

2040 Freight Industry Level Forecasts

ABOUT THIS PROFILE

The NJTPA has developed a set of alternative freight forecasts to support transportation, land use, and economic development decisions. The first step in the study process was to document current baseline conditions. This Freight Profile offers a snapshot of key metrics – Economy and Land Uses, Freight Flows, and Freight Transportation Networks in 2010 and in the forecast year, 2040.

ECONOMY AND LAND USES

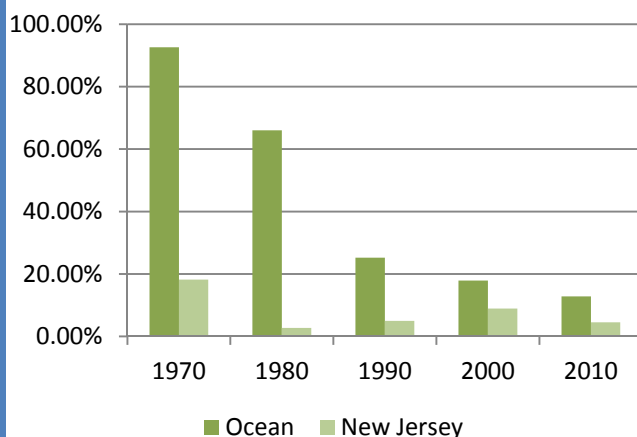
With a 2010 population of 576,567, Ocean is the sixth most-populous County in the State of New Jersey and in the NJTPA region. Ocean County has historically grown many times faster than the State and region overall, and has been the fastest-growing County in the NJTPA region every decade between the 1960s and 2000s. The County's average household income is about 12% lower than that of the State overall, though unlike the State and most NJTPA counties, Ocean County's household income (in constant 2010 dollars) increased after the 2008 recession, reflecting growing affluence in Ocean County relative to the rest of the State.

Ocean County is home to...

- 576,567 people
- 25,614 businesses that employ 160,900 people; 30% of these jobs are in businesses that are highly dependent on freight movement
- Nearly 170 warehousing/distribution buildings and 35 manufacturing buildings
- About 14.5 million tons of domestic freight shipped or received annually
- Interstate, State, and County highways used by thousands of trucks every day
- Faster population and household income growth, indicative of growing demand for consumer products.

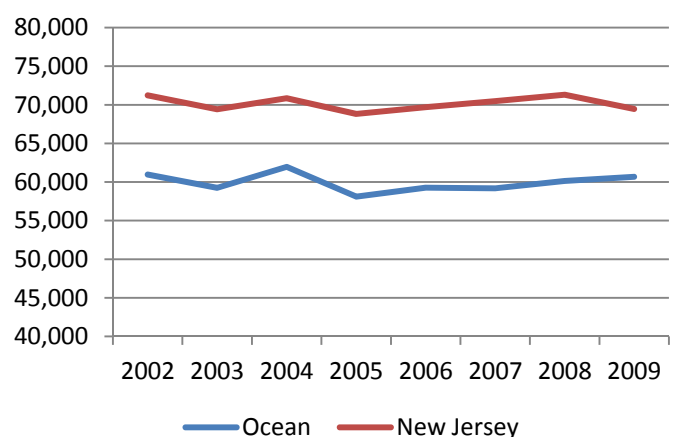
Population Growth by Decade

Source: U.S. Census Bureau



Household Income, Constant 2010 Dollars

Source: U.S. Census Bureau



Employment

The County's economy employs 160,900 people in more than 25,000 establishments. About 30% are employed in "freight-intensive" industries, such as construction, manufacturing, mining and extraction, retail trade, wholesale trade, and logistics. About 70% are employed in industries that may generate freight, but are less dependent on freight movement.

