# Appendix D: The Flow of Goods

To assess the flow of goods to, from, within, and through Southern Nevada, data from S&P Global Transearch was used to develop a comprehensive analysis of current and future annual freight flows. The Transearch database presents information on the origins and destinations of these flows, categorized by the Standard Transportation Commodity Code (STCC), across seven different modes of transportation for 2015, 2019, 2021, and projected data for 2050. The data consist of freight flows aggregated to the 1995 Bureau of Economic Analysis's Economic Area (EA).

The database reports cargo in net short tons (e.g., 2000 pounds), which refers to cargo weight, excluding the transport vehicle's weight. Cargo is then assigned a value in U.S. dollars indexed to match the corresponding year of the freight flow. These values as measured at their point of origin for domestic and export flows or at their point of entry. The valuation is performed using an estimation methodology that considers the commodity type (as determined by the STCC) and the state from which the commodity originates.

Within the database, there are filters to differentiate the direction of freight flows based upon a load's origin and destination. The outbound filter is for cargo that originates in Clark County and the destination is not Clark County. The inbound filter is for cargo where the destination is Clark County and the origin is not Clark County. The through filter is for fright where neither the origin nor the destination is Clark County. The intra filter is if the origin and destination are in Clark County.

This appendix provides a summary of the analysis that inform the presentation in Part 2 and the recommendations in Part 5.

# **Clark County Freight Flows**

Aggregation of Transearch data generates the freight activity moving to, from, through, and within Clark County. The total commodity flows value for the years 2015, 2019, 2021, and 2050 (projected), respectively, are \$164.3 billion, \$157.9 billion, \$159.6 billion, and \$275.3 billion and the annual total tonnage is 90.6 million tons, 89.5 million tons, 89.2 million tons, and 127.9 million tons. Note the decrease in 2019 and 2021 due to the effects of the pandemic on freight movement through Clark County. For 2021, the value of flows was 2.85 percent below pre-pandemic levels and total tonnage was down 1.59 percent. Between 2015 to 2019, the total annual average miles increased increase from 446.5 thousand miles to 447.1 thousand miles, while

total units fell from 5.92 million to 5.86 million, indicating goods traveled further, possibly due to businesses finding alternative suppliers extending beyond existing transportation routes, requiring commodities to travel from further locations. Additionally, the supply shortages may have caused the transportation of more partially filled cargo/freight loads.

The value of freight traffic is expected of increase across all categories through 2050. Notably, the value of inbound freight is projected to grow by around 73 percent, from roughly \$28.22 billion in 2015 to \$48.83 billion in 2050. The proportion of inbound value, however, is projected to increase minimally from 17.18 percent to 17.73 percent during the same period. Outbound traffic is expected to nearly double, increasing by 91 percent to reach \$11.85 billion in 2050. Its share also is anticipated to increase from 3.78 percent to 4.30 percent. Through traffic, despite showing a significant increase in total value (about 67 percent, from \$121.71 billion in 2015 to a projected \$202.80 billion in 2050) will decrease as a share of total traffic from 74.08 percent to 73.66 percent. Lastly, the value of intra freight traffic is projected to increase by approximately 45 percent but experience a drop in its proportion of total traffic from 4.97 percent in 2015 to 4.30 percent in 2050.

With respect to freight tonnage, total tonnage is projected to increase by approximately 48 percent, from 50.70 million tons in 2015 to 74.97 million tons in 2050, and slightly expand its share from 55.95 percent to 58.60 percent. Intra traffic is expected to increase by around 16 percent, with a proportion in the total tonnage expected to decrease from 17.77 percent in 2015 to 14.60 percent in 2050. Inbound traffic is projected to grow by approximately 50 percent from about 17.63 million tons in 2015 to 26.52 million tons in 2050. Despite the volume increase, the proportion of inbound tons is expected to remain steady, slightly increasing from 19.45 percent to 20.73 percent of overall trade. The outbound traffic tonnage is expected to increase from around 26 percent, but its share of the total tons will decrease from 6.82 percent in 2015 to 6.07 percent in 2050, perhaps indicative of a decline in local manufacturing/output. The mode of transportation summarized below are for all directions of travel.

