



Project Profile: Kentucky

Impact Statement

The Industry Resilience grant supported the Kentucky Commission on Military Affairs' (KCMA) efforts to support the resiliency, readiness, and cybersecurity preparedness of the defense industrial base. In addition to increasing state-wide awareness of defense suppliers and their challenges, KCMA supported the commercial diversification of at least 27 defense suppliers through business certification assistance services. Additionally, KCMA provided NIST 800-171 gap assessments to at least 14 companies. KCMA also supported workforce development training specifically targeted at helping veterans fill skills gaps in the defense industry. Workforce development services were targeted at the aerospace and defense sector and in scaling proven cybersecurity training programs. At least 62 individuals have been trained as a result of KCMA services funded by the Industry Resilience program.

Key Project Takeaways

Through its Industry Resilience grant, the Kentucky IR team raised awareness of the importance of the Commonwealth's defense economy and assisted Kentucky businesses, workers, and communities in reacting to changes in the defense sector. The grant funds provided an opportunity to advance the state's strategic plan to increase business opportunities for Kentucky companies and create jobs in all areas of the aerospace & defense cluster. The Kentucky Commission on Military Affairs (KCMA), an independent agency attached to the Office of the Governor administers the grant. KCMA formed to advocate for the statewide military installations and functions and the state's defense-related economy. Kentucky considers the OEA grant critical in its efforts to grow important industries, particularly aerospace, unmanned-aircraft systems, and cybersecurity. The grant also provided retraining assistance for veterans and displaced defense industry workers, and the development of the worker skills needed for critical, in-demand jobs. The grant further helped defense contractors achieve critical certifications and adopt/pivot into new cutting-edge innovations to better serve commercial interests and the nation's defense industrial base.

Project Description

Rationale

Military activity has a significant impact on Kentucky's economy. Today, the Commonwealth hosts more than 60,000 DoD personnel supporting the Army, Navy, Marines, Air Force and Coast Guard, at Fort Knox, Fort Campbell, Blue Grass Army Depot, National Guard sites, and government facilities around the state. Many businesses and communities surround, partner with, and directly support those military installations as well as other DoD efforts. The economic impact of the military and related activity amounts to over \$15 billion annually for the state. However, the military presence in Kentucky and its accompanying economic contributions has not been constant over the years, with significant reductions to the Army force size in recent years. Given this volatility and mindful of shifting national defense priorities, Kentucky sought OEA funds to better understand and anticipate the possible economic impact



and implications for the state. The Commonwealth also sought OEA funds to plan a path that would leverage its unique talents and capabilities to continue to support the nation's defense needs.

Program Activities

With support from the Industry Resilience grant, Kentucky advanced national defense priorities for Resiliency and Readiness outcomes. In the past, Kentucky has not been as focused on the potential growth and economic diversification of the state's Tier 2, 3, and 4 level defense suppliers. The OEA funding provided Kentucky the resources to invest in planning, which set conditions for potential economic growth and diversification. KCMA executed the following program activities for the grant:

Economic Development Studies – Phase I

Kentucky's OEA Phase I grant funding supported major studies with key strategic recommendations on the Commonwealth's defense industry and the economic impact of the military in Kentucky.

- Kentucky Military Economic Impact Study Update (performed by University of Louisville)
- Cybersecurity Study (performed by Simon Everett, Alexandria, VA)
- Unmanned Aerial Systems (performed by Alaris, Lusby, MD)
- Aerospace, Aviation, Defense Industry Study & Mapping Tool (performed by Thomas P Miller Associates, Indianapolis, IN)

Implement Recommendations from Studies – Phases 2 & 3

Kentucky's OEA Phase II grant funding focused on the promotion and diversification of its defense-related industry into aerospace and cybersecurity certification processes to aid in competing for both defense and commercial contracts, as well as strengthening state workforce partnerships for transitioning service members, veterans and their spouses. Activities undertaken included:

- Added Veterans Hiring Component within the Kentucky Workforce Strategy - Strengthened Kentucky workforce strategy through partnerships, by integrating transitioning service members and veterans (performed by KCMA)
- Established Kentucky Aerospace Industry Consortium (KAIC) to Expand Aerospace Industry - Developed statewide plan for the expansion of Kentucky's aerospace and defense industry.
- Reached out to defense companies and assisted with growth management plan services and AS9100 quality management program (performed by KAIC with support from the Kentucky Science Technology Corporation)
- Developed a Communication Strategy and Platform to Build Digital Outreach - Promoted KCMA outreach through social media and web management; and coordinated with KAIC on promoting aerospace and defense grant activities (performed by KCMA)
- Increased Cybersecurity Awareness and Threat Assessment for Aerospace and Defense Companies - Developed a statewide plan for the expansion of the cyber security industry, and held cybersecurity preparedness workshops (performed by KSTC)