FREIGHT FLOWS

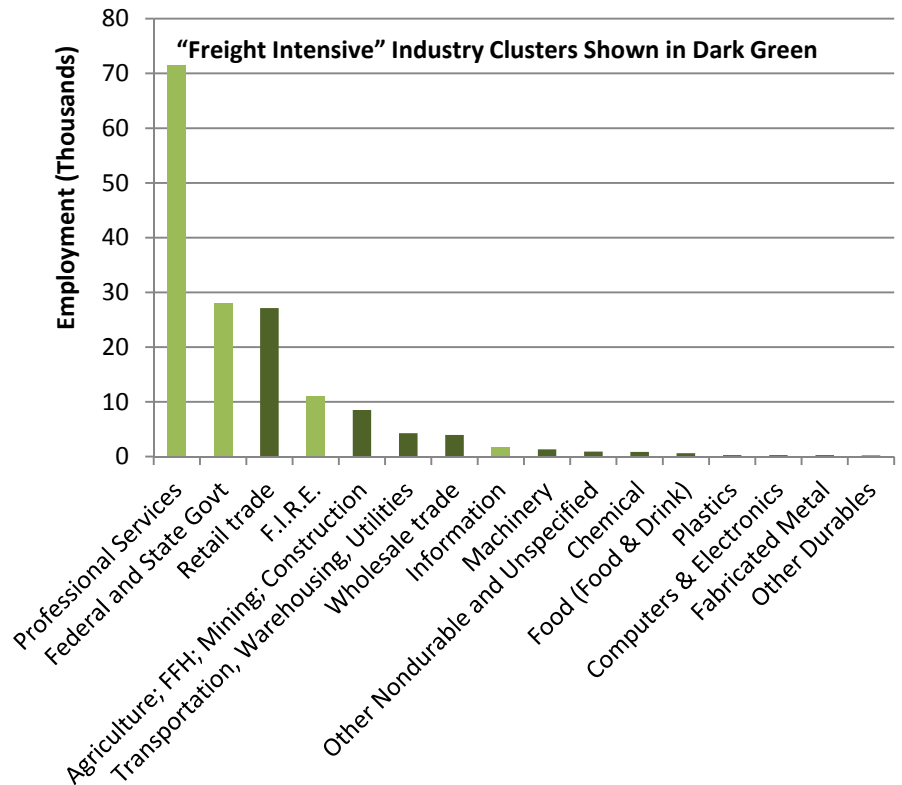
In 2007, approximately 14.5 million tons of domestic freight moved into, out of, or within Ocean County, by all modes of transportation (truck, rail, water, and air). This figure includes commodities moving into or out of Ocean County, but excludes pass-through tonnage. (The movement of international cargo to and from seaports, airports, and border crossings is captured and counted as domestic tonnage.)

Commodities

For domestic O-D tonnage, around 44% consisted of nonmetallic minerals, most of which moved in the inbound direction. Other leading commodity moves include clay/concrete/glass/stone, which moves primarily outbound; inbound flows of consumer goods moving to or from warehouses or distribution centers; outbound petroleum; inbound food; outbound chemicals; and municipal solid waste (MSW) that is moved primarily within the County's borders.

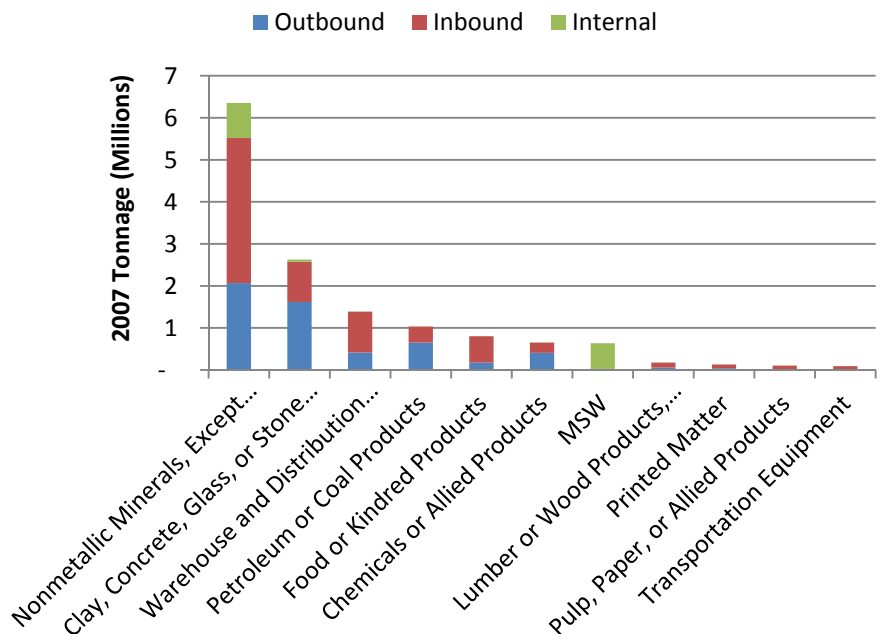
Employment by Industry, 2010

Source: R/ECON



Domestic O-D Commodities by Tonnage, 2007

Source: IHS Global Insight



Trading Partners

Ocean County’s major trading partners are, not surprisingly, its neighbors. As illustrated to the right, locations in New Jersey are the greatest origins of inbound freight and destinations of outbound freight. Beyond New Jersey, Pennsylvania exchanged more than 2 million tons of freight with Ocean County, about 60% of which moved in the inbound direction. New York and Delaware are Ocean County’s third and fourth largest trading partners by tonnage, most of which travels outbound.

