

Booz Allen Hamilton Holding Corp  
Form DEFA14A  
June 16, 2016  
**UNITED STATES**

**SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**SCHEDULE 14A**

**Proxy Statement Pursuant to Section 14(a) of the Securities  
Exchange Act of 1934 (Amendment No. )**

Filed by the Registrant Filed by a Party other than the Registrant

**Check the appropriate box:**

Preliminary Proxy Statement

**Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))**

Definitive Proxy Statement

Definitive Additional Materials

Soliciting Material Pursuant to §240.14a-12

**Booz Allen Hamilton Holding Corporation**

*(Name of Registrant as Specified In Its Charter)*

*(Name of Person(s) Filing Proxy Statement, if other than the Registrant)*

**Payment of Filing Fee (Check the appropriate box):**

**No fee required.**

**Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.**

(1) Title of each class of securities to which transaction applies:

(2) Aggregate number of securities to which transaction applies:

(3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):

(4) Proposed maximum aggregate value of transaction:

(5) Total fee paid:

**Fee paid previously with preliminary materials.**

**Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.**

(1) Amount Previously Paid:

(2) Form, Schedule or Registration Statement No.:

(3) Filing Party:

(4) Date Filed:

IMPACT REPORT / 2016

Booz | Allen | Hamilton

## INTRODUCTION

Welcome to Booz Allen Hamilton's 2016 Impact Report. Now in our second century, we are as vibrant and innovative as the day we were born. After having created the very concept of management consulting more than a century ago, we have now woven that heritage into a range of highly skilled technological capabilities that have had an exciting impact for our clients, our people, and the communities where we live and work. Our people are bringing their mix of consulting and advanced technology expertise to solve problems with a different, more effective mindset. Their purpose is to devise powerful solutions for our clients' toughest challenges. And their passion is in everything they do; they want to help their country protect and serve its citizens better and make sure their neighbors have adequate food and shelter.

We've lasted more than 100 years because we've stood firm on a foundation of the highest character, an unyielding commitment to the best client service, and genuine care for our employees and communities. But importantly, we've also adapted with the needs of the times. Today, we're building value and opportunity for our second century by investing in technology skills like data science and analytics, systems delivery, engineering, and cyber, and we're supporting those skills with investments in our culture of innovation.

Our clients call upon us to work on their very hardest problems because they see again and again that we are up to the task. And our investors, whose confidence and support give us the ability to serve our clients and communities, see our value each year in strong financial performance and potential for growth.

**FROM THE CEO & CHAIRMAN**

For more than a century, the people of Booz Allen Hamilton have helped clients anticipate and prepare for the future. We pride ourselves on working hard to stay a step ahead—knowing what our clients will need next, helping them understand change, and delivering solutions that advance their missions in light of complex, new requirements.

*President and Chief Executive Officer Horacio D. Rozanski (standing, left) and Chairman of the Board Ralph W. Shrader (standing, right) with Booz Allen Hamilton colleagues at the firm's Washington, DC, Innovation Center.*

DEAR  
COLLEAGUES  
AND FELLOW  
STOCKHOLDERS,

It should be no surprise, then, that we anticipated the changing dynamics of our own core federal contracting market several years ago and defined how Booz Allen would transform to remain a leader in our industry. We are now well into that transformation under our Vision 2020 growth strategy, and the fiscal year that ended March 31, 2016 was a milestone year.

After 3 years of revenue contraction, we started to grow the top line in fiscal year 2016. We aggressively pursued and won opportunities in an improving market. We broadened the types of work we do for long-standing clients and introduced our advanced capabilities to new clients. We continued to evolve our portfolio of services and products and develop our talent base toward mission-critical work that requires a blend of domain knowledge, consulting expertise, technical skill, and innovation.

FYIG REVENUE  
\$5.41 BILLION

These strides demonstrate significant progress toward achieving sustainable, quality growth that benefits clients, investors, and our own people. While we still have more to do to fully realize the value and potential of Booz Allen's growth strategy, the past year affirmed that we set the right path to the future. In fact, we are building it brick-by-brick.

22,583 NUMBER OF  
EMPLOYEES AS  
OF MARCH 31,  
2016

### LEANING INTO THE MARKET

TOTAL BACKLOG  
\$11.8 BILLION AS  
OF MARCH 31,  
2016

Fiscal year 2016 saw improved demand in the market, and we had great success in capturing opportunities across defense, intelligence, and civilian agencies. Although the market remains very competitive, prices stabilized in parts of our core business. Clients tell us they feel more confident about their budgets and are more accustomed to managing through uncertain periods. As a result, they are better able to focus on their missions and plan for the future.

On the strength of our consulting expertise, client relationships, past performance, and substantial recent investments in innovation and advanced technical capabilities, we captured new work and won recompetes in every part of our business. We built a record fiscal year-end backlog of \$11.8 billion. Our book-to-bill ratio of 1.45 was our highest since before the Company went public. Our funded and unfunded backlog, representing work over the next 6 to 18 months, is up 8.5 percent from the end of fiscal year 2015, and priced options, representing potential future revenue, increased 45.0 percent.

To capture that backlog, we spent more heavily on bid and proposal activity, marketing, and other indirect costs during fiscal year 2016, which had an impact at the bottom line. Nonetheless, we were pleased to once again deliver financial results that met or exceeded our forecast for the year. Here is a summary:

Here is a summary:

- Gross revenue grew 2.5% to \$5.41 billion
- Adjusted net income<sup>(1)</sup> grew 2.6% to \$246 million
- Adjusted Diluted Earnings Per Share<sup>(1)</sup> were \$1.65, up from \$1.60 in fiscal 2015

- Adjusted EBITDA<sup>1)</sup> margin was 9.4%
  
- Total return to shareholders was 6.7% for the 12 months ending March 31, 2016, compared with 1.8% for the S&P 500 and 0.5% for the Russell 1000.

## **ADVANCING OUR STRATEGY**

Fiscal year 2016 was the 3rd year of implementing our Vision 2020 strategy. At the heart of our strategy is the differentiation created by combining our consulting heritage and thorough knowledge of clients' missions with key technical capabilities, including engineering, systems delivery, cyber, digital, and advanced analytics.

We have also expanded our business in the commercial and international markets. And we continue to advance an innovation agenda that has internal and external benefits. It has energized our workforce, forged strategic partnerships with other innovators in academia and the private sector, and created alternative revenue streams in the form of cutting-edge products and solutions.

88% FYIG WIN  
RATE ON  
RECOMPETES

Of particular note during the past year was our purchase in November, 2015 of the software services unit of SPARC, a Charleston, SC, technology firm. The SPARC team fortifies our already strong systems delivery business and establishes an agile development hub in the South. As with other recent acquisitions, the SPARC purchase demonstrated our approach to mergers and acquisitions in a dynamic industry: We are focused on small capability-based plays that can bolster organic revenue in areas where we see the greatest potential for sustained growth.

The transformation we have undertaken is reflected in the type of work we performed and won during fiscal year 2016. Clients are turning to us for support on their most important priorities, including:

62% FYIG WIN  
RATE ON NEW  
CONTRACTS

- Identifying and mitigating against a broad spectrum of emerging national security threats spanning both physical and cyber risks
- Designing secure, advanced communications systems to protect warfighters
- Decreasing the large backlog in claims for veterans' benefits
- Enabling health insurance enrollment through the Federally Facilitated Marketplace
- Helping auto and drug manufacturers, energy producers, retailers, and others secure their products, infrastructure, and processes from cyber threats

High-quality delivery of our services and expertise on critical missions like these further strengthens our essential partnerships with clients and builds value for shareholders. It also helps us attract and retain the best people—women and men who are passionate about solving problems and making a difference in the world.

## **LEADERSHIP AND BOARD GOVERNANCE**

In February 2016, Chief Financial Officer and Treasurer Kevin Cook announced his retirement and Executive Vice President Lloyd W. Howell, Jr., was named to succeed him as CFO, effective July 1. Lloyd brings to the CFO position more than 24 years of experience at the firm,



including leadership in business operations and strategic planning. He has deep familiarity with the firm's finances, and will lead our effort to accelerate growth at both the top and bottom line through effective capital deployment and investment strategies.

During fiscal year 2016, we further diversified our shareholder base, attracting institutional investors focused on value as well as growth at a reasonable price. After the sale of 26 million shares total in secondary offerings in November 2015 and May 2016, The Carlyle Group owned about 11 percent of outstanding common stock of the Company as of May 27, 2016.

We were pleased to welcome Melody Barnes to Booz Allen's Board of Directors in October 2015. She is a domestic policy strategist and a Vice Provost and Senior Fellow at New York University and formerly served as Assistant to the President and the Director of the Domestic Policy Council for President Obama. Melody brings a wealth of public policy expertise that will help broaden our perspective on issues important to clients and to our own strategic planning. The Board remains actively engaged with management on our long-term strategy and competitive positioning in an evolving market, as well as risk management and stewardship of shareholder value.

We are particularly proud of the diversity of our Leadership Team and Board of Directors; they are among the most diverse in corporate America today. This diversity reflects and complements the transformation of our firm. But more than that, it underscores our commitment to creating opportunity for our people and demonstrates the importance of diversity to our success.

### **COMMITMENT TO PEOPLE, CLIENTS, COMMUNITY**

It is a great privilege to represent the work, ideas, energy, and dedication of Booz Allen's nearly 22,600 talented professionals. Their performance drives our business and creates opportunities for the future.

44% EMPLOYEES WITH ADVANCED DEGREES

Ask a Booz Allen strategist or technologist to describe what he or she does and the answer that most often comes back is "I solve problems." In today's world, that means bringing together people of varied skills and backgrounds and applying their passions to complex challenges. The people of our firm do that each and every day—in their work and in their communities.

66K VOLUNTEER HOURS RECORDED BY  
EMPLOYEES IN FY16

In fiscal year 2016, our Company was again recognized for its excellence by respected publications and associations. The honors included *FORTUNE's* Most Admired Companies, *Working Mother's* 100 Best Companies, and *Forbes'* Most Prestigious Consulting Firms and Top 100 Military Friendly Employers. In addition to serving clients each day, the people of Booz Allen gave more than 66,000 volunteer hours to organizations across the country—work that strengthens communities and assists those in need. For our people, this service is just one more meaningful way to put their values and passions into action.

Thank you, Booz Allen employees and stockholders, for your support as we continue to transform our firm, help clients in new ways, reach for growth, and above all, serve as a positive force in the world. We look forward to building on our success in fiscal year 2017.

<b>RALPH W. SHRADER,</b>	<b>HORACIO D. ROZANSKI</b>
<b>PH.D.</b>	
Chairman of the Board	President and Chief Executive Officer

*(1) These measures are non-GAAP financial measures.  
For a reconciliation of these measures to GAAP, [click here](#).*

**PEOPLE / MEET OUR PEOPLE**—engineers, systems delivery experts, and data scientists; working parents and military families. One military family shares their story of deployment and financial uncertainty until both joined Booz Allen, where they are thankful for the financial security our benefits provide to military personnel who must deploy. And learn how our innovation tools are creating connections throughout the firm—infusing our workplace with even more creativity to drive client solutions.

**PURPOSE / UNDERSTAND OUR PURPOSE**—to solve our client’s greatest challenges. In defense, for example, our team of experts identified traumatic brain injury subtypes that could lead to improved recovery outcomes for wounded warriors. Our cybersecurity experts have ensured our country’s safety by securing a commercial nuclear facility and in the process raised the bar on industry standards. We’re partnering with clients to solve their challenges, and as a result—the cars you drive are safer, the utilities that power our country are more secure, and our borders are more protected.

**PASSION / FEEL OUR PASSION**—for giving back, for making a difference. Our volunteers have mentored young innovators through the not-for-profit *FIRST*<sup>®</sup> (For Inspiration and Recognition of Science and Technology) for more than a decade. The net effect of Booz Allen’s long and passionate support: the firm was recently named a *FIRST* Strategic Partner. Passionate inquisitiveness led to a breakthrough solution to help track the Ebola virus in Africa. That same energy and love for advanced data analytics and virtual reality technology led to the creation of Project OceanLens<sup>™</sup> that brings never-before-seen capabilities to mapping the underwater environment.

**PEOPLE, PASSION, AND PURPOSE**—they are the stories of the promise we make and the impact we deliver every day.

—		
<u>Management Consultants Go for Gold</u>	1	
—		
<u>Building A Culture of Innovation</u>	3	
—		
<u>The Nuts and Bolts of Engineering Excellence</u>	5	
—		
<u>Saluting Military Families with a Culture that Builds Resiliency</u>	7	
—		
<u>Dare to Create the Future with Our Data Science Workforce</u>	9	
—		
<u>Supporting and Celebrating Our Working Parents</u>	11	
—		
<u>Building Our Systems Delivery Workforce</u>	13	
—		
<u>Intrepid Analysts Help Unlock Clues to TBI Treatments</u>		16
—		
<u>Connected Cars: Innovation and Safety in the Driver’s Seat</u>		18
—		
<u>Analytic Innovation Cell—Bringing New Ideas for Keeping the Nation Safe</u>		20
—		
<u>Raising the Bar on Public Utilities’ Cybersecurity</u>		22
—		
<u>Bringing it all Together: Behind the Scenes of the Healthcare Reform</u>		24
—		
<u>Turning on the Lights: C4ISR Integration</u>		26
—		
<u>Smart Cities &amp; Government, Happy Citizens—Transforming the Middle East and North Africa</u>		28
—		
<u>Hope Drives Culture of Innovation</u>		31
—		
<u>Story Time in the Cloud—an App-based Approach to Reading Together</u>		33
—		
<u>Helping Reach More Kids with a Great <b>FIRST</b>® Impression</u>		35
—		
<u>Fish Eye View—Project OceanLens™</u>		37
—		
<u>Playing for Keeps—Cyber Wargames</u>		39
—		
<u>A Passion for Problem-Solving Leads to an Innovative Tool for Disease Tracking</u>		41
—		
<u>Advanced Analytics Put Clients Ahead of the Attack</u>		43

**EVERY COMPANY SAYS IT:**

*“Our people  
make us great.”*

At Booz Allen, we know it’s true. We foster a culture of collaboration, experimentation, and discussion of new ideas, and we know that diverse minds yield diverse perspectives. Our 22,600 dedicated employees come from all walks of life, and hail from around the globe, but share a defining characteristic—a driving passion for solving our clients’ problems and delivering lasting value. We’re engineers and scientists; systems delivery, cyber, and analytics experts, and the list goes on. We’re also veterans, reservists, working parents, recent grads, and military spouses. This experience and expertise, coupled with a 100+-year consulting legacy is what we offer our clients. And it sets us apart. We invite you to meet our people through these stories. See for yourself how Booz Allen is building a workforce that helps our people thrive professionally and personally, and how that translates to exceptional client service and solutions.

