LESSONS AND OPPORTUNITIES IN STRATEGIC ALIGNMENT BETWEEN STATES AND ECONOMIC DEVELOPMENT DISTRICTS

MANUFACTURING

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6 OF 9 ISSUE BRIEFS

INTRODUCTION

Manufacturing has a strong influence on the U.S. economy. According to the U.S. Bureau of Economic Analysis, manufacturers contributed $2.6 trillion to the U.S. economy in 2022.[1] Moreover, according to the National Association of Manufacturers, the sector's impact on national economic output is among the highest – for every $1.00 spent by manufacturers, there is a total national economic impact of $2.60 due to supplier purchases (indirect impacts) and employee spending (induced impacts).[2] The sector also offers high wages and good careers for individuals with limited post-high school education.

Manufacturing can have even higher proportional economic impacts in rural and regional economies that are reliant on a single large manufacturer. States and regions have long recognized the importance of the sector and have created tax policies, incentive programs, and business development programs that support manufacturing resiliency and growth.

But the impacts are not limited to jobs and incomes. The manufacturing sector drives technological

About the Issue Brief Series

Alignment of state and EDD planning activities leading to collaborative program execution is an important way to increase the chances of regional and state economic success. Awareness alone is not enough; alignment is the critical next step in working together to solve a region's economic challenges. Misalignment of strategies can result in divergent priorities and uncoordinated efforts that may undercut program success or lead to duplicative activities.

Creating a culture and process centered on alignment supports coordinated economic strategies and investment which can help facilitate improved economic outcomes, sustained economic growth, and enhanced equity throughout the nation's economy.

This issue brief is one of a series of nine reports that will help inform efforts to increase alignment, collaboration, and co-investment between states and local EDDs, as well as their public and private stakeholders. The first issue brief provides an overview of all issue briefs along with an explanation of how case studies were identified.

The Center for Regional Economic Competitiveness specializes in providing practical, data-driven solutions so decisionmakers can create more equitable opportunities for their states and regions. We achieve this by helping regions build capacity and leverage their strategic assets with an emphasis on talent, innovation, and networking.

1. Bureau of Economic Analysis – Value Add by Industry https://apps.bea.gov/iTable/?reqid=150&step=2&isuri=1&categories=gdpxind&_gl=1*qxo4k4*_ga*MzY5MzAzNjE1LjE3MDAxNDcxMTU.*_ga_J4698JNNFT*MTcwMDE0NzExNC4xLjEuMTcwMDE0NzE0NS4wLjAuMA..#eyJhcHBpZCI6MTUwLCJzdGVwcyI6WzEsMiwzXSwiZGF0YSI6W1siY2F0ZWdvcmllcyIsIkdkcHhJbmQiXSxbIlRhYmxlX0xpc3QiLCIxIl1dfQ==

2. National Association of Manufacturers "Facts about Manufacturing." https://www.nam.org/facts-about-manufacturing/

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innovation and opportunities for new products and sales. Many manufacturers are adopting digital technologies with automation and data exchange to boost productivity, improve quality, and reduce equipment downtime. Leading manufacturers are implementing Industry 4.0 equipment with digital technologies that use robots and co-bots, high-sensitivity sensors, additive manufacturing, artificial intelligence, and integrated business software systems.

This technological change is forcing regions to consider rethinking and modernizing their manufacturing ecosystems. States and Economic Development Districts (EDDs) that collaborate and align strategic investments in their manufacturing sectors are better prepared to enhance their industrial competitiveness in the face of technological change. Strengthening regional manufacturing ecosystems is essential for many regions seeking to create a path for vibrant and innovative regional and state economic success.

