



## Project Profile: State of Alabama

### Impact Statement

Alabama's Industry Resilience projects developed a more capable and flexible defense industrial base in the state, benefitting the resiliency and readiness of DoD operations. Through a combination of business services, personnel training, and cybersecurity awareness workshops, Alabama's IR Team supported the state defense industrial base's adoption of new certifications and protocols with the potential to securely supply commercial markets and better support current and new DoD missions.

### Key Project Takeaways

Beyond its major military installations, most regions of Alabama also host a sizable number of defense contractors that often operate behind the scenes and are not active in traditional business networks. The Alabama Team used IR funds to map this network of defense suppliers and community assets. The Team later focused these assets in support of the defense industrial base, and used relationships formed by supply chain mapping to provide business support services to Alabama defense suppliers. Business services helped the Alabama defense industrial base diversify into commercial markets, develop improved production processes, upskill both contractor and displaced workers, and become aware of and adopt improved cybersecurity controls. These services in turn increase the resiliency and readiness of DoD operations through the development of a more capable and flexible defense industrial base.

### Project Description

#### Rationale

Alabama has long been home to major US military facilities and operations. These facilities support a diverse set of missions and activities, ranging from the home of Army Aviation, Ft. Rucker, to industrial operations at Anniston Army Depot, to Maxwell Air Force Base, which hosts Air University among numerous other missions. Centered around Redstone Arsenal, Huntsville has long been a global center for missile and space launch work, and Mobile has been a center of naval activity since the 1800s.

In recent decades, a major expansion in defense contracting activity across Alabama, especially in aviation and aerospace, supplemented these prominent military installations. The Alabama Department of Commerce estimates that 300 aerospace companies have a presence in Alabama. Overall, Alabama's aerospace and defense activities employ more than 61,000 people. Aerospace manufacturers alone employ more than 12,500 people in the state.<sup>1</sup> Data compiled by OEA further highlight the importance of defense spending to the Alabama economy.<sup>2</sup> Among US states, Alabama ranks tenth in total defense spending, and sixth in terms of defense spending's contribution to state GDP. In FY 2017, defense activities accounted for 5.1% of Alabama's total GDP. Major regional centers of defense spending include Madison County (Huntsville), Mobile County, and Dale County near Fort Rucker. Facing

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<sup>1</sup> <http://www.madeinalabama.com/industries/industry/aerospace-aviation/>

<sup>2</sup> OEA Defense Spending by State, FY 2017.



uncertainty regarding future defense spending in Alabama and the downsizing of the Anniston Army Depot, Alabama officials reached out to the Office of Economic Adjustment for assistance.

### Program Activities

Given the importance of defense spending to Alabama's economic health, it is not surprising that state leaders developed and maintained a close partnership with OEA. OEA's first Industry Resilience investment in the state addressed the impact of downsizing at Anniston Army Depot via Project: Operation 1st RATE, (Ready Able Trained Employees). The completion of transition activities in Anniston coincided with the state of Alabama's 2015 OEA-IR application for funding to support a statewide defense industry diversification analysis effort. Ultimately, OEA approved the Alabama Department of Commerce and the Alabama Military Stability Foundation (MSF) for a grant to support several initiatives:

- Defense Supply Chain Mapping and Web Tools
- Industry Surveys and Outreach
- Additional support for the Anniston Job Station program

The project's analytical work focused on the creation of the Alabama Defense Industrial Base Mapping Tool.<sup>3</sup> The University of Alabama in Huntsville, Battrra and RAAD 360 collaborated with the Alabama Department of Commerce and MSF (Alabama IR Team) in the development of this analysis and its accompanying web portal. Like other defense-focused supply chain maps, the Alabama tool maps the location of DoD contractors and can also identify potential economic impacts from the loss of defense contracts or changes in defense spending patterns. The tool can also illustrate the flow of defense spending into and out of the state.

