to analyze and counter foreign influence efforts, particularly those where foreign countries hire U.S. public relations and lobbying firms. Mr. Courtney developed a method to unveil foreign influence efforts focused on the U.S. media and used this method to determine the effects of such influence efforts.

DR. ALAN DUGGER INTRA-GROUP CONFLICT & COOPERATION

An analyst at the National Ground Intelligence Center, Dr. Dugger studied intra-group conflict and cooperation using agent-based network simulations in which the decision to conflict or cooperate arose from social balance processes. The results of these simulations gave insight into the patterns resulting from the interaction of conflict and cooperation between actors in a given group.

DR. NEGUIB HASSAN ADDITIVE MANUFACTURING TECHNOLOGY

A nuclear intelligence analyst from the Department of Energy, Dr. Hassan evaluated the interest and ability of U.S. nuclear adversaries to adopt and incorporate additive manufacturing (AM) technology, also known as 3D printing, into their nuclear fuel cycle and weapons development programs. Specifically, the project addressed the characteristics and performances of AM processes, equipment, and materials to make nuclear components and the ways in which the adoption of AM might degrade the effectiveness of export control and/or change the nuclear proliferation picture in the next 5-10 years.

CDR SHAWN KOCH EXPLOITING ACCESS

Detailed from the U.S. Coast Guard (USCG), CDR Koch examined the Guard's long-standing claim that it enjoys unique maritime, military, and multi-mission access across the globe. This mixed-method study analyzed archival data, survey results, and interview responses to determine how well the Guard exploits its unique access to support the IC.



THE 7TH ANNUAL NIU EDUCATION OUTREACH INITIATIVE IN COLLABORATION WITH USPACOM

AY 2016-17 marked the seventh annual iteration of the NIU education outreach initiative offering the NIU graduate Certificate of Intelligence Studies for China in collaboration with U.S. Pacific Command (USPACOM) Joint Intelligence Operations Center and several other area intelligence agencies.

NIU College of Strategic Intelligence faculty members, Dr. Michael Metcalf, Mr. Joseph O'Neill, and Mr. Wayne Hugar, delivered the four certificate courses to military and civilian students assigned to USPACOM intelligence agencies and commands.

The certificate enhances the ability of intelligence and national security professionals to recognize, analyze, and forecast China's state behavior across a spectrum of priority intelligence and security concerns, both regionally and globally. Students earning this certificate learn how to develop and apply analytical frameworks that examine the drivers, objectives, strategies, and activities associated with China's comprehensive modernization and re-emergence as a great power.

THE BACHELOR OF SCIENCE IN INTELLIGENCE 2017 CAPSTONE

Last year's Bachelor of Science in Intelligence (BSI) Capstone was an alternate futures look at Russia through 2030. In support of the project and to foster ties between NIU and the Department of State Bureau of Intelligence and Research, BSI Director and faculty member, Dr. W. Westbrooks, accompanied four students to the United Kingdom (UK) to discuss the topic. Capstone students heard from Dr. Rod Schoonover from the National Intelligence Council's Strategic Futures Group and two BSI graduates from the class of 2016, who shared their Capstone experiences. These interactions gave the 2017 class insightful perspectives to help them navigate through the eight-week project.



THE 5TH ANNUAL DIRECTOR, DIA-USPACOM J2 2017 EAST ASIA WORKSHOP

NIU College of Strategic Intelligence faculty members, Mr. Wayne Hugar and Mr. Steve Park, and NIU Research faculty member, Dr. Phuong Hoang, facilitated the 5th Annual Director, DIA and USPACOM J2 co-sponsored 2017 East Asia Workshop. This NIU education outreach event marks the fifth annual iteration of this classified working group event which focuses on current and emerging priority intelligence and security topics for East Asia. Nineteen U.S. and Allied civilian and military intelligence professionals produced three alternative-future scenarios focusing on specific key questions about the East Asia security environment that are of interest to the IC.



QUANTICO ACADEMIC CENTER: THREE YEARS AND RUNNING

Quantico Academic Center (QAC), located on the campus of the FBI Academy in Quantico, VA, completed its third year of operation in 2017 graduating its second cohort of part-time MSSSI students and its third cohort of part-time students in the Certificate of Intelligence Studies (CIS) in Counterintelligence. In total, 49 students representing 22 organizations and agencies took classes at the QAC during the academic year.

QAC primarily serves students who live and work in the vicinity of Marine Corps Base Quantico (MCBQ), which houses numerous agencies and activities. Numerous Federal agencies/activities are located on, or in the immediate vicinity of MCBQ. These various agencies/activities support a large and diverse student population, and enrollment continues to meet or exceed expectations.

QAC students can earn either the MSSSI over 2 years or a CIS in Counterintelligence over a single year. The FBI provides a full-time director and staff officer to operate the center. QAC faculty consists of both full-time and adjunct faculty members.



George...
Kathleen...
Carmath...
North...

Washington...
Administrative...
Suite



FACULTY AND STAFF ACHIEVEMENT

ACADEMIC & COMMUNITY

CSI faculty participated in over 130 outreach activities during the year, excluding classified events. Some of these academic and community ties include:

Amazing Women in the Intelligence Community

American Legion Post (Chevy Chase, MD)

Annual Conference for the Association for Slavic, East European, and Eurasian Studies

Bluegrass State Intelligence Community Center of Academic Excellence Consortium

Carnegie Endowment for International Peace

Daniel Morgan Academy

Defense Intelligence Training and Education Board

Department of State

DIA's Academy of Defense Intelligence

DIA's Asia Pacific Regional Center

DIA's Joint Counterintelligence Training Academy

Economic Intelligence Strategy Board at Langley

Ethos and Profession of Intelligence Conference

George Washington University

Georgetown School of Foreign Service

High Value Interrogation Group Research Symposium

Institute of World Politics

Inter-American Defense College

International Association of Defense Counsel

Joint History Office, Joint Staff

Joint Military Attaché School Embassy Reception Exercise

Kent School

Minerva Meeting and Program Review (2016)

National Museum of American History

National Security Agency

National Security Council

National Security Executive Leadership Seminar

Northwestern University

Penn State's Academic Leadership Academy

U.S. Army War College

U.S. Army's Intelligence and Security Command Senior Leader's Conference

U.S. Coast Guard Intelligence Center

U.S. Institute of Peace on ISIS

Vanderbilt Law School

RESEARCH & PUBLICATION

CDR Y. Aboul-Enein "Combating Violent Islamist Groups: The Absolute Need for Our Muslim Partners," was published in NGA's Pathfinder magazine.

Mr. C. Bailey, JD (2017). "The Quest for Justice: Joseph Kony & the Lord's Resistance Army," Fordham International Law Journal, Vol 40, Iss 5.

Mr. C. Bailey, JD (2016, November 4-5). Attended the National Doctor of Juridical Science (SJD) Roundtable at the American University Law School in Washington,

DC. He presented his dissertation research on Counterterrorism Law & Practice in the East Africa Community and provided feedback to SJD candidates working national security law topics.

Mr. C. Bailey, JD (2016, December). "Cyber Civilians as Combatants," 8 *Creighton International and Comparative Law Journal* 4-22.

Mr. C. Bailey, JD (2016). "The Moral-Ethical Domain & The Intelligence Practitioner," *American Intelligence Journal*, vol. 33, no. 1.

Mr. W. Blackwell (2017). "Alien and Philosophy: I Infest Therefore I Am," an edited volume containing a chapter contributed to NIU faculty, COL Melancon. This chapter examines the tensions between political realism and the just-war tradition in times of conflict, as demonstrated through the lens of the Alien film franchise.

Dr. D. Burghart (2016, November 4-6). Presented his paper on "Eurasian Energy Futures" to the Central Eurasian Studies Society Conference at Princeton University.

