

# BUILDING A DATA-/EVIDENCE-BASED DECISION-MAKING CULTURE AT ARMY SUSTAINMENT UNIVERSITY

■ *By Maj. Brian Johnson*

The Army's investment in technical capabilities in collecting, storing, and disseminating data has dramatically increased. Advancements in the volume (size and scope), velocity (speed of data generation), variety (different types), veracity (degree of trust), and value (usefulness)—or the 5 Vs of data—have created challenges and opportunities that will only continue to grow. With the advent of generative artificial intelligence, the

need to equip sustainers with skills to leverage data is imperative.

It can be argued the Army has always been a data, or evidence-based, organization as highlighted in many doctrines, including Army Doctrine Publication 6-0, Mission Command: Command and Control of Army Forces. The expectation of transforming data into understanding to inform decision-making is not new. The challenge is the growing

gap between the modernization of tools and systems and the training and capability of people to leverage the 5 Vs of data to ensure timely and accurate insights. Equipping and empowering people to work with data to derive insights will foster a more data-/evidence-based decision-making culture.

Since the Army Sustainment University (ASU) published "Future of Data Education within Army

Sustainment” in February 2023, ASU has refined efforts in implementing sequential and progressive levels of data education embedded in professional military education (PME) for officers, NCOs, and civilians throughout their careers. An iterative and evolving process, this practice of qualitative and quantitative reasoning takes time and must be related appropriately to the sustainment warfighting functions (WfFs) to gain buy-in from the community to foster a more data-centric culture.

## Pilot Modules and Curriculum

During the summer and fall of 2023, ASU piloted its foundation modules (16 data modules) for the Basic Officer Leader Course and intermediate modules (an additional 24 data modules) for the Logistic Captains Career Course. These modules are not taught in a single block but are dispersed among the entire curriculum to augment existing sustainment WfF requirements. ASU will look at the warrant officer and NCO PME curriculum in 2024 to pilot the appropriate data analytic modules that align with their requirements. Starting in fiscal year 2024, four hours of the Sustainment Pre-Command Course are focused on blending the art of decision-making (decision science) with the analysis of data (data science) within their organizations. The desired outcome is for commanders to effectively shape and consume analysis produced by their staffs using data-driven questions.

ASU also offers a standalone 10-day Data Analysis and Visualization (DAV) course through their Army

Training Requirements and Resources System. It is open to civilians who are GS-9 and above, NCOs who are sergeants first class and above, warrant officers, and officers. The course assumes students are familiar with the basics of spreadsheets and have a working knowledge of basic high school algebra, but it is designed as an introduction to statistics, data visualization, and data analysis. The DAV course aligns with Army G-4’s desire to develop analytic talent that can produce information from data using descriptive and predictive statistics and that can present findings using visualization techniques.

## Modernizing Educational and Training Resources

Besides embedding instruction within PME and a standalone course such as DAV, ASU understands the importance of modernizing educational and training resources. ASU is currently developing 16 hours of synchronous interactive multimedia instruction (IMI) to educate the operational Army and new civilian hires on basic data literacy and math concepts, standard data visualization fundamentals, and tools used to input and pull required data. The primary purpose of IMI is to bridge the knowledge gap for sustainers who did not receive the data education modules before PME. However, IMI also provides a baseline of sustainment WfF data competencies for both Army and new civilian sustainment personnel.

Additionally, ASU has partnered with the Center for Army Analysis to conduct an ASU data science study. This

study will deliver a collection of data education resources using the Army Resource Cloud and tools such as the Air Force’s R2D2 GitLab to enable version control and collaboration. Leveraging cloud resources enables ASU to provide continuous data education resource development using programming languages such as R and Python for data specialists while also connecting ASU to the larger data science community across the Army.

While having the systems, equipment, and tools in relation to data is important, investment in sustainers to work with data is critical to getting the most value from it. Data without analysis is meaningless. Success in gaining insight to inform decision-making will be determined by the sustainment community’s desire and ability to work with it. Part of cultivating a data-centric culture for sustainers is ensuring they have education and skill with analysis, which are vital for effective and skeptical consumption of data. ASU serves as the education epicenter for the Army sustainment community, developing a data education approach to drive evidence-based decision-making. Part of this strategy calls for sustainers to continue their data education progression throughout their careers.

*Maj. Brian Johnson is an Operations Research and Systems Analysis (ORSA) Military Application Course instructor within the College of Applied Logistics and Operational Sciences at Army Sustainment University, Fort Gregg-Adams, Virginia. He was commissioned as an adjutant general officer from Officer Candidate School in 2011 and voluntarily transferred to FA49 (ORSA) in 2020. He has a master’s degree in operations research from the Air Force Institute of Technology.*