#### Rail Traffic

In 2015, the Rail NEC<sup>181</sup> mode accounted for 2,026,542.37 tons, amounting to about \$10.85 billion. This volume increased by 2021, reaching approximately two million tons, valued at roughly \$8.25 billion. In 2050, the tonnage transported by rail is projected to increase significantly to about 4.2 million tons, amounting to around \$13.40 billion.

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<sup>181</sup> Rail NEC refers to North American Free Trade Agreement activity moving between the U.S. and Canada or Mexico.

#### Truck Traffic

In 2015 trucks accounted for the most traffic at 44.2 million tons, valued at approximately \$86.93 billion. It decreased by 2021 to 43.2 million tons, with a somewhat lower value of \$84.50 billion. By 2050, it is projected to increase to 61.7 million tons, amounting to around \$142.97 billion. Other truck modes, including Truck L-T-L, Truck PVT, and Truck NEC, 182 also transported significant volumes, with increases expected by 2050.

#### Air Traffic

In 2015, air traffic accounted for a much lower tonnage of 105.5 thousand tons, valued at approximately \$625 million. The volume slightly increased by 2021, reaching about 107.8 thousand tons valued at roughly \$648 million. In 2050, the tonnage transported by air is projected to increase to approximately 167.7 thousand tons, amounting to about 1.15 billion dollars.

#### Other Modes<sup>183</sup>

Other transport modes accounted for the smallest share in all years, with tons and value both under 1 million. A small increase, however, is expected by 2050.

## **Clark County Commodity Flows**

An analysis of the total value and total tons of commodities categorized by the STCC for each direction of travel (outbound, inbound, through, and intra) was performed. The following provides a summary of the top five commodities in terms of value and tons for the years 2015, 2019, 2021, and 2050 (projected and their share of the directional flows.

## 2015 Commodity Freight Flow by Value

The top commodity in terms of value was Food or Kindred Products with a total value of \$28.07 billion. This commodity accounted for 7.52 percent of outbound (OB), 14.83 percent of inbound (IB), 18.88 percent of

Truck NEC refers to North American Free Trade Agreement traffic only. Truck L-T-L refers to shipments that are smaller than what would otherwise be classified under Truck Truckload, Truck L-T-L can also be seen as a share of freight movement handled by local parcel service carriers like FedEx Ground, UPS, or other mail services.

Other modes refer to a miscellaneous category that encompasses various methods of transportation not classified under the main categories of truck, rail, water, air, and pipeline.

through (Thr), and 5.41 percent of intra (Intr) flows. Food And Kindred Products encompasses establishments primarily manufacturing or processing foods and beverages for human consumption.

The second largest contributor was Transportation Equipment (\$24.14 billion), accounting for 1.35 percent of OB, 8.72 percent of IB, 17.49 percent of Thr, and 3.81 percent of Intr flows. Transportation equipment pertains to the manufacturing sector focused on creating equipment for transporting passengers and cargo across land, air, and water. This encompasses various products, including motor vehicles, aircraft, ships, boats, guided missiles, space vehicles, and related components.

Secondary Traffic ranked third at \$13.77 billion, accounting for 32.66 of the Intr flow. This captures freight moved by distribution centers or warehouses to consuming points like retail stores. This type of freight movement is also referred to as drayage, a term used in the logistics and freight industry to describe the transport of goods over short distances, particularly within the same metropolitan area. This can be part of the journey between different transportation hubs, such as seaports, rail terminals, distribution centers, warehouses, and retail stores.

Machinery ranked fourth and contributed to \$12.44 billion in value and 3.39 percent of IB, 3.66 percent of OB, 9.19 percent of Thr, and almost a negligible amount (0.16 percent) of Intra flows. Machinery encompasses a broad range of machinery, equipment, and computers essential for various industrial and commercial operations. This category is deeply involved with the production of engines, turbines, farm machinery, construction tools, mining devices, metalworking equipment, computers, and office machinery. Note that the majority was passing through instead of in or out bound.