Project implementation efforts proceeded along two pathways. First, Commerce team members assumed responsibility for the management and implementation of the Job Station program, first designed for displaced defense industry workers in Anniston. The program provided a wide range of services to displaced workers, including job fairs, placement services, and other job transition aid. The program proved successful, but ended operations with the cessation of local defense downsizing efforts.

As the Job Station efforts wound down, UAH accelerated the pace of its outreach to small and medium-sized defense contractors across the state. In addition to providing needed technical assistance, UAH's extensive outreach efforts generated data that informed its decision making, helping the team gain vital insights to better understand the unique needs and operating practices of Alabama's smaller defense contractors. These insights led to development of the current UAH program focusing on helping firms address cybersecurity challenges and adopt cybersecurity controls.

### Resiliency Impacts

#### Increasing Awareness of the Defense Industrial Base

Outreach efforts targeted at companies, business support organizations such as local Chambers of Commerce, and various economic development organizations (EDOs) proved successful in increasing

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<sup>3</sup> <http://www.alsmf.org/alabama-defense-industrial-base-mapping-tool.html>



awareness of the defense industrial base. Prior to outreach, many local economic developers were not aware of the unique circumstances and challenges facing local SMEs. Outreach efforts led to the initiation of local efforts in support of the defense industrial base. Ozark/Dale County Economic Development Corporation, which serves the region surrounding Fort Rucker, partnered with the Alabama IR Team to assist local contractors supporting DoD missions at Fort Rucker. Newly developed strategies from the Southeast Alabama Council for Economic Development (Grow SE) can supplement this local support for defense contractors. Traditionally focused on business attraction strategies, outreach by the Alabama IR Team encouraged Grow SE to provide services in support of local defense suppliers, a new direction for the organization. The tuning of community assets to the needs of the defense industrial base enables these assets to support firms in the case of changes in defense spending.

The Alabama Defense Industrial Base Mapping Tool is key in increasing state-wide awareness of defense suppliers. The mapping tool proves useful as a source of data and analysis, but its utility is further enhanced as a “calling card” for the project team, who used the tool to publicize the importance of the defense industry to Alabama’s economic health. UAH team members use the tool as a door opener with firms and local economic development officials, who not only get access to the unique data but also receive coaching in how to best work with local defense suppliers. These meetings helped identify potential customers for UAH support services, while also educating partners and community leaders about the importance of local defense contractors. As a result of these efforts, the Alabama IR Team formed partnerships with 15 business support organizations. Many partnering organizations now serve as trusted intermediaries for UAH and for other state and local programs to assist SMEs. As a result of outreach to business support organizations and defense suppliers, the Tool now contains information on more than 300 defense firms across Alabama.

Outreach by the Alabama IR Team to local organizations and community assets to increase awareness of the defense industrial base resulted in the focusing of these assets in support of defense suppliers. Additionally, the IR Team learned more about what kinds of business services Alabama defense suppliers need to serve new commercial markets and support new DoD missions. Increased community support for and awareness of defense suppliers and their challenges improves DoD resiliency through increasing these firm’s ability to sustain any changes in defense spending, ensuring their availability to continue to supply the DoD as its mission and needs evolve.

#### [Commercial Diversification of Defense Companies to Sustain the Industrial Base](#)

The supply chain mapping and outreach effort informed the business support services provided by the Alabama IR Team to the defense industrial base by making the team aware of the needs of and challenges facing Alabama defense suppliers. The Team contacted the 300+ defense suppliers in its database to identify their need for technical assistance. Over 101 companies responded to UAH’s survey, with 81 requesting additional information technical assessment to determine their need for business support. The IR Team provided in-depth technical assistance, in the form of defense



diversification plans, to fourteen firms who were eligible for support services,<sup>4</sup> and positioned these firms to successfully retool or diversify their markets to be more successful, profitable, and sustainable. Altogether these fourteen firms completed twenty projects identified in their diversification plans. One firm received additional support for the commercialization of its technologies, and five firms received training or certification support towards compliance readiness.