Mr. J. Caddell (2016, December). Accepted an invitation from the International Association for Intelligence Education to speak at an International Association for Intelligence Education Washington, DC, chapter meeting. He presented his working paper titled, "Historical Case Studies in Intelligence Education: Best Practices, Avoidable Pitfalls," at a session held at the National Cryptologic Museum in Ft. Meade, MD.

Mr. J. Caddell and Mr. J. Sislin. "From U-2 to CORONA: How Intelligence Collection Norms Evolve" was published in the popular media outlet *War on the Rocks*. The piece addresses how international relations norms relating to intelligence collection taboos morph over time relative to the actions of states, individuals, and other "norm purveyors." This is the first *War On the Rocks* piece published by CSI faculty.

Dr. J. Davis (2016, October 14). Served as a faculty representative and facilitator for CSIR-sponsored collaboration effort with Dr. Shashi Jayakumar of the Singapore think tank, S. Rajaratnam School of International Studies. The discussion focused on extremist violence in Asia. Ten members of the NIU faculty participated in the session.

Mr. W. Hugar Completed and submitted an article on Chinese leadership connections to both previous and extensive provincial reclamation projects and the South China Sea new island projects for the Fall issue of *CSI's Journal of Strategic Intelligence*.

Mr. E. Jens (2017, September). "Assessment of James Mitchell's Enhanced Interrogation," *Studies in Intelligence* 61, no. 3.

Mr. E. Jens (2017, June). "Cold War Spy Fiction in Russian Popular Culture: From Suspicion to Acceptance via Seventeen Moments of Spring," *Studies in Intelligence* 61, no. 2. Mr Jens earned a "Studies in Intelligence" Award for 2017 for the essay.

Mr. E. Jens (2017, April). "Special Oversight Challenges in National Security Interrogation," *Conference Proceedings of the Command and General Staff College 2017 Ethics Conference*.

Mr. E. Jens (2016, December). "A Conspiracy Against the Laity: The Intelligence Community Considered as a Profession," *American Intelligence Journal* 33, no. 1.

Dr. A. Kardell, Ms. J. Mendosa, and CDR R. Lewis. Contributed chapters on, homeland security, counternarcotics, and Coast Guard intelligence, to a book, "Homeland Security and Intelligence," edited by Keith Logan.

Ms. J. Mendosa. Published an article, "Operations-Driven Intelligence: Is the Shirt on Backwards?" in the International Journal of Intelligence and Counterintelligence.

Ms. J. Mendosa (2017, June). Posted a white paper to the National Academies of Sciences website for the Decadal Survey on Social and Behavioral Sciences for National Security; topic of white paper is the need for research on transnational illicit networks.

Dr. B. Miller (2017, April 17). Double-blind peer reviewed publication, "Tomorrow's Europe: A Never Closer Union," was published in the "Journal of European Integration (JEI)," on-line version, hard copy in JEI, Vol 39, No. 4, 421-433.

Dr. J. Shapiro (2016). "Russian Hybrid Warfare: Not New, Well-Accomplished, and Limited in Scope," was published in Niculae Iancu et al, ed., Countering Hybrid Threats: Lessons Learned from Ukraine, (Amsterdam:

IOS Press, 2016), published in cooperation with the North Atlantic Treaty Organization Emerging Security Challenges Division.

Dr. D. Shin (2017, March). "Application of Smart Power Strategy to Construct a More Effective Strategy to Denuclearize North Korea" was published in International Relations and Diplomacy.

SERVICE & AWARD

Mr. J. Caddell was awarded the 2016 "Christopher Andrew – Michael Handel Prize" for best article of the year in the journal "Intelligence and National Security." Mr. Caddell was presented the award during the International Studies Association conference in Baltimore, MD by the journal's co-editors Dr. Loch Johnson from the University of Georgia and Dr. Mark Phythian from the University of Leicester. The award recognizes Mr. Caddell's article "Corona over Cuba: The Missile Crisis and the Early Limitations of Satellite Imagery Intelligence" for its "thorough research, clear exposition, and the presentation of fresh archival materials."

Mr. J. Caddell was selected as the International Association for Intelligence Education (IAFIE) Instructor of the year for 2017.

LTC D. Newell was awarded the Beland Award as the NIU AY 2017 Faculty Member of the Year.

LTC J. Smith-Heys was selected to be General Hayden's teaching assistant at George Mason University during the spring semester.

Lt Col C. Speranza, PhD and Dr. D. Pfaff presented their paper, "Trust: A Critical Variable in the Intelligence Profession," at the Australian Institute of Professional Intelligence Officers in Brisbane, Australia.

Lt Col C. Speranza, PhD was awarded the 2017 NIU Faculty Research Award. The NIU Faculty Research Award is presented by NIU's Office of Research and recognizes the best faculty research conducted for the Intelligence Community on strategic intelligence. Nominees are selected based on publication of research in peer-reviewed journals and going "above and beyond" on research support to NIU doctoral students.

Mr. W. Hugar, Dr. A. Kardell, Maj D. Kritz, and Dr. D. Newell were awarded Faculty of the Quarter for AY 2017.

WOMEN AND ACADEMIC PERFORMANCE

Dr. Brian Holmes, Associate Dean of the Anthony G. Oettinger School of Science and Technology Intelligence (S&TI), and two S&TI graduates, Ms. Kimberly Reubush '14, and Ms. Maria-Kristina Hayden '16 published an article, Renaissance Women: A Perfect Match for Science and Technology Intelligence Education in the American Intelligence Journal-National Military Intelligence Association (NMIA).

The article caught the attention of NIU's Women's Caucus, who invited the authors to discuss the article in an open forum with university faculty and other IC members. The forum brought about a lively discussion about women, the struggle and advancements of women, and what is being recognized nationwide in regards to women and graduate/post graduate statistics (enrollment, degrees, and grade-point averages) which paralleled comments from the article's reviewer, Dr. Arden L. Bement.

The full article follows and is also published in the American Intelligence Journal, Vol. 34, No. 1, 2017.

[Authors' Note: The views expressed in this article are ours alone and do not imply endorsement by the Defense Intelligence Agency, the Federal Bureau of Investigation, the Department of Defense, or the U.S. government.]

“Thank you for this interesting and enlightening article. I found parallels at Purdue’s Global Policy Research Institute with the performance of women students in developing policy briefs on global grand challenges that required analyzing the interrelationships among technical, social and economic factors. Often women students were selected by their teammates as team leaders. Over the past six years, women students in the program have garnered prestigious scholarships for international study, such as the Fulbright, Truman, and U.S. Presidential programs. They had something to prove and they certainly did.”

—Dr. Arden L. Bement, Jr., former Inaugural Director of the Global Policy Research Institute at Purdue, and former Director of the National Science Foundation, Director of the National Institute of Standards and Technology, and Deputy Undersecretary of Defense.




Foreign Dental and Deception Committee (FDDC)
Honors
Victoria F. Palazzolo
as Recipient of the
2022
Horton Whitney Deception Research Award
In Recognition of the NIU Master's Thesis
that Most Significantly Contributed to
the Dental and Deception Disciplines.