MANAGEMENT CONSULTANTS GO FOR GOLD Booz Allen employees engage in discussion at our NY, NY office.

| 11

IMPACT REPORT / 2016

*Throw a tough set of problems at a talented group of consultants, ask them to devise the best solution, and you've got quite a serious competition that we call the Management Consulting (MC) Games.*

MC GAMES BOOZ ALLEN HAMILTON

*MC Games connects employees and leaders to solve real client challenges.*

This 3-month, voluntary Olympics of Consulting competition is designed to simulate a real-world consulting engagement. During the most recent MC Games, held in 2015, multi-level, interdisciplinary teams were pitted against each other to solve one of 13 large-scale, strategy-level client challenges presented by a Booz Allen leader. More than 350 team members came from 44 Booz Allen office locations around the world—from Washington, DC, to the United Arab Emirates and Korea—and were coached by 95 Booz Allen leaders.

Seven of the problems tackled by the 52 teams came from inside the firm, like “how to build a better career manager,” while the remaining six were market facing, including how to manage gender equality in the military and looking for the “next big thing” in our health service offerings. All of the challenges tackled real-world issues offered to the players by the leaders who face them; the winning solutions were considered for implementation, and in many cases were implemented.

*The 3-month, voluntary Olympics of Consulting competition brought together more than 350 team members from 44 Booz Allen office locations around the world—from Washington, DC, to the United Arab Emirates and Korea—who were pitted against each other to solve one of 13 large-scale, strategy-level client challenges presented by a Booz Allen leader.*

**GOING FOR GOLD**

Competing teams held “pitch jams” to prepare their final presentations and work through the details of their solutions, flexing their consultancy muscles—in strategy frameworks, operating model, and deck writing. Each team held a scope review and then a mid-point review with a senior leader to ensure projects were on track.



After months of developing, planning, and designing a solution—all on their own time—teams arrived at Game Day to present their final analysis and recommendations. “The day of the games stood out as one of those great days in your career,” says Principal Heather Powers, who served on the senior leadership team that created and designed the competition. “It was so energizing. It’s just a fabulous way to affirm our heritage,” Heather says.

After closed-door deliberations, judges picked 13 winners and announced the results—to audible cries of victory and disappointment from the audience. It was so intense, no one wanted to lose.

Senior Consultant and MC Games player Anastasiya Olds says she felt leaders were really listening. “They took what we said to heart,” she says. “This wasn’t just a networking exercise; senior leaders actually took suggestions from the teams.”

[music playing] Female Speaker: Consulting is at the core of everything we do. It is in our heritage and will continue to be the foundation of the solutions we design and deliver for our clients. Every day Booz Allen consultants work tirelessly to support our client’s missions often leaving little time to connect and mature our business and management consulting skills. The MC Games changed that. The case study-based competition was created to give staff, under the functional community construct, the opportunity to build and exercise their management consulting skills while working with senior leaders across the firm to solve complex, real-world management problems. For three months, 52 teams of 350 staff and over 90 senior leaders serving as coaches, worked across markets, accounts, and geographies to come together to design solutions to tackle 13 critical challenges facing the firm today. The finale culminated in an amazing celebration recognizing the creativity, dedication, and commitment of the teams. The Games was an incredible demonstration of the power our functional communities have in galvanizing staff from across the firm to build something critical to our business: real connection to the business and each other. [end of transcript]

One such suggestion grew into Booz Allen’s online Systems Delivery University (SDU). The idea was to create a repository of tools and resources that employees could easily reach. SDU is now live; through partnerships with several e-learning providers, technical staff can boost their skills in software and process engineering, data architecture, program management, and more. Another idea—the Functional Skills Mentoring Program—launched with a pilot focusing on Process Improvement and Knowledge Management.

The MC Games serve as a catalyst for growth and remind Booz Allen staff of the importance of senior leaders working with junior team members to drive engagement and connection. Anastasiya says she stays in regular contact with one of her MC Games mentors, someone she likely never would have met otherwise.

PEOPLE  
BUILDING A CULTURE  
OF INNOVATION

*Booz Allen has been delivering innovative solutions to clients for over a century, but in 2013, the firm embarked on a mission to effuse an intentional Culture of Innovation throughout the organization.*

*Booz Allen's  
flagship  
Innovation  
Center in  
Washington, DC.*

“The spirit of entrepreneurship and innovation has been at our core since the beginning. And as we looked ahead to the next 100 years, we had an opportunity to freshly infuse innovation in how we approach the market and solve client problems,” says Senior Associate Chris Holmes, one of the Culture of Innovation initiative leaders. “The greatest pool of innovators are our employees—who understand their clients’ missions better than anyone. Employees’ diversity of thought, experience, and expertise are the key to driving innovation. We thoughtfully built a

framework to bring this creative diversity together, which provides a new lens to analyze problems. Our culture of innovation empowers employees as creative thinkers and provides unparalleled value for our clients and for any problem we try to tackle.”

For the past 3 years, Booz Allen’s Strategic Innovation Group (SIG) has built and driven this Culture of Innovation framework. We connect people and ideas across the natural barriers of markets, capabilities, and geographic distances. Through focused challenges, and the creation

of planned points of collaboration, we’ve established an environment that attracts more of the best ideas and compels our people to connect, contribute, and thrive. Recruiting and retaining a new generation of talent is a priority to stimulate creativity and create original, sustainable value.

**WITH THE RIGHT TOOLS,  
THE SKY’S THE LIMIT**

To foster this culture, Booz Allen developed a set of tools and programs—several of which have generated impressive buy-in and engagement. These include:

IMPACT REPORT / 2016

**THE GARAGE:** An online crowd-sourcing platform where employees post ideas and problems, get feedback, and propose/respond to “challenges.” Since launching in 2014, the Garage has crowdsourced nearly 1,000 ideas, and 19,000 votes have been cast by employees to posted challenges.

**THE COMBUSTION CHAMBER:** A live, “Shark Tank”-like event, where employees get 5 minutes to pitch near-market-ready ideas to a panel of senior partners—with no decks, just their pitch and whatever makes it stand out. In 2015, \$285,000 was awarded to winning pitches to develop, launch, and scale new client solutions.

**ANNUAL IDEAS FESTIVAL:** A celebration of our innovation efforts that also allows us give back to our community. The day’s events—which take place simultaneously in several Booz Allen offices—bring together junior employees and senior leaders for sharing, networking, and workshops where attendees brainstorm solutions to issues faced by a local not-for-profit. In 2015, employees all across the firm could also engage with the day’s events via a custom app that connected users through photos, comments, and real-time feedback. More than 87,000 interactions and impressions were generated.

**THE MILLENNIAL PROJECT:** We’re attracting the sharpest young talent through this effort that includes a winter engagement program to expose junior technical talent to consulting earlier in their career-seeking process; a 10-week competitive Summer Games internship; a Student Incubator to source, capture, and prototype brilliant new ideas; and a means to invest in the STEM talent pipeline by working on social good endeavors.

## OPENING THE DOORS OF INNOVATION

We’ve come a long way since 2013 and the next chapter of our innovation journey is underway as we jump into the Innovation Hub (iHub) network, a group of entrepreneurs, startups, incubators, investors, and other leading-edge firms in pre-existing hot beds of innovation in places like Austin, Boston, Los Angeles, San Diego, and Seattle. Our iHub presence is helping the firm enhance our brand, recruit and retain top talent, generate leads, sell new business models, and pilot new technologies. We’ve even opened our own Innovation Center in Washington, DC. From its innovative space design to the cutting-edge technologies from our partnering sponsors—Intel, Hewlett Packard Enterprise, and Microsoft—the state-of-the-art Center is built to fuel creativity.

“The Innovation Center and our engagement in the larger Innovation Hub network are helping to raise the bar,” says Senior Associate and Innovation Center Director Kurt Scherer. “Now our clients are getting not only the best of Booz Allen, but of our partners and alliances as well.”

[music playing] Alexé Weymouth: So the Big Idea Event really had its roots last summer when we set out on a new adventure in a forum competitive internship program. It's 10 weeks and it's an opportunity for students to come in and explore new areas as a team. It's set up as a competition and part of the summer they get to explore a new area -- anything -- no holds barred. So something that's really fascinating to them and maybe a topic that they haven't been exposed to in academia. Peter Guerra: The students came up with a number of really strong ideas last year. And from those ideas, we chose five that we felt were the ones that we wanted to incubate for this spring. And these are big challenges in our society and these students are thinking through creative solutions of how to address this. [music playing] Ashley Peter: So over the summer I tried to think of a way to address the problem of texting and driving. And so we wanted to create an app that would there to prevent to drivers from texting and driving or discourage them from texting and driving. Seth Clark: There's a lot of technology on the market; a lot of apps that try and address this issue. And, you know, the perspective of the team is that they just weren't doing a good job. So it started as sort of an amorphous idea -- how do you reduce texting and driving with a mobile app? Brian Zito: Essentially, what the app does, it attracts texts. So the demo itself right now, just measures whether a text we sent was sent over 15 miles an hour. So that's what we're showing off. We've also shown "Could Be Built," [spelled phonetically] it's a actual server where you can view these texts and see who is texting and driving. [music playing] Sarah Walker: Ideas come about with the idea that we want to provide a tool where Millennials can help their savings grow and so start with something small and then hopefully have it become bigger and bigger. So I think "Seed" just kind of came out through that. Hallie Miller: It's an app that helps Millennials prepare for retirement through seamlessly integrating into their lives by saving a little bit for every transaction they make and rewarding them for good saving habits. [music playing] Jennifer Huppert: So this is a video series that is produced by interns for interns. Michael Jacob: My name is Michael Jacob, also known as M.J. Josh Gordon: And I'm Josh. Michael Jacob: And we are Spark Plug. And basically what Spark Plugs is, we wanted to revamp Booz Allen's D2 [unintelligible]. So with that we wanted to create more of a college-style videos by students. Josh Gordon: Listening to information advice from your peer, usually resonates with people more than hearing is from someone, maybe in a different age group then them. So by offering advice to students from students we thought we'd really be able to connect and relate information we wanted to in the right fashion. [music playing] Hailey Fleming: All right so the point of "CrowdStarter" is, we want to create a site that allows for not only ideas to be posted, but of them to be funded and brought to fruition, as well. Currently, Booz Allen doesn't have anything that allows ideas to be, you know, developed and funded by folks in the firm along with, you know, collaboration and all that. Dennis DuLaney: It kind of started with the incubator project that we started over the summer. We all had our individual projects that we were tasked with in an internal or an external problem, something that we could bring a solution to to the firm. So it was actually Hailey's idea on basically we saw a need for, like she said, somewhere for these ideas to go and to grow, essentially. Going from being backed to built is what we're all about. So really bringing the ideas through the development life cycle and getting those -- making those become a reality. [music playing] Vishi Chopra: So I think a good question that summarizes the entire project is, "Would you take a pill for a specific disease if you knew it wouldn't work on you?" And research has actually shown that there is some medications that work on some patients, but not the others. And the underlying reason for the entire thing is genetic ancestry which is also responsible for susceptibility; the different diseases. We wanted to create a sort of tool that would allow researchers and scientists to easily be able to tell their genetic ancestry of their particular samples so that they could be able to figure out what drugs work on these samples, and what drugs don't. Katherine Larson: We had to determine the scope of iProject so a lot of that involved researching what exists right now and what doesn't. And we found that there is software that exists that helps determine what the ethnicity may be. But the actual application hadn't existed yet. Alexé Weymouth: The Big Idea Event is something that is not being done by anyone. Companies have co-ops, companies have a semester abroad where students can come and work at the company, but there really isn't a similar opportunity out there where students can go back to the academic setting where they're surrounded by creative geniuses and just almost an intellectual think tank. And all the creativity and energy that comes from the academic setting and yet work with corporate backing, under the corporate umbrella with our resources and our experts. They get to see what it's really like to take an idea, or the seedling of an idea, and promote it and get people to invest in you and get people to see your vision for why is this. Something we can take and scale. [music playing] [end of transcript]

In February 2016, in an effort to develop brain health innovations for veterans experiencing mild traumatic brain injury and post-traumatic stress disorder, Booz Allen leveraged relationships with its San Francisco and Austin iHub co-working locations—Galvanize and Capital Factory—to host, with the Veterans Affairs Center for Innovation/MyVA Partnerships, the #VABrainTrust Hackathon, together with veterans, caregivers, clinicians, data scientists, and others.

Booz Allen’s data curation platform, Sailfish, provided hackathon participants with datasets categorized by the hackathon themes: community reintegration, rehabilitation, and diagnostics. Throughout the weekend, teams developed and pitched ideas and presented them to the judges. Twenty projects were created, including: using Twitter bots for suicide prevention and intervention, creating online communities for service members to find jobs and reintegrate into society, developing platforms for clinicians to provide qualified veteran medical referrals, and using wearable devices to monitor and improve sleep patterns and attentiveness.

*” My team wrote ideas and algorithms on a writeable wall in the Innovation Center—something we were working on for a client in the health market. Later, I had an impromptu conversation with a principal visiting the Center that day, who saw how our ideas could provide a possible solution for his defense client. It was a tangible example of how our open work environment can drive new ideas and the transfer of innovation across the firm.”*

—Associate Julian Van Giessen,  
on working in the new Booz Allen Innovation Center

## **PEOPLE**

### **NUTS AND BOLTS OF ENGINEERING EXCELLENCE**

*When the U.S. began fighting in Iraq and Afghanistan, improvised explosive devices (IED) were one of the biggest threats to our soldiers. Booz Allen engineers were able to not only develop specialized armor for Army and Marine Corps vehicles, but also a jammer with the ability to block the wireless signals that detonate IEDs. Together, in just over a year, these technologies cut the number of U.S. casualties from IEDs in those countries by approximately 85 percent.*

*Engineer and Associate Stephanie Brinkley.*

“These are the kinds of solutions that draw clients to Booz Allen,” says Senior Vice President Brian Abbe, “and the ability to work on these kinds problems for our clients—some of the largest and most complex problems imaginable—are what draw the most talented engineers to the firm. They love to be challenged and to work on projects with such incredible impact.”

### **THE CONSULTATIVE ENGINEER**

Booz Allen has worked on engagements with critical engineering elements for over a century (like contributing to the design of the Hubble Telescope and the Apollo 11 moon launch), but it was largely in a consulting capacity until the technology and digital revolutions of recent years. Since then, Booz Allen has been building our engineering workforce to ensure we have specialized expertise in a wide range of engineering fields. And our engineers deliver a unique

IMPACT REPORT / 2016

advantage to our clients—they're not only accomplished in their respective fields and leading the way in other disciplines such as policy, business, and management fields, they also embody the firm's management consulting heritage as they innovate solutions for clients. It's a new way of providing engineering services that sets Booz Allen apart: consultative engineering.

“Our engineers not only roll up their sleeves and perform hands-on, cutting-edge work for our clients, they're able to provide them with the broader picture, as Booz Allen consultants, to deliver a more holistic solution,” says Brian.

