Domestic Trade Industry Market Analysis

November 2023

PREPARED FOR:

State of Maine DECD
59 State House Station
Augusta, ME 04333

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STATE OF MAINE

DOMESTIC TRADE INDUSTRY MARKET ANALYSIS

Executive Summary

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The Domestic Trade Industry Market Analysis[1] is intended to inform the State of Maine's Office of Business Development's domestic trade strategy, which helps industries impacted by COVID-19 grow and succeed in new domestic markets.

This report provides insight into the State of Maine's macroeconomic performance as well as the state's recovery after the pandemic. After analyzing the macroeconomic conditions, COVID-19 impacts, and aggregating industry data from Camoin Associates' previous studies on Maine's COVID-19-impacted industries, our team identified new market opportunities across the United States.

INDUSTRIES IMPACTED BY COVID-19

- Manufacturing
- Advanced Machinery and Metals Manufacturing
- Agriculture, Seafood, and Food Manufacturing
- Biomedical Manufacturing
- Clean Energy
- Construction
- Forestry and Forestry Products
- Information Technology
- Logistics, Transportation, and Warehousing
- Retail Trade

[1] This project is commissioned by the Office of Business Development and is funded by the Maine Jobs and Recovery Plan.

MACROECONOMIC CONTEXT

Overall, based on macroeconomic conditions, Maine has performed well compared to New England and the US before, during, and after the COVID-19 pandemic. While it is too soon to predict, these trends may position Maine for growth that exceeds expectations from projections based on trends of the past 5-10 years.

Population Growth

Pre-Pandemic (2017-2019)

Maine gained **over 12,500 in net new population** (0.5% annually), which was on par with the US and slightly higher than New England.

Pandemic (2019-2020[2])

Maine experienced **population growth of 0.4%.**

Pandemic Recovery (2020-2022)

Maine posted further gains, with **almost 22,000 in net new population** (0.8% annually), far outpacing the population growth in both New England and the nation during this same time period.

Gross Regional Product (GRP)

Pre-Pandemic (2017-2019)

Maine's nominal GRP **grew 15%**, slightly higher than both New England and the US.

Pandemic (2020)

Maine's GRP **grew by 2%**, while the GRPs of New England and the US both shrunk by -2%.

Pandemic Recovery (2021-2022)

Maine's GRP has **grown at the same rate as the US GRP (21%),** which is higher than New England's GRP during this same time period (19%).

Employment

Pre-Pandemic (2017-2019)

Maine's employment grew at a moderate pace, with the number of jobs **increasing by 0.9% annually**,[3] slightly ahead of New England but lagging the US.

Pandemic Recovery (2021-2022)

Maine's employment grew **significantly, by 2.9% annually**, on par with the nation and region's annual growth.

Next Five Years (2022-2027)

Maine's employment is expected to grow at **just 0.6% annually**,[4] about half of the growth expected in New England and the US (1.4%).

These projections are driven by economic models that take into consideration growth in the past 5-10 years and may understate Maine's actual future growth, particularly if the trends experienced during and after COVID-19 continue.

Consumer Spending

The pandemic had a profound impact on consumer spending in 2020 and the years following. During shutdowns in 2020, consumers had fewer options for spending their money and were unable to visit stores, restaurants, and entertainment venues in person, so they stashed their extra spending money in savings accounts.

This led to pent-up demand during the recovery (2020-2021) and Maine experienced rapid **growth of 13%** in consumer spending across the economy during that time.

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[2] Population estimates were adjusted to reflect 2020 Census results, and can be interpreted as preliminary intercensal population estimates. Therefore, comparison to years before 2020 can be made linearly to years following the most recent Census.

[3] Compound Annual Growth Rates (CAGR) represent the average annual growth rate over a given time period. Here, it is used so that time periods of varying durations can be compared to one another. For example, it allows the period of 2017-2019, a two-year period, to be compared to growth rates during the period of 2022-2027, a five-year period.

[4] These employment projections are derived from Lightcast and are separate from the Consensus Economic Forecasting Commission's economic forecasts.