Chemicals or Allied Products rounded out the top 5, with a total value of \$10.50 billion and accounting for with 6.08 percent if IB, 8.57 percent of OB, 6.14 percent of Thr, and 2.95 percent of Intr traffic flows. This category of captures establishments producing basic chemicals, intermediate products, and finished goods. This diverse category includes everything from foundational chemicals like acids, salts, and organic compounds to specialized products such as pharmaceuticals, cosmetics, soaps, and fertilizers. The reach of this sector is vast, providing essential materials for various industries like paints, explosives, and synthetic fibers. Note that most of its value was outbound.

## 2019 Commodity Freight Flow by Value

The data for 2019 are similar. Food or Kindred Products again was the largest contributor with a total value of \$27.76 billion and accounting for 7.62 percent of OB, 14.84 percent of IB, 19.83 percent of Thr, and 5.08

percent of Intr. flows. Transportation Equipment had a value of \$21.91 billion. Secondary Traffic was valued at \$13.07 billion, showing a significant Intr share of 32.76 percent. Machinery and Chemicals or Allied Products were again fourth and fifth with values of \$11.35 billion and \$9.24 billion, respectively.

### 2021 Commodity Freight Flow by Value

In 2021, Food or Kindred Products led with \$28.42 billion, followed Transportation Equipment with a value of \$19.36 billion. The value of Secondary Traffic was \$12.95 billion, having a dominant Intr share value of 32.24 percent. Machinery had a value of \$11.48 billion and followed by Electrical Equipment with \$9.57 billion in value. Electrical Equipment includes establishments in the manufacturing of machinery, apparatus, and supplies used in various stages of electrical energy. The products of these establishments range from electricity distribution equipment, electrical devices for industrial and household purposes, lighting, and wiring equipment, to electronic components, radio and television equipment, and communication tools.

## 2050 Commodity Freight Flow by Value

The projections for 2050 suggest a dominant position for Food or Kindred Products with a value of \$47.98 billion. The values for Transportation Equipment and Machinery are projected to be \$30.66 billion and \$28.23 billion, respectively, while Electrical Equipment will be at \$25.47 billion. Secondary Traffic is expected to surge to \$19.97 billion with a very high Intr share of 35.56 percent.

## 2015 Commodity Freight Flow by Weight

Food or Kindred Products was the top commodity at 17,180,525.82 tons, accounting for 6.63 percent of OB, 14.22 percent of IB, 27.36 percent of Thr, and 2.44 percent of Intr flows. Nonmetallic Minerals was second with 16,969,000.31 tons, accounting for 34.12 percent of OB, 17.73 percent of IB, 10.24 percent of Thr, and 40.62 percent of Intr flows. Nonmetallic Minerals are mainly products for mining, quarrying, developing mines, or exploring nonmetallic minerals, barring fuels. This group also comprises specific operations linked to wells and brines and primary preparation plants that engage in activities like crushing, grinding, washing, or concentrating. Clay, Concrete, Glass, or Stone contributes 8,187,315.89 tons with 8.69 percent OB, 7.45 percent IB, 5.4 percent Thr, and 22.35 percent Intr flows. Clay, concrete, glass, or stone pertains to establishments that produce items from stone, clay, glass, and concrete. They specifically manufacture products such as flat glass, cement, pottery, concrete, gypsum items, cut stone, abrasive, and asbestos products, among others. These products are mainly derived from natural resources like stone, clay, and sand. Secondary Traffic was fourth with 7,463,501.14 tons and accounted for 6.51 percent of OB, 23.92 percent of IB, 4.75 percent of Thr, and 2.72 percent of Intr flows. Finally, Waste or Scrap Materials at 7,121,455.25

tons was fifth and contributed 24.01 percent of OB, 6.67 percent of IB, 5.54 percent of Thr, and 10.26 of percent Intr flows.