RENAISSANCE WOMEN: A PERFECT MATCH FOR SCIENCE AND TECHNOLOGY INTELLIGENCE EDUCATION

by Kimberly Reubush,
Maria-Kristina Hayden,
and Dr. Brian Holmes

INTRODUCTION

In March of 2016, four female graduate students from the National Intelligence University (NIU) took on an impromptu challenge proposed by their instructor – enter and compete in the U.S. Cyber 9/12 Student Challenge. The Atlantic Council describes the event as “an annual cyber policy competition for students across the globe to compete in developing national security policy recommendations tackling a fictional cyber catastrophe.”¹ Despite no institutional history in this competition, the team placed second out of 40 teams from 25 universities. Although it was not surprising to the NIU faculty that they did well, their success prompted a more significant debate about the reasons why they did so well in not only the competition, but also in the Anthony G. Oettinger School of

Science and Technology Intelligence.² This debate sparked an informal research study into the backgrounds of successful female students like this team to better understand their experiences and viewpoints, in an effort to see if there were any key factors they shared in common. The research and observations focused primarily on female graduate students in the full-time program who earned a Master of Science and Technology in Intelligence (MSTI) degree from the School of Science and Technology Intelligence at NIU.

According to data obtained from NIU’s Office of Institutional Effectiveness, since the MSTI degree’s inception in 2012, women have performed exceedingly well in the School’s full-time program, based on scientific and technical intelligence (S&TI)-aligned research awards won and overall GPAs. This is in spite of the fact that less than one quarter of the School’s full-time graduate student population is female. In 2012, the female population represented only 7 percent of the total, whereas in subsequent academic years it ranged from 21 to 24 percent. According to an analysis of the 10 highest GPAs in the School since 2012, 6 were obtained by female students. Those women attended NIU with undergraduate degrees in biology, international affairs,

political science, and marine environmental science to name a few, and came from a variety of different government agencies and Military Services. There was no singular undergraduate educational degree or background that was reflected by this particular student sampling.

THE MODERN SCIENCE AND TECHNICAL INTELLIGENCE PROFESSIONAL

There is far more to spying than just spying.³ Many of today’s intelligence analysts and collectors play the role of the modern day Renaissance man. Leonardo da Vinci, the Italian polymath, is considered the quintessential Renaissance man example because he excelled at several fields in science and the arts.⁴ To say that today’s S&TI professionals, or functional experts, have to succeed in this interdisciplinary manner would be an understatement.⁵ “Scientific and technical intelligence” is based on a working knowledge of the underpinnings of the science and technology that enter into the intelligence realm.⁶ Areas of focus often include the analysis of weapons of mass destruction, emerging technologies, and cyber issues among others. Within several years of hiring, these unique intelligence officers

are expected to synergize a vast spectrum of organizational tradecraft manuals, foreign and domestic policies, laws, bureaucracies, terms of art, languages, and of course geopolitical, military, diplomatic, economic, scientific, and technological subjects spanning countries and actors, spliced together in a global context.⁷ It is not enough to master a single discipline to do well and meet the mission requirements prescribed by Executive Order 12333, and driven by Intelligence Community Directive 204, which guides evolving national intelligence priorities.⁸ During the Cold War, many new intelligence hires had degrees related to Russian studies or were military weapons experts and focused on those areas for years.⁹ While this type of experience is still valued and used today, this hiring and career paradigm is a distant relic. Most new employees now are required to broaden out their expertise within a few years.

WHAT'S IN A GENDER OR DEGREE?

A recent study by the University of Washington described why some science, technology, engineering, and math (STEM) fields have fewer women than others.¹⁰ Nowhere in the

study was there evidence of a lack of ability as a primary factor. Instead, a lack of pre-college experience in STEM, gender gaps in belief in one's abilities, and a masculine culture that discourages women from participating were determined factors most likely to explain gendered patterns in the six STEM fields evaluated. Jenny Anderson also wrote a story in Quartz describing gender trends within STEM, across multiple countries, that detailed why each gender is more inclined to pursue different jobs in science-related fields.¹¹

A quick survey of the type of educational backgrounds represented by functional S&TI experts reveals that STEM and social science degrees are currently represented. Classic STEM disciplines might be in the majority depending on the agency and office, but that hiring trend is more mission centric than the universal rule. Some analysts even have both on their resumes. Ultimately, regardless of their educational specialty, every S&TI officer has to learn aspects of the other. You are just as likely to find a technical collector who is a jack-of-all-trades, as to find a “specialist.” Each is needed. Interestingly, new articles communicate the idea that in today's world, the barriers between the two discipline “groups” are dissolving.¹² There are modern undergraduate programs that embody the best

aspects of these blended ideals. For instance, Georgetown University created the Science, Technology, and International Affairs major in its Walsh School of Foreign Service.¹³ Its website aptly notes that “now more than ever, science and technology are at the heart of international affairs”. Regardless, the fact is that S&TI as an intelligence profession is far more inclusive than it is believed to be. The Anthony G. Oettinger School of Science and Technology Intelligence is similar in that regard to its students.

A diverse set of experts who can multitask and can draw from a spectrum of educational backgrounds and experiences to fully integrate their knowledge base is needed in order to provide the best possible intelligence products to customers.¹⁴

RESEARCH FOR IMPACT

A common trait revealed through an interview process was the fact that many NIU female MSTI students were as proactive as they were open to structured guidance. They were also driven to seek creative solutions to unique S&TI problems that would be impactful for their customers. Rarely did they perform research for the sake of research, and few were risk averse. The background work and outreach required

to understand the strategic intelligence and its national security relevance in context was just as important as the results many of these women achieved. This tended to integrate far more social science methodologies than scientific ones.¹⁵ Ultimately, the female students creatively blended academic theory with intelligence practice in a transparent and synergistic fashion across fields.¹⁶ A significant percentage of female students did it well and therefore won awards.

Of the numerous university thesis awards listed in the current NIU academic catalog, three are generally aligned to the Science and Technology Intelligence School's curriculum and themes. These include the Scientific and Technical Intelligence Committee Award (STIC), the National Intelligence S&T Award (S&T), and the National Intelligence Officer for Cyber Intelligence Research Award (NIO Cyber).¹⁷ Since 2014, the 1st year the NIO Cyber award was introduced, female graduate students from the School have won 33 percent (1 out of 3) of the thesis awards granted. Since 2012, they won 50 percent of the S&T awards (3 out of 6) granted (two students won the award in 2015 as a result of a tie), and 60 percent (3 out of 5) of the STIC awards. In 2016, all three of these thesis

awards were won by female S&TI students, despite women representing only 21 percent of the School's full-time population that year. Overall, women have won 50 percent of all the S&T awards granted since 2012. Male students won the S&T and STIC award in 2012 when the female student population was only 7 percent (or 2 students) of the total. The average full-time population of women and men in the School from 2012 to 2016 was 35 students per year.

WOMEN WEIGH IN

When asked directly, some female MSTI students attribute their success to personal pride. In the male-dominated fields of science, technology, intelligence, and the military, both servicewomen and civilians have a lot to prove—partly to themselves, and partly to the male-dominated battlefield and conference room. It is not about competition, necessarily, but rather preempting the gender stereotypes that never fit many of these high achievers.

Kimberly Reubush and Maria-Kristina Hayden are alumnae of the Science and Technology Intelligence School and coauthors of this article. They shared their personal perspectives of the program and their challenges. Reubush,

a 2014 NIU alumnus from the Federal Bureau of Investigation (FBI), was the first person from her organization to be nominated into the MSTI program. In order to attend, she had to convince not only her division's management of the positive benefits of the program, but also her agency's executive management to modify their application policy. This required a significant amount of time and effort. She believed that it was critical to learn how to better explain the scientific and technical data produced in her job in order to contextualize it in a strategic way to meet the Intelligence Community's (IC's) requirements and better serve her customers. In this manner, NIU's S&TI program seemed like a perfect destination for her. Failure in the program was not an option for her, and could have negatively affected future personnel from her agency seeking these unique educational opportunities.

Reubush, a bench scientist at the FBI accustomed to producing technical forensic evaluations, needed to learn how to think more like an all-source intelligence analyst upon arrival at NIU. She recognized and overcame this challenge by pairing up with a classmate who was a professional analyst and did not have a scientific background like hers.