FREIGHT TRANSPORTATION NETWORKS

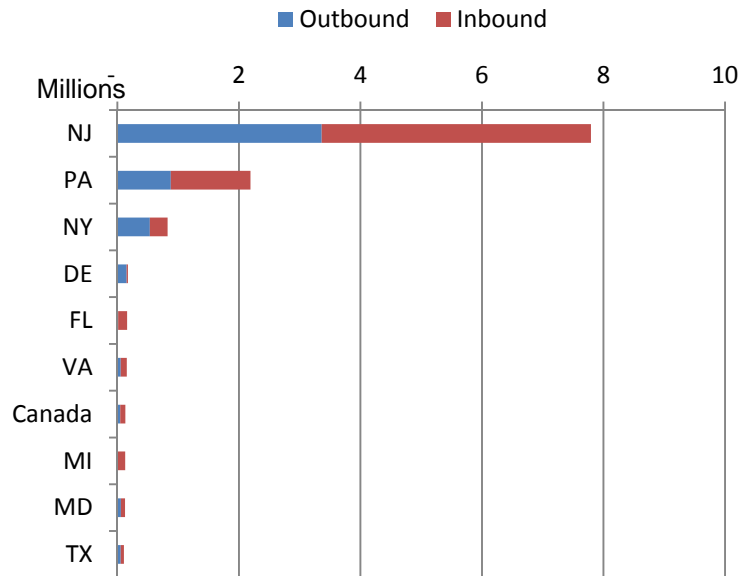
Freight can be handled by truck, rail, air or water. The choice of mode depends on a variety of factors, including: length of trip (rail and air are more competitive at longer distances), commodity type (rail and water are more competitive for heavy materials), time sensitivity (truck and air are most competitive), need for door-to-door service (trucking is needed unless the customer has a dock or a rail connection).

Mode Split

For domestic freight traveling to, from or within Ocean County, 99.6% travels by truck, primarily to and from warehouses, distribution centers, manufacturing facilities and retail centers. About 0.4% travels by rail.

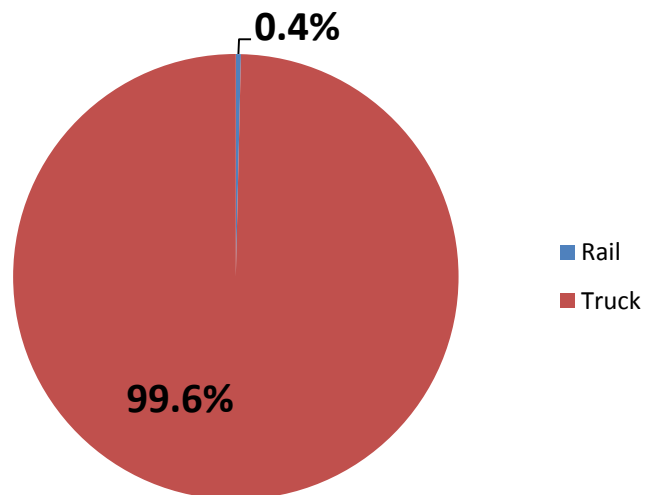
Top Origins and Destinations of Domestic O-D Freight Tonnage, 2007