### **ATTRACTING AND RETAINING DIVERSE, HIGH-PERFORMING ENGINEERS**

Because our success in this—and every—market begins and ends with our people, we've created a systematic approach to growing a diverse and talented engineering workforce that includes:

Targeted acquisitions of companies like the Defense Systems Engineering and Support division of ARINC Incorporated—which added approximately 1,000 employees to our engineering body in 2012 and added depth and scale in the fields of C4ISR; sustainment engineering; aviation and naval shipboard systems; and positioning, navigation, and timing; and SDI Technologies Corporation—which helped build our rapid-prototyping, manufacturing, and production capabilities, and our expertise in customized electronics and radio frequency communications

Partnerships with—and often leadership positions within—professional associations like the Armed Forces Communications and Electronics Association (AFCEA), the Society of Women Engineers (SWE), and the Institute of Electrical and Electronics Engineers

Relationships with associations that have professional, university, and diversity touchpoints—such as Great Minds in STEM, the National Society of Black Engineers, and the Society of Asian Scientists

Strategic recruiting within the industry that helps us hire world-class engineers—like Dr. Dave Stoudt and Tom Hastings, who joined the firm as Booz Allen Fellows in early 2016; and university recruiting at select schools with top engineering programs—reaching students before they graduate.

This year, Booz Allen is also taking steps to increase the pipeline of talented engineers who've left the workforce and may be ready to return. “Often these are women who've left to raise a family and now aren't sure

if they can return as engineers,” says Senior Vice President Natalie Givans, Booz Allen engineer and winner of the 2016 AFCEA Women's Appreciation Award for her efforts to further the careers of women. In partnership with SWE

and iRelaunch, the firm is launching a new internship called the “Return-to-Work Program.” The program will provide paid re-entry internships in 2016 for talented, experienced engineers with high-demand skill sets—like electrical and systems engineers, and software developers/engineers—looking for a hands-on program designed to jump-start their return to the workforce.

Together, these approaches are helping to create a powerful workforce—now 3,000+ engineers strong—that’s ready to take on any engineering challenge our clients throw at us and offer solutions as diverse as the engineers making them.

[music playing] Male Speaker: I’m a very community conscious engineer. Male Speaker: Evolution inspires me, and trying to grow inspires me. Female Speaker: My siblings, they look up to me. I’ve tried to show them that they can accomplish anything. Male Speaker: I couldn’t make up my mind, an actor, or scientist? I believe I choose the correct option. Male Speaker: I am outside of the box. Male Speaker: Big time sports fan, big time reader, big time runner. Female Speaker: I’m balancing great challenging work and also daughters. That is a whole second job. Male Speaker: I work with an intern organization; I’m helping a lot of underprivileged kids. Male Speaker: The reason I work at Booz Allen? I’m here to solve some problems, solving problems is what makes me tick. Male Speaker: Very diverse teams in terms of ideas, backgrounds. Male Speaker: And my desire is to go deep in my technology roots. Male Speaker: Smart people full of innovation. Female Speaker: Experts in so many different fields. Male Speaker: Working in this industry for over 30 years, Booz Allen is the place to be. Male Speaker: We want to be able to leave a legacy of accomplishment, leave a legacy of excellence. Male Speaker: If you’re looking for a place to grow, Booz Allen is the place. Male Speaker: Meet people that have the same desire as you. Female Speaker: Pretty much an adrenaline rush. Female Speaker: The different variety of projects that you can work on. Male Speaker: The educational opportunities are tremendous. Male Speaker: It’s up to us -- and you -- to explore. Female Speaker: The new challenge is an opportunity. Male Speaker: Based on your career, based on your desires, you really can set your own path. [end of transcript]

*Booz Allen SWE members (and one future engineer!) at the annual SWE conference, WE16.*

*“My favorite project is what I’m doing right now—working on intelligent transportation systems for the Department of Transportation. It’s an umbrella of work that integrates advanced communication technologies into vehicles and transportation infrastructures, enabling connected and ultimately autonomous vehicles—basically cars talking to each other and to infrastructure.”*

—Lead Technologist Sara Sarkhili,  
named a Women of Color STEM 2015 “Technology Rising Star”



PEOPLE

SALUTING MILITARY FAMILIES WITH A CULTURE THAT BUILDS RESILIENCY

*“Booz Allen’s commitment to military families stands apart from other companies,” says Lead Associate Amy Bennett. Amy’s husband, also a Booz Allen employee and an Army reservist, recently got called for an unexpected deployment. “The last time my husband deployed [prior to joining Booz Allen] we lost two-thirds of our income overnight and nearly lost our home. Because of the benefits that Booz Allen offers reservists—among them differential pay and continuing health and retirement benefits for up to 1 year of deployment—the situation is completely different for us this time. It demonstrates that Booz Allen both understands the unique needs of the military community and also places great value on the skills and expertise of its military, veteran, and military spouse workforce.”*

*Staff Scientist David Perry, also a Sergeant in the National Guard, poses with his fiancée and young daughter.*

And that comes naturally—Booz Allen was founded by a veteran, has continuously supported the Department of Defense (DoD) since our first DoD client in 1940, and, today, boasts a workforce in which one third its employees have a military background.

Among the differentiators in Booz Allen’s support for the military community:

- A formal veterans strategy led by senior leaders committed to raising awareness and serving the needs of the veteran community
- Two military-focused employee forums, the Armed Services Forum and Military Spouse Forum, that offer networking, career training, and a valuable knowledge base to help employees facing relocation with a military spouse
- A corporate strategy for charitable support and relationship building with leading military-focused not-for-profits, such as Operation Homefront, Blue Star Families, and Give An Hour

IMPACT REPORT / 2016

“Booz Allen understands the military lifestyle,” says Associate Tracy Freedman, a military spouse who co-leads the Military Spouse Forum. “We are focused on helping military spouses build their careers, not just get a job.” Tracy has worked for Booz Allen for 7 years, and during that time has relocated three times with her husband, a Marine officer. “The Military Spouse Forum provides a support network for spouses who have to relocate regularly with the military. We are also building awareness of the needs of our community among Booz Allen career managers, which makes all the difference.”

In November, in honor of Military Family Appreciation Month, Booz Allen launched a powerful campaign to build military family resiliency and highlight the unique skills and needs of this community. The month’s capstone event was the Military Family Resiliency Summit, which Booz Allen co-hosted with Blue Star Families and the White House’s Joining Forces, which brought together representatives from commercial organizations, military/veteran not-for-profits, and DoD leadership to discuss changing needs of military families. The Summit resulted in a **corporate engagement guide** that was distributed across a national network of business and government supporters of the military community.

Additional campaign events focused on military spouse careers and the unique and transferable skills of this community (check out the event recording on **YouTube**) and on the workforce contributions of Vietnam Veterans. Booz Allen leaders were a compelling voice in the media—creating awareness of the needs of the military family and how business and communities can come together in support. Booz Allen volunteers also partnered with Blue Star Families to refurbish military youth centers and an elementary school library at military bases across the country.

The firm is extending its innovative service to the military community to its next generation, through the new *Booz Allen Hamilton Innovation Award for Military Children*, part of Operation Homefront’s Military Child of the Year program. Our passion for innovation and support for military families converged in the sponsorship of this award, with longtime partner Operation Homefront. Seventeen year-old Elizabeth O’Brien, who has a parent in the Army, was named the first-ever recipient in March 2016 for launching a not-for-profit that raises funds to pay for military housing modifications that aren’t covered by insurance, but are needed by disabled military children. The award came with funding and consulting services from Booz Allen volunteers who provided Elizabeth with a strategic plan to help scale her not-for-profit.

## **MILITARY/VETERAN EMPLOYER OF CHOICE AWARDS**

**GI JOBS MILITARY-FRIENDLY EMPLOYER  
TOP 50 FOR 10 YEARS (#2 IN 2016)**

**MILITARY TIMES BEST  
FOR VETS (#6 IN 2016)**

**GI JOBS MILITARY SPOUSE-FRIENDLY  
EMPLOYER—TOP 50 SINCE AWARD'S  
INCEPTION (#12 IN 2016)**

**FORBES TOP 5 EMPLOYER  
FOR VETERANS 2012 – 2016**

**BEYOND ESGR\* AWARDS FOR  
2014 (VIRGINIA) AND 2015 (MARYLAND)**

(\*Employer Support of the Guard and Reserve)

“The most exciting thing to me about Booz Allen’s support for military families is how you have so many parts of the firm engaging on a common cause—client teams, forums focused on military families, recruiting, human resources, and corporate social responsibility,” says Amy Bennett. “I’m proud to work for a company that honors the service and sacrifice of military families in this way.”

## PEOPLE

### DATA SCIENTISTS DARE TO CREATE THE FUTURE

*Strategically aligning ourselves as an industry leader in data science and analytics has provided Booz Allen opportunities to work on some of the toughest challenges facing the nation and its industries today. This has helped us attract accomplished data scientists to the firm—including some of the most renowned in the field. Our people, our solutions, and our passion for advancing the art of data science continues to differentiate us from our competition.*

*2016 Data Science Bowl participant.*

“Booz Allen has deeper data science and analytics, cyber, and cloud capabilities than anyone in the industry,” says one of those experts, Senior Vice President Xena Ugrinsky, who joined the firm in 2015, and who says this is the reason she came to Booz Allen. “We’ve done it for longer than anyone, and we’re able to deliver it on a scale that most companies could never approximate. You need someone to crunch data? We’ve crunched data for the International Space Station. You need someone to do logistics analytics? We helped move the U.S. military. Now we’re applying that expertise to help our commercial clients outpace their competition and offering our data scientists the opportunity to tackle the most complex problems in government and industry.”

### THE VISION AND TOOLS TO ATTRACT THE BEST PEOPLE

What makes Booz Allen stand out? According to Senior Vice President Mark Jacobsohn, it’s that “We ask questions of data that nobody else is asking. We transform the way our clients do their jobs, we advance the art and science of data science, and we help the planet—even save lives. Not everyone is willing to take those risks, and even fewer are equipped to do so. Together, our data scientists dare to take on new and meaningful challenges every day, and we reward and advance our talented and committed team for both results and technical expertise.”

IMPACT REPORT / 2016

In addition to our efforts to make Booz Allen attractive to accomplished data science professionals, the firm works with several academic institutions to create curriculums that help build the specific skills we're looking for in future job candidates. We're also building our expertise from the inside with the launch of Explore Data Science—a self-paced, interactive, web-based course that uses gamification to teach our data scientists and other technical professionals how to navigate their way through raw data by applying mathematical concepts to real challenges. We offer this course to clients as well so they can train their own employees.

## REINFORCING OUR POSITION AS MARKET LEADER

We have the best people, and those people are passionate about helping organizations of all types and missions make use of data as a resource. This was demonstrated in 2014, when Booz Allen released *The Field Guide to Data Science*, a foundational document now widely regarded throughout government and industry as the definitive guide to the discipline. The firm launched an expanded and updated second edition of *The Field Guide* in December 2015 with new features and content that reflect Booz Allen's evolving, most up-to-date understanding of cutting-edge analytics techniques, such as deep machine learning. Two firm-created data science and analytics solutions—**Polaris**<sup>™</sup> and **Sailfish**—are also helping underscore Booz Allen's position as a leader in the industry. Polaris allows a project management team to work collaboratively—in one environment and in real time—to predict and mitigate cost and schedule risk, and to ensure better project performance. Sailfish is designed to empower those lacking formal training in analytics and data science to play central roles in data curation and exploration. It's the first end-to-end data science solution, that's an easy-to-use analytics system.

Finally, Booz Allen acquired Epidemico in the fall of 2014—a Boston-based informatics startup known for data acquisition and analytics. Their employees demonstrated an equal passion for providing early real-time insights, continuous monitoring, and consumer engagement for disease outbreaks, drug safety, supply chain vulnerabilities, and other areas related to public health. The acquisition underscores the firm's commitment to further develop leading-edge analytics in critical areas such as population health and substantiates our regional influence in the world's data science hub.

Today, Booz Allen's 600-person-strong elite data science team is continuing to grow and bring cross-discipline expertise and capabilities to internal and external clients, keeping them competitive in today's data-driven economy.

*“We ask questions of data that nobody else is asking. We transform the way our clients do their jobs, we advance the art and science of data science, and we help the planet—even save lives. Not everyone is willing to take those risks, and even fewer are equipped to do so.”*

—Senior Vice President Mark Jacobsohn

## DATA SCIENCE FOR SOCIAL GOOD

In the U.S. alone, one person is diagnosed with heart disease every 43 seconds. And when you're waiting for the doctor to return with your results—to learn if you're one of them—it can feel like an eternity. Now it's possible for patients to receive their prognoses in real time, thanks to a cutting-edge medical advancement achieved just this year—by two hedge fund analysts with no medical experience.

[music playing] Male Speaker: Data science is a profession where the small successes lead to big discovery. Where the power of entire nations or corporations is given to the individual. And, this year, more than 1,000 data scientists gathered to help solve one of the world's most pressing problems in the first ever National Data Science Bowl. People from across the globe used their determination and talent to build a brighter future. More than 1,000 teams used data science to create change at a global scale. They built models to map the ocean's microscopic ecosystem and contributed over 15,000 submissions. The result? Algorithms that will enable researchers to monitor the health of our oceans at a speed and scale never before possible. They dreamed, they solved, they discovered. And in the end, they advanced the art of marine biology and data science creating a lasting change on our world. So congratulations to team "Deep Sea," the thinkers, the artists, and the questioners who were able to observe the right patterns and ask the right questions. Thank you to everyone who participated in this year's challenge and helped make the world a better place. [end of transcript]

This breakthrough was achieved thanks to the 2016 Data Science Bowl, cosponsored Booz Allen and Kaggle, in partnership with the National Institutes of Health's National Heart, Lung, and Blood Institute. This critical advancement speaks to the power of data science, and our sponsorship of the Data Science Bowl represents just one of the many ways in the last 4+ years that Booz Allen has been strategically reinforcing its position as an industry leader in the field of data science. We are growing our data science workforce, bringing what we've done for decades for our government and military clients to help other companies take advantage of these critical capabilities.

"People want to work for companies that give them an outlet to make an impact," says Principal Steve Mills. "You can get so much more lift from your CSR investments if you give people tangible ways to participate, and we can also attract a lot of skilled talent to the company through these initiatives."

*Booz Allen employees Eric Don, Travis Motley, and Sarahzin Chowdhury show their passion for applying data science for social good during the 2016 Data Science Bowl.*

PEOPLE

SUPPORTING OUR WORKING PARENTS

*When Lead Technologist Tuyet-Anh (“Anh”) Nguyen joined Booz Allen in 2002, she says the firm’s benefits and focus on work-life balance played a role in her decision. “Although I wasn’t a parent,” Anh recalls, “I knew that Booz Allen had regularly been recognized as a best place to work for working mothers, and offered the benefits and flexibility that would become important when my husband and I started our family.”*

*Lead Associate Priscila Melendez and her children at their home in Virginia.*

That day came sooner than expected. Unbeknownst to her, Anh was in her first weeks of pregnancy when she began working at Booz Allen, and she’d be experiencing some of those benefits she’d sought in an employer mere months later.