The two collaborated closely to complement their skills and strengthen their foundational knowledge in their effort to succeed. For her thesis research, rather than apply strictly qualitative based research methods commonly used in social science, Reubush leveraged the capabilities of her home agency, FBI's Terrorist Explosive Device Analytical Center (TEDAC), to conduct a series of improvised explosive experiments to validate critical intelligence, and integrated her quantitative results with qualitative analysis. The execution of this type of mixed methodology was not representative of the majority of NIU theses. There was an inherent risk in the effort based on the limited time available in an 11-month degree program and the complex approval and material acquisition chain involved. She overcame these challenges, and her thesis stood out upon its successful completion. Reubush used the data collected to demonstrate a more definitive answer to address an explosive device's effectiveness, which built on the IC's initial hypothetical assessment.

After graduation, Reubush was assigned a project at the FBI to help determine better ways by which scientific results, originally generated for legal cases, could also be appropriately exploited in the IC. She applies the skills her

degree provided, including her ability to speak both scientific and intelligence terms of art, to improve her support to and integration with intelligence analysts. The result is a far better intelligence product.

One year later, in 2015, Hayden received notification through the Defense Intelligence Agency that her third application to NIU's MSTI program had been accepted. Hayden had remained determined to attend because of the similarities between NIU's MSTI program, and her multidisciplinary "Science, Technology, and International Affairs" undergraduate degree within Georgetown's School of Foreign Service. While at Georgetown, Hayden applied twice for the Department of Defense Science, Mathematics, and Technology Research for Transformation (SMART) scholarship, and as a senior became the first Georgetown student grantee. The award paid for her final year at Georgetown and paired her with a post-graduation analytic position at the Pentagon. A few years later, NIU became the logical continuation of an education that spanned both STEM topics and strategic issues.

During her time at NIU, Hayden sought to maximize the short 11-month program through extracurricular engagement and

networking. She was determined to achieve in the classroom (she earned the second highest GPA in the University) and deliver an impactful thesis. For an elective course deliverable in NIU's cyber concentration, she became a member of the four-woman team that won second place at the Atlantic Council's U.S. Cyber 9/12 Student Challenge in 2016. She proudly recalls her team staying up all weekend drafting and presenting U.S. policy response options based on a post-cyberattack scenario for the Challenge. Separately, she created a mixed method research design that entailed interviewing energy executives about their cybersecurity challenges and testing her qualitative conclusions with a quantitative analysis of their responses. Maria ultimately won the 2016 Elizebeth S. Friedman Award in recognition of the master's thesis that most significantly contributes to the U.S. homeland security intelligence mission.¹⁸

CONCLUSION

After interviewing several different alumni and current female graduate students in the Science and Technology Intelligence School, including Reubush and Hayden, a few final trends were observed. Every student emphasized the desire to learn how to more effectively "bridge the

gap” or integrate technical analysis and strategic assessments. There are numerous articles describing the complexities and challenges S&TI analysts face when conveying information to policymakers.¹⁹ NIU’s graduate program became a destination for students desiring to learn how to perform this duty more effectively. Reubush and Hayden pursued this goal tirelessly.²⁰ Regardless of the service or agency the students represented, improvement in this area was a key component to their success.

Similarly, the School’s female students were driven to creatively plan and execute original thesis research that often bridged academic disciplines, methodologies, and intelligence practitioner norms. Incorporating the best aspects of quantitative and qualitative techniques and blending the research to support challenging intelligence mission areas resulted in a superior level of effort well received by senior intelligence officers and the broader national security community.²¹

Almost in unison, all of the female students interviewed communicated that they tended to more proactively seek professional guidance when they required assistance than their male

peers. This tendency likely enabled a more effective pathway toward achieving success in the classroom and their research. Most tied this to a personal need to be more persistent to reach their goals. Ultimately, it is clear that these female graduate students in the Science and Technology Intelligence School wanted to represent and prove themselves as top of their class. They certainly did, and the School certainly wants more Renaissance women like them.

ABOUT THE AUTHORS:

Kimberly Reubush earned a Master of Science and Technology Intelligence degree from the Anthony G. Oettinger School of Science and Technology Intelligence at the National Intelligence University in 2014, and currently serves as a supervisory forensic examiner at the FBI’s Terrorist Explosive Device Analytical Center in Huntsville, Alabama.

Maria-Kristina Hayden earned a Master of Science and Technology Intelligence degree from the Anthony G. Oettinger School of Science and Technology Intelligence at the National Intelligence University in 2016, and recently joined the Cyber Threat Intelligence Group of a global financial institution as Vice

President and Senior Information Security Analyst after serving as an intelligence analyst at the Defense Intelligence Agency.

Dr. Brian T. Holmes is the Associate Dean of the Anthony G. Oettinger School of Science and Technology Intelligence at the National Intelligence University, which recently moved from Washington, DC, to the Intelligence Community Campus-Bethesda, MD. He is a former research scientist, Navy officer, and intelligence analyst.

1 The Atlantic Council, <http://www.atlanticcouncil.org/programs/brent-scowcroft-center/cyber-statecraft/cyber-9-12> (accessed on January 24, 2017).

2 The Anthony G. Oettinger School of Science and Technology Intelligence, <http://ni-u.edu/wp/academics/schools/college-of-science-and-technology-intelligence/> (accessed on January 24, 2017).

3 Why The Best Spies in Mossad And The CIA Are Women, <https://www.forbes.com/sites/crossingborders/2012/09/30/why-the-best-spies-in-mossad-and-the-cia-are-women/#2bb853af2bb0> (accessed on January 23, 2017).

4 Biography of Leonardo da Vinci, <http://www.biography.com/people/leonardo-da-vinci-40396#synopsis> (accessed on January 24, 2017).

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6 Master of Science and Technology in Intelligence, <http://ni-u.edu/wp/academics/schools/college-of-science-and-technology-intelligence/master-of-science-and-technology-intelligence/> (accessed on January 20, 2017).

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10 Why Do Some STEM Fields Have Fewer Women Than Others? UW Study May Have the Answer, <http://www.sciencenewsline.com/news/2016101318330092.html> (accessed on January 20, 2017).

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12 How Social Sciences are Converging with STEM, <http://www.socialsciencespace.com/2014/01/the-contemporary-social-sciences-are-now-converging-strongly-with-stem-disciplines-in-the-study-of-human-dominated-systems-and-human-influenced-systems/> (accessed on February 20, 2017).

13 Science, Technology and International Affairs Major, <https://sfs.georgetown.edu/stia/> (accessed on February 25, 2017).

14 What is Knowledge Integration, <http://www.igi-global.com/dictionary/knowledge-integration/16357> (accessed March 15, 2017).

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16 Critical Thinking For Strategic Intelligence, https://www.amazon.com/Critical-Thinking-Strategic-Intelligence-Katherine-dp/1452226679/ref=pd_sim_14_2?_encoding=UTF8&pd_rd_i=1452226679&pd_rd_r=YMHYMNV7R15M30KHWT8Q&pd_rd_w=pJfp2&pd_rd_wg=DDJrU&ppsc=1&refRID=YMHYMNV7R15M30KHWT8Q (accessed on February 20, 2017).

17 NIU Academic Catalog; The Scientific and Technical Intelligence Committee Award is presented in recognition of the master's thesis that most significantly contributes to the advancement of experimental science in an IC-related thesis. Submissions are evaluated for originality, experimentation, lab research, and overall contribution to the knowledge base in an S&T intelligence-related field; The National Intelligence S&T (Science and Technology) Award is presented by the National Intelligence Officer in recognition of the best master's thesis on an analytical science and technology intelligence topic. Submissions are evaluated for originality, methodology, and overall contribution to the knowledge base in an S&T intelligence-related field; The Cyber Intelligence Research Award is presented by the National Intelligence Officer for Cyber in recognition of the best master's thesis in the intelligence fields of cyber analysis, collection, operations, policy, or strategy. Submissions are evaluated based on originality, analytic methodology, technical acumen, and practical application; <http://ni-u.edu/wp/niu-academic-catalog/> (accessed on March 1, 2017).

