



## Project Profile: Vermont

### Impact Statement

Using Industry Resilience funds, Vermont's leaders enhanced the competitiveness of local manufacturers and helped raise the profile of the defense industrial base across the state.

### Key Project Takeaways

Defense firms are an important economic driver for regional economies, even in states with a small overall defense presence. Small manufacturers benefit from targeted assistance related to specific competences, such as metalworking. Outreach to defense suppliers can be challenging; attracting their attention requires focus and programming aligned with their specific needs and concerns. Increasing the resiliency of these firms improves overall economic wellbeing and increases the talent pool DoD can rely on to further its mission.

### Project Description

#### Rationale

The state of Vermont is not a major center for defense contracting activity. In fact, Vermont ranked #50 among US states (including the District of Columbia) with only \$300 million in defense contracting in Fiscal Year 2017. This low-ranking stems in part from Vermont's small size. Defense funds account for 1.3% of state gross domestic product. Although small in absolute dollars, defense funds are near the mid-point for the states with Vermont at #31 in terms of the relative scale of statewide DoD activities.

Defense industry activity plays an outsized role in several important sectors of Vermont's Economy, particularly manufacturing. According to the Vermont Agency of Commerce and Community Development (ACCD), defense work accounts for 4% of the state's manufacturing sector and employs roughly 3,000 people. The state is home to a few large facilities run by major OEMs like General Dynamics (Williston) and UTC Aerospace (Vergennes), but, for the most part, Vermont's defense firms are small subcontractors who manufacture parts and components in sectors like optics, computer technology, and composites.

#### Program Activities

As in other states, Vermont's defense sector began seeing job loss and facility closures beginning around 2013. In response, the Vermont ACCD applied to OEA for assistance and the state's application was ultimately approved in late 2015.

The primary goal of the grant was to help Vermont's defense-related businesses address challenges they face in diversifying into new sectors of the defense supply chain and commercial markets. ACCD assessed participating businesses using tools provided by CoreValue to determine the areas in which defense suppliers could benefit most from through training. Based on the results of these assessments, the grantee worked with their local MEP to provide training in areas identified for maximum impact.



ACCD received funding for a Phase 2 grant with the primary goal to develop an advanced additive manufacturing capability for Vermont defense-related precision metalworking businesses. This funding supported an investigation into the feasibility of businesses jointly purchasing advanced equipment that would be located-at and used by Vermont Technical College for training students and in off hours by participating businesses for R&D and prototyping. Secondly, ACCD used OEA funding to create an additive manufacturing curriculum that can be used to train both incumbent workers currently using subtractive production methods, and new workers learning additive production skills. This type of curriculum supports manufacturers' incorporation of additive techniques and provide the skilled workforce needed to support this innovative new means of production.

Vermont, as fiscal agent for the six New England states of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont, received a grant with the primary purpose of fostering cooperation among the defense efforts of the states in the region. The states established a steering committee comprised of state economic development leaders and representatives of both large and small defense manufacturers. This steering committee is in the process of creating an organization to be known as The New England Regional Defense Collaboration. It recently engaged contractors to undertake two tasks: providing cybersecurity outreach and training to the region's defense businesses and researching the feasibility of creating trusted supplier protocols to make it easier for companies to establish new relationships in the regional supply chain. The group also began to explore the potential to collaborate on solutions to the regional workforce development challenges, which is beyond the original scope of the OEA grant. There is more information on this grant in the New England Regional Defense Collaboration profile.

Vermont's Industry Resilience projects targeted the areas of greatest need for the state's defense supply chain: small and medium-sized defense manufacturers. Using OEA support, ACCD and its partners introduced several new technical assistance programs, including:

- 1) The CoreValue Training system, a business assessment system to help firms address a number of management challenges in areas such as marketing, human resources, and financial management.
- 2) ISO 9001 Certification Training provided via a partnership with the Vermont Manufacturing Extension Center (VMEC).
- 3) A new curriculum for workers seeking to gain additive manufacturing skills related to precision metals manufacturing.

These three programs ensure a more reliable, resilient, and industrious base for DoD to pull from, bolstering its mission and improving regional economic wellbeing.

## Resiliency Impacts

### [Increasing Awareness of the Defense Industrial Base](#)

OEA-funded research provided ACCD with a deep understanding of Vermont's defense industrial base. ACCD developed a target list of approximately 1,070 Vermont-based firms with current or past DoD



contracts or close connection to aerospace- and defense-related clusters. The ACCD team then undertook a major outreach effort to determine how many of these firms met the criteria to work with the project team. Ultimately, ACCD qualified 54 Vermont-based firms that provided products and services to DoD and had been affected by cutbacks in defense work as eligible to receive assistance through the OEA grant to develop new capabilities.

ACCD and its partners developed new expertise and knowledge on the role of defense manufacturing in Vermont's economy. In addition, Vermont-based service providers and defense suppliers became better integrated into New England's wider regional defense supply chain as a result of this outreach. OEA-supported projects played a catalytic role in creating a statewide "voice" for defense suppliers who may not get needed attention or support from policy makers unaware of their challenges. Lack of awareness by policy makers is pronounced in states like Vermont that do not host major OEMs or major centers of defense employment and instead are home to hundreds of small firms operating across the state.

## Readiness Impacts

### Training and People Support

ACCD and its partners provided training and technical assistance to several local firms. ACCD also used OEA funding to create new additive manufacturing curricula in partnership with Vermont Technical College. Vermont is home to a large base of precision metals manufacturing firms, who are seeking to embrace new models and technologies related to additive manufacturing. These new training programs respond to a significant industry demand and interest. Increased utility of additive manufacturing techniques can potentially decrease manufacturers costs in prototyping and small-batch production and creates new methods to better produce existing DoD parts.

### Improved Capability and/or Production Adjustments

At present, ACCD and its partners work directly with companies to help them retool or develop new market and management capabilities using the CoreValue processes and software. Another subset of companies is obtaining ISO 9001 certifications via training and consulting provided through VMEC.

Participation in region-wide defense industry resilience projects introduced new ways of doing business and helped improve region-wide supply chain connections. These activities strengthened and created a more interconnected defense industrial base better able to serve DoD needs in years to come, being more resilient to economic downturns and more able to quickly adapt to DoD demand.

## Lessons Learned

### Most Important Lessons Learned

- The defense sector is not well understood or recognized in Vermont. Education about the economic importance of defense suppliers is essential in smaller, less-dependent states.
- Targeting small manufacturers with specialized services can pay dividends in terms of economic development outcomes and improved business performance.
- Smaller states benefit from connections into regional supply chains, such as found via Vermont's participation in the New England regional defense partnership.