COVID-19 IMPACTS ON INDUSTRIES

Based on the 2022 Domestic Trade Reports of Maine's key COVID-19-impacted industry groups, Camoin Associates reviewed these reports to aggregate and isolate sales-related indicators to understand the Pre-Pandemic (2017-2019), Pandemic (2020), and Pandemic Recovery (2020-2022) data.

The industry indicators included in the following charts are 1) Total employment, 2) Gross Regional Product (GRP), and 3) GRP Property Income.[5]

Pre-Pandemic

Maine Comparative Industry Performance, 2017-2019 (annualized)

	Employment	GRP	GRP Property Income
Advanced Manufacturing	4.0%	6.8%	5.4%
Aerospace	7.3%	6.0%	3.2%
Biomedical Manufacturing	8.8%	11.6%	10.3%
Clean Energy	4.9%	6.6%	1.2%
Construction	2.6%	6.4%	0.2%
Food	1.2%	5.0%	7.0%
Agriculture	1.6%	-0.2%	1.0%
Seafood	-2.0%	7.1%	17.2%
Food Manufacturing	2.8%	7.2%	10.7%
Food Wholesaling	1.6%	4.0%	0.6%
Forestry and Forest Products	-0.6%	7.8%	8.9%
Information Technology	6.4%	10.7%	10.3%
Retail	-0.5%	4.8%	5.2%
Logistics, Transportation, and Warehousing	-2.8%	2.6%	-4.0%
Total Maine	**0.9%**	**5.2%**	**5.3%**
Total US	**1.3%**	**4.7%**	**4.7%**

Source: Lightcast, Camoin Associates

Note: Annualized growth rates reflect the average growth rate that occurred annually instead of the total growth rate that occurred over the given time period.

Key

- Target sector growth rate is one or more percentage points higher than the state's
- Target sector growth rate is within one percentage point of the state's
- Target sector growth rate is one or more percentage points lower than the state's

[5] Property Income, sometimes called "non-labor income" or "profits," is generally what is left after businesses make payments for labor, taxes on production, and the purchase of produced inputs. It is one of the four components of GRP, alongside earnings (labor income), taxes on production and imports, and subsidies. (Lightcast Knowledge Base)

COVID-19 Trough

Maine Comparative Industry Performance, 2019-2020 (annual change)

	Employment	GRP	GRP Property Income
Advanced Manufacturing	-6.5%	-5.1%	-3.0%
Aerospace	-6.2%	-12.2%	-16.6%
Biomedical Manufacturing	1.3%	20.1%	22.0%
Clean Energy	3.9%	6.6%	15.9%
Construction	1.4%	5.3%	37.4%
Food	3.9%	4.6%	19.3%
Agriculture	10.7%	4.3%	38.6%
Seafood	16.4%	-2.5%	5.1%
Food Manufacturing	-3.1%	12.5%	19.5%
Food Wholesaling	-6.5%	-0.3%	9.0%
Forestry and Forest Products	0.8%	5.6%	15.3%
Information Technology	2.9%	5.2%	1.3%
Retail	-5.2%	5.1%	27.6%
Logistics, Transportation, and Warehousing	-7.2%	-6.5%	5.3%
Total Maine	**-4.9%**	**2.0%**	**8.0%**
Total US	**-5.1%**	**-2.0%**	**-1.1%**

Source: Lightcast, Camoin Associates

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The COVID-19 pandemic had a profound impact throughout the economy, with reverberations that changed the way many industries operate. Looking at employment and GRP, several key industry groups stand out as being the most negatively impacted by COVID-19. These industries include Advanced Manufacturing, Aerospace, Food and Beverage Wholesaling, and Logistics, Transportation, and Warehousing (LTW), which fared worse than the overall economy in terms of both employment and GRP.

During the COVID-19 recovery from 2020-2022, Seafood as well as Forestry and Forest Products stand out as industries that underperformed the overall economy. These industry groups had relatively low growth rates coming out of the pandemic for both employment and GRP. Construction underperformed the state's economy for GRP growth.

While many industries met or exceeded state growth rates during and following the height of the pandemic, COVID-19 still impacted the industries' health as employment and GRP growth rates were reduced below historical trends.

The pandemic recovery provided favorable conditions for some of the key industry groups, leading to growth rates well above historical trends.

Biomedical Manufacturing, Information Technology, Retail, and Logistics, Transportation, and Warehousing had strong employment growth during 2020-2022.