18 NIU Academic Catalog; The Coast Guard Foundation presents the Elizabeth S. Friedman Award in recognition of the master's thesis that most significantly contributes to the U.S. homeland security intelligence mission.

Submissions are evaluated for originality, thoroughness of research, and overall contribution to the nation's homeland security intelligence program. Dubbed "America's first female cryptanalyst," Ms. Friedman solved more than 12,000 coded messages during the Prohibition era, effectively putting rum-running syndicates out of business on the U.S. Pacific and Gulf Coasts; <http://ni-u.edu/wp/niu-academic-catalog/> (accessed on March 1, 2017).

19 More Art Than Science: Intelligence and Technical Topics, <https://warontherocks.com/2016/04/more-art-than-science-intelligence-and-technical-topics/> (accessed on March 20, 2017).

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21 The Carrot or the Stick? Incentivizing Safe Cyber, <https://warontherocks.com/2016/10/the-carrot-or-the-stick-incentivizing-safe-cyber/> (accessed on March 20, 2017).

THE 2017 COMMENCEMENT

One of our most distinguished alumni leaders, retired four-star Air Force General Michael Hayden '80, delivered the commencement address at the annual graduation ceremony on Friday, July 28, 2017. General Hayden served as Director, CIA from 2006-2009, as first Principal Deputy Director of National Intelligence from 2005-2006 and as Director of NSA from 1999-2005. He is currently a principal with the Chertoff Group. General Hayden was awarded an honorary Doctor of Strategic Intelligence in 2001 and has continued to support NIU for many years as a guest speaker and lecturer and in his current role as Chairman of the National Intelligence University Foundation, a 501(c)(3) non-profit organization, established in 2011 to support NIU. He is a nationally-recognized and respected expert on intelligence and national security issues and is the author of the 2016 book "Playing to the Edge: American Intelligence in the Age of Terror."



COMMENCEMENT HONOREES AND AWARDS

The A. Denis Clift Award	Sergeant Emmanuel Perez, U.S. Army
The Ann Caracristi Naval Intelligence Foundation Award for Academic Excellence	Gunnery Sergeant Stefan Buckman, U.S. Marine Corps
The Barton Whaley Denial and Deception Research Award	Ms. Victoria Palazzolo, National Geospatial-Intelligence Agency
The Elizebeth S. Friedman Award	Ms. Julia Fazio, Federal Bureau of Investigation
The Fleet Admiral Chester W. Nimitz Archival Research Award	Major Aaron Danielle, U.S. Army
The Foreign Area Officer Association Lieutenant General Vernon A. Walters Award for International Affairs	Major Chris Finch, U.S. Air Force
The Judge Allan Nathaniel Kornblum Award	Awarded to Student, Department of Defense
The Lyman B. Kirkpatrick Jr. Award	Captain Jake Yeager, U.S. Marine Corps
The Michael D. Kuszewski, Lieutenant Colonel, United States Marine Corps, Award	Captain Jake Yeager, U.S. Marine Corps
The Military Order of the World Wars Award	Ms. Jessica Crist, Office of Naval Intelligence
The NIU Faculty Research Award	Lieutenant Colonel Carly Speranza, PhD, NIU
The National Intelligence Officer for Cyber Intelligence Research Award	Awarded to Student, Colorado Air National Guard
The National Intelligence Officer for S&T Award	Awarded to Student, Colorado Air National Guard
The National Intelligence Officer for Cyber Intelligence Research Award	Awarded to Student, Colorado Air National Guard
The National Intelligence Officer for S&T Award	Mr. Joel Van Wagenen, Central Intelligence Agency

The National Intelligence University Intelligence Research Award

Ms. Julia Fazio, Federal Bureau of Investigation

National Military Intelligence Association Award

Undergraduate Award: Sergeant Dustin Malm,
U.S. Marine Corps Graduate Award: Captain Mark Harris, U.S. Army

The Non-commissioned Officers Association Military Excellence Award

Undergraduate Award: Master Sergeant Edward Davis,
U.S. Air Force Graduate Award: Awarded to Student, U.S. Army

The Reserve Officers Association Award for Outstanding Scholarship and Military Leadership

Lieutenant Colonel Robert Sander, U.S. Army National Guard

The Scientific and Technical Intelligence Committee Award

Master Sergeant Amber Abramowski, U.S. Air Force

The Robert D. Beland Memorial Award for Excellence in Teaching

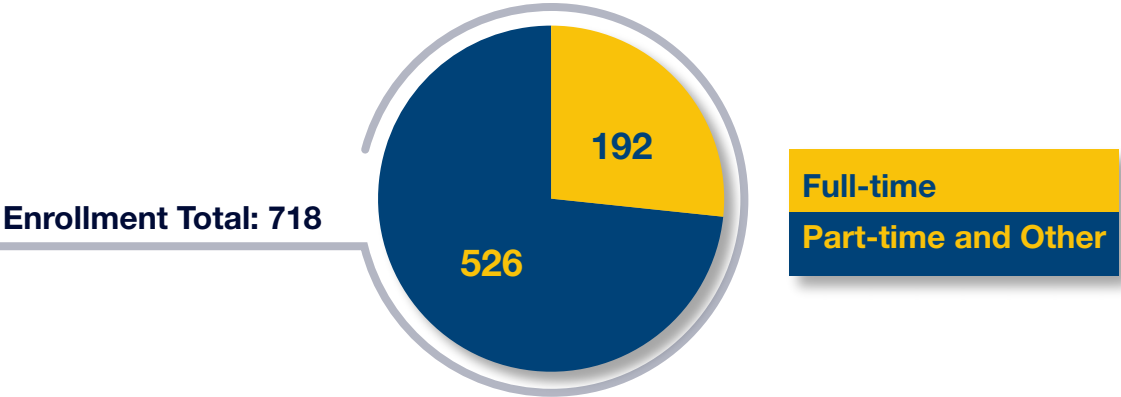
Lieutenant Colonel David Newell, U.S. Army



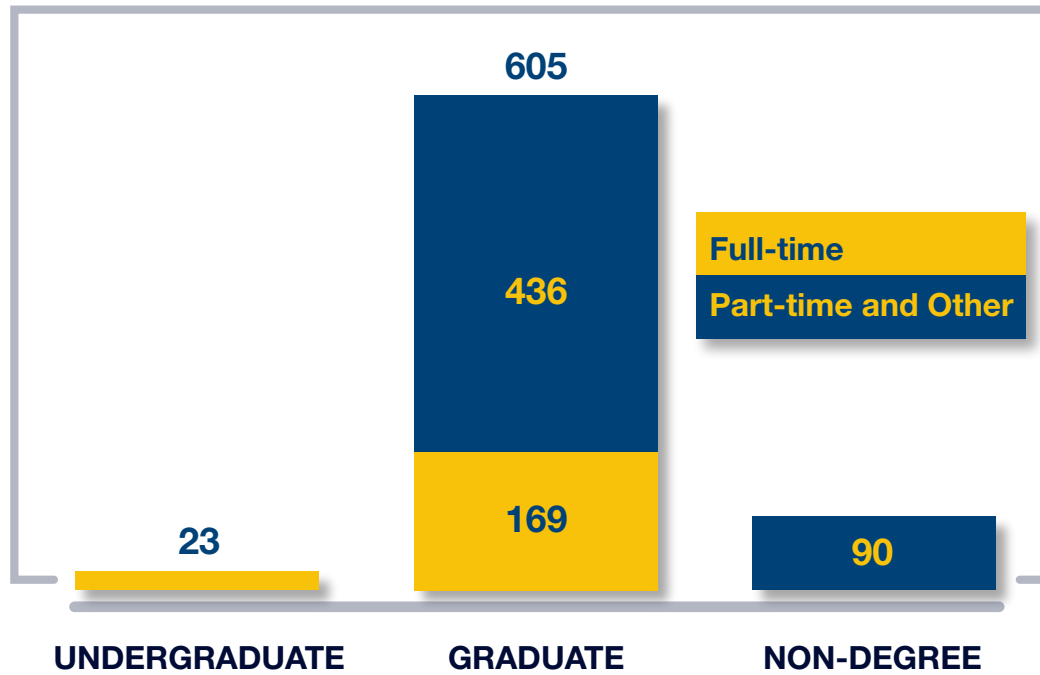
Sadly, BSI student, **Sergeant Joshua Stone**, lost his battle with cancer this year. Dr. Ellison presented a “**Distinguished Baccalaureate Candidate**” certificate to Josh’s family in his memory.