Source: IHS Global Insight



Mode Split, Domestic O-D Tonnage, 2007

Source: IHS Global Insight



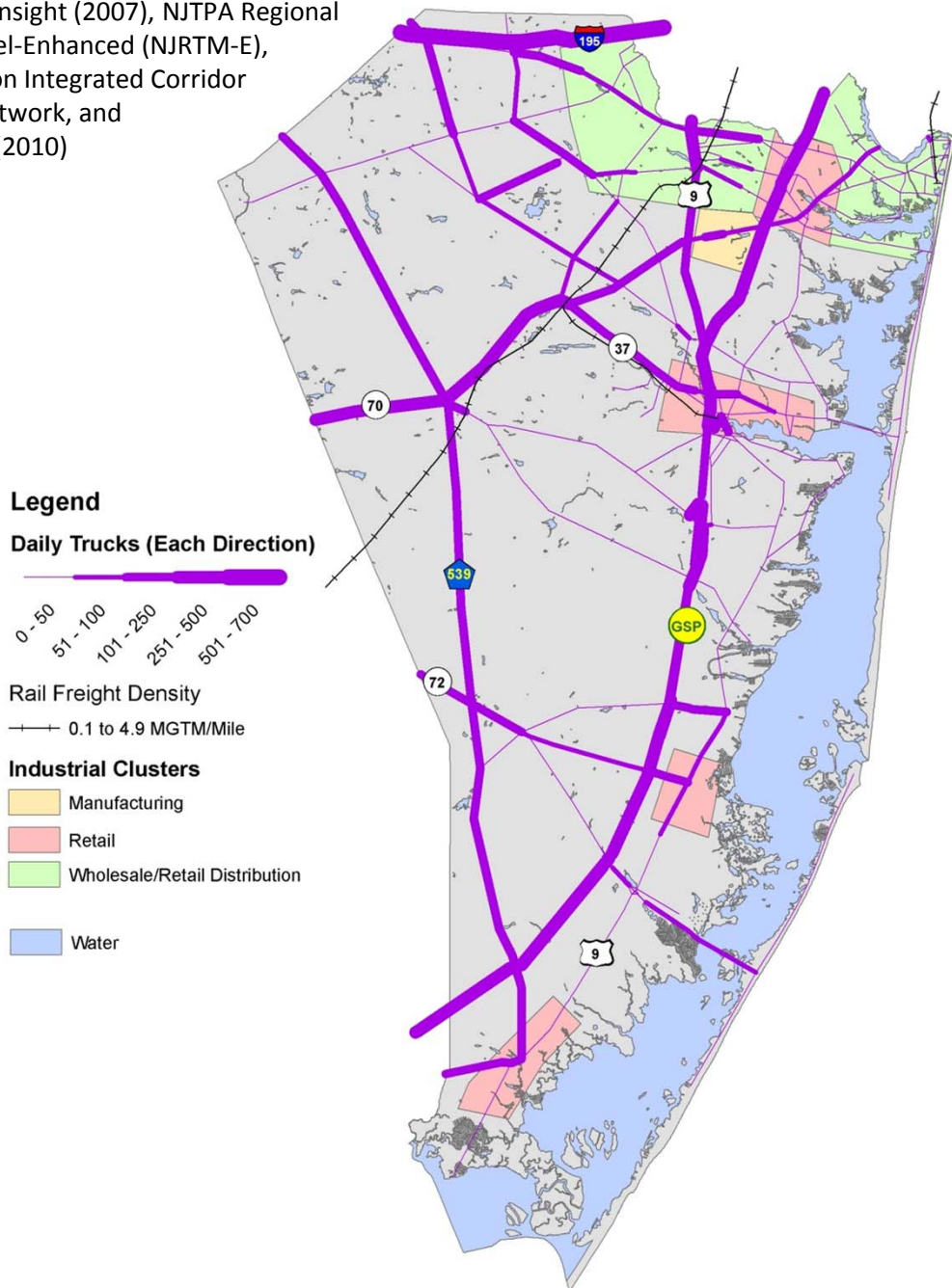
Highway and Rail Network Utilization

Ocean County’s highway network serves to connect its major freight activity centers with key trading partners elsewhere in the County, in the State of New Jersey, in other parts of North America, and – via international seaports and airports – the world. Segments of Interstate 195, which crosses the northern tier of the County, carry 1,400 trucks per day. The Garden State Parkway and NJ Route 70 carry more than 1,000 trucks per day on some segments. Parts of US Route 9, NJ Route 37, NJ Route 72, and County Route 539 (New Egypt Road and Roosevelt City Road) carry as many as 500 trucks daily. Not all trucks on the road are carrying freight. Some are moving empty. Others are providing municipal services (waste transfer, utility services, etc.) or commercial services (contractors, lumber, landscapers, etc.).

Freight rail service is currently provided along Conrail-owned trackage connecting Toms River to points north via Lakehurst.

Commodity Truck and Rail Flows in Ocean County, 2007

Sources: IHS Global Insight (2007), NJTPA Regional Transportation Model-Enhanced (NJRTM-E), I-95 Corridor Coalition Integrated Corridor Analysis Tool Rail Network, and Dun and Bradstreet (2010)

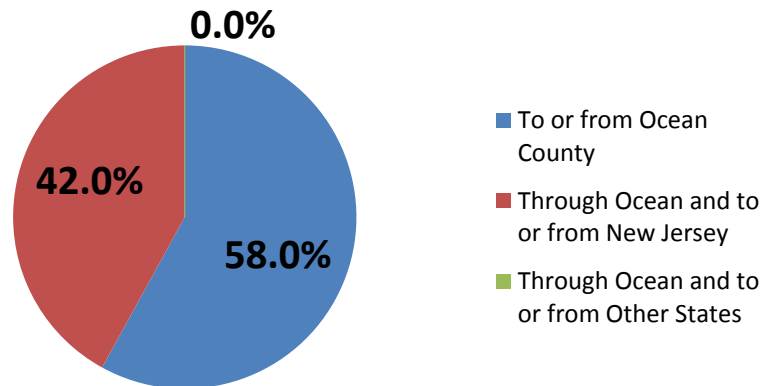


Highway Link Analysis

Different highways can be used by trucks carrying freight in different ways. Some highways have a high % of local traffic; others a high % of pass-through traffic. Many highways show significant differences at different locations. Among major highways in Ocean County, including Interstate 195, the Garden State Parkway, and US Route 9, the average values of internal and through traffic are shown in the graph to the right.