### 2019 Commodity Freight Flow by Weight

Food or Kindred Products ranked first with 16,964,334.85 tons, accounting for 7.39 percent of OB, 13.47 percent of IB, 28.05 percent of Thr, and 2.37 percent of Intr flows. Nonmetallic Minerals was second with 15,275,740.32 tons, accounting for 22.27 percent of OB, 19.13 percent of IB, 8.96 percent of Thr, and 37.01 percent of Intr flows. Clay, Concrete, Glass or Stone was third with 8,384,671.21 tons, accounting for 11.45 percent of OB, 6.37 percent of IB, 6.16 percent of Thr, and 21.6 percent of Intr flows. Farm Products ranked fourth at 7,647,703.20 tons, accounting for 0.48 percent of OB, 5.86 percent of IB, 13.43 percent of Thr, and 0.01 percent of Intr flows. Waste or Scrap Materials at 7,552,150.99 tons ranked fifth and accounted for 27.29 percent of OB, 6.35 percent of IB, 5.92 percent of Thr, and 11.49 percent of Intr flows.

## 2021 Commodity Freight Flow by Weight

In 2021, Food or Kindred Products retained its top spot with 17,100,814.62 tons, accounting for 7.89 percent of OB, 13.66 percent of IB, 28.17 percent of Thr, and 2.49 percent of Intr flows. Second was Nonmetallic Minerals at 14,210,603.94 tons, accounting for 21.92 percent of OB, 17.51 percent of IB, 8.04 percent of Thr, and 35.8 percent of Intr flows. Clay, Concrete, Glass or Stone was third at 8,655,717.14 tons, accounting for 12.77 percent of OB, 6.27 percent of IB, 6.34 percent of Thr, and 22.69 percent of Intr flows. Ranking fourth was Farm Products at 8,070,614.40 tons, accounting for 0.58 percent of OB, 6.11 percent of IB, 14.2 percent of Thr, and 0.01 percent Intr of flows. Fifth was Waste or Scrap Materials at 7,567,336.29 tons, accounting for 25.54 percent of OB, 6.65 percent of IB, 6.06 percent of Thr, and 11.55 percent of Intr flows.

#### 2050 Commodity Freight Flow by Weight

The top commodity by tons is projected to be Food or Kindred Products, with 26,427,903.63 tons and is expected to account for 10.34 percent of OB, 13.76 percent of IB, 28.57 percent of Thr, and 2.98 percent of Intr traffic flows. Nonmetallic Minerals is projected to rank second with 15,010,450.18 tons contributing 10.25 percent of OB, 14.33 percent of IB, 6.3 percent of Thr, and 30.47 of percent Intr flows. Clay, Concrete, Glass, or Stone is expected to be third with 12,847,076.09 tons, accounting for 11.85 percent of OB, 7.09 percent of IB, 6.45 percent of Thr, and 27.91 percent of Intr flows. Farm Products is projected at 12,356,751.99 tons, accounting for 0.58 percent of OB, 6.06 percent of IB, 14.28 percent of Thr, and 0.01 percent of Intr flows. Secondary Traffic is expected to rank fifth at 11,543,270.20 tons, accounting for 13.49 percent of OB, 22.73 percent of IB, 4.16 percent of Thr, and 7.24 percent of Intr flows.

## Trade Partner Freight and Commodity Flows

The prior sections detailed the mode, value, tonnage, and direction of freight movement in Clark County for the 2015, 2019, 2021 and 2050 (projected). This section considers Southern Nevada's trading partners.

The tables below summarize the value and direction (Table D.1) and the tonnage and direction (Table D.2) of Clark County's freight with the rest of the U.S. as well as Canada, and Mexico. Note that the tables differentiate freight that moves through Clark County such that Through Origin Value (Tons) measures the value or weight from where the through traffic comes and Through Destination (Tons) measures the value of weight of where the traffic goes. While they are not additive components of the total traffic that passes through Southern Nevada, they represent two distinct ways (e.g., where it is coming from and where it is going) to understand this movement. Intra trade that measures trade within Clark County is omitted.