- Published Information Updates on Webpage - Located on the Kentucky Cabinet for Economic Development website (performed by KYCED)

The state's Phase III OEA funding focuses on cyber training opportunities and workforce development connectivity through a collaborative partnership with the University of Louisville. Activities include:

- Expanding training and degree-granting for transitioning service members, veterans, and spouses
- Engaging state agencies to create "Pathways to Employment" – targeting transitioning service members through Skillbridge and the KY Department of Labor
- Partnering with business and education to provide apprenticeships and education at the same time
- Connecting all activities with the Kentucky Department of Veterans Affairs

Resiliency Impacts

Increasing Awareness of the Defense Industrial Base

The Kentucky Commission on Military Affairs completed four major studies with OEA funds on the Commonwealth's defense industry and the economic impact of the military in Kentucky: 1) The Economic Importance of the Military in Kentucky, 2) Unmanned Aircraft Systems Industry, 3) Kentucky Cybersecurity, and 4) The Kentucky Aerospace, Aviation, and Defense Industry. The data and recommendations from the studies have validated KCMA's Strategic Plan, and the team is building a coalition of stakeholders and requesting resources to implement the recommendations from the various studies as they tie into Kentucky's strategic goals. These goals include:

- Protect and grow DoD installations and activities
- Expand the economic impact of Kentucky defense-related industry
- Develop and implement the model for transitioning service members, veterans and spouses
- Establish Kentucky as the most military friendly state in the nation and grow veteran and retiree populations
- Communicate strategically and gain inter-agency, inter-governmental and public-private partnership support for strong military advocacy

Grant support is key in driving the state's goal to strengthen the defense manufacturing base and support defense installations. KCMA is working with the Kentucky General Assembly and Executive Branch leadership to maintain awareness and support for its efforts. The organization also partnered with the Kentucky Cabinet for Economic Development to maintain the Defense Industry Mapping tool, <http://kyaerodefensemap.com>. KYCED updates the data quarterly and the site includes features like: data can be sorted and presented in custom visualizations; mapped data can be customized by industry category, contract type, etc.; map views can be focused and magnified as desired; and specific company data can be viewed as a quick reference with a mouse-over.

KCMA has spoken at dozens of events and composed multiple articles describing the results of the studies and emphasizing the importance of defense-related industries throughout the state. The studies'



recommendations are already impacting Kentucky's defense industrial base. For instance, the UAS report facilitated the creation of a new position within the state's Department of Aviation that will focus solely on issues pertaining to the industry and how the state might address identified issues. Possessing new intelligence from these studies, a member of the Governor's Cabinet attended the Paris Air Show to market opportunities in Kentucky for firms in the aviation industry. Due to findings from the cybersecurity study, Kentucky is considering establishing a Cybersecurity Taskforce that would work with companies across the state to assist with federal and state regulatory compliance, and with mitigating risk stemming from cyber threats.

Commercial Diversification of Defense Companies to Sustain the Industrial Base

Kentucky's aerospace industry recently become the state's top exporting industry. The aerospace study revealed over 600 firms supply the industry, yet few possess relevant ISO certifications to compete for contracts from OEMs. KCMA wants to significantly increase the number of ISO-certified companies to strengthen the capacity of the defense supply-chain. In response, the Kentucky Aerospace Industry Consortium (KAIC) formed from the OEA grant activities. KAIC is an initiative of the Kentucky Science and Technology Corporation, a 501(c)3 nonprofit, seeking to advance and promote Kentucky's aerospace industry by providing leadership and creating collaborative partnerships that ensure the industry has the necessary resources to succeed. The new group offers a multitude of business services to Kentucky companies, including assistance with obtaining quality control certifications (AS9100, ISO9001), cyber security assessments (NIST 800-171), ITAR compliance, collaboration for various contract proposals, and staffing/talent acquisition. KAIC works alongside stakeholders at the state level to represent the industry's interests, and works with students, veterans, and other individuals to help fill the workforce needs of aerospace and defense companies. KAIC partners include the Kentucky Procurement Technical Assistance Center (KYPTAC) and KSTC which provide customized training and support services for businesses across the state. KAIC and its partners made multiple facility tours and hosted regional workshops that focus on the NIST cybersecurity controls required to remain compliant with DFARS and that focused on AS/ISO quality management systems.