Truck Trips on Ocean County Highway Links, 2007

Source: Cambridge Systematics, Inc.



An estimated 58 % of the trucks traveling on these highways in Ocean County are traveling to or from locations within the County. Trucks traveling through Ocean County between origins or destinations elsewhere in New Jersey compose about 42% of the truck trips on the selected highways.

Industrial Buildings Inventory

Freight-generating industries are supported by industrial buildings. The location of these buildings often depends on transportation access, and their uses may be significant generators of freight traffic. There are 35 manufacturing buildings located in the County. As illustrated on Pages 6 and 7, there are two distinct clusters of manufacturing buildings, one in Lakewood Township and the other in Toms River Township. In fact, the Lakewood Industrial Park is the largest in the NJTPA region and second largest in New Jersey. More than 160 warehousing/distribution buildings are located within the County, all of which are less than 500,000 square feet in size. These buildings are mostly clustered along Routes 9, 37, and 70 in Berkeley, Brick, Lakewood, and Toms River townships.

As summarized in the two tables to the right, many of the industrial buildings generate large volumes of freight. According to the Freight Locator database, 182 facilities in Ocean County receive more than 1.2 million tons and ship 2.4 million tons of freight annually. It is important to note that some facilities' inbound and outbound tonnage values do not match. This is because some types of local delivery and pickup moves are not classified as "commodity moves" in the source data.

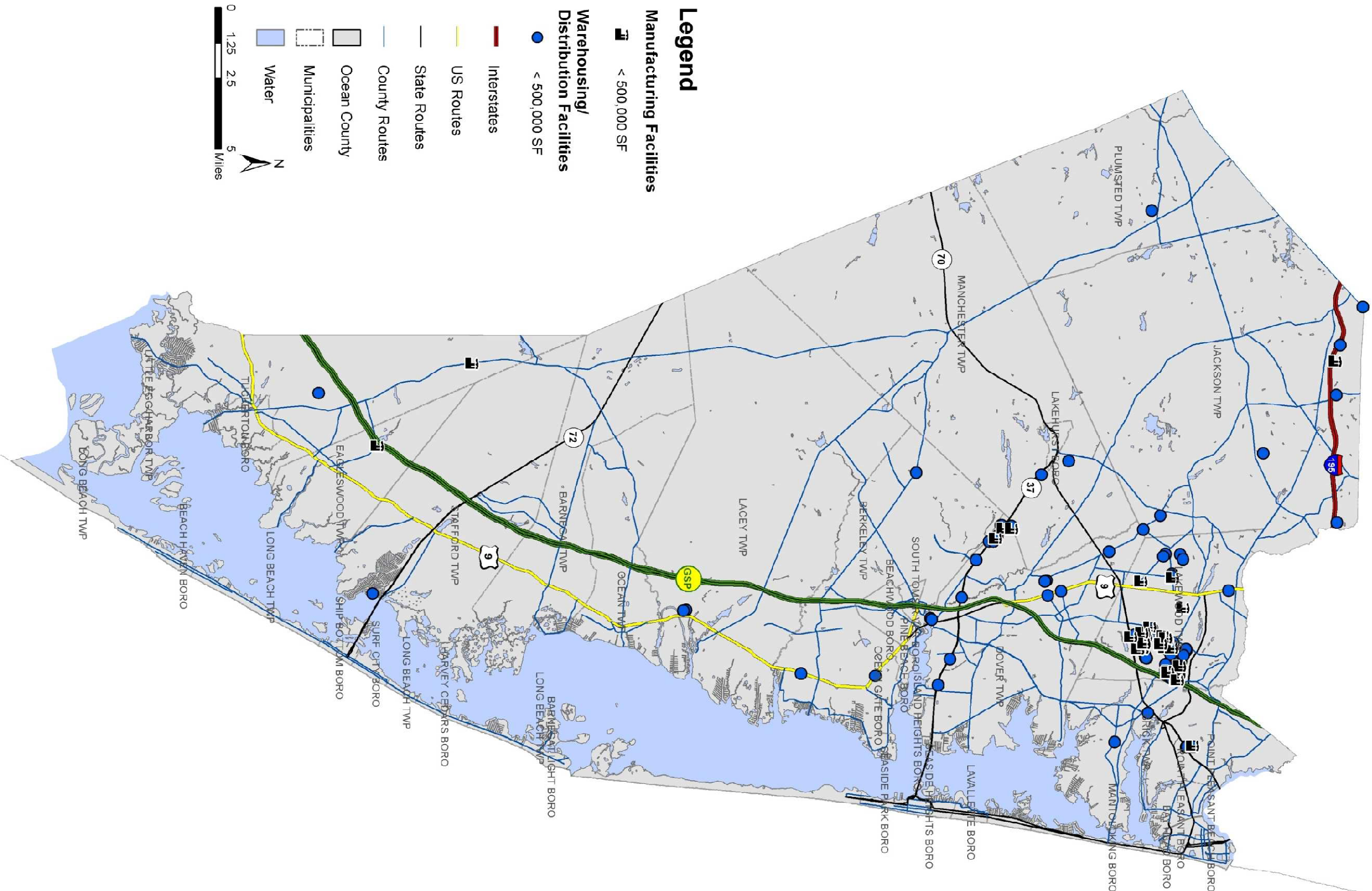
Top 5 Facilities by Inbound/Outbound Tonnage, 2007