LESSON HIGHLIGHTS

ALIGNING MANUFACTURING INITIATIVES

Alignment Lesson	Case Studies Demonstrating Alignment
Lesson 6.1 - States and EDDs: Form coalitions to support alignment of manufacturing goals and strategies The pandemic demonstrated that improving manufacturing supply chains is critical to national economic security. Building state and regional coalitions to compete for new federal initiatives focused on manufacturing can help regional leaders increase their interactions, build greater trust among public and private partners, and improve alignment of various consortia, state, and EDD manufacturing strategies. Many coalitions originally formed to pursue an external funding opportunity evolved into permanent collaborative networks to work toward longer-term objectives in the manufacturing sector.	In 2021, the South Kansas Coalition successfully applied to the Build Back Better Regional Challenge (BBBRC). Leveraging close collaboration between academic institutions, leading manufacturers, and public sector actors in its application, the coalition cited strong state-EDD alignment regarding the project's direction and goals as a key factor in winning the grant.
Lesson 6.2 - States and EDDs: Recognize the intrinsic value of project-based collaboration. Even when regions and states are unsuccessful in a business attraction effort or proposal, the new and enhanced relationships among organizations can fuel improved manufacturing strategies through alignment and collaboration. This is because the process of forming coalitions and teams to compete for a project is valuable in itself. By situating disparate stakeholders in a team environment where all parties work toward a specific and well-defined goal, stakeholders gradually build the "collaborative infrastructure" that is critical to alignment.	The State of Washington formed the Puget Sound Regional Manufacturing Community (PSRMC) to capitalize and enhance the region's strengths in aerospace and maritime manufacturing. Like Kansas, PSRMC led a coalition of state and regional stakeholders to apply for a BBBRC grant. While the effort was unsuccessful, the very process of coalition building and teamwork toward a shared goal resulted in lasting relationships between major players in Washington's manufacturing ecosystem.
Lesson 6.3 - States and EDDs: Create long-term manufacturing strategies to get ahead of emerging technologies and trends - and potential awards. Aligning and strengthening regional manufacturing and related ecosystems is imperative for all regions as new technologies and skills requirements affect regions' manufacturing productivity and competitiveness. Regions with deep roots in manufacturing should recognize the need for adopting and executing strategies aimed at investing in innovative technologies, preparing needed technical talent, and attracting or developing local suppliers and customers to grow product market opportunities.	For more than a century, the Manufacturer's Association of Southcentral Pennsylvania (MASCP) has served as a forum for joint deliberation and collaboration within the manufacturing community. Recently, the challenges and opportunities presented by new manufacturing technologies have prompted MASCP to partner with the State of Pennsylvania to implement a novel approach to manufacturing partnerships.

LESSON 6.1 – STATES AND EDDS

FORM COALITIONS TO SUPPORT ALIGNMENT OF MANUFACTURING GOALS AND STRATEGIES.

Several federal initiatives have encouraged regions and states to build regional industry clusters or scale existing ones. Some well-known examples include:

- Department of Defense's Defense Manufacturing Community Partnerships,
- National Science Foundation's Regional Innovation Engines,
- Economic Development Administration's Regional Technology and Innovation Hubs (Tech Hubs), and
- Department of Labor's Workforce Innovation in Regional Economic Development (WIRED).

One recent and highly publicized initiative was EDA's Build Back Better Regional Challenge (BBBRC). EDA designed and implemented BBBRC building on the long-standing idea of multi-agency collaboration. Past examples in the manufacturing sector include EDA's Investing in Manufacturing Community Partnership (IMCP). IMCP was a federal industry cluster program that supported key sectors, such as advanced manufacturing.

For a region's manufacturers to thrive, they must have a sufficiently strong and collaborative ecosystem. In addition, by adopting and using effective regional manufacturing ecosystem metrics, state-EDD collaborations can focus more directly on addressing ecosystem gaps that serve as barriers to manufacturing success. Drawing from IMCP, key areas to support the manufacturing ecosystem include[3] :

1. Workforce and Training,
2. Research and Innovation,
3. Infrastructure and Site Development,
4. Supply Chain Support,
5. Trade and International Investment, and
6. Operational Improvement and Capital Access

States and regional organizations developing strategies to support manufacturing should consider these areas to guide the development of an ecosystem resulting in broad-based prosperity.

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3. Investing in Manufacturing Communities Partnership (IMCP), Economic Development Administration, U.S. Department of Commerce.