QUICK FACTS (2017)

FULL-TIME/PART-TIME ENROLLMENT



FULL-TIME/PART-TIME ENROLLMENT



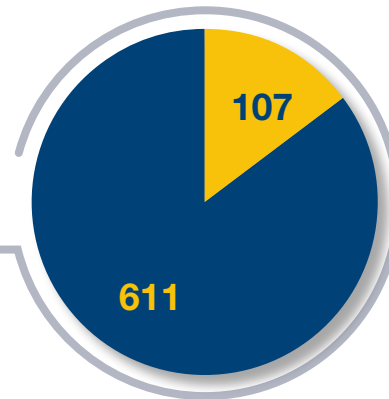
GRADUATES: 605

NOTE: Non-degree includes certificate and continuing education enrollment.

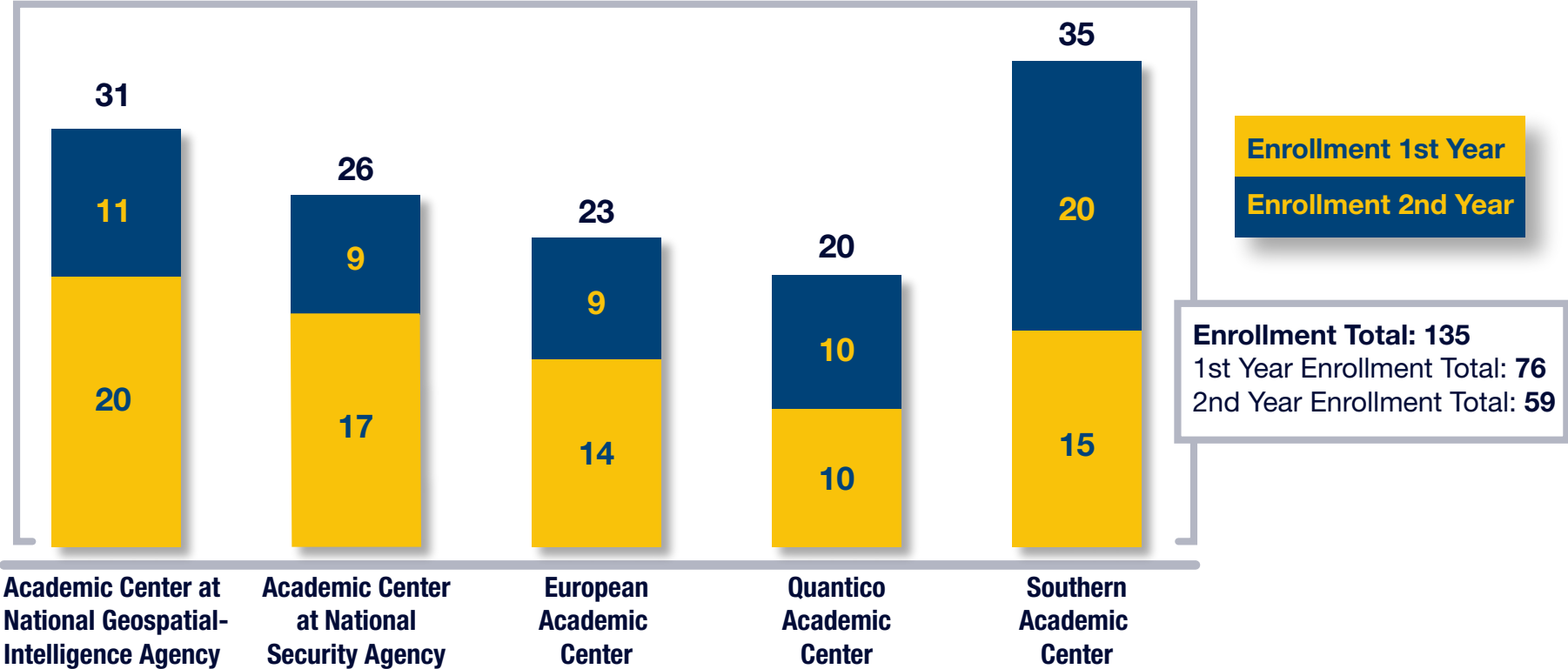
ENROLLMENT BY SCHOOL

College of Strategic Intelligence (CSI)
Undergraduate: 23
Graduate: 498
(130 Full-time and 368 Part-time and Other)
Non-degree: 90

**School of Science and
Technology Intelligence (SSTI)**
Graduate: 107
(39 Full-time and 68 Part-time/Other)



ACADEMIC CENTER LOCATION ENROLLMENT

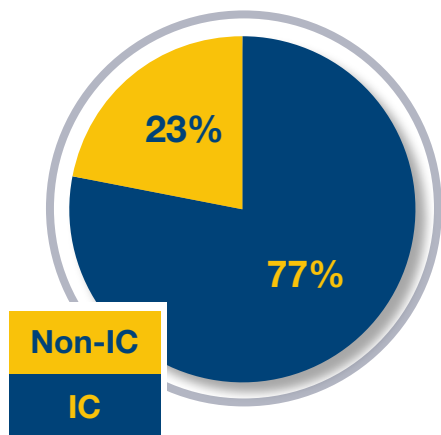


ADMISSION

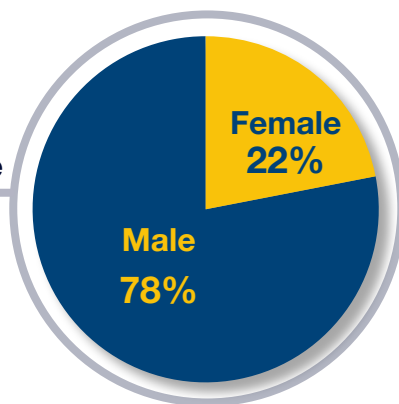
**Admissions
Rate: 83%**

Undergraduate Average Entrance GPA	3.04
Graduate Average Baccalaureate GPA	3.19
Graduate Average Graduate GPA	3.69
Graduate Average Graduate Record Exam Verbal Score (GRE)	156
Graduate Average GRE Quantitative Reasoning Score	149
Graduate Average GRE Analytical Writing Score	4