Table D.1: Country-level Direction of Travel and Value of Goods, 2015-2050

Year	Country	Outbound Value	Inbound Value	Through Origin Value	Through Destination Value
2015	Canada	\$274.07 <b>M</b>	\$378.98M	\$14.22B	\$5.88B
2015	Mexico	\$569.48 <b>M</b>	\$467.43M	\$1.41B	\$1.72B
2015	U.S.	\$5.36 <b>B</b>	\$27.38B	\$106.08B	\$114.1B
2019	Canada	\$278.24M	\$495.03 <b>M</b>	\$13.04B	\$5.33B
2019	Mexico	\$351.77M	\$620.26M	\$1.34B	\$694.78M
2019	U.S.	\$6.04B	\$27.15B	\$99.53B	\$107.90B
2021	Canada	\$345.65 <b>M</b>	\$722.13M	\$12.32 <b>B</b>	\$6.20B
2021	Mexico	\$390.13 <b>M</b>	\$793.17M	\$1.52B	\$700.64M
2021	U.S.	\$6.24B	\$27.65B	\$100.58B	\$107.52B
2050	Canada	\$593.60M	\$1.52B	\$21.66B	\$12.23B
2050	Mexico	\$1.25B	\$2.00B	\$4.81B	\$1.61B
2050	U.S.	\$10.01B	\$45.30B	\$176.33B	\$188.96B

 $\it Note: M$  is the abbreviation for million and B is the abbreviation for billion.  $\it Source: Transearch.$ 

In summary, the majority of Clark County's commodity flows from other locations in the U.S., Canada, and Mexico is through traffic. For both value and weight, Through Origin and Through Destination constituted the bulk of trade and are projected to do so in 2050. For example, in 2015, flows from within the U.S.

accounted for \$106.1 billion and 48.2 million tons in through origin value and weight respectively and \$114.1 billion and 48.6 million tons in through destination value and weight.

Table D.2: Country-level Direction of Travel and Weight of Goods, 2015-2050

Year	Country	Outbound Value	Inbound Value	Through Origin Value	Through Destination Value
2015	Canada	69.7K	258.6K	2.4M	1.3M
2015	Mexico	97.8K	118.2K	152.8K	842.2K
2015	U.S.	6.0 <b>M</b>	17.2M	48.2M	48.6M
2019	Canada	61.8 <b>K</b>	285.7K	2.1 <b>M</b>	1.3M
2019	Mexico	65.3 <b>K</b>	154.7K	159.0 <b>K</b>	426.0K
2019	U.S.	5.8 <b>M</b>	18.1M	46.3M	46.9M
2021	Canada	67.5K	416.3 <b>K</b>	2.5 <b>M</b>	1.4M
2021	Mexico	72.2K	207.0K	183.1 <b>K</b>	471.4K
2021	U.S.	5.9 <b>M</b>	17.8M	45.9M	46.7M
2050	Canada	139.5 <b>K</b>	867.2K	5.5M	2.7 <b>M</b>
2050	Mexico	232.0 <b>K</b>	535.7K	531.1 <b>K</b>	823.5K
2050	U.S.	69.7K	258.6K	2.4M	1.3M

*Notes*: Values are in tons. M is the abbreviation for million and K is the abbreviation for thousand. *Source*: Transearch.

To understand trade flows between Southern Nevada and the adjacent areas of Arizona and Utah, we analyzed the EA for Las Vegas. This area encompasses Clark County and Esmeralda, Lincoln, Mineral, and Nye counties (i.e., the Nevada Portion of the Las Vegas EA), Mohave County in northern Arizona (i.e., the Arizona Portion of the Las Vegas EA), and Beaver, Garfield, Iron, Piute, and Washington counties in southern Utah (i.e., the Utah Portion of the Las Vegas EA). These data allow for comparisons of outbound, inbound, through by destination and origin traffic as well as intra trade. What follows are summaries of the values and tonnage of these flows, followed by a commodities comparison.