**PROVIDING BALANCE**

“In addition to the overall maternity leave and health benefits, the firm’s flex culture made a world of difference,” Anh says. “My first pregnancy was high risk, and my son was a preemie. My team allowed me to work remotely and with a flexible schedule throughout that critical time.”

Booz Allen’s flex opportunities aren’t reserved just for employees dealing with adversity. Whether formally or informally, 80 percent of respondents in our most recent employee survey—working moms and dads, and non-parents alike—reported that they work a flexible schedule, and 75 percent said that they regularly telecommute.

Associate Amy Schossler is another working mom who’s enjoyed flexibility over her 10 years at the firm. “Not only did Booz Allen’s incredible benefits help us get the fertility treatments we needed to have our first

IMPACT REPORT / 2016

child,” she says, “but the firm allowed me to take 5 months off after her birth and come back with a reduced, 80 percent work week. As my family grew, I had the flexibility to adjust my schedule to balance my career and my family’s needs. The ability to spend time with my young children while remaining competitive and active in the workforce has made all the difference to me as a working parent.”

**AWARD-WINNING OFFERINGS**

In addition to flex opportunities, Booz Allen is committed to providing our working parents with benefits, policies, programs, and a corporate culture that supports them as they balance work and family responsibilities and we create a workforce for our second century.

What’s more, the firm’s parental leave policies extend to all of our parents—birth mothers and fathers, single parents, adoptive parents, and same-sex/LGBT parents; exempt and non-exempt employees; and full-time and part-time employees. And if both parents are employees, they each receive parental leave for the birth or adoption of a child. Booz Allen’s adoption assistance program—which provides a \$5,000 reimbursement per adoption (for a child not biologically related to either parent)—is also available to, and the same for, all of our adoptive parents.

**IN THE U.S.—WHERE 70 PERCENT OF WOMEN IN THE WORKFORCE HAVE CHILDREN UNDER 18—ONLY:**

5% companies offer fully paid maternity leave 17% offer paid paternity and/or paid adoption leave 7% offer adoption assistance

5% companies offer fully paid maternity leave 17% offer paid paternity and/or paid adoption leave 7% offer adoption assistance

**BOOZ ALLEN OFFERS ALL THREE.**



Data referenced comes from: 2015 Moms@Work: The Working Mother Report; 2014 National Study of Employers, Family and Work Institute; and 2015 Benefits survey of Society for Human Resource Management (SHRM) members

*Booz Allen's 2015 Working Mother of the Year Anh Nguyen poses with her family.*

Other family-friendly offerings include everything from a childcare center at our headquarters, nationwide childcare discounts, and firm-sponsored family events, to backup childcare, and dedicated employee forums for parents, women, military spouses, and flexworkers.

It's because of benefits and programs like these—together with our commitment to the advancement of women—that Booz Allen has been named to the prestigious list of “100 Best Companies” by *Working Mother* magazine for 17 consecutive years. And why, in 2013, we were inducted into the “Best Companies Hall of Fame.”

It's been 14 years since these family-friendly offerings helped draw the “unexpectedly expecting” Anh to Booz Allen, and she says she's glad they did. Anh was named Booz Allen's 2015 Working Mother of the Year and recognized as one by *Working Mother* magazine that same year. She's now an active mother of five children and says a career at Booz Allen is a choice she's benefited from “many, many times over.”

*Booz Allen's family-friendly offerings include everything from flexible work schedules, a childcare center at our headquarters, nationwide childcare discounts, and firm-sponsored family events, to backup childcare, and dedicated employee forums for parents, women, military spouses, and flexworkers.*

PEOPLE

BUILDING OUR SYSTEMS DELIVERY WORKFORCE

*To stay on the leading edge of revolutionary ideas and innovations, and to provide clients with unsurpassed expertise in areas like systems delivery, Booz Allen relies on our greatest asset and differentiator—our people. Now in our second century, we're more inventive than ever—our incredibly skilled teams are shattering industry norms and delivering never-before-seen results for clients who must be prepared to develop and launch secure, scalable systems and software development services.*

IMPACT REPORT / 2016

Booz Allen employs 3,500 systems delivery practitioners, including more than 350 certified Scrum Masters and Project Management Institute (PMI) Agile Certified Practitioners (PMI-ACP), more than 60 SAFe Agilists (SA), and more than 800 ICAgile Certified Professionals (ICP) trained in the Agile mindset and practices.

One of the ways we invest in our workforce is through our SD University (SDU), which provides access to cutting-edge learning opportunities, events, partnerships, programs, information, curriculums, training, and certifications. SDU ensures that our employees are ready to deliver using modern, state-of-the-art technologies and methods. We've built comprehensive curriculums and learning paths in areas such as Agile, DevOps, mobile, cloud, and analytic development. Embedded in the SDU curriculum is Booz Allen's consultative approach to delivering software systems, which drives a consistent level of quality across our business by establishing expected processes and tried-and-true delivery practices.

[music playing] Gary Labovich: Our clients need effective systems delivered on time and within budget, but the risk they face in doing so can be immense. At Booz Allen we just want to make their job easier. [music playing] Systems delivery is important to our clients because technology is the only way for them to accomplish their missions. So for many of our clients, if not all of our clients, technology is one of the largest parts of their budget. And their investments in technology are really precious dollars that they're putting towards their mission. It's -- by its nature -- it's a high risk enterprise. The work tends to be very complex. It's technology focused. I always say it's a part of the business that when the project is done, you turn it on, it either works or it doesn't. And so our job is to help them achieve their mission via technology and technology delivery. So it's a high stakes game. For them, it's a lot of dollars that they're putting into their business. The systems need to work so they can execute their mission. And we have an obligation to ensure that we deliver, and we deliver on time, on schedule, and on budget. [music playing] Big systems fail for a lot of reasons. It has to do with the inability of an organization to adapt and adopt to a new technology. It has to do with the fact that the constituents of the new system weren't trained appropriately; that the new system's capabilities weren't communicated out to the user community. It's all about everything else. So we think about that in conjunction with the technology capabilities that we bring to the table. And it's that combination -- or what I call the "art and science of technology delivery" -- that I think differentiates us from the crowd. [music playing] I think agencies turn to partners like Booz Allen for a couple reasons. One, we bring a lot of experience in how to do this work. You know, I always say we, "Take in the bullets," on getting this work done. But, as importantly, we have really deep domain expertise about our client's work. We bring the talent, we bring the expertise, we bring the experience, and -- more importantly -- we're willing to stand up for our work. [music playing] Lani Chang: It's very important for the client to embrace change; especially in technology because it changes so fast and so often. [music playing] Kim Genberg: Booz Allen most certainly brings a full-service approach to systems development. Using the many years of experience we have with a very rigorous methodology that we employ to ensure that we are building high quality systems, but, again, having that deep domain expertise, understanding our clients, working side-by-side with them to develop systems that will meet their requirements. [music playing] Ravi Nagarajan: When we start doing a systems job, it starts off with a lot of thought leadership; it's like painting a picture. You have to think about the colors, the texture, the canvas that you're going to use, the environment or the ambiance that you have to create. So when you think about a system, and a complex I.T. problem, a lot of similar things come into play. It's the stakeholders you have to interact with; it's the requirements that you have to build a functionality to, the technology that you have to take. And then once you have some of the parameters that you're going to work with, then the other things sort of -- the picture starts coming together. So there is an art in how you approach this. The science part of it is the process, the

metrics, the technology, the element of execution that you have to bring in to deliver the solution itself. [music playing] It starts with the people. A lot of our clients tell us we bring the A-team to delivery. When we approach a client problem, we try to do it with a multitude of perspectives. We try to get perspectives not just from the technology side; we think about the business domain, we think about change management, think about the contracts. So we look at it from every perspective possible. [music playing] Maxim Aronin: It's easy to say you have a great capability. But if you don't deliver, who cares? That's what's great about Booz Allen. We've created a lot of cool solutions. So one example is, when we came in to a client organization that had a really strict process, we were actually able to work with them to figure out how to infuse an agile practice and agile mindset into the way we delivered the software. And, as a result, we're able to work with their processes, but -- yet with the agile techniques -- implement a way to deliver about four or five releases of software within a year, which was really unprecedented for that client organization. When we were able to actually condense the number of releases they're able to get out, the end-user result was tremendous because now the users that were used to getting maybe a one release a year, now they're getting things every couple months. And that was really transformational. [music playing] Timothy Meyers: Clients may come to us with their best guess at requirements. And we sign on knowing that we can help them get to solutions that are not just great and innovative solutions, but they actually meet their stakeholder's needs. We make their missions our missions. And we make their challenges our challenges. And it's a beautiful thing. [music playing] Maxim Aronin: Our solutions typically have a lower total cost of ownership, in part because the quality of delivery sometimes is above industry benchmarks. [music playing] Kim Genberg: I know I'm biased, but I just think we're the best at what we do. For me, it's not just one thing, it's everything. It's the way we bring our capabilities to the client to develop a system that's going to meet their needs. Maxim Aronin: It's the way we use in-place innovation to deliver sometimes unexpected solutions. Ravi Nagarajan: It is the way we bring our A-team to every client delivery. Timothy Meyers: It's the way we build the best solutions; the right solutions. Gary Labovich: It's the way we bring our management consulting heritage together with our technology capability that uniquely differentiates us from the field. [music playing] [end of transcript]

## **ACQUIRING NEW DIMENSIONS IN OUR SYSTEMS DELIVERY WORKFORCE**

With a renewed strategic focus on strengthening and expanding the firm's technical capabilities—including expansion of our systems delivery business—Booz Allen acquired the 270-person software services unit SPARC in 2015. Located in Charleston, SC, SPARC is now an Agile Systems Delivery Hub of Booz Allen, providing software development services for government and commercial clients by combining forward-thinking technology and engaging team members.

“We've been able to add new dimensions to the systems delivery work we've been doing for 40 years,” says Principal Dan Tucker. “Joining forces with SPARC has allowed us to augment our team and grow our capabilities to meet the resounding demand for contemporary methodologies and technical expertise we're seeing in the marketplace.”

The integration has positioned Booz Allen squarely at the forefront, bringing clients a powerful convergence of strengths in consulting, program and acquisition management, analytics, and information assurance, as well as advanced skills in engineering and systems delivery, including modern agile and DevOps methods. Leveraging our now combined services and diverse skills has helped Booz Allen expand existing client relationships and secure new business. The now aligned SPARC and Booz Allen prowess has already been integrated into some of the firm's systems delivery work with the Department of Veterans Affairs, the U.S. Navy, and other clients, including the Office of Personnel Management and the Centers for Disease Control and Prevention.

*“We've been able to add new dimensions to the systems delivery work we've been doing for 40 years. Joining forces with SPARC has allowed us to augment our team and grow our capabilities to meet the resounding demand for*

*contemporary methodologies and technical expertise we're seeing in the marketplace.”*

—Booz Allen Principal Dan Tucker

“One of the driving differentiators is Agile software development methodology,” Dan says. “Having worked with SPARC, we knew their singular ability to do this at scale; they were involved in one of the largest agile software development implementations in the Federal Government. When we look at our pipeline and where agencies are going, Booz Allen can now help clients take these lean development practices and use them agency-wide, institutionalizing this way of delivering systems. It’s ground breaking.”

## **EMPLOYER OF CHOICE FOR TECH TALENT**

Uniting with SPARC to provide cutting-edge systems delivery has not only changed how the firm uses agile methods to accelerate secure, innovative delivery but also elevated Booz Allen’s brand and position as a systems delivery services provider and employer for top tech talent. In the past, software developers who may not have seen themselves in a traditional management consultancy now recognize Booz Allen as a leader in agile and DevOps techniques and a place where they can infuse cutting-edge, innovative technologies to drive adoption and success for clients.

Merging SPARC’s forward-thinking technology capabilities with Booz Allen’s ability to deliver leading-edge tech solutions—while advancing the firm’s long-term growth strategy—has been a monumental milestone, furthering our ability to make visionary ideas world-changing realities for clients across the government and commercial sectors.

PEOPLE

PURPOSE

PASSION

**BOOZ ALLEN IS A PURPOSE-DRIVEN COMPANY, AND THAT PURPOSE IS**

*to solve our clients' toughest challenges.*

We make our clients' missions our own, and from day one, we have understood that this approach drives us to do our best work, compels us to build tighter teams, and helps us forge lasting client relationships. Our multifaceted teams embody deep mission understanding, market-leading functional capabilities, consulting talent, and true technical and engineering expertise. The stories in this section demonstrate how Booz Allen is driving impact for our clients with the right skills and expertise needed to address specific client challenges and deliver enhanced and innovative capabilities.

PURPOSE

INTREPID ANALYSTS HELP UNLOCK CLUES TO TBI TREATMENTS

| 16 |

IMPACT REPORT / 2016

*Traumatic brain injury (TBI) and psychological health (PH) conditions have devastating impact on quality of life, family relations, and military readiness. More than 300,000 U.S. service members have been diagnosed with these “invisible wounds,” according to the Defense and Veterans Brain Injury Center (DVBIC). The consequences to service members and families are severe, and the intense search for innovative treatments and better, enduring results has spread across military and civilian sectors.*

Booz Allen is dedicated to creating brain health innovations for service members and veterans who have experienced TBI and PH conditions. With deep roots in the field of TBI care, research, and education, Booz Allen serves as an essential partner to clients like Department of Defense (DoD) Blast Injury Research Coordinating Office, the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE), the Vision Center of Excellence (VCE), and the National Intrepid Center of Excellence (NICoE).

In 2010, the DoD established the internationally recognized NICoE to find new approaches to treating TBI. Since being awarded the contract to support NICoE, Booz Allen brought not only their traditional consulting expertise but also advanced analytics capabilities to establish the infrastructure that helped the Center employ new approaches to clinical treatment and research by using interdisciplinary teams and integrative medicine in a collaborative effort with patients, families, and referring providers. We’ve served NICoE across every department in the organization, including strategic innovation and communication, and a full service Program Management Office (PMO) that supports clinical care, research, administrative functions, education, and human capital.

Since its inception, the Booz Allen NICoE team has:

- Supported the creation of the Military Health System (MHS)’s TBI Pathway of Care which aligned NICoE to the Walter Reed National Military Medical Center and solidified NICoE’s mission as primarily clinical while still serving as a site for translational research for TBI and associated psychological health conditions
- Developed a white paper that established attributes and infrastructure requirements to position NICoE as a leading neurotrauma institute within the MHS
- Partnered with NICoE at each step of its maturation toward providing unmatched care to patients and families affected by some of the most challenging cases of TBI
- Facilitated the strategy for NICoE to expand its reach through Intrepid Spirit centers at nine military bases across the country.