Advanced Manufacturing, Clean Energy, Construction, Food, IT, Retail, and Logistics, Transportation, and Warehousing had strong GRP growth rates compared to the overall state economy from 2020-2022.

Considering all of the COVID-19 industry trends in Maine, direct support for continued recovery will be a critical factor for Maine's businesses and industry initiatives that support sustainable growth, including workforce, infrastructure, supply-chain resiliency, and programs to support expanding markets outside of the state.

COVID-19 Recovery

Maine Comparative Industry Performance, 2020-2022 (annualized)

	Employment	GRP	GRP Property Income
Advanced Manufacturing	3.4%	11.2%	12.1%
Aerospace	3.0%	10.3%	11.2%
Biomedical Manufacturing	15.4%	10.2%	11.3%
Clean Energy	4.6%	11.4%	9.6%
Construction	2.5%	8.5%	-3.2%
Food	3.2%	11.5%	3.8%
Agriculture	6.4%	25.6%	11.2%
Seafood	-1.3%	1.4%	-1.4%
Food Manufacturing	3.9%	10.3%	-2.9%
Food Wholesaling	2.1%	11.0%	11.9%
Forestry and Forest Products	-2.0%	7.0%	9.7%
Information Technology	8.2%	17.8%	22.5%
Retail	2.8%	10.4%	12.2%
Logistics, Transportation, and Warehousing	2.0%	11.9%	17.6%
Total Maine	**2.9%**	**10.2%**	**13.4%**
Total US	**3.0%**	**10.2%**	**13.3%**

Source: Lightcast, Camoin Associates

Note: Annualized growth rates reflect the average growth rate that occurred annually instead of the total growth rate that occurred over the given time period.

Key

- Target sector growth rate is one or more percentage points higher than the state's
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SUPPLY CHAIN

To provide insights on supply chains and market opportunities by industry, Camoin Associates assessed logistics data on the method of transportation and typical distances traveled of goods and services. This was overlaid with market opportunities to further shed light on market potential across the US.[6] This is what we found in the analysis:

Maine ships most of the targeted sectors' goods to **New England and the Mid-Atlantic.**

87% of domestic export shipments from Maine are **transported on trucks.**

Medium-range shipments of 250-499 miles make up the largest share of Maine's domestic exports at 43% of the state's total tonnage in 2022.

Construction products (including building stone, gravel, and natural sand) tend to travel **the shortest distances**, with about 99% moving less than 250 miles on average.

Forest products has the lowest share of shipments by truck, at only 66%. Multiple nodes (24%) and Rail (11%) account for its other major modes of distribution.

Advanced Manufacturing, Construction, Food and Beverage Manufacturing, and Pharmaceuticals have the highest shares of truck shipments (97%-100%).

About two-thirds of Maine's domestic exports of **Food and Beverage products traveled to medium-range destinations** in 2022 (250-499 miles).

Pharmaceuticals are shipped the longest distances, with 97% moving over 750 miles on average.

[6] Data used in this section was collected via the Freight Analysis Framework Version 5, a data product developed by the National Transportation Research Center in the Oak Ridge National Laboratory. This research combines data from the Commodity Flow Survey and other data from the Bureau of Transportation Statistics and Federal Highway Administration.

DOMESTIC TRADE MARKET OPPORTUNITIES

Research and data analysis indicate that opportunities to enter new domestic markets vary across target sectors. These opportunities for each target sector are detailed below along with why they are important opportunities for the State of Maine.

Overall, this assessment is based on economic performance (employment, output), and existing levels of domestic trade (sales by Maine companies outside of the state but within the US vs. purchases by Maine companies from outside of the state), and supply chains including transportation metrics.

Methodology

Camoin Associates analyzed employment concentrations, domestic imports, domestic imports per population, and average shipping distances within each target industry across each region in the US.