Most (80%) of the supported companies engaged in manufacturing, but many offered engineering and other services as well.<sup>5</sup> Firms were typically quite small, with employment levels between 10 and 50 people. Company needs and strategies varied greatly, but managers typically sought UAH assistance in identifying potential new markets, developing strategic plans, and improving management of daily operations. Throughout the course of providing the diversification services, UAH also trained over 160 people in areas including Geometric Dimensioning & Tolerancing, ISO 9000, Leadership Development and Lean Manufacturing.

The business support services provided by the Alabama IR Team primarily helps these defense suppliers enter new commercial markets, benefiting DoD resiliency by ensuring these firms can sustain operations throughout any change in defense spending. However, these services also help firms better support current and new DoD operations through improved or expanded capabilities. This improves DoD resiliency by increasing the availability and readiness of the defense industrial base. Firms can leverage the improved capabilities and more-skilled personnel developed through this program to improve their ability to support current DoD missions and provide support for an expanded range of DoD missions.

#### [Cost Savings to DoD through Business Diversification or New Products/Customers](#)

The program's support tools greatly improved the capabilities of assisted firms. IR funded programming supported DynaLantic, an Ozark, Alabama-based firm with a long history of developing training systems and simulators. DynaLantic also hosts a helicopter training simulation center. UAH consultants helped Dynalantic identify several potential new markets for their simulation technology and assisted the firm in its efforts to obtain ISO9001 certification. The DynaLantic management team was very pleased with the "significant help" provided during this project. By adopting quality management and business improvement processes, Dynalantic can more easily expand into commercial markets, with potential cost-savings to the DoD through increased scale.

Other companies that received project support include Decatur's M&D Mechanical Contractors, which received assistance in improving internal management and communications systems, and Huntsville's Moseley Technical Service, recognized as one of Lockheed-Martin's "top performing suppliers," which received help in developing new quality management systems. Through adopting new management tools, these firms can ensure the overall quality of their products and increase the efficiency of their operations through continued improvement, facilitated by ISO9001. Not only does this benefit firm's

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<sup>4</sup> Eligible companies received at least 10% of their revenue from DoD contracts, and had projected (at minimum) a 5% loss of sales due to overall DoD contracting cutbacks.

<sup>5</sup> Because of the nature of defense activities in Alabama, the largest share of the state's defense contractors—as much as 2/3 of all contractors---operate in the engineering and services sectors.



ability to compete in commercial markets, but also their ability to support current DoD programs and compete for new DoD contracts. Increased operational efficiency can spillover from these companies to the DoD in terms of better manufactured products at reduced prices, enabled by these quality management improvements.

## Readiness Impacts

### Training and People Support

Alabama's early emphasis on worker training and re-training generated important outcomes in support of the defense industrial base, with the potential to benefit DoD readiness. Begun in 2011, this initiative, Project: Operation 1st RATE, proved highly successful, serving more than 3,800 displaced workers via the Job Station coaching and placement programs and a host of new regional workforce support programs. While the Team discontinued this program with the cessation of downsizing at Anniston Army Depot, the services provided to these workers improve the competitiveness of the workforce in the Anniston region. A more-skilled workforce enables firms and defense suppliers in the region to improve their current capabilities and enter new markets enabled by the re-tooled workforce.

Training and people support provided by the Alabama IR Team also generated direct impacts on the defense industrial base. Via its technical assistance work, UAH trained over 160 people in areas including Geometric Dimensioning & Tolerancing, ISO 9000, Leadership Development and Lean Manufacturing. Many firms developed new capabilities and obtained critical certifications via these efforts. DynaLantic's CEO stated, "We are very thankful and appreciative for the efforts of the UAH team conducting Inland Waterway Simulation marketing research and pleasure craft simulation training. We are especially happy with the continuing support provided to our company for development of ISO 9000 compliance for future certification. This will be a huge advancement for our company." A more highly-skilled workforce enables these firms to better support their current suite of DoD contracts and increases their ability to compete for future DoD contracts. The results of training and people support provided by Alabama's IR Team benefit the readiness of the DoD by improving the defense industrial base's ability to support new or evolving DoD programs that require highly skilled workers and workforce training programs to support the upskilling and reskilling of these workers.