One example of a region's focus on strengthening its manufacturing ecosystem in partnership with regional entities is in Kansas. South Kansas has a long history of building airplanes and in 2015 was designated as an IMCP community in recognition of the strength of its collaborative efforts and strategies to coordinate and advance investments across all six areas of its manufacturing ecosystem. Today, Kansas has about 450 manufacturing companies that are part of the supply chain supporting the aerospace and national defense industrial base. Using EDA's Build Back Better Regional Challenge (BBBRC), the following case study can illustrate how states and EDDs can align strategies and improve manufacturing and economic growth outcomes.

Organizing a large-scale funding opportunity like BBBRC galvanized many regional organizations to participate. The regional coalition formed in Kansas' to advance its manufacturing cluster is an excellent example. Other states, like Washington, have similar stories related to their BBBRC applications.

CASE STUDY

Leveraging Partnerships to Reimagine the Manufacturing Ecosystem

Kansas' BBBRC Award

Originally formed in 2006 when applying for a U.S. Employment and Training Administration Workforce Innovation in Regional Economic Development (WIRED) grant, the South Kansas Coalition represents the interests of several EDDs (including the South Central Kansas Economic Development District), workforce investment boards, and the Kansas Department of Commerce. The coalition regularly works on projects of regional and national importance.

In 2021, the Coalition built on its regional strength in manufacturing to bring together world-class expertise from academic institutions (e.g., Wichita State University, Wichita State University Tech), leading industry players (e.g., Spirit AeroSystems, GE Aviation), and public sector actors (e.g., State of Kansas, South Central Kansas EDD) to apply to the BBBRC.

EDA selected the region to receive a $500,000 Phase 1 planning grant and followed that award with a $51.4 million BBBRC Phase 2 grant to strengthen the nation's competitive advantage in aerospace production. The initiative's goal is to shift the manufacturing landscape in the region from a fragmented network of suppliers with outdated processes to a consistent set of qualified factories that can outperform global competitors.

South Kansas continues to leverage that performance and is using its 2022 BBBRC award to strengthen its ecosystem by building a public private partnership that created a long-term strategy to maintain its competitive edge and innovation capacity. This strategy focuses on developing university centers of excellence and industry-driven curriculum to support manufacturers in flexible design, advanced materials development, automation, and prototyping.

This successful coalition relied on strong state-EDD alignment that contributed to the project's direction and goals. The industry cluster was long a priority for South Kansas, and the state's priorities — outlined in the 2021 Framework for Growth — aligned with this cluster emphasis, as it focused on advanced manufacturing, aerospace, and workforce training.

LESSON 6.2 – STATES AND EDDS

RECOGNIZE THE INTRINSIC VALUE IN PROJECT-BASED COLLABORATION.

In Washington, a regional manufacturing group supported the creation of a strategy incorporating the Washington Department of Commerce and 14 regional partners and EDDs to transform capital investments in the state. Like Kansas's regional coalition, Washington's Puget Sound Regional Manufacturing Community leveraged its prowess in aerospace manufacturing to bring state and local regional resources together. The case study below illustrates how alignment between state and local organizations can create a dynamic manufacturing community which seeks to support expansion, equity, and resilience.

CASE STUDY

Creating the Puget Sound Regional Manufacturing Community

Washington's PSRMC Coalition

The State of Washington showcases another BBBRC success story that highlights the importance of state and regional collaboration in the manufacturing space. This collaboration can also strengthen regions and take advantage of federal manufacturing related program investments. Washington is home to one of the largest aerospace clusters in the world, with over 132,000 aerospace-related employees and more than 1,350 aerospace firms. It is also a Pacific Ocean maritime hub for the United States with a total economic impact of roughly 174,000 jobs, approximately $41 billion in business revenues, and $12.6 billion in labor income.