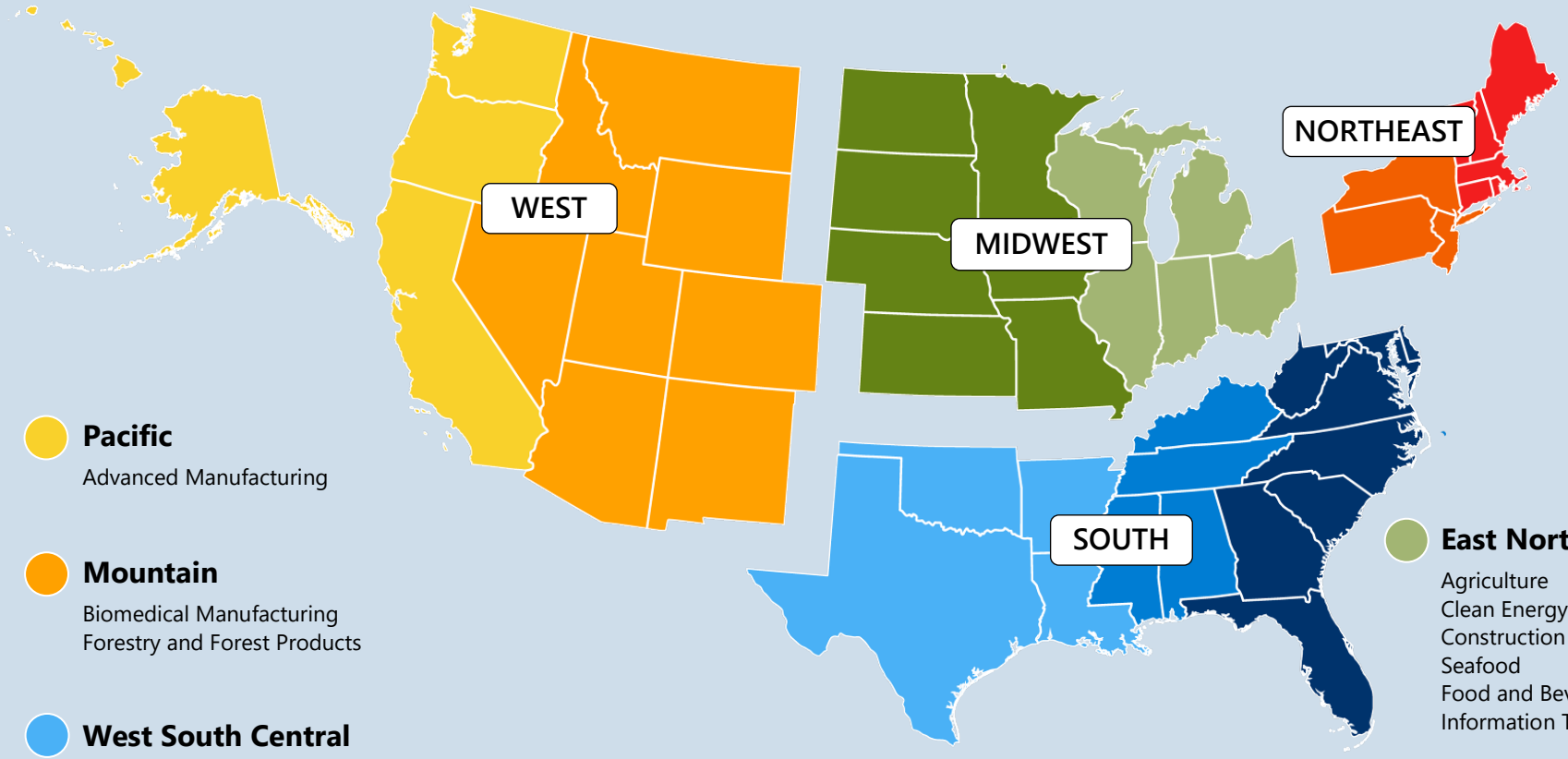
Using a tiered ranking system, we categorized industry performance across regions into top, middle, or bottom third tiers based on the metrics value in a specific region relative to the other.

The most promising opportunities emerged in regions where:

1. The industry ranked in the top third for domestic imports per population, indicating a substantial demand for industry-related goods relative to the local population.
2. Regions ranked in the bottom third for employment concentration, suggesting a limited native workforce, meaning they would rely on continued imports to meet demand.

While we considered average shipping distance, its significance varied depending on the specific industry and the nature of the goods being transported, making it a less critical factor in our decision-making process.