Source: IHS Global Insight Freight Locator Database

COMPANY NAME	CITY	INBOUND TONS
DPT LAKEWOOD INC	LAKWOOD	131,486
CONI-SEAL INC	LAKWOOD	70,503
S S WHITE BURS INC	LAKWOOD	70,404
MANLEY PERFORMANCE PRODUCTS	LAKWOOD	61,987
MARINE TRADING INTL	TOMS RIVER	46,863
COMPANY NAME	CITY	OUTBOUND TONS
WOODHAVEN LUMBER & MILLWORK	LAKWOOD	1,334,845
DPT LAKEWOOD INC	LAKWOOD	285,334
ANCHOR CONCRETE PRODUCTS INC	BRICK	233,303
SUFFOLK REDI MIX CORP	TOMS RIVER	85,819
LUMINER CONVERTING GROUP INC	LAKWOOD	38,435

Industrial Buildings by Type and Square Footage, 2010

Source: CB Richard Ellis

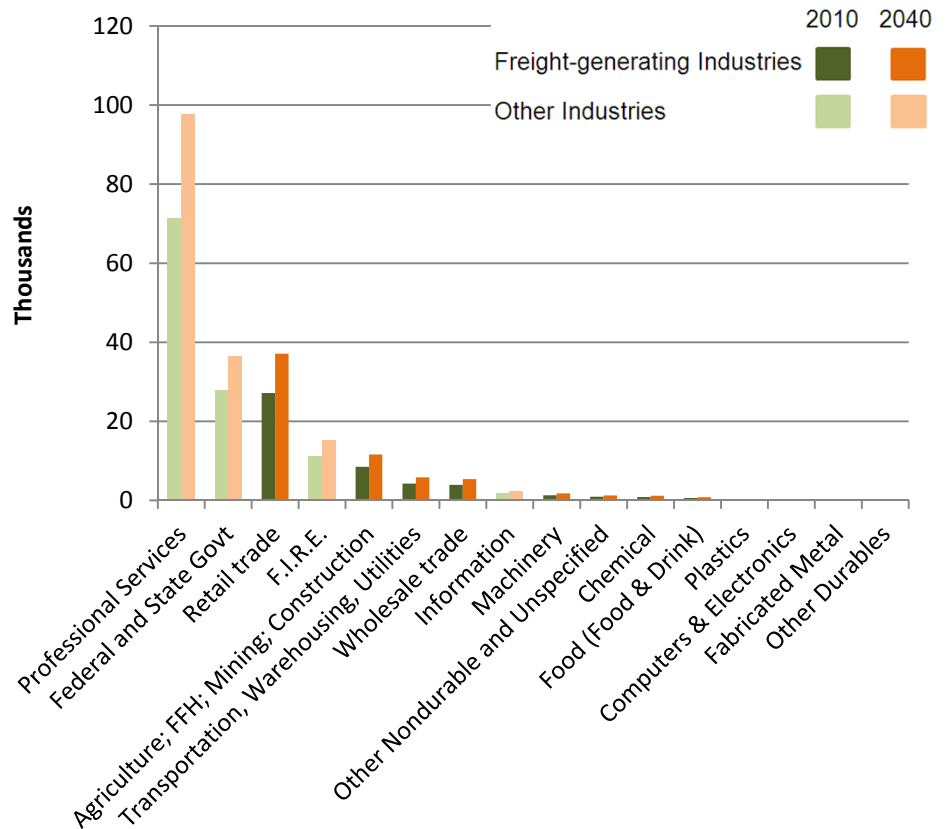


EMPLOYMENT FORECAST

Between 2010 and 2040, non-farm employment in Ocean County is expected to grow by 36%, from 160,900 to 218,100. Employment in freight-intensive industries is expected to grow by 37% during the forecast period, compared to 35% for other industries. The faster-growing freight-intensive industries will make up a slightly larger share of the County's employment in the future (30.4% in 2040, compared to 30.1% in 2010). Among individual industry groups, professional services is expected to experience the greatest numeric growth in employment (26,300 jobs). Federal and State government will have the lowest growth rate (30%), while adding 8,400 new jobs.

Industry Employment Forecast, 2010 - 2040

Source: R/ECON



2040 COMMODITY FLOWS