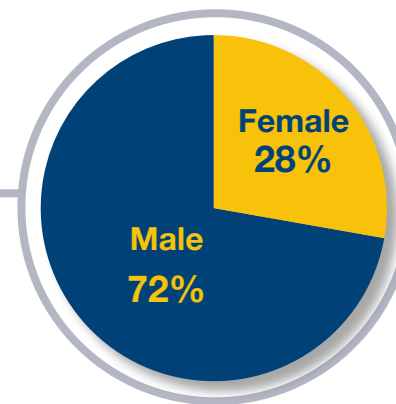
STUDENT PROFILE



Undergraduate

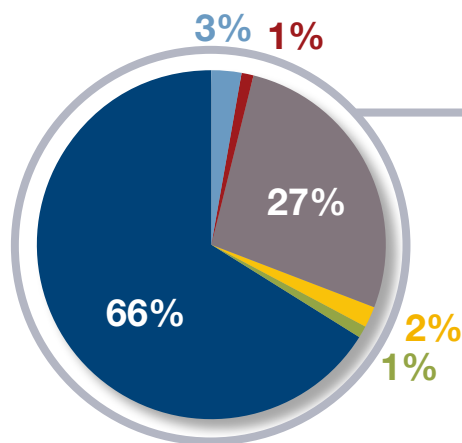


Graduate



3.6:1

Student to Faculty Ratio



Student Race/Ethnicity

- African American
- Asian/Pacific Islander
- Caucasian
- Hispanic
- Native American/Alaskan
- Two or More Races
- Not Reported

GRADUATION RATES

NIU's full-time graduation rate "at normal completion" represents the total number of students who received a degree (actually conferred) within 100 percent of normal completion time (1 year), divided by the total of first-year degree-seeking students, minus allowable adjustments.

NIU's part-time graduation rate "at normal completion" represents the total number of students who received a degree (actually conferred) within 150 percent of normal completion time (3 years), divided by the total of first-year degree-seeking students, minus allowable adjustments.

Graduation rates "at actual completion" represent the total number of first year students who entered a degree program in a specified year of entry (cohort year) and completed the program within any given year thereafter; these rates are subject to change as more students complete their programs.

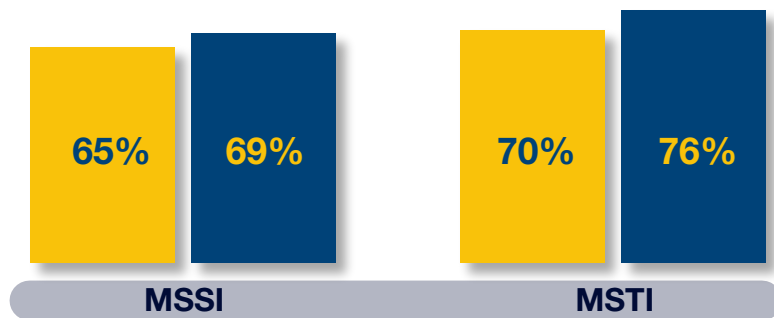


GRADUATION RATES

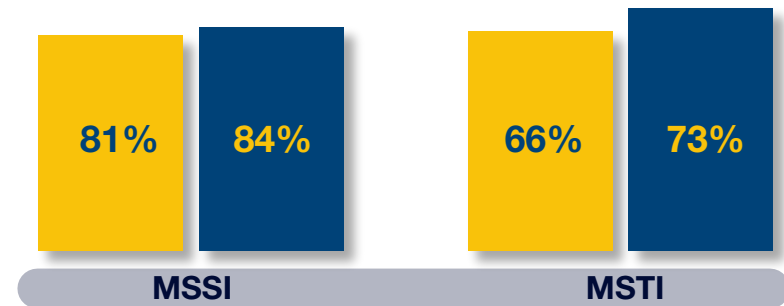
Graduation rates for full-time students who began pursuing a degree in fall 2015 and part-time students who began pursuing a degree in fall 2013.



Undergraduate Graduation Rates



Graduate Graduation Rates (All Students)



Graduate Graduation Rates (Full-time Only)

Normal Completion

Year of Entry

THE MEASURE OF OUR SUCCESS

Our truest measure of success is the success of our graduates. The education at NIU prepares our students to achieve strategic leadership within the professions of intelligence and national security. However, we know that the success of our alumni reaches far beyond the IC.

NIU's First Member of Congress!

Michael Gallagher '10 became NIU's first member of Congress in January 2017. He was elected to represent the 8th District of Wisconsin in the U.S. House of Representatives on November 8, 2017.

NIU's Highest Ranking Civilian Alumnus Retires

NSA Deputy Director, Richard Ledgett '92, retired in April 2017 after 29 years at the Agency. He has been interviewed by major U.S. media outlets and featured in several prominent newspapers discussing, among other things, his leadership role in the task force responsible for assessing and reacting to the Snowden leaks. Mr. Ledgett returned to his intelligence alma mater in March 2016, when he addressed NIU students and faculty as the featured speaker in the weekly President's Lecture Series.

Lieutenant General Robert P. Ashley, Jr. appointed the next Director, DIA

The Senate confirmed Lieutenant General Robert P. Ashley, Jr. '90 for reappointment to rank of Lieutenant General and assignment as Director, DIA on August 3, 2017.

BUILDING A VIBRANT ALUMNI NETWORK

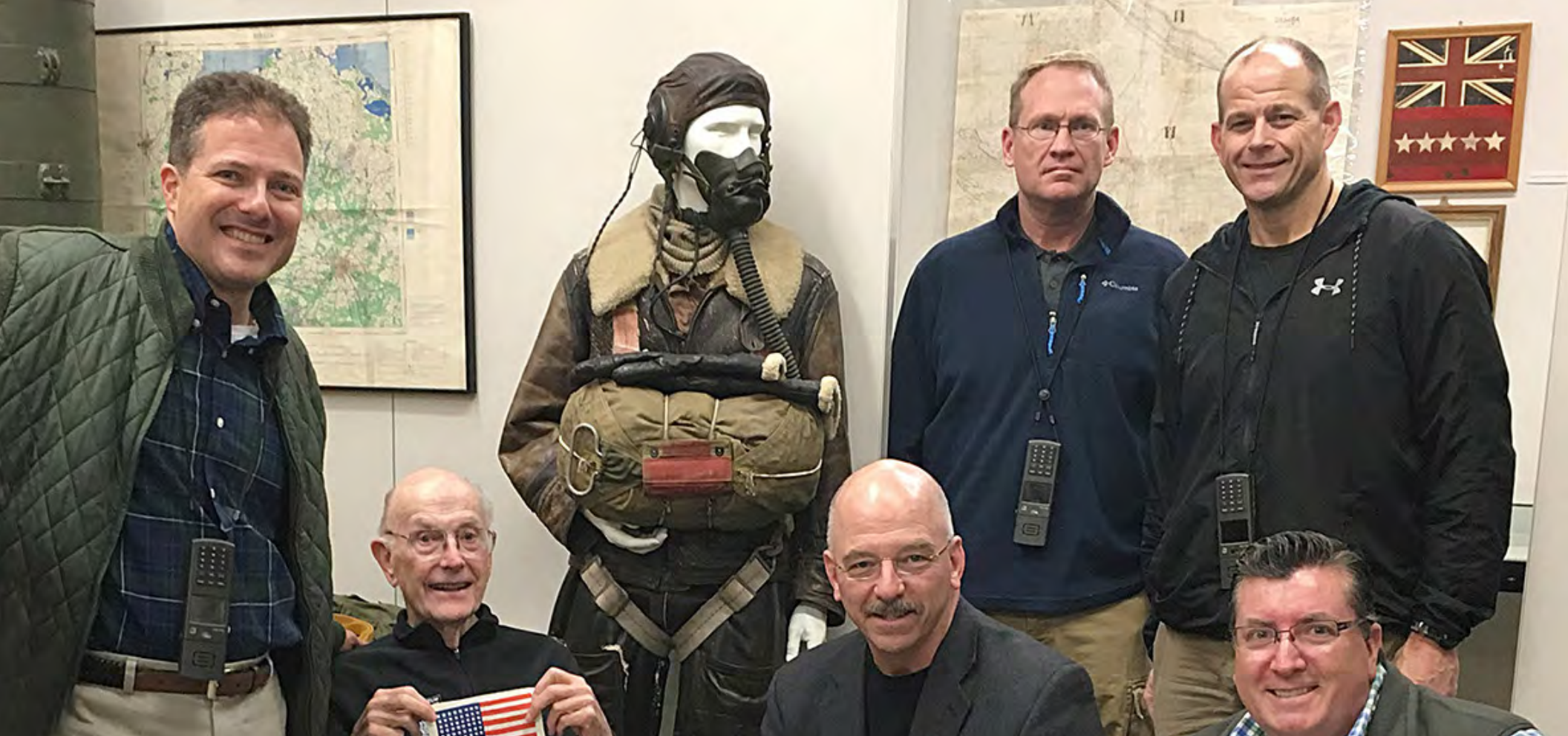
In 2016-17, there were more alumni events in more places than in any previous year since the alumni office was created in 2011. The events featured an incredibly rich mix of current and former IC leaders as keynote speakers, resulting in greater awareness of NIU by senior leaders and key stakeholders, and provided second-to-none networking opportunities for alumni, students, and faculty. Most of the events were accomplished in partnership with the newly-created alumni association and a growing number of regional alumni networks.