“One of the most exciting things is how Booz Allen’s innovative data analytics capabilities are transforming the diagnosis and treatment of TBI,” says Senior Associate Sako Maki Thompson,

who helps lead the firm’s Behavioral Health strategy with its MHS clients. Anticipating NICoE’s needs, the team created an algorithm to analyze the presentation, symptoms, and treatment outcomes for the TBI patients treated at NICoE since it opened. This work resulted in identifying four TBI sub-types allowing for improved treatment strategies.

“Eventually researchers and clinicians will be able to utilize these sub-categories to directly tie outcome measures to treatment strategies, which will allow providers to identify the treatments that have the best outcomes for certain injuries,” says Staff Technologist Peter Hoover, who provides support to the NICoE Informatics team.

“This information in the hands of practitioners will help patients start on the treatments that have the best track record for treating their type of injuries and facilitate a direct, positive outcome on patient recovery,” continues Aaron Hauptman, a staff scientist who supported the creation of the algorithm.

*“Eventually researchers and clinicians will be able to utilize these sub-categories to directly tie outcome measures to treatment strategies, which will allow providers to identify the treatments that have the best outcomes for certain injuries.”*

—Staff Technologist Peter Hoover

NICoE’s continued success has allowed it to expand its mission to serve not only active-duty service members, but also beneficiaries, and retirees. “Someday we hope the NICoE model will be transferable to all facilities, civilian and military, that treat TBI,” says Senior Lead Scientist Jeffrey Cole, who helms the Booz Allen research team at NICoE. “Until then, we will continue to strive for the kind of analytical insights and breakthroughs that will help improve the quality of life those that have sacrificed so much for our country.”

**IMPACT REPORT / 2016**

**PURPOSE INNOVATION & SAFETY IN THE DRIVER'S SEAT**

*Automotive engineers and innovators want to be the first to bring exciting new connected features onto the latest car models, and consumers continue to demand more. The downside: That connectedness to the Internet now means the industry faces more cyber exposure and cyber threats than ever before.*

| 18 |

IMPACT REPORT / 2016

*The team that helped deliver the transformation detailed in this story, together at the 2016 Booz Allen Excellence Awards*

One leading global auto manufacturer was among the first to recognize this emerging risk, and unlike many of Booz Allen's clients—for whom cybersecurity means protecting intellectual property and employee information—the landmark realization that cyber security also means protecting people's lives suddenly became one of the automotive industry's highest priorities.

Consumers *also* started demanding security when in July 2015, news broke that a vehicle was hacked at highway speeds. By that time—thanks to Booz Allen's consultative approach and cybersecurity expertise—this global automaker (who was not the subject of the 2015 hack) already had a strategy in place to respond to such incidents and secure its vehicles. Booz Allen's team had successfully guided this client through a cultural and data-driven transformation designed to support and facilitate its comprehensive vehicle cybersecurity program, going from having no response capability to setting the market standard for response planning in 6 months.

Overcoming “a challenge that no one had ever addressed that would require cyber expertise and the ability to bridge internal cultural and data divides—this is where Booz Allen excels,” says Vice President Sedar LaBarre. “For us, success meant securing the vehicles we all rely on to transport our families and bringing our client to the industry forefront.”

[music playing] Female Speaker: Everything is connected in the evolving automotive ecosystem. With this increased connectivity comes new challenges, as well as new opportunities for those who are willing to be aggressive and innovate. At Booz Allen, we see opportunity in disruption; a chance to generate new revenue streams and differentiate your brand. By understanding the changing automotive landscape, you can turn risk into competitive advantage. To learn more visit [www.boozallen.com/commercial](http://www.boozallen.com/commercial). [end of transcript]

Our ability to quickly build a team with government security and intelligence experience, analytics and telematics capabilities, and commercial manufacturing expertise allowed us to define the scope of vehicle cybersecurity and address the **connected vehicle ecosystem as a whole**.

Booz Allen also realized success was as much about *culture* as it was about engineering. We worked shoulder to shoulder with staff across this automaker's organization to transform their environment from an engineering to a

security mindset. After Booz Allen’s recommendation to leadership that the company stand up an internal Product Cybersecurity team led by a new Chief Product Cybersecurity Officer, it took only 6 weeks to become a reality and for the client to reprioritize risk mitigation investments.

“We were trusted to fearlessly challenge and disrupt the status quo across the client organization,” says Sedar. “In the face of something that seemed impossible, Booz Allen’s team delivered the best of what our firm has to offer, enabling the protection of millions of drivers and transforming the way this client—and now the industry—identifies, assesses, and responds to vehicle cybersecurity.”

Having proven our mettle as a full-service partner equally capable of building, testing, and deploying a system that analyzes on-vehicle data as we were developing a supply chain strategic roadmap, this client’s leadership has now tasked Booz Allen with designing and operationalizing new capabilities where we’ll continue to bring the breadth of our expertise to bear.

An extension of our work with the automaker led to Booz Allen assisting the auto industry in developing and operating the first Information Sharing and Analysis Center (ISAC) sharing cyber threat and vulnerability information. As millions of us get behind the wheel in an increasingly interconnected future, the ISAC means an added layer of cyber protections. It will serve as a central hub for intelligence and analysis, enabling the timely sharing of cyber threat information and potential vulnerabilities in vehicle electronics or in-vehicle networks, ultimately safeguarding drivers every time they turn on the ignition.

Booz Allen’s experience in cyber threat intelligence, developing and implementing information-sharing programs, and building cultures of trust across industries empowered us to provide the industry with a turnkey solution to address its specific, integrated cyber threat landscape.

Principal Jon Allen and his team were instrumental in developing the prospectus for the auto industry to create the ISAC. “The industry recognized that security risks are going to rise as vehicles become more connected,” he says. “It’s about taking a proactive stance that looks across the ecosystem and includes forming the industry’s best practices for securing the vehicle.”

From cars to medical devices, the reality of a connected product revolution is upon us. And Booz Allen is ready—armed with the acumen to help clients recognize opportunities for evolution while keeping safety and security priority number one.

*“We were trusted to fearlessly challenge and disrupt the status quo across the client organization. In the face of something that seemed impossible, Booz Allen’s team delivered the best of what our firm has to offer, enabling the protection of millions of drivers and transforming the way this client—and now the industry—identifies, assesses, and*

*responds to vehicle cybersecurity.”*

—Vice President Sedar Labarre

| 19 |

OUT OF THE BOX IDEAS KEEP NATION SAFER

| 20 |

IMPACT REPORT / 2016

*The right information, at the right time, to make the right call. That's the mission of the Department of Homeland Security (DHS) Intelligence Analysis (I&A)—to equip the Homeland Security Enterprise with the intelligence and information it needs to keep the homeland safe, secure, and resilient. This includes providing information technology (IT) capabilities—driven by the DHS' Chief Information Officer (CIO)—needed to get the job done.*

When Booz Allen began its support for DHS CIO it was quickly realized that the traditional IT development model, which worked for longer term development efforts, was not suited for the time-critical world of I&A where immediate solutions are needed to identify critical threats and leads.

Enter the Analytic Innovation Cell (AIC). Booz Allen created an elite team of data scientists, intelligence analysts, and IT developers who work together in a collaborative lab at DHS I&A. These pros combine expertise to discover the most precise intelligence information about possible threats to our country. They are hungry problem solvers, armed with a mission from the DHS CIO to be “disruptive agents for innovation” that can lead to stronger national security.

The AIC developed methods, tools, and processes to solve specific, pressing analytic problems. This approach is different from traditional IT development because the AIC's mission is not to build a system, but to solve the analytic question of the hour. The AIC leveraged existing tools, introduced open source tools, and built custom tools, when needed. Over time, this approach enabled the AIC to develop a library of simple, yet highly effective, modular tools that combined with the right methodologies and analytic insights could be used by a wide array of analysts.

[music playing] Female Speaker: Data is our client's most valuable natural resource and organizations that learn to mine that data for insights will succeed; whether it's protecting our nation's cyber security, enhancing situational awareness and defense, forecasting market dynamics and financial services, or early detection analysis in healthcare. There is great value to be obtained from the vast amounts of data the government and commercial organizations possess. Powerful analytics that draw insights and value from data are key to fulfilling mission and business requirements while successfully confirming budget or market challenges. There is tremendous opportunity for organizations to leverage data in new ways, yet many challenges still exist. First, there isn't enough storage capacity and analytical capabilities to handle massive volumes of data. Second, data comes in a variety of formats which can be difficult and expensive to integrate. Third, data is generated at an exponential rate or velocity making it difficult to perform real-time analytics that unlock the intelligence it contains. To make matters worse, for the last 20 years systems have been build in stove pipes that actively prevent insights. Most analysis is done by asking the same question of each individual system and data set. This leads to the time intensive manual assembly of fragmented data. As a result, 80 percent of an analyst's time is spent searching for data, leaving only 20 percent of their time left to do actual analysis. This approach requires analysts to know the questions they want to ask of the data in advance. Often times relying on intuition rather than letting the data tell a story by surfacing critical and unforeseen insights.

Organizations must change to focus decision making on these insights. Booz Allen works with our clients to help them leverage the power of big data. We combine the strength of our data science team with a powerful data science platform to perform analytics. Our data science team consists of domain experts, software engineers, and analysts who work together to extract new insights from the data science platform. Our data science platform is built using the Booz Allen Cloud Analytics Reference Architecture which is divided into four layers. The infrastructure layer provides a technology platform for storing and managing your data. Next, is the data management layer or what we refer to as the “Data Lake.” The Data Lake is a big data repository that allows all your data -- structured or unstructured -- to sit in one place rather than being stored in silos. It’s scalable, schemeless, and secure. Then, there’s the analytics layer which consists of services or tools for analysis modeling testing and simulation. These tools empower the top layer of the Booz Allen data science platform, where human insights and actions occur. The Data Lake allows machines to do the basic relating and comprehension that goes into categorizing, sorting, and filtering data. Additionally, this allows non-analysts to query the data. Now, 20 percent of time and resources are spent searching for data, and 80 percent can now be focused on the human analysis that drives intelligent business decisions. This turns big data into big analytics. Now, instead of waiting days, weeks, or months for actionable intelligence, business decision makers can access data-driven insights in minutes, turning big data into big insights. This is what our data science team at Booz Allen does every day for our clients: Big data, bigger analytics, endless insights unlocking the true value of big data. Learn more at [www.boozallen.com/datascience](http://www.boozallen.com/datascience). [end of transcript]

As Senior Associate Jeremy Filko says, “the success of a team like this is often measured by ‘outputs’—pieces of intelligence produced, IT projects, and programs executed. But ‘outputs’ don’t keep the homeland more secure, outcomes do.”

And the AIC delivers. Since its inception in May 2014, the AIC has:

- Developed about 500 leads, which would never have been identified otherwise—all of them potential risks to our safety
- Shared 420 *significant* intelligence leads to DHS, Department of Defense, and Department of Justice counterparts
- Of those, more than 150 were selected for priority designation by the intelligence community.

#### **BUILD IT FAST & BUILD IT RIGHT**

The Online Document Information Network (ODIN) is an example of the AIC’s ability to pull existing data into a custom tool to solve a pressing challenge. DHS’ Customs & Border Protection (CBP) needed a way to more deeply analyze the validity of passports and identify fraudulent documents that might otherwise slip through a standard review that looked at just the date of birth, passport number, issue date, and expiration date. The AIC brain created ODIN, a tool that utilized “check sum digits”—to meet this need.

ODIN would soon prove its usefulness. In September 2015, Air Canada security referred a possibly altered Greek passport to the CBP Immigration Advisory Program—Madrid for verification. CBP was able to query the Greek passport in ODIN, which returned a “Fail” result, meaning the passport’s issue and expiration dates did not fall within the valid acceptable range.



This information was relayed to international authorities and the fake passport holder was detained and prevented from coming to the United States. Questioning later revealed he was actually an Albanian national.

ODIN's impact is undeniable: Developed in just 5 days, it includes six country data sets and has identified over 150 fraudulent passports in just 6 months. "For this team, devising a new way to use an existing data set—that's a huge win," Jeremy says.

The AIC earned the Secretary's Award for Meritorious Service—the second highest award given by the DHS Secretary—and is now the model for future DHS I&A efforts.

*The Analytic Innovation Cell team poses during the 2016 Booz Allen Excellence Awards.*

*The Analytic Innovation Cell is an elite team of data scientists, intelligence analysts, and IT developers who work together in a collaborative lab at the Department of Homeland Security (DHS). These pros are hungry problem solvers, armed with a mission from the DHS to be "disruptive agents for innovation" that can lead to stronger national security.*

PURPOSE LEADING THE WAY: UTILITY CYBERSECURITY

*Today, the U.S. Government views the energy sector as the most significantly threat-targeted commercial industry in the country, according to the U.S. Nuclear Regulatory Commission (NRC). The Government has aggressively increased levels of federal regulatory scrutiny to safeguard our nation's critical nuclear and electrical infrastructure. Protecting operations from physical, cyber, and insider threats has never been more urgent.*

IMPACT REPORT / 2016

While other industries had been bolstering their cybersecurity for years, it was only in 2009 that the NRC mandated that all U.S. nuclear plants comply with new cybersecurity regulations. Successfully addressing these new regulations, combined with overcoming the challenges of mitigating unforeseen and previously unconsidered vulnerabilities, would be a Herculean task for any company, especially for those unfamiliar with the intricacies of cybersecurity and the digital frontier.

## A PIONEER IN NUCLEAR CYBERSECURITY

For the last several years, Booz Allen has helped SCANA Corporation accomplish both feats, and in the process, set the bar high for the industry while cementing the firm as a pioneer in the nuclear cybersecurity space. SCANA Corporation is a publicly owned utility company providing energy services to approximately 660,000 residents throughout Georgia, North Carolina, and South Carolina. The company operates multiple power plants in the region, including one nuclear facility, which, like its nuclear counterparts nationwide, was built 30 years ago with analog technology. With the integration of small but vulnerable digital upgrades over the years, there was a need to build a cybersecurity program—including any policies and procedures—before the NRC mandates were enforceable.

“The power industry is adjusting to a new set of critical standards, and we got involved immediately, bringing our expertise and experience from complex cyber-based missions in other industries,” says Principal Jeff Winslow. “We’re helping SCANA Corporation and other clients secure this critical infrastructure, which includes keeping the lights on certainly, but more importantly, educating them on new threats that are emerging every day.”

Booz Allen supported SCANA through the development of a full-range and long-lasting cybersecurity program, which included assessing digital assets and implementing operational security controls at the V.C. Summer Nuclear Station (VCS). Booz Allen’s people brought a distinct edge to the work—through our mix of technology and consulting skills that includes unparalleled expertise in federal and commercial cybersecurity, specialized engineering services, and staff skilled in Industrial Control System (ICS) assessments and program management.

*“Booz Allen was ready and able to support a very critical, very complex endeavor. SCANA’s success is an extraordinary affirmation of our ability to deliver paradigm-shifting methodologies in cybersecurity programs for the energy industry as a whole.”*

—Executive Vice President Gary Rahl.