By 2040, overall commodity flows into, out of, and within Ocean County are expected to have increased by about 63%, from 14.5 million tons to 23.6 million tons (a difference of 9.1 million tons). Nonmetallic minerals is expected to remain the number one commodity transported in Ocean County by tonnage, followed by clay/concrete/glass/stone, warehouse and distribution center traffic, and petroleum. Growth rates for most commodity groups are expected to range from 61% to 64%.

Top 10 Commodities by Tonnage, 2040

Sources: Cambridge Systematics, with data from IHS Global Insight

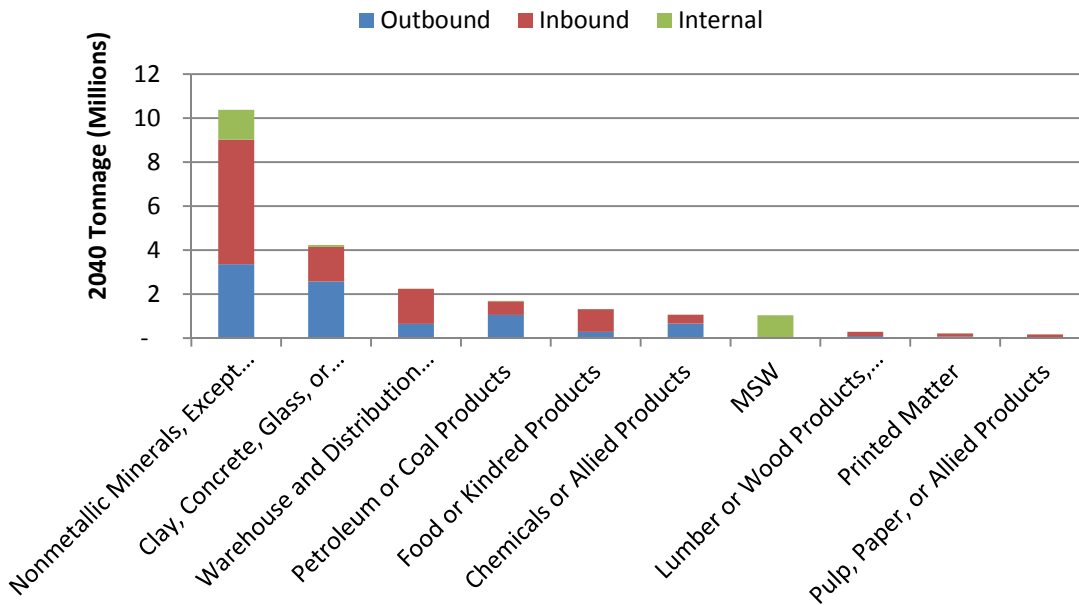
Commodity	2007 Tons	2040 Tons	Difference	Growth Rate
Nonmetallic Minerals, Except Fuels	6,354,622	10,383,528	4,028,906	63%
Clay, Concrete, Glass, or Stone Products	2,628,629	4,233,531	1,604,903	61%
Warehouse and Distribution Center	1,391,880	2,250,442	858,562	62%
Petroleum or Coal Products	1,041,044	1,692,452	651,408	63%
Food or Kindred Products	806,535	1,318,331	511,796	63%
Chemicals or Allied Products	651,976	1,066,752	414,776	64%
MSW	634,245	1,040,283	406,037	64%
Lumber or Wood Products, Excluding Furniture	176,320	287,294	110,974	63%
Printed Matter	131,451	213,913	82,463	63%
Pulp, Paper, or Allied Products	103,511	169,567	66,056	64%

Commodity Volumes and Direction

The directional movement of shipments containing the top ten commodities is expected to remain fairly constant as well. In 2040, like 2007, about 55% of nonmetallic minerals tonnage will be moving inbound to Ocean County, and 32% will be moving outbound. Clay/concrete/glass/stone, petroleum, and chemicals are expected to move primarily in the outbound direction, while warehouse and distribution center traffic, food, and lumber are expected to move primarily inbound. MSW will continue to move within the County's borders.