To strengthen its manufacturing ecosystem, the State of Washington leveraged its 2014 IMCP designation for aerospace manufacturing excellence by building a Puget Sound Regional Manufacturing Community (PSRMC) public private coalition. The PSRMC developed a strategy centered on regional transportation, growth management, and economic development with 300 business, government, labor, community, and education leaders from both the region and the state. The coalition includes the Washington State Department of Commerce and 14 regional coalition partners including the Central Puget

Sound Economic Development District, the Benton-Franklin Council of Governments, and the North Central Washington Economic Development District. This coalition was the foundation for the Maritime Blue cluster initiative that was selected as one of the 60 finalists receiving the BBBRC Phase 1 $500,000 planning funds.

Although the coalition did not receive a BBBRC Phase 2 award, the coalition remains committed to equitably re-aligning and transforming capital investments with plans for strategic road mapping; market and industry analysis; business incubation and acceleration; and an expansive, equitable workforce and jobs development program to support an invigorated and resilient regional blue economy.

LESSON 6.3 – STATES AND EDDS

CREATE LONG-TERM MANUFACTURING STRATEGIES TO GET AHEAD OF EMERGING TECHNOLOGIES AND TRENDS – AND POTENTIAL AWARDS.

While the BBBRC program illustrates state and local alignment in manufacturing, the evolution of Southcentral Pennsylvania's manufacturing ecosystem provides an alternative, bottom-up approach centered around an association of regional manufacturing stakeholders. This association was instrumental in building the institutional capacity and collaborative culture that facilitated state-regional alignment. As the case study below shows, the collaborative culture fostered by decades of engagement by the Manufacturers' Association of Southcentral Pennsylvania set the stage for more recent partnerships that have become key elements of a dynamic manufacturing ecosystem.

As the case studies demonstrate, the formation of coalitions between regional manufacturing organizations and state agency and university partners were critical elements of these organization's manufacturing success. The involvement of agencies across the state government apparatus — from education and workforce agencies to transportation departments — underscore the holistic approach and wide-ranging collaboration that is often needed to strengthen regional manufacturing ecosystems. These cases reinforce why state-regional collaboration can be such a powerful tool to ensure the success of economic development initiatives.

CASE STUDY

State and Local Collaboration to Bolster Manufacturing Resources

Manufacturer's Association of Southcentral Pennsylvania

The Manufacturers' Association of Southcentral Pennsylvania (MASCP) has, since 1906, functioned as a forum to address industry issues among its membership and the wider manufacturing community. This tradition of joint deliberation and collaboration made MASCP the ideal organization to participate in Pennsylvania's Industry Partnership (IP) program, an initiative to develop the commonwealth's workforce ecosystem.

Over time, MASCP became the manufacturing partnership facilitator in southcentral PA, where it aggregated common training needs among the manufacturers who participated in the partnership and connected employers with training providers who could address these needs. MASCP formalized this process through specific courses in which consortium members send one or multiple incumbent workers to receive training.

MASCP has since expanded its ecosystem building activities under the Commonwealth's NextGen Industry Partnership Model in 2018. This new effort expanded the focus on the consortium of manufacturers from focusing on incumbent worker training to larger issues of competitiveness, productivity, and automation among the region's manufacturers. The partnership added new public partners, such as economic and workforce developers, and expanded project activity to areas that include new technology integration, supply chain resiliency, industry marketing to future workers, and labor market research. The region's economic development partnership is highly invested in this initiative, having assigned a staff member to support MASCP's work, and MASCP in turn participates in regular economic development meetings across the region.

When the Pennsylvania Department of Economic Development sought to increase intra-regional collaboration though its Partnership for Regional Economic Performance (PREP) program, it relied on the collaborative relationships established in part by MASCP to roll out PREP in the region. Today, PREP sustains a coalition of organizations in the region who bring resources to the table to help resolve salient issues facing manufacturers. Partners include Small Business Development Centers, county economic development organizations, regional Industrial Resource Councils (i.e., Manufacturing Extension Partnership centers), local workforce developers, and state program staff.

While Southcentral Pennsylvania does not have an active EDD, regional collaboration has recently produced a CEDS that focuses on industry and workforce development. It is the intention of MASCP and its partners that this CEDS would serve as the first step toward the creation of an EDD in Southcentral Pennsylvania.

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