“In this very new space we were able to bring the firm’s broader information technology (IT) and program management capabilities to bear; we went in with a consulting mindset and tailored a cross-functional team for each issue they were

trying to solve: nuclear, IT, cyber, and analytics,” adds Senior Associate Steve Lee, a Utility team leader.

Booz Allen’s thought leadership and experience helping large organizations across the government and commercial landscapes were critical success factors—not just in terms of cybersecurity and asset protection, but in other essential capacities like calculating potential risks and overcoming an industry culture that is cautious when it comes to implementing newer approaches.

[music playing] Male Speaker: Fuel the power grid. SCANA Corporation, a publicly-owned utility, provides energy services to over half a million residents in the Carolinas and Georgia. But the company was behind the power curve when it came to its own cyber security. When the Nuclear Regulatory Commission issued new security mandates, SCANA turned to the cyber experts at Booz Allen. In just seven months we created a comprehensive method to identify, assess, and document a power plant’s digital assets. When that plant achieved compliance, Booz Allen’s methodology quickly became the industry standard for compliance and implementation and set the stage for an expanded three-year partnership with SCANA. The team’s work established Booz Allen as a nuclear industry pioneer resulting in new business with other utilities and giving new meaning to the term “power up.” [end of transcript]

Our partnership with SCANA and development of industry-wide best practices has moved the firm to the forefront of the nuclear space, where we’re now helping other utility providers across the country identify, assess, and document critical plant assets and realize considerable time and cost savings while they build out crucial cybersecurity programs.

“The firm was ready and able to support a very critical, very complex endeavor,” says Executive Vice President Gary Rahl. “SCANA’s success is an extraordinary affirmation of Booz Allen’s ability to deliver paradigm-shifting methodologies in cybersecurity programs for the energy industry as a whole.”

*The SCANA project team poses during the 2016 Booz Allen Excellence Awards.*

PURPOSE BEHIND THE SCENES OF HEALTHCARE REFORM

*The Affordable Care Act (ACA), passed in 2010, was enacted to make healthcare affordable, accessible, and high quality. But it also stirred up intense controversy and headlines as Americans wrestled with mandates for individual insurance, new taxes on high value or “Cadillac” plans, and the Government faced implementation challenges due to the complexity of an enormous law.*

IMPACT REPORT / 2016

From the beginning, all eyes were on the White House and federal agencies charged with rolling out the new program. Hundreds of Booz Allen experts—working with multiple government agencies—deployed to meet the mission.

Although the ACA is widely credited with ushering in U.S. health reform, health reform actually started at the very beginning of the Obama administration. The American Recovery and Reinvestment Act (ARRA) and its Health Information Technology for Economic and Clinical Health (HITECH) provisions passed in 2009 laid the foundation for the “pay for value” movement that underlies the payment reform provisions of the ACA. And reform continues with the passage of the Medicare Access and CHIP Reauthorization Act of 2015. Combined, these laws regulations meant changes for many agencies that Booz Allen supports, including:

- The Office of the National Coordinator for Health Information Technology (ONC)
- The Centers for Medicare & Medicaid Services (CMS)
- The Agency for Healthcare Research and Quality (AHRQ)
- The Internal Revenue Service (IRS)
- The Office of Personnel Management (OPM)

“Booz Allen’s work is helping to change and shape the future of healthcare in our country,” says Executive Vice President Kristine Martin Anderson, who leads the firm’s civil health business. “The expertise and skill our people bring is key to our position as an essential partner and market integrator for health care reform across our civil clients.”

Let’s take a look at highlights from a few of our engagements.

## **MAKING IT LOOK EASY—HEALTH TECHNOLOGY, TAXES, & TRAINING**

ONC was charged with getting the U.S. healthcare system out of paper records and HITECH provided incentives to the private sector to make change more quickly. Booz Allen provided technical assistance, training, and a learning community for the organizations that were fanning across the country to implement and use electronic health records (EHR). Booz Allen facilitated conversations among 17 “Beacon Communities” that had made progress in the development of EHRs and health information exchange—to identify best practices. We also developed and offered training for 62 ONC-funded Regional Extension Centers as they helped 100,000 primary care providers implement EHRs.

Booz Allen also was selected to work with CMS and other federal agencies to support state governments, and insurers as they built and now operate Health Insurance Marketplaces—a complex system of systems providing individuals and small business employees with access to affordable health insurance coverage. Examples of our work include:

- Designing processes to determine consumer eligibility for health insurance and subsidies on the Marketplace
- Assisting CMS on oversight that included compliance review of health insurance plans, and training of agents, brokers, and customer service representatives
- Providing technology support, appeals strategy and operations, and state Marketplace technical assistance.

During the third open enrollment season, 12.7 million people signed up for Marketplace coverage. Our capstone achievement was CMS' award to Booz Allen of a \$188 million contract to serve as the Marketplace System Integrator, tasked with making sure all critical components of the Marketplace's technology systems, internal operations, and policy objectives align.

*“We successfully designed, developed, and introduced an entirely new system: the ACA Verification System (AVS). “Our employees broke down the [906-page] legislation, then, once we had the requirements in plain English, we worked with our technical staff to interpret and translate them into code.”*

—Senior Associate Yolanda McMillian. AVS interfaced with old and new systems to process more than 150 million tax returns during 2015 without a single error!

Reforms also hit the IRS. The 2015 tax season marked the first time subsidy payments for the millions of newly insured would be reconciled by the IRS. Booz Allen worked with six business divisions across the IRS—and nearly every vendor at the agency to build a quick and easy IT tool to help taxpayers apply the new rules. And it had to be perfect.

We successfully designed, developed, and introduced an entirely new system: the ACA Verification System (AVS). Booz Allen's team “broke down the [906-page] legislation,” says Senior Associate Yolanda McMillian. “Then, once we had the requirements in plain English, we worked with our technical staff to interpret and translate them into code.” AVS interfaced with old and new systems to process more than 150 million tax returns during 2015 without a single error!

In all, our work touched five agencies and almost every aspect of the health reform platform. This work demonstrates how Booz Allen builds multi-disciplinary teams, bringing together the right people with the needed expertise to solve challenges across markets and agencies.

| 25 |



PURPOSE LIGHTS ON! C4ISR INTEGRATION

| 26 |

IMPACT REPORT / 2016

*It's pitch black. You blink frantically, but still see nothing. You spin around, and all that fills your vision is a dark blanket of black. Suddenly, you hear gunfire and total chaos erupts. You've got to get out now. You reach out to feel for a wall or door, and touch nothing. You call out for help and get no response. Where's your team? And then-relief! The lights come back on. You can see a way out. Your unit pals are back by your side and, together, you quickly make your way to safety.*

Our nation's brave warfighters can't do their job in the dark. They need information and situational awareness to succeed and survive.

The U.S. military's Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) systems provide critical intelligence. Unfortunately, many of these legacy systems can be much like the first scenario—inefficient, susceptible to threats, and offering a less than complete view of the full picture. Stovepiped systems—systems that were individually engineered—produce isolated pieces of intelligence.

It's challenging and sometimes even impossible to assess the battlefield environment and collect, analyze, and communicate critical threats. Military decision makers and operators must tap into multiple systems—each with separate logins and displays—while warfighters in the field toggle between radio systems.

That's why warfighters—and the organizations that support them—need integrated C4ISR, “where the individual pieces are designed as part of an enterprise system from the start,” says Executive Vice President Greg Wenzel, lead of digital solutions/C4ISR within Booz Allen's Strategic Innovation Group. Integrated C4ISR means bringing together expertise in engineering, operations, and acquisition. We call this approach Enterprise Integration.

Booz Allen helped the Army's Distributed Common Ground System-Army (DCGS-A) program integrate C4ISR so it works as a fully interoperable family of systems. We developed the DCGS-A Standard Cloud—a system that brings together data sets from various sources to be analyzed and shared. With a user-friendly interface and massive processing power, the system can analyze hundreds of millions of textual intelligence products in less than a second.

The DCGS-A Standard Cloud was accredited, deployed, and fully operational in Afghanistan in record time. “Our technology approach connects threat information from every branch of the military, says Wenzel. “It delivers specific intelligence to those who need it most and need it now.”

*Booz Allen helped the Army's Distributed Common Ground System-Army (DCGS-A) program integrate C4ISR so it works as a fully interoperable family of systems. We developed the DCGS-A Standard Cloud—a system that brings together data sets from various sources to be analyzed and shared. With a user-friendly interface and massive processing power, the system can analyze hundreds of millions of textual intelligence products in less than a second.*

Looking ahead, we're working on a next-generation multi-service tactical cloud platform—the Tactical Cloud Reference Implementation (TCRI). Supporting both well-connected and disadvantaged users, TCRI is designed to move the services towards a fully interoperable architecture for tactical deployments. This new cloud-based ISR capability will improve operations planning, assessment, and execution by utilizing advanced analytics that collect, integrate, and fuse data from multiple sensor and ISR data systems. We want open architectures and platforms to remain just that—open. If the Air Force, for example, develops a new sensor, it will be able to plug it in and share information across the joint services (Army and Navy/Marine Corps). Keep the lights on!

PURPOSE SMART GOVERNMENT—TRANSFORMING THE UAE

*Middle East and North Africa's (MENA) younger, growing population is more digitally wired than ever before. They have higher expectations for speed and ease of government services. "Smart government" means putting the citizen first and making accessing services as easy as possible. "Smart cities" are those that "make digital technology, networks, and apps a central part of operations and constituent interactions," says Vice President Danny Karam, MENA region. That requires the tough work of modernizing existing infrastructure, retrofitting buildings, and defining what is "smart" for each city.*

| 28 |

IMPACT REPORT / 2016

Cities can assess how smart they are using Booz Allen’s “Four Degrees of Smartness”:

**1. CONNECTED**

**2. INTEGRATED**

**3. PERSONALIZED**

**4. PREDICTIVE**

“The smartest of cities are predictive, which means agencies use sophisticated data collection and analytics to produce predictive insights,” Danny says, like which digital technologies will promote social welfare or what services businesses really need to help boost the economy.

*“‘Smart cities’ are those that make digital technology, networks, and apps a central part of operations and constituent interactions.”*

—Vice President Danny Karam, MENA region

As a thought leader in digital life with a presence in the MENA region for more than 60 years, Booz Allen has seen that MENA countries are in various stages of maturity when it comes to smart cities. Leading the way are countries like the United Arab Emirates (UAE), for which Booz Allen served as trusted advisor in developing a smart cities vision and roadmap.

**CREATING SMART CITIES IN THE UAE**

The story starts in May 2013 when His Highness (HH) Sheikh Mohammed bin Rashid Al Maktoum, UAE Vice President, Prime Minister, and Ruler of Dubai, announced UAE’s transition to smart government. The UAE sought to transform government systems, services, and mindset to operate more like the private sector. That means providing

integrated, 24/7 services with high levels of satisfaction, and aiming for optimum customer service. Ultimately, there was one goal in mind—promoting constituents’ well-being and satisfaction.

Booz Allen held meetings with more than 20 local and national entities to identify government capabilities and challenge areas in support of developing the UAE Smart Government National Plan and Goals, in conjunction with their lead agency—the Telecommunications Regulatory Authority (TRA). Together with TRA’s team, Booz Allen developed the Smart Government vision and strategy in alignment with the national vision and Information and Communication Technology sector strategy.

During the process of talking with stakeholders, “it was critical not just to share the assessment and the strategy, but also to create local ownership and give the government entities wind ‘under the wings’ to take the ideas and initiatives and innovate forward,” says Principal Hamid Al Tamimi, MENA region. It is this kind of deep knowledge of the culture and people of the region that was essential to success here. Our client work is driven by leaders and strategists from the region. Their proficiency in regional cultural, social, and behavioral nuances is a crucial component in the successful implementation and adoption of any program or technology.

*Booz Allen employees engage in discussion in one of our offices in the MENA region.*

Booz Allen led in the development of a network that will serve as a safe and secure way of communicating information across government systems. We helped create a national customer relationship management system that allows citizens to call a national hotline and receive services without having to walk through a detailed background of service history, rearticulate certain preferences, or wait to be called back after an agent does some research, for example. This makes for happy citizens, and if that’s not smart, who knows what is.

## **KEEPING THE MOMENTUM GOING**

The UAE story illustrates that “the art and science of smart government lies not only in having a forward-leading strategy that takes into account the nation’s vision, constituency’s needs, and technology trends, but also in identifying a pool of innovative options, prioritizing those and sequencing them, and then bringing those to life, together with stakeholders,” says Vice President Fady Kassatly, MENA region.

The story of digital life doesn’t stop there. “There must be a drive for continuous improvement,” Fady says, “and an innovation culture that fosters behaviors such as failing-forward, increasing collaboration, and giving credit where it is due.”



**PASSION PROJECTS.** “We all have them.” They keep us energized, excited, interested, thriving. At Booz Allen, we’re intentional about supporting our employees’ passions—for community, for innovation, for problem-solving. When we aren’t guiding our clients through their most critical challenges, our people are serving others—volunteering in shelters, soup kitchens, animal rescues, with military and veteran organizations, and so much more. We’re strengthening our communities by lifting up those who need us most. We pursue our intellectual passions, too—we’re thinkers, tinkerers, and inventors—supported by a culture of innovation that loves a good idea, and will put in resources to see where it leads. That passion empowers our employees and leads to breakthroughs that help us better serve our clients.



PASSION HOPE DRIVES CULTURE OF INNOVATION

*A community social worker (CSW) is making a home visit to a TB patient in Tajikistan. CSWs play a critical role in ensuring patients regularly take their drugs and complete treatment. Photo courtesy of Project HOPE.*

*It's an origin story worthy of a Hollywood movie—an impassioned doctor petitioning the president of the United States to donate a Navy ship to be converted into a sailing hospital to deliver medical care, health education, and hope to underserved communities around the world. (A documentary about Project Hope's maiden voyage won an Oscar for best documentary short in 1961.) Some 54 years later and long after the SS Hope sailed its last voyage, Project HOPE—still burning with equal parts passion and purpose—connected with Booz Allen volunteers for help in creating a culture of innovation that would keep its work alive and thriving for another 50 years and counting.*

## **INNOVATION AS A GLOBAL DIFFERENTIATOR**

With 400+ employees working in 30 countries around the globe, Project HOPE is at the front lines in building capacity by supporting local healthcare workers—with training, health education, community outreach, and distribution of medicine.

The organization relies primarily on grants to fund its programs. “We asked ourselves, one, how can we better compete for limited funds against much bigger organizations, and two, how can we harness the expertise we have among our 400+ employees to create more mission effectiveness and impact across the totality of the organization. Innovation is the key,” says John Bronson, a 20-year veteran of Project HOPE.

“Igniting innovation is at the heart of what Booz Allen does, so how cool for us to engage with Project HOPE to grow their innovative culture,” says Principal Josh Elliot, who was part of a volunteer team helping the organization. “One of the first things we did was to create a shared meaning of innovation. Project HOPE employees didn’t always consider what they were doing in their own sphere to be innovative or applicable to another part of the organization. We said—if it’s working for you, you need to share it. The heart of innovation is the sharing of ideas and solutions, which can lead to bigger ideas and solutions.”