Please see Appendix A for detailed industry performance tables and additional methodology.



Pacific
Advanced Manufacturing

Mountain
Biomedical Manufacturing
Forestry and Forest Products

West South Central
Biomedical Manufacturing
Information Technology

East South Central
Advanced Manufacturing
Aerospace
Biomedical Manufacturing
Clean Energy
Construction
Seafood
Food and Beverage Manufacturing and Wholesale
Forestry and Forest Products
Information Technology
Logistics, Warehousing, and Transportation
Retail Trade

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East North Central
Agriculture
Clean Energy
Construction
Seafood
Food and Beverage Wholesale
Information Technology

New England
Advanced Manufacturing
Food and Beverage Manufacturing
Logistics, Warehousing, and Transportation
Retail Trade

Mid-Atlantic
Construction
Food and Beverage Manufacturing

South Atlantic
Aerospace
Biomedical Manufacturing
Food and Beverage Manufacturing
Seafood

DOMESTIC TRADE OPPORTUNITIES BY REGION

New England

STATES	TARGET INDUSTRIES	TARGET STATES	SUPPLY CHAIN & DISTRIBUTION
Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont	• Advanced Manufacturing • Food and Beverage Manufacturing • Logistics, Warehousing, and Transportation • Retail Trade	• Vermont • New Hampshire • Connecticut • Massachusetts	Maine lies within New England, and therefore domestic trade is within close proximity. This allows Maine to trade products that typically travel only short distances. The primary method of distribution to New England is trucking.

Mid-Atlantic

STATES	TARGET INDUSTRIES	TARGET STATES	SUPPLY CHAIN & DISTRIBUTION
New Jersey, New York, and Pennsylvania	• Construction • Food and Beverage Manufacturing	• New York • New Jersey	The Mid-Atlantic is in relatively close proximity to Maine, which allows for significant trade volumes of Maine's products. About 35% of freight leaving Maine goes to the Mid-Atlantic region.

East North Central

STATES	TARGET INDUSTRIES	TARGET STATES	SUPPLY CHAIN & DISTRIBUTION
Indiana, Illinois, Michigan, Ohio, and Wisconsin	• Agriculture • Clean Energy • Construction • Seafood • Food and Beverage Wholesale • Information Technology	• Indiana • Wisconsin • Michigan	East North Central is located within medium distance from Maine, with freight traveling an average of 750-1,500 miles. While the primary freight mode for this region is trucking, rail and multi-modal freight are also key to delivering Maine's products to the area.

West North Central

STATES	TARGET INDUSTRIES	TARGET STATES	SUPPLY CHAIN & DISTRIBUTION
Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota	• Advanced Manufacturing • Aerospace • Agriculture • Biomedical Manufacturing • Clean Energy • Seafood • Food and Beverage Wholesale • Forestry and Forest Products • Information Technology • Logistics, Warehousing, and Transportation • Retail Trade	• North Dakota • South Dakota • Nebraska • Kansas	West North Central is fairly long-distance from Maine, with shipments traveling an average of 1,000-2,000 miles. The most common mode of freight for goods heading to West North Central is trucks, though multi-modal freight also represents about one-third of distribution.

South Atlantic

STATES	TARGET INDUSTRIES	TARGET STATES	SUPPLY CHAIN & DISTRIBUTION
Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia	• Aerospace • Biomedical Manufacturing • Food and Beverage Manufacturing • Seafood	• Delaware • Virginia • Maryland • West Virginia	The South Atlantic has the benefit of being on the East Coast with Maine, though located at a slightly longer distance, with shipments from Maine averaging 750-1,500 miles of travel. 5% of freight leaving Maine is going to the South Atlantic region, with trucks being the most common method of transport.

East South Central

STATES	TARGET INDUSTRIES	TARGET STATES	SUPPLY CHAIN & DISTRIBUTION
Alabama, Kentucky, Mississippi, and Tennessee	• Advanced Manufacturing • Aerospace • Biomedical Manufacturing • Clean Energy • Construction • Seafood • Food and Beverage Manufacturing and Wholesale • Forestry and Forest Products • Information Technology • Logistics, Warehousing, and Transportation	• Kentucky • Mississippi	Freight leaving Maine for East South Central travels an average 1,000-1,500 miles. Trucks account for approximately 95% of distribution to the region.