### Improved Capability and/or Production Adjustments

Navigator Development Group, based in Enterprise, AL, developed new production capabilities as a result of programming supported by the IR grant. The firm, a service-disabled, veteran-owned small business, is a long-term provider of information technology, aviation and training solutions to Fort Rucker. However, the firm downsized its workforce as its workload decreased due to a reduction in troop levels in Iraq and Afghanistan. Project support enabled the company's management team to target new commercial markets, and the firm is also pursuing ISO certification. Patrick King, Navigator's Vice President for Business Development, believes these projects played a critical role in helping the company better understand its current operations and pursue new growth opportunities. As the DoD's mission evolves so must defense contractors, many of whom could not afford to do so without assistance from the Alabama IR Team. Support from the IR program enabled defense suppliers in the



region to adopt new protocols that improve the efficiency and quality of production processes, enabling their entry into new commercial markets and compete for a broader array of DoD contracts. Business support services benefit DoD readiness by enabling the current defense industrial base to continue to support DoD programs and enhancing their ability to support the evolving DoD mission.

## Cybersecurity Preparedness

In the latest project phase, UAH focused its technical assistance program on cybersecurity education and awareness, with an emphasis on helping contractors become compliant with the NIST 800-171 cybersecurity controls. This work engaged more than 2200 people via outreach and education, and provided training workshops to 257 people. Only midway through this effort, nineteen companies have already received cybersecurity assessments, with ten system security plans in development by companies.

Companies receiving assistance praise the support provided by the Alabama IR Team. Signalink's owner recently shared that he "reviewed several NIST 800-171 system security plan support programs, and the UAH program and format is the best that I've seen." Regarding the workshops delivered throughout the state to educate companies and increase awareness of the OEA funded support, the Alabama PTAC said, "This workshop presents the DoD cyber security requirements for suppliers through a straightforward and comprehensible approach. Do not miss this opportunity for valuable assistance in meeting your system security requirements." The Alabama IR Team's effort to increase cybersecurity awareness and adoption of DFARS required cybersecurity controls among Alabama defense suppliers benefits the DoD by increasing the information security of contractors. This ensures that covered defense information is not held on vulnerable systems by lower tier suppliers who may not be aware of the requirement or strategic advantage of adopting cybersecurity controls without outreach and awareness training.

## Lessons Learned

### Most Important Lessons Learned

Experience gleaned from these projects has yielded several important lessons learned from the Alabama OEA-IR team. They include the following:

Link data tools to other programs. Alabama's defense industry mapping tool provided excellent data and analysis, but did not generate much usage when it was first unveiled. Companies and other users appreciated the Tool but lacked the time to fully explore this resource. More recently, the UAH program team used the data tool to create customized reports as a "calling card" to help educate EDOs and others about the Alabama defense industry. The Team also uses this data to help companies benchmark their own performance relative to other contractors in Alabama. By linking the data and analysis to other programming and by customizing the data for specific audiences, the UAH team not only expanded usage of the data but also helped promote their other project work as well.

Spread a wide net. Finding local defense contractors, especially those at the 3<sup>rd</sup> and 4<sup>th</sup> tiers of the defense industrial base, can be quite challenging. Firms are small and highly specialized, and not often engaged in traditional business networking groups, like Chambers of Commerce. Alabama project



partners noted that these firms require extra time for company outreach and identification, and that identifying a wide range of partners and marketing channels is essential to locating local companies that can benefit from defense diversification services.

Firms need and want help. While finding smaller defense suppliers can be a challenge, most firm managers want and need outside coaching and consulting services. Once engaged, firm managers warmly embrace the program and actively commit to the recommendations made by coaches and outside consultants. Companies understand the benefits of these services to themselves and the defense industrial base. Not surprisingly, there is strong demand in Alabama for business support services. UAH team members project that they could have easily supported an additional 10-15 company consulting engagements if funds had been available to underwrite these efforts.