As a result of the continued effort to build a vibrant campus community, the alumni association has seen a ten-fold increase in membership since its establishment and the number of alumni reconnecting with the university continues to grow.

2017 HIGHLIGHTS

Alumni in the greater Boston-area made school history this year as the first NIU regional alumni network, an effort that was led by two New Hampshire-based alumni, Army Reserve COL Ron Corsetti '06 and CAPT Jim Spotts '01, USCG (ret). Working with the NIU Alumni Office to solicit interest in forming a network, nearly two dozen alumni from Rhode Island to Maine and from Boston to Amherst made contact with Corsetti and Spotts. They held an inaugural networking event in early October 2016 and have since held three other events: a guided tour of the Museum of WWII in Natick, MA, a social/professional event in Lexington, MA in June, and a book-signing in Portsmouth, NH in August with plans for a 2nd annual Networking event in October.

Pictured left: A B17 Pilot (seated with American flag) regales alumni with stories of participation in day raids over Germany in WWII. Inset: (left to right) Dan Huelsman '09, Tom Van Wagner '94, Jim Spotts '01, and museum docent Mark Galuzzo.





Service to Alma Mater: Two Huntsville-area Senior Alumni Promote NIU at Joint Duty Fair!

Army Material Command Senior Executive Kathy Coviello '04 and former Assistant Director of FBI Intelligence Rafael "Jorge" Garcia '02 are working to establish an alumni network in the Huntsville, AL area. In April, they staffed an NIU booth at a joint duty fair at Redstone Arsenal, AL, and have hosted two networking dinners, including one with former DIA Director LTG Ron Burgess in September 2017. Thank you to these two "alumni ambassadors" for giving their time and energy to promote NIU to audiences outside the Beltway.

NIU Alumni Jorge Garcia '02 and Kathy Coviello '04 promote NIU at a Joint Duty Fair in Huntsville, AL on April 20, 2017.



23 May 2017: Brian Bataille '97, shown third from left, stands with Molesworth-based alumni after a great dinner in Cambridgeshire, UK, the first OCONUS alumni event yet!

In May 2017, **UK-based alumni participated in the first NIU alumni event in Europe**, a “from Generation-to-Generation” dinner at an award-winning pub in Cambridgeshire.

In Tampa, FL, a 1995 alumnus took the first step of reaching out to local alumni as he works to establish an NIU network near the NIU Southern Academic Center.

Reunion 2017 Provides Alumni a First Peek at the New Campus!

On Friday, June 23, NIU partnered with the Alumni Association to hold a half-day reunion event at the new campus in Bethesda, MD. The event attracted a record crowd of alumni from the classes of the 1960s, 1970s, 1980s, 1990s, 2000s and 2010s, as well as more than two dozen former faculty! The reunion agenda included a tasty welcome reception, remarks by the current and incoming NIU Presidents, a guided tour of the new campus, a “state of the Alumni Association” address by Alumni President Harry Petrey ‘12/’13, and a networking reception to cap the day.

NATIONAL INTELLIGENCE UNIVERSITY

Founded 1962

Accreditation

The National Intelligence University is accredited by the Middle States Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104 (267-284-5000). Middle States Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation.

NIU's Joint Professional Military Education (JPME) program is approved by the Chairman of the Joint Chiefs of Staff, allowing selected, qualified military officers to receive JPME I credit after completion of a designated program of study concurrent with the NIU master's degree.

Degrees

Bachelor of Science in Intelligence (BSI)

Master of Science of Strategic Intelligence (MSSI)

Master of Science and Technology Intelligence (MSTI)

Main Campus

Intelligence Community Campus in Bethesda, MD (ICC-B)

Academic Centers (AY 2016-17)

NIU Academic Center at the National Geospatial-Intelligence Agency

NIU Academic Center at the National Security Agency, Fort Meade, MD

NIU European Academic Center, Molesworth, UK

NIU Quantico Academic Center, Quantico, VA

NIU Southern Academic Center, MacDill AFB, FL

University Centers

Center for Strategic Intelligence Research

Library

The library's holdings comprise over 70,000 volumes, 536 worldwide periodicals and journals, 46 U.S. and foreign newspapers, 31 commercial research databases, and numerous historical collections, DVDs, audio books, and an extensive map room, all with an emphasis

on global issues such as terrorism, international political science, military and naval science, intelligence, science and technology, and history.

The Library made significant additions to its special collections, including:

- Paul Kozemchak's donation of his personal holding forming the basis for the Kozemchak S&T Collection and Reading Room at the ICC-B Campus

National Intelligence Press

The National Intelligence Press publishes the work of faculty, students, research fellows, and intelligence professionals on topics of concern to the Intelligence Community and U.S. Government.

Financial Resources (AY 2016-17)

NIU's financial planning is based on the Intelligence, Planning, Programming, Budgeting, and Execution system, which operates on a 6-year cycle. DIA, in conjunction with the ODNI, provides financial resources to the University. The requirements are submitted and funded through the General Defense Intelligence Program.

In accordance with DoD Instruction (DoDI) 3305.01, NIU continues to expand its

educational, research, and outreach mission and responsibilities while both evolving as a service of common concern to the IC and also meeting the demand of its customers. Acting on DoDI 3305.01 and the University's Strategic Plan, the University has programmed funding for fiscal years (FYs) 2018 and 2019 in order to maintain IC academic offerings with current levels of faculty, staff, and administrative support. In FY 2017, NIU was able to sustain all of the educational research and outreach goals and achievements implemented with the FY 2017 budget.

Board of Visitors (AY 2016-17)

Maureen A. Baginski, Chairperson

Thad W. Allen, ADM, USCG (Ret.)

Arden L. Bement, Jr., PhD

Kevin J. Cosgriff, VADM,
USN (Ret.) (2009-2016)

Joan A. Dempsey

Joann P. DiGennaro, JD (2012-2016)

John C. Gannon, CAPT, USN (Ret.), PhD

Chris Inglis, Brig Gen, USANG (Ret.)

Gilman Louie

Joanne O'Rourke Isham

Harvey Rishikof, JD

Timothy Sands, PhD

Deborah Kircher, ex officio member

Glenn A. Gaffney, ex officio member

Francis X. Taylor, Brig Gen, USAF (Ret.),
nominated as ex officio member

President

J. Scott Cameron, PhD (2017 - Present)

RADM David R. Ellison, U.S. Navy (Ret.),
PhD (2009-2017)

Executive Vice President and Provost

Susan Studds, PhD





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