West South Central

STATES	TARGET INDUSTRIES	TARGET STATES	SUPPLY CHAIN & DISTRIBUTION
Arkansas, Louisiana, Oklahoma, and Texas	This region did not stand out with specific high-priority area opportunities. However, Biomedical Manufacturing and Information Technology are potential medium-priority opportunities.	• Texas • Arkansas	The West South Central region requires long-distance travel for goods leaving Maine, with an average shipment distance of over 2,000 miles. Trucks account for nearly all distribution to this division.

Mountain

STATES	TARGET INDUSTRIES	TARGET STATES	SUPPLY CHAIN & DISTRIBUTION
Arizona, Colorado, Idaho, New Mexico, Montana, Utah, Nevada, and Wyoming	• Biomedical Manufacturing • Forestry and Forest Products	• Idaho • Wyoming • Nevada	The long-distance nature of the Mountain region may limit the types of goods suitable for expanding into region markets. On average, shipments from Maine travel over 2,000 miles, primarily via both truck and rail.

Pacific

STATES	TARGET INDUSTRIES	TARGET STATES	SUPPLY CHAIN & DISTRIBUTION
Alaska, California, Hawaii, Oregon, and Washington	This region did not stand out with specific high-priority area opportunities. However, Advanced Manufacturing products is a a potential medium-priority opportunity.	• Alaska • California • Hawaii	The Pacific region is located the furthest distance from Maine, averaging over 2,000 miles, primarily by truck and rail. This may limit the goods that can be sold within these markets.

RECOMMENDATIONS

Recommendations are focused on the next steps for supporting businesses to grow their domestic trade efforts by **alleviating constraints and roadblocks and opening up trade opportunities through investment and infrastructure**. The recommendations also emphasize increasing collaboration for further research, creating opportunities for information sharing and open communication, building capacity, and prioritizing specific industries and geographies to sustainably grow domestic trade for the State of Maine.

1 Investigate and further research transportation and logistics challenges and opportunities.

While there is some transportation data on the distance of goods traveled and the mode of exporting goods out of Maine, Camoin Associates recommends conducting additional research and analysis focused on the needs, constraints, and opportunities of transportation infrastructure and logistics relative to supporting and expanding domestic trade.

By sharing the domestic trade research and analysis conducted to date and connecting with transportation and logistics stakeholders, Maine DECD can gain greater insight into critical program and infrastructure investments for expanding supply chains and supporting industries that are trying to grow domestic exports.

Specific stakeholders and partners for such collaboration include the Maine Port Authority, Maine Department of Transportation, Maine International Trade Center, transportation industry associations, rail providers, and freight professionals. This collaboration can take the form of a combination of sharing results through online or in-person session(s) and then forming a "working advisory group" to provide insights and collaboration over time.

2 Prioritize communications and information sharing.

As market research continues to be completed and industry data becomes available to the public, it is imperative that businesses are made aware of the data, but more importantly, they understand how to use it. We recommend convening industry-focused workshops, increasing presentations on market research, and hosting annual meetings with different industry leaders for continual networking and collaboration. Workshops and stakeholder engagement can include a mix of methods whether that is in-person events or virtual events that are recorded for future use and posted on the DECD website for digital engagement.

3 Build business capacity.

One of the largest hurdles in implementation is building capacity. Building business capacity starts by connecting with businesses to understand their domestic trade needs whether that relates to market knowledge, capital, workforce, supply chain concerns, etc. DECD has been doing this through the Maine Office of Business Development.

Business development professionals are using domestic trade data and research that offers important knowledge and market research tools to further assist in business development outreach and technical assistance. DECD has the potential to continue to provide market data and connect businesses to resources and programs that will support the execution of businesses breaking into new markets.

4 Prioritize specific industries and geographies.

Prioritizing specific regions and industries will start the planning process with less risk and higher success rates. Once new domestic markets are established, industries can expand into medium- or low-priority areas (harder and further markets) to continue building their brand and domestic trade markets.