#### Value Summary

The Nevada Portion of the Las Vegas EA showed a mixed pattern. Outbound values increased from \$109.4M in 2015 to \$128.8M in 2019, decreased slightly to \$127.1M in 2021, and then are projected to decrease further to \$125.4M in 2050. Inbound values decreased to \$33.0M in 2021 with an expected increase to \$44.8M in 2050.

In Mohave County, the value of outbound freight increased from \$206.6M in 2015 to \$245.6M in 2019 and then slightly decreased to \$241.1M in 2021 and is projected to further decrease to \$219.6M in 2050. The inbound freight values followed a similar pattern for 2015, 2019, and 2021, but are expected to increase from \$57.8M in 2021 to \$96.2M in 2050. The through-origin values are expected to increase from \$80.2M in 2015 to \$119.1M in 2050 and the through-destination values are projected to increase an increase from \$120.0M in 2015 to \$225.5M in 2050. Interestingly, the total value of freight is expected to increase increased from \$468.2M in 2015 to \$660.5M in 2050. This increase in total values, combined with the decreasing outbound and slight increases in inbound values, suggests that through traffic will command a larger share.

The Utah Portion of the Las Vegas EA is expected to see a sharp uptick in outbound values, increasing consistently from \$320.9M in 2015 to \$430.0M in 2050, despite a minor (0.8 percent) dip in 2021 from 2019. Inbound freight values also are expected to increase in 2050. Combined, the five Utah counties ware expected to account for a considerable amount of trade compared roughly \$3 billion in total flows compared to the other parts of the Las Vegas EA.

## Weight Summary

The Nevada Portion of the Las Vegas EA's outbound weight decreased slightly from 237,131.3473 tons in 2019 to 228,227.899 tons in 2021, almost near 2015 levels, and is projected to further increase to 253,339.3132 tons in 2050. Inbound weight increased considerably, and tons varied through the origin and destination. Through origin and inbound tons showed a significant amount of one-sided trade by weight, coming from this region and going to others or incoming to Clark County.

Mohave County outbound tons increased from 377,110.8448 tons in 2015 to 381,995.9702 tons in 2019 and then decreased to 378,786.0884 tons in 202. The outbound tons are estimated to decrease to 369,151.4215 by 2050 slightly. Although through traffic dominates the totals for values, there is variation in the in the direction of commodity traffic flows. Most of the Mohave County's trade by weight based on our collection area is either destined for the county or coming from Clark County.

The Utah Portion of the Las Vegas EA is anticipated to have consistent growth in both outbound and inbound tons, increasing from 303,219.9476 tons in 2015 to 352,274.0906 tons in 2050 for outbound freight and from 1,123,575.515 tons in 2015 to 1,493,620.532 tons in 2050 for inbound freight. Through origin and destination tons also follow a similar pattern to the Nevada Portion of the Las Vegas EA, with the exception that the Utah

Portion of Las Vegas EA saw a large share of traffic passing through Clark County, to the five counties in the Utah region.

#### **Commodites**

In the Nevada Portion of the Las Vegas EA, the top commodities by value and tons include Petroleum Refining Products, Clay Ceramic or Refractory Minerals, Gold Ore, Miscellaneous Waste or Scrap, and Warehouse and Distribution Center. The data shows a significant presence of Petroleum Refining Products, with the value ranging from around \$77 million in 2105 to a projected \$100 million in 2050 and tons from 92,945 in 2015 to 124,019 2050 (projected). Gold Ore also is notable. In 2050 it is expected to have a value around \$79 million and 6,745 tons. The region also sees a significant amount of Miscellaneous Waste or Scrap and Clay Ceramic or Refractory Minerals.