Since its formation, KAIC developed an effective model for uniting, promoting, and growing the state's aerospace and defense industries. The consortium organized 2 statewide networking events with over 60 companies represented, 4 international aerospace delegations with over 15 companies represented, and 7 cyber security and AS9100 workshops that reached over 300 individuals/companies. Moreover, 14 companies received one on one cyber security NIST gap assessments, 7 companies received one on one instruction on passing their AS9100 audit, and over 20 companies obtained the newest revision of the AS9100. KAIC also released a supplier catalog in the first quarter of 2020 for the aerospace and defense industry in Kentucky. This will be shared with aerospace and defense primes and tier one suppliers. KAIC is now incorporated in the Kentucky Association of Manufacturers (KAM), ensuring continuation of support for the defense supply chain. These activities create a more robust and competitive A&D supply chain capable of supporting an expanded range of commercial and defense opportunities.



Readiness Impacts

Training and People Support

OEA grant funds helped identify defense industry workforce skills shortages in Kentucky. Identified shortages include: Aircraft Mechanics; Service Technicians; Purchasing Agents; Production Planning; Business Operations; CNC Machine Operators; Tool Operators for Metals and Plastics; Welders; Logistics Planners; Forklift Operators; Customer Service Reps; Sales; Computer Systems Analysts; Software Developers; Aerospace Engineers; Mechanical Engineers; and Industrial Engineers. Subsequently, KCMA created a workforce glidepath targeted at employment and education opportunities for transitioning service members, spouses, and veterans to increase the effectiveness of defense manufacturing and contracting in the Commonwealth of Kentucky. A model for this effort is Where Opportunity Knox (WOK), www.whereopportunityknox.com. The program seeks to establish a pipeline of transitioning military personnel who are looking for a post-military place to live and work and point that pipeline toward opportunities in the Greater Louisville Region. This is done by providing hands-on, individualized service and support to connect transitioning individuals to jobs and the region. For example, WOK operates a Senior Leaders Corporate Fellowship Program that includes on the job training at local companies, shadowing business leaders, workshops, and networking events. Thirty-four fellows completed the WOK program since February 2017 with nearly 80 percent now employed in Kentucky. GE Appliances, for one, participated as a corporate fellow and brings in veterans to work side by side with its employees and managers for eight weeks. Two of the three veteran participants have since been hired full time. Nine fellows participated in Cohort #2.

KCMA is also building a coding career skills program aimed at veterans using the highly successful TechHire East Kentucky (TEKY) and Interapt program models. TEKY is targeted at transitioning coalminers to coders, with an inaugural graduating class of 30. Interapt is a customized 16-week training that meets TDY and Permissive TDY requirements, provides time to get Security+ Certification during program, teaches Java mobile software development, creates GitHub Portfolio and Professional Resume, and awards 360 Apprenticeship hours and 9 College Credit Hours. This results in job-ready software developers. From 800 applications, the program selected 50 students who all went on to complete the Interapt program. Participations combined pre-program average salary was \$17,000 - the post-program average salary was \$42,000. KCMA also plans to establish an advanced manufacturing career skills program for transitioning soldiers and veterans. In addition, an effort is underway to implement accelerated licensing and training for transitioning soldiers and veterans. Working with licensing officials in the state, the intent is to identify and decrease the gaps between military training and Commonwealth occupational licensing and certification standards to reduce critical workforce shortages in healthcare, construction, transportation, and emergency services trades.

Lessons Learned

Challenges and Most Important Lessons Learned

The IR team reports that interest remains high to support and further develop the defense industrial base in Kentucky. While many state and non-profit agencies support the defense industrial base, they are often stove piped. The OEA investment helped organize these efforts based on data-driven



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processes. For instance, data helped to make the case for a cybersecurity program and garnered state government support. Higher education institutions were responsive but lacked the connection to businesses. Likewise, small businesses want to engage with support assets but may not know how. The OEA investments helped to make these connections and offer action steps. The same challenge arose in communicating training and employment opportunities to veterans – as many are overwhelmed by the “many voices”. The OEA IR investments propelled both a plan and path for Kentucky to leverage its unique talents and capabilities to continue to support the nation’s defense needs.