FIRST PRIORITY FOCUS AREAS

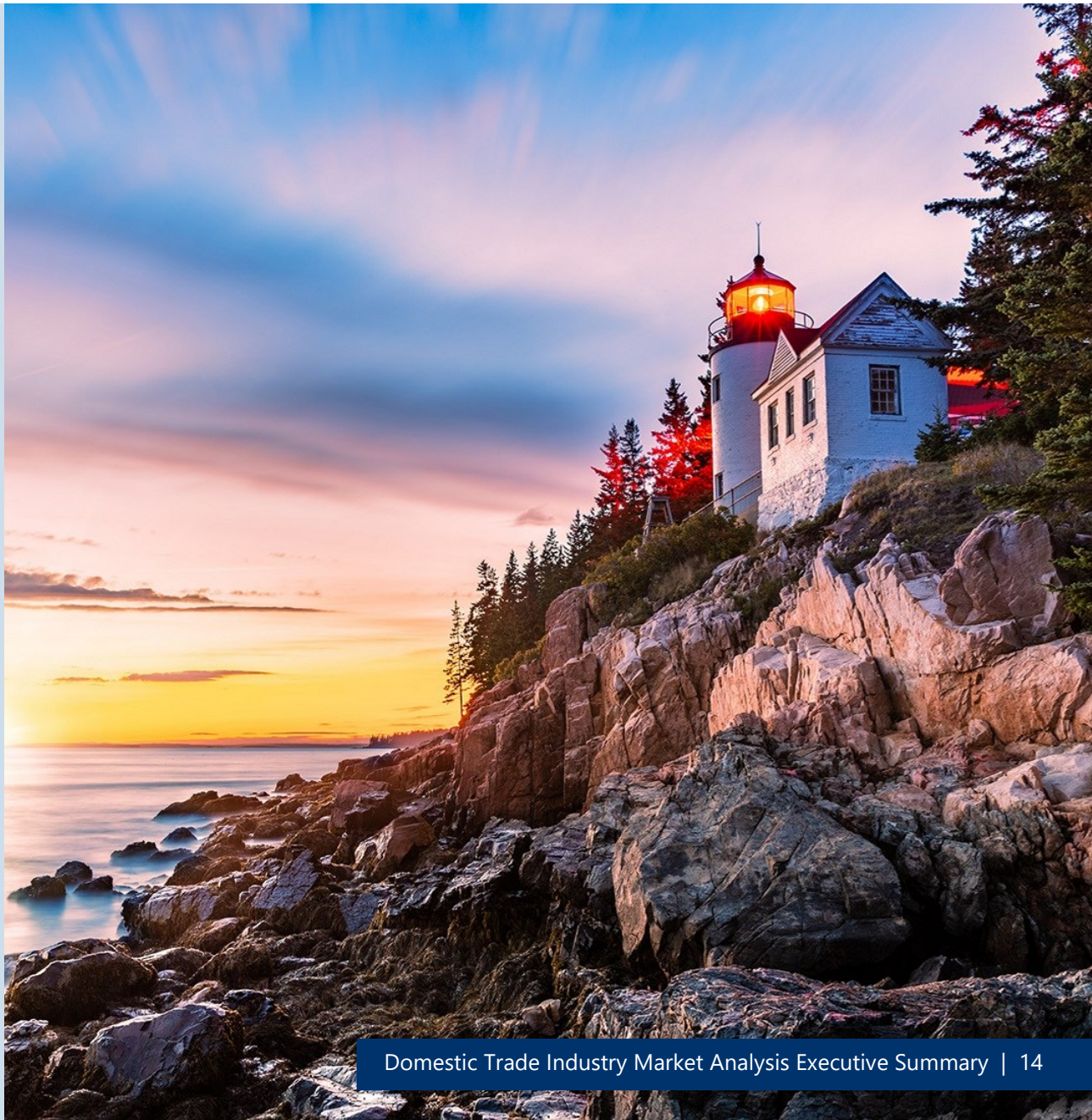
Due to Proximity to Maine and Volume of Domestic Imports by Population and by Industry

New England

- Advanced Manufacturing
- Food and Beverage Manufacturing
- Logistics, Warehousing, and Transportation
- Retail Trade

East North Central

- Agriculture
- Clean Energy
- Construction
- Seafood
- Food and Beverage Wholesale
- Information Technology

West North Central

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