Over 4 months, the Booz Allen volunteers interviewed employees, Board members, peer organizations, and community entities and provided an Innovation Framework that included ideas they could implement quickly and those they could implement over time. “One of the first things Project HOPE did, based on our recommendation, was to pilot an ‘idea challenge,’” says Josh. Project HOPE employees submitted ideas to be voted on by peers for funding and further exploration. “We saw this create a lot of engagement and energy among their employees,” continues Josh.

The firm’s volunteers also recommended that Project HOPE explore utilization of better collaboration tools to empower their geographically dispersed workforce to connect with one other. “It was key for them to thoughtfully and intentionally build into their culture specific avenues and opportunities for the sharing of ideas, experiences, and impacts that were occurring locally,” says Principal Osama Malik, another of the project team members.

Several members of the project team stay in touch with Project HOPE, more than a year after their 4-month stint concluded. “When you work so closely on a project like this, you fall in love with their mission, and you want to do whatever you can to continue to help,” says Osama. “It’s not all the time that we get to apply our knowledge and the skills we’ve honed at Booz Allen to an organization that helps others on such a global scale.”

In speaking about the impact of the project, John, later named “Innovation Czar” at Project HOPE, says, “Booz Allen helped us think more broadly, more innovatively about the work of our organization. One example is to examine the inherent value of our in-country expertise and how we can capitalize on it to further our mission through creative partnerships and other ways. They gave us the confidence to be innovative, and their work validated our journey forward.”

*Project HOPE is just one of the not-for-profits that benefited from support by Booz Allen volunteers participating in a firm initiative called the Leadership Excellence Program (LEP) that develops senior employees’ leadership skills and allows them to apply their strategy and consulting expertise to helping not-for-profit organizations. In the 4 years of LEP’s existence, more than 215 volunteers have helped 33 not-for-profit organizations, volunteering for 15,517 hours with an estimated value of \$2,858,881.*

*Booz Allen volunteers pose at Project HOPE’s headquarters in Millwood, VA after presenting their Leadership Excellence Program’s final report to the not-for-profit’s leadership team. L to R—Beth Neiley, Jon Hutchinson, Will Farrell, Josh Elliot, Tony Gaidhane, Osama Malik, and Emily Miller. (Jim Fazio not pictured).*

*In the 4 years of the Leadership Excellence Program’s existence, more than 215 volunteers have helped 33 not-for-profit organizations, volunteering for 15,517 hours with an estimated value of \$2,858,881.*

PASSION AN APP-BASED APPROACH TO READING TOGETHER A child enjoys a video of his dad, who is deployed, reading a story to him thanks to the services of United Through Reading (UTR). Booz Allen helped UTR conceptualize a new model to provide its services digitally to achieve greater efficiencies and reach even more military families. Photo courtesy of United Through Reading.

*Do you remember a favorite childhood storybook? Was it Goodnight Moon? Horton Hears a Who? The Velveteen Rabbit? Many of us can recall that favorite book, plus the comforting voice of a caregiver as they read it to us over and over again. For many members of our armed forces, one of the most difficult parts of deployment is missing out on the bonding that comes through reading with their child. “The mission of United Through Reading (UTR) is to be a bridge for military families who are facing physical separation through the power of reading together,” says Sally Ann Zoll, Chief Executive Officer of UTR. “Every child should feel the emotional bonding and security of being read aloud to.”*

## **THERE'S AN APP FOR THAT—TECHNOLOGY KEY TO SCALE**

UTR's desire is to reach as many military families as they can with the power of a shared story time, so they sought a partner to help them think through how they could scale their operations to reach even more children—with an audacious goal of reaching 1 million beneficiaries by 2019. A group of Booz Allen volunteers, giving their own time and expertise, answered that call for help.

UTR relies on approximately 500 active-duty service member volunteers annually to run its program—facilitating the recordings, which are burned to DVD and shipped to the service member's family. “This worked great for many years, but it's not very efficient or scalable today and doesn't take advantage of advancements in digital technologies,” says Senior Associate Susan Briessinger, a member of the Booz Allen volunteer project team.

True to our management consulting expertise, the Booz Allen team delivered a comprehensive analysis of the organization's business model—focusing on institutional roles, stakeholder analysis, and a baseline of UTR's service delivery model. In the next phase the team brainstormed alternatives to the not-for-profit's current model based on “accessibility, reliability, and repeatability” criteria. The outcome was a set of strategic recommendations for UTR—the cornerstone of which was an integrated technology plan to include a web-based app that would be accessible for users and beneficiaries. The app would ultimately be more cost efficient, be less labor intensive, and meet the expectations of the organization's younger skewing demographic, who are digitally savvy consumers.

“In our focus on the ‘what’ we wanted—reaching 1 million beneficiaries—we were at risk of overlooking the ‘how.’ Having the consulting expertise of a team of Booz Allen volunteers, who think through these kinds of challenges on a daily basis, was invaluable to us,” says Victoria Cameron-Lewis, senior director for development at UTR.

In the final phase of their 4-month project, the volunteers developed a requirements document to guide UTR in the development and implementation of an app-based model. The requirements addressed UTR's concerns about the security of web-based apps, specifically any type of geo-tagging that could compromise sensitive troop deployments, and for those locations that didn't have access to mobile technologies.

“We met the UTR employees and their passion inspired us. They are so committed, and their mission was something our Booz Allen team members quickly wrapped our hearts around,” says Susan. “When we heard the stories of these long deployments and the positive impact UTR had on families, we became invested in helping them figure out how to make this new model work.”

A year after this engagement, UTR has made strides in examining technologies and looking for the right partner to help with app development. As part of the firm's ongoing support to military family resiliency, Booz Allen is staying in touch, examining ways we can continue to support UTR's mission moving forward.

*"We met the United Through Reading (UTR) employees and their passion inspired us. They are so committed. When we heard the stories of these long deployments and the positive impact UTR had on families, we became invested in helping them figure out how to make this new [app-based] model work."*

—Senior Associate Susan Breissing

*UTR is just one of the not-for-profits that benefited from support by Booz Allen volunteers participating in a firm initiative called the Leadership Excellence Program (LEP) that develops senior employees' leadership skills and allows them to apply their strategy and consulting expertise to helping not-for-profit organizations. In the 4 years of LEP's existence, more than **215 volunteers** have helped **33 not-for-profit organizations**, volunteering for **15,517 hours** with an estimated value of **\$2,858,881**.*

PASSION

GIVING KIDS A GREAT FIRST® IMPRESSION

*Booz Allen volunteers Burgess  
Robinson (alumnus), Taylor  
Phillips, Cutter Harrigan, and  
Ray Long at the 5th Booz  
Allen-led FIRST® LEGO® League  
(FLL) Meet the Experts Festival  
in Alexandria, VA.*

IMPACT REPORT / 2016

*“My participation in FIRST definitely influenced the course of my education and my career goals,” says Booz Allen Associate Ashley Cowall. Ashley, a FIRST® (For Inspiration and Recognition of Science and Technology) alumna, wasn’t the ‘artsy’ type, so she took drafting as a high school freshmen to fulfill her arts requirement. “My drafting teacher encouraged me to join our school’s FIRST® Robotics Competition team. During my 4 years with the team, we went to two world championships, won a Chairman’s Award, and won the Entrepreneurship Award the first year it was offered. I loved my experiences with FIRST.”*

Initial involvement with *FIRST* turned into employment at a *FIRST*-operated summer camp. The camp director encouraged Ashley to apply to a month-long summer program offered by the Massachusetts Institute of Technology (MIT) for rising high school seniors. She was accepted into and attended the program—and the rest is history: She graduated MIT in 2010 with a degree in Operations Research, or as she calls it, “the science of better.”

*“I hadn’t been thinking of applying to MIT at all. In fact, the norm was that fewer than 20 percent of kids in my high school left the state for college. If not for my experiences with FIRST, I don’t think I would have gone to MIT. FIRST opened doors for me.”*

Ashley’s experience illustrates one reason Booz Allen is a passionate supporter of *FIRST*. “Whether or not *FIRST* participants go on to ‘STEM careers,’ the experiences and skills gained through *FIRST* are making them community and workplace leaders. The opportunity to work as a team to solve a challenge, to communicate their ideas to peers and adults—sometimes while you’re being judged, these experiences are invaluable,” says Lead Associate Christine Hoisington, director of Community Partnerships.

*“I hadn’t been thinking of applying to MIT at all. In fact, the norm was that fewer than 20 percent of kids in my high school left the state for college. If not for my experiences with FIRST, I don’t think I would have gone to MIT. FIRST opened doors for me.”*

Associate and *FIRST* alumna Ashley Cowall, who is now a *FIRST* volunteer.



While Booz Allen has supported *FIRST* since 2004, the 2015–2016 *FIRST* season was an inflection point in the partnership. The firm’s multi-faceted support and commitment to helping *FIRST* grow in the U.S. and abroad led to Booz Allen’s being named a *FIRST* Strategic Partner, a designation that few supporters have received.

Employees mentor *FIRST* teams at all age levels (72 teams in the 2015–2016 season) with Booz Allen’s financial support, and the firm supports *FIRST* events in locations such as San Diego, Boston, San Antonio, Huntsville, Honolulu, and Washington, DC. Employees serve on local and regional boards, advising *FIRST*’s local growth strategies so more kids can participate in the program—now and for years to come.

Also in 2015, the firm provided pro bono consulting services to help *FIRST* improve how *FIRST* data is collected and can be analyzed. “This project has been challenging and fulfilling. Our work will allow *FIRST* staff to use data analytics in forward-leaning, mission-critical ways—to drive partnerships with funders, to make decisions on *FIRST* growth, and to track the program’s impact on participants,” says Lead Technologist Catherine Slesnick, a data scientist from Booz Allen’s Boston office and a member of the project team.

“Consulting is our heritage, and by driving innovation and transformation within *FIRST*, we can achieve greater social impact and business ‘ROI’ than we could by just writing a check,” says Senior Vice President Paul Chi, also a Virginia *FIRST* Board member. “Our pro bono work will help *FIRST* reach and inspire more kids around the world—that’s inspiring to me.”

PASSION

FISH EYE VIEW: PROJECT OCEANLENS™

*“The sea, once it casts its spell, holds one in its net of wonder forever.”*

—Jacques Cousteau

*Left: Lead Developer, Ian Byrnes, experiences OceanLens’ immersive undersea 3D visualization.*

| 37 |

IMPACT REPORT / 2016

*Thanks to geographic information system (GIS) software and the rise of open source geo-mapping data, you never have to remember directions again. Satellites offer a bird's eye view of the world from the White House to the Pyramids of Giza. But what about a "fish eye view?"*

The oceans remain a mystery, even to those who regularly traverse them. What if we could take GIS out to sea? "We realized that there was nothing like that for undersea," says Lead Technologist Nirav Desai. "In the world of navigation, things haven't changed much since the 1950s." Most maritime navigational charts are still two dimensional and that often means ships are "navigating blind," Nirav says.

## **EXPLORING THE BRINY DEEP—VIRTUALLY**

Meet Project OceanLens™, a 3D maritime visualization software suite that allows users to import and merge bathymetric data—underwater topography—to provide a base layer that is matched to current GPS WGS 84 positions. OceanLens can then layer and toggle additional data sources on/off, live and/or static, as well as handle various levels of classified data.

*"The oceans remain a mystery, even to those who regularly traverse them. What if we could take GIS out to sea? We realized that there was nothing like that for undersea. In the world of navigation, things haven't changed much since the 1950s."*

—Lead Technologist Nirav Desai

Project OceanLens is the brainchild of several of our experts. In addition to Nirav, there's Lead Associate and former "submariner" Eric Jones and Associate and Data Scientist Ian Byrnes. Ian showed Eric "this global zoomable Google Earth-like tool," Eric says, and he wondered, "Was it possible to do something similar with bathymetric data, too?" Short answer, yes. Ian came back with a new model—and it went underwater! With the "power of data analytics," the ability to view what used to be invisible "is just limitless," Eric says.

With OceanLens, users can view the undersea domain from any vantage point on a flat-screen TV or on a Virtual Reality (VR) headset and see through and around underwater cables, moored science buoys, shipping lanes, winds and currents, or Unmanned Underwater Vehicles. As the viewer moves the virtual camera, data in close proximity is automatically streamed at the appropriate detail level (and cached for future efficient traversal). This process allows the OceanLens system to fuse data of varying resolutions, displaying the highest resolution data available while simultaneously providing the viewer a virtual rendering of the sea floor.

[music playing] Male Speaker: From the typical smart phone, we can see the wilds of Scotland or find remote peaks in Tibet, but the oceans remain a relative mystery. A recent combustion chamber winner may change that. Drawing our Navy experience, Booz Allen is exploring the undersea domain as a strategic linchpin. The team's innovation, Project Marlin, can help the Navy leapfrog ahead. Marlin uses specialized oceanographic software paired with virtual and augmented reality capabilities. In short, it's a flight simulator for the deep seas, delivering a customizable high-res view of the ocean. Project Marlin holds promise for many uses, from exploring and protecting undersea regions, to being the go-to navigation platform for unmanned undersea vehicles. Booz Allen innovation takes our clients safely through uncharted waters. [end of transcript]

This innovative, data-layering visualization tool gives defense organizations a technological edge. And Project OceanLens

*The OceanLens team poses during the 2016 Booz Allen Excellence Awards.*

architecture and data fusion techniques enable it to replace multiple current tools. Project OceanLens supports the full spectrum of planning and operations, from undersea sensor placement, intelligence data fusion, common operational picture development and communication, mission planning and training, and more.

*We're moving OceanLens into the future, developing software enhancements including the addition of overlapping data, user-generated scenario design, integration of standard nautical chart formats, and the ability to print 3D holographic renderings of critical scenes for sharing content without the need for VR hardware. We also worked with SPAWAR's Battlespace Exploitation of Mixed Reality (BEMR) lab to install a virtual reality demonstration booth that shows off OceanLens and are projected to replicate OceanLens' capabilities with the Navy's undersea fleet in government facilities in Honolulu.*

We think Jacques Cousteau would be proud that we're introducing the world to a fish-eye view.

| 38 |

PASSION

PLAYING FOR KEEPS—CYBER WARGAMES

*It's 3:00 am. You're sleeping, or trying to sleep anyway. Your phone buzzes and comes to life, lighting up your nightstand. As you reach for your phone, you know this can't be good. The panicked voice on the line delivers the news: "We've been breached. Our network has been compromised."*

| 39 |

IMPACT REPORT / 2016

You're lucky. It's only a game. This time.

Breached! is a Booz Allen-developed cyber wargame—a realistic, live simulation that begins with a video depicting the dreaded call alerting you to a major cyber crisis at your company. You and the other players act out roles as members of the C-suite (Chief Operating Officer, Chief Information Officer, Chief Risk Officer, HR Director, General Counsel, etc.) As many as 200 people can play in teams of 8 to 10.