In the Mohave County, Arizona portion of Las Vegas EA, the top commodities by value and tons include Rail Intermodal Drayage from Ramp, Miscellaneous Mixed Freight, Petroleum Refining Products, Electronic Machinery, and Aluminum Ore. Rail Intermodal Drayage from Ramp is the largest, with values ranging from approximately \$60 million to an expected \$73 million and from 15,038 tons to 18,163 tons between 2015 and 2050. Petroleum Refining Products also play a significant role, with values ranging from around \$22 million in 2015 to an anticipated \$29 million in 2050 and tons increasing from 53,684 in 2015 to 70,759 in 2050. Other prominent commodities include Miscellaneous Mixed Freight, with values between \$11 million and \$13 million, and Electronic Machinery with an expected value of around \$12 million in 2050. Aluminum Ore will increase to 13,598 tons in 2050.

In the Utah portion of the Las Vegas EA, the top commodities by value and tons include Rail Intermodal Drayage from Ramp, Petroleum Refining Products, Pickled Fruits or Vegetables, Livestock, and Drugs. Rail Intermodal Drayage from Ramp dominates in both value and tons, with the value ranging from around \$176 million in in 2015 to an expected \$213 million and tons from 43,628 in 2015 to an anticipated 52,688 in 2050. Petroleum Refining Products will also increase to approximately \$150 million in 2050. Drugs, Processed Milk, and Livestock contribute to the diverse commodities in this region, with values ranging from thousands to millions and tons ranging from the low thousands to tens of thousands.

# Appendix E: Ports and Economic Development

Ports are essential for U.S. coastal and Great Lakes regional economic and industrial development. Consider the best-known port authority: the Port Authority of New York and New Jersey. Before the Erie Canal was opened in 1825,<sup>184</sup> New York City was an important but small center of commerce serving the lower Hudson Valley. It was smaller than Boston or Philadelphia. With an advantageous shipping location along the Gulf Stream allowing goods to be shipped with favorable winds and currents from New Orleans, Savannah, Georgia, and Charleston, South Carolina, to New York, the city was able to build its port infrastructure.

When the Erie Canal opened, however, the entire export economy of the Great Lakes region flowed down the lakes to the Erie Canal eastward to Albany, New York, and then southward along the Hudson River to the New York and then smaller New Jersey ports. By 1835, New York City was the nation's busiest port. By 1850, it was the nation's largest city. To this day, the New York City metropolitan area is the nation's largest, being half again larger than Los Angeles and twice as large as Chicago.

To sustain the region's economic prominence, the states of New York and New Jersey created the bistate Port of New York and New Jersey in 1921, which included congressional action creating an interstate compact. Its jurisdiction comprises 1,500 square miles.<sup>186</sup> Its 12-member board is comprised of six gubernatorially appointed members from each state.<sup>187</sup> In addition to operating ports, it manages bridges, airports, a heliport, interstate commuter rail services, and real estate projects such as the 1776 Tower that replaced the terrorist-destroyed World Trade Center. The port enjoys special governance status from both states and can issue bonds, assume other forms of debt, and even police its infrastructure. As it has no tax base, it is self-sufficient financially.<sup>188</sup> Needless to say, it a model of facilitating economic and industrial development in the U.S. The next two sections summarize west coast seaports and introduce the concept of inland ports.

<sup>184</sup> New York State Canal Corporation, "Canal History," 2023 (www.canals.ny.gov/history/history.html).

<sup>185</sup> Ibid.

<sup>&</sup>lt;sup>186</sup> Port Authority of New York and New Jersey, "History of the Port Authority," 2023 (www.panynj.gov/port-authority/en/about/History.html).

<sup>&</sup>lt;sup>187</sup> Port Authority of New York and New Jersey, "Governance, Ethics and Integrity," 2023 (www.panynj.gov/corporate/en/government-ethics.html).

<sup>&</sup>lt;sup>188</sup> Port Authority of New York and New Jersey, "Budget Process and Financial Policies," 2023 (www.panynj.gov/corporate/en/financial-information.html).