Details bring the game to life. Players receive company profiles, role descriptions, problem areas, financial figures, and investor relations information for the fictional company they represent. Game “moves” include the hackers stealing company data, corrupting email systems, issuing ransom demands, and more. You and your “company team” must make business decisions to steer the entire enterprise through the fictionalized attack.

“The role-playing element is actually fun,” says Senior Associate Jeffrey Roth, who has customized and directed wargames and disaster simulations for more than 14 years. “Your imagination is doing a lot of the heavy lifting and once the scenario is laid out, your mind will fill in the rest.”

## **SCARING EXECUTIVES STRAIGHT**

Breached! gives players the chance to develop and exercise their cyber response strategies—before it's too late. The IT networks of some of the country's largest retailers, financial institutions, and government agencies are breached on a regular basis, with cyber criminals launching malicious software and stealing sensitive customer data as the world watches.

In many cases of large-scale cybercrime like this, company officials weren't prepared and didn't manage the crisis well. Sluggish technical responses, media missteps, and legal liabilities led to frightened customers, angry stockholders, and, ultimately, a huge drop in sales.

Breached! players experience a cyber attack “from a perspective they've never had,” says Lead Associate and Project Manager Howard Foard, who led design and delivery. “They get to step outside of their typical role and a lot of players tell us ‘this really opened my eyes, I'm scared now,’” he says.

Wargaming was born and lived for a long time in the world of military planning, a service Booz Allen offered exclusively to our Department of Defense clients. But we saw a need for a realistic educational game in the world of

cybersecurity too. We took Breached! out to play at the 2015 and 2016 RSA Conferences; we're working with a number of Fortune 500 clients in the technology, financial, and retail industries who've had to contend with cyber attacks. We are also expanding Breached! internationally, including in Singapore.

*Breached! players experience a cyber attack "from a perspective they've never had. They get to step outside of their typical role and a lot of players tell us 'this really opened my eyes, I'm scared now.'"*

—Lead Associate and Project Manager **Howard Foard**.

*Breached! is just one example of Booz Allen's work—our experts have decades of expertise in experiential design, simulation, facilitation, and analytical techniques that pull together the latest innovations in technology and learning theory. Employees' passion for client service and continuous learning propels them to build each wargame and exercise in a tailored approach that fits an organization's needs and mission. Find more information at <http://boozallen.com/exercisedesign>.*

*The Breached! team poses during the 2016 Booz Allen Excellence Awards.*

*African disaster management students work through tabletop exercise design steps with their colleagues during a Booz Allen-led exercise course in Nairobi, Kenya.*



PASSION

CREATING A TOOL FOR DISEASE TRACKING

| 41 |

## **IMPACT REPORT / 2016**

*An Ebola outbreak in West Africa in March 2014 rapidly grew into the deadliest incidence of the virus since its discovery in 1976. Within months, more than 25,000 documented cases of Ebola plagued Sierra Leone, Guinea, and Liberia. At least 10,000 died.*

Containing the spread of the deadly disease in West Africa presented a challenge, to say the least. Imagine an aid worker in a HAZMAT suit, whose mission is to identify Ebola in a swarm of villagers while scrawling down information with a pencil and paper. It's a very common scenario in countries that lack the technology to track, transmit, and share health data on infected versus vaccinated patients.

### **A PASSION FOR PROBLEM-SOLVING**

“To even begin thinking about solving a problem like Ebola contact and vaccine tracing,” explains Adam Weiner, principal and biometrics and forensic engineering capability lead, “we needed to bring our experts in biometric recognition, cloud data storage, custom devices, and predictive analytics together.” Looking at it from all these angles, Booz Allen envisioned a portable, practical device that could capture and store health data in the field—something users could operate even while draped in a HAZMAT suit.

*Imagine an aid worker in a HAZMAT suit, whose mission is to identify Ebola in a swarm of villagers while scrawling down information with a pencil and paper. It's a very common scenario in countries that lack the technology to track, transmit, and share health data on infected versus vaccinated patients.*

Our employees are passionate problem-solvers, and they took facial recognition software and integrated it into an existing handheld forensic tool used by law enforcement and the military. INTREPID, as we call the new creation, allows aid workers to accurately identify locals from a distance. All you have to do is hover near someone's face with the device, follow on-screen cues, and click when ready. After the front-end face-imaging software collects a number of facial measurements, the device compares that data against the INTREPID cloud: a virtual database of previously tagged individuals. INTREPID also allows a user to catalog new, untagged individuals—and confirm known identities—on the spot.

## CLEARER FOOTPRINTS AND SMARTER PREDICTIONS

Recognizing and confirming the identities of people in the hot zone is just half of the problem; the ability to track them, monitor their sentiments, and predict the next flare-up of the epidemic is another. But we're working on that, too.

Epidemico, a health analytics subsidiary Booz Allen acquired in 2015, has a product that provides real-time analysis and insights into population health. The company's MedWatcher scrapes news feeds and administers a data processing algorithm to tag, filter, analyze, and visualize any health or threat alert, including those in traditional and social media, anywhere on the globe. The data is aggregated, analyzed, and then visualized on maps to project where an outbreak may move. That means we not only know who's sick, but who's most likely to get sick, based on data.

With a device in place for aid workers to capture biometric information and a cloud environment built to syndicate their data, we integrated MedWatcher's data visualization and analytics technology to meet the needs of aid organizations. Our INTREPID package—the augmented hardware device modified with facial recognition, the INTREPID cloud environment, and the data visualization and analytics—is a solution for Ebola contact and vaccine tracing, and beyond.

*This piece was adapted from “**Building Beyond the Hot Zone,**” featured in issue 1 of ENVOI Articles.” Visit ENVOI to read the full-length story.*

PASSION

PUTTING CLIENTS AHEAD OF A CYBER ATTACK

*Cyber attacks are evolving faster than organizations can launch effective defenses. At the enterprise level, the question of a cyber attack is when, not if, and the repercussions are daunting—the theft, destruction, and/or public release of critical and personal data; reputational harm; lowered client or consumer confidence all can trigger massive disruption. Most organizations are relying on stagnant defenses and a reactive strategy to identify known vulnerabilities and fix them one by one. This seemingly endless react-and-fix loop can't keep up with threat actors who are too fast, too many, and too sophisticated for static defenses alone.*

Through the innovative integration of technology, analytics, tradecraft, and consulting ingenuity, Booz Allen has armed its clients with an effective security posture that uses anticipatory predictive intelligence (PI). It enables them to get ahead of these threats, assess risks, and take appropriate defensive actions—before an attack happens.

For example, one of the world's largest pharmaceutical companies engaged Booz Allen to conceptualize, architect, and implement a next-generation technology platform to conduct predictive, detection-based security analytics to protect over \$50 billion of revenue a year from cyber espionage, reputational damage, and intellectual capital theft. Our team provided a cloud-based security analytics platform and accelerated solution implementation and deployment by months, saving the client hundreds of thousands of dollars in operating costs and time.

## IMPACT REPORT / 2016

### SPEARHEADING THE NEXT GENERATION OF CYBERSECURITY

“Booz Allen’s approach to PI has reshaped how our federal and commercial clients understand and address cyber threats with more innovative defense measures and effective operations,” says Executive Vice President Angie Messer. “We’re spearheading the next generation of cybersecurity, providing solutions that differentiate us in the marketplace and transform client operations so they can move from ‘survive’ to ‘thrive.’”

The firm’s disruptive business models merge the art and science of defeating threats that pose risks to organizations and businesses. We deploy Booz Allen’s analytic capabilities to collect and analyze real-time threat actor activities using highly experienced intelligence analysts, native language linguists, and socio-cultural analysts. Our vast team operates 24/7/365 supporting a state-of-the art Threat Intelligence Operations Center, assessing risk and quickly providing anticipatory threat alerts that allow a client to take appropriate defensive actions *immediately*. By employing tools like the firm-developed **Cyber4Sight**<sup>®</sup>, Global4Sight, Insider4Sight and Cyber Fusion Centers, our team can scrutinize an organization’s dynamic attack surface as a threat actor would, using the tailored, predictive threat intelligence to provide actionable alerts of impending attacks.

*“Booz Allen’s approach to PI has reshaped how our federal and commercial clients understand and address cyber threats with more innovative defense measures and effective operations. We’re spearheading the next generation of cybersecurity, providing solutions that differentiate us in the marketplace and transform client operations so they can move from ‘survive’ to ‘thrive.’”*

—Executive Vice President Angie Messer

This approach represents a significant evolution from traditional thinking, in which most offerings rely on industry best practices, standards, and attack history. By upending this model, Booz Allen’s forward-looking approach provides evidence and capabilities based on calculated, future risks specific to each client and helps them build virtual fortresses, denying entry and mitigating potential damage from those threats with more speed and accuracy.

This holistic, integrated approach factors in all data sources specific to the client’s industry and business. It links external human intelligence with technical intelligence derived from a client’s network environment to connect

the dots and determine whether threat actors are present within the organization's environment—or if they may be in the early stages of an advanced attack. Because of our accelerated analysis and alert delivery, within minutes of discovery, clients are notified of risk.

In less than 2 years, our rapid innovation of PI capabilities has expanded and represents significant growth across all markets. We've combined the firm's strategic innovation capabilities and leading edge technologies with the best of our work with the Department of Defense, intelligence agencies, federal clients, and top tier commercial clients.

*Booz Allen employees working in our state-of-the art Cyber4Sight threat intelligence operations center, where we maintain 24/7/365 vigilance, alerting clients about cyberattacks before they happen.*

Booz Allen's PI capabilities have positioned us as game changers, able to provide end-to-end solutions that can be applied horizontally across client markets. We bring a passion to our work that hard to match—and that passion gets results. The firm has been awarded the Global Threat Mitigation Program (GTMP)—the largest single-award contract in Booz Allen history—to identify and analyze evolving and emerging threats and provide training and expertise to combat these threats. Our Global4Sight analysts and data scientists will work collaboratively with GTMP staff to provide unique insights from digital listening that support the readiness and training of Army, Reserve, and National Guard forces around the world.

“Booz Allen's next-generation cyber monitoring capabilities have provided an entry point into new markets like retail, oil and natural gas, automotive, and international while expanding our existing defense business,” says Angie, “propelling our business into the next 100 years. We've built an incredible suite of solutions, products, and services, and grown an expansive, cross-market business base that's driving bottom line growth and preparing clients in managing risk and taking the right actions at the right time.”

*The PI team poses during the 2016 Booz Allen Excellence Awards.*

## NON-GAAP MEASURES

We publicly disclose certain non-GAAP financial measurements in this report, including Adjusted EBITDA, Adjusted Net Income, and Adjusted Diluted Earnings Per Share, or Adjusted Diluted EPS, because management uses these measures for business planning purposes, including to manage our business against internal projected results of operations and measure our performance. We view Adjusted EBITDA, Adjusted Net Income, and Adjusted Diluted EPS as measures of our core operating business, which exclude the impact of the items detailed below, as these items are generally not operational in nature. These non-GAAP measures also provide another basis for comparing period to period results by excluding potential differences caused by non-operational and unusual or non-recurring items. We present these supplemental measures because we believe that these measures provide investors and securities analysts with important supplemental information with which to evaluate our performance, long term earnings potential, or liquidity, as applicable, and to enable them to assess our performance on the same basis as management. These supplemental performance measurements may vary from and may not be comparable to similarly titled measures by other companies in our industry. Adjusted EBITDA, Adjusted Net Income and Adjusted Diluted EPS are not recognized measurements under accounting principles generally accepted in the United States, or GAAP, and when analyzing our performance or liquidity, as applicable, investors should (i) evaluate each adjustment in our reconciliation of net income to Adjusted EBITDA and Adjusted Net Income, and the explanatory footnotes regarding those adjustments, each as defined under GAAP, and (ii) use Adjusted EBITDA, Adjusted Net Income, and Adjusted Diluted EPS in addition to, and not as an alternative to, net income or diluted EPS, as measures of operating results. We have defined the aforementioned non-GAAP measures as follows:

“Adjusted EBITDA” represents net income before income taxes, net interest and other expense, and depreciation and amortization and before certain other items, including: (i) certain stock option-based and other equity-based compensation expenses, and (ii) transaction costs, fees, losses, and expenses, including fees associated with debt prepayments. We prepare Adjusted EBITDA to eliminate the impact of items we do not consider indicative of ongoing operating performance due to their inherent unusual, extraordinary, or non-recurring nature or because they result from an event of a similar nature.

“Adjusted Net Income” represents net income before: (i) certain stock option-based and other equity-based compensation expenses, (ii) transaction costs, fees, losses, and expenses, including fees associated with debt prepayments, (iii) adjustments related to the amortization of intangible assets, (iv) amortization or write-off of debt issuance costs and write-off of original issue discount, and (v) any extraordinary, unusual, or non-recurring items net of the tax effect where appropriate calculated using an assumed effective tax rate. We prepare Adjusted Net Income to eliminate the impact of items, net of tax, we do not consider indicative of ongoing operating performance due to their inherent unusual, extraordinary, or non-recurring nature or because they result from an event of a similar nature.

“Adjusted Diluted EPS” represents diluted EPS calculated using Adjusted Net Income as opposed to net income. Additionally, Adjusted Diluted EPS does not contemplate any adjustments to net income as required under the two-class method as disclosed in the footnotes to the financial statements.

Below is a reconciliation of Adjusted EBITDA, Adjusted Net Income, and Adjusted Diluted EPS, to the most directly comparable financial measure calculated and presented in accordance with GAAP.

(AMOUNTS IN THOUSANDS, EXCEPT SHARE AND PER SHARE DATA)	FISCAL YEAR ENDED MARCH 31, 2016 <b>(UNAUDITED)</b>
<b>EBITDA &amp; ADJUSTED EBITDA</b>	
Net income	\$294,094
Income tax expense	85,368
Interest and other, net	65,122
Depreciation and amortization	61,536
EBITDA & Adjusted EBITDA	\$506,120
<b>Adjusted Net Income</b>	
Net income	\$294,094
Amortization of intangible assets (a)	4,225
Release of income tax reserves (b)	(53,301)
Amortization or write-off of debt issuance costs and write-off of original issue discount	5,201
Adjustments for tax effect (c)	(3,770)
Adjusted Net Income	\$246,449
<b>ADJUSTED DILUTED EARNINGS PER SHARE</b>	
Weighted-average number of diluted shares outstanding	149,719,137
Adjusted Net Income Per Diluted Share (d)	\$1.65

(a) Reflects amortization of intangible assets resulting from the acquisition of our Company by The Carlyle Group (the “Acquisition”).

(b) Release of pre-acquisition income tax reserves assumed by the Company in connection with the Acquisition.

(c) Reflects tax effect of adjustments at an assumed marginal tax rate of 40%.

(d) Excludes an adjustment of approximately \$3.5 million of net earnings for fiscal 2016, associated with the application of the two-class method for computing diluted earnings per share.



BOOZ Allen Hamilton