Top 10 Commodities by Tonnage by Direction, 2040

Sources: Cambridge Systematics, with data from IHS Global Insight

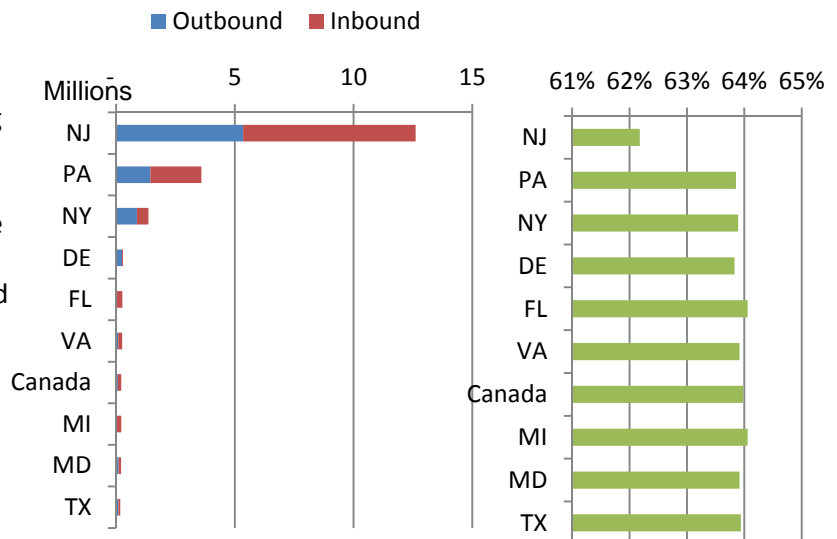


Trading Partners by 2040 Tonnage (Left) and 2007-2040 Growth (Right)

Source: Cambridge Systematics, with data from IHS Global Insight

Future Trading Partners

Ocean County's largest trading partners will continue to be other New Jersey counties, followed by Pennsylvania and New York. Growth rates in trade among other States are expected to be focused within a narrow range around 64%, indicating the rank and share of tonnage among the top ten trading partners is expected to remain relatively unchanged during the forecast period.

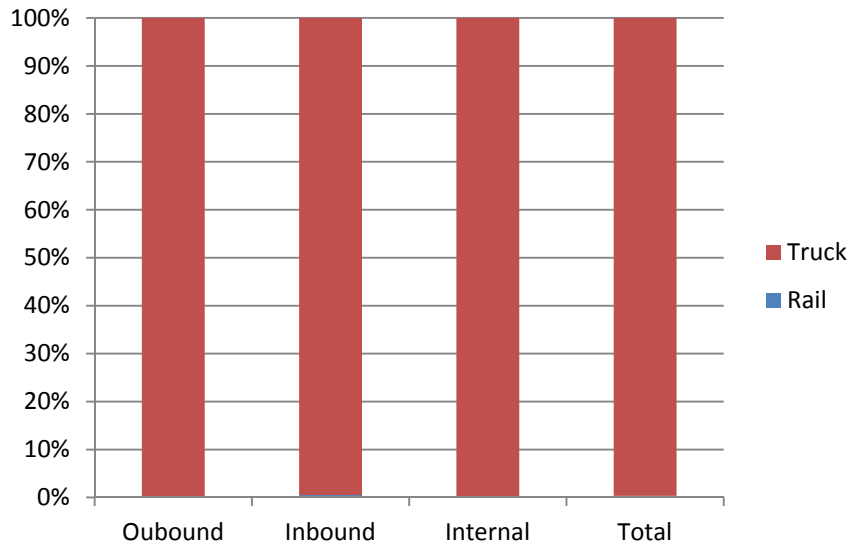


Future Mode Utilization

The forecast anticipates that freight mode splits in 2040 will be similar to 2007 mode splits. Trucks are expected to carry 99.6% of all freight tons, while rail is expected to carry about 0.4% of all freight tons. About 75% of rail tonnage will be carried in the inbound direction. Trucks will carry about 100% of intra-county freight moves.

Freight Tonnage by Mode and Direction, 2040

Source: Cambridge Systematics, with data from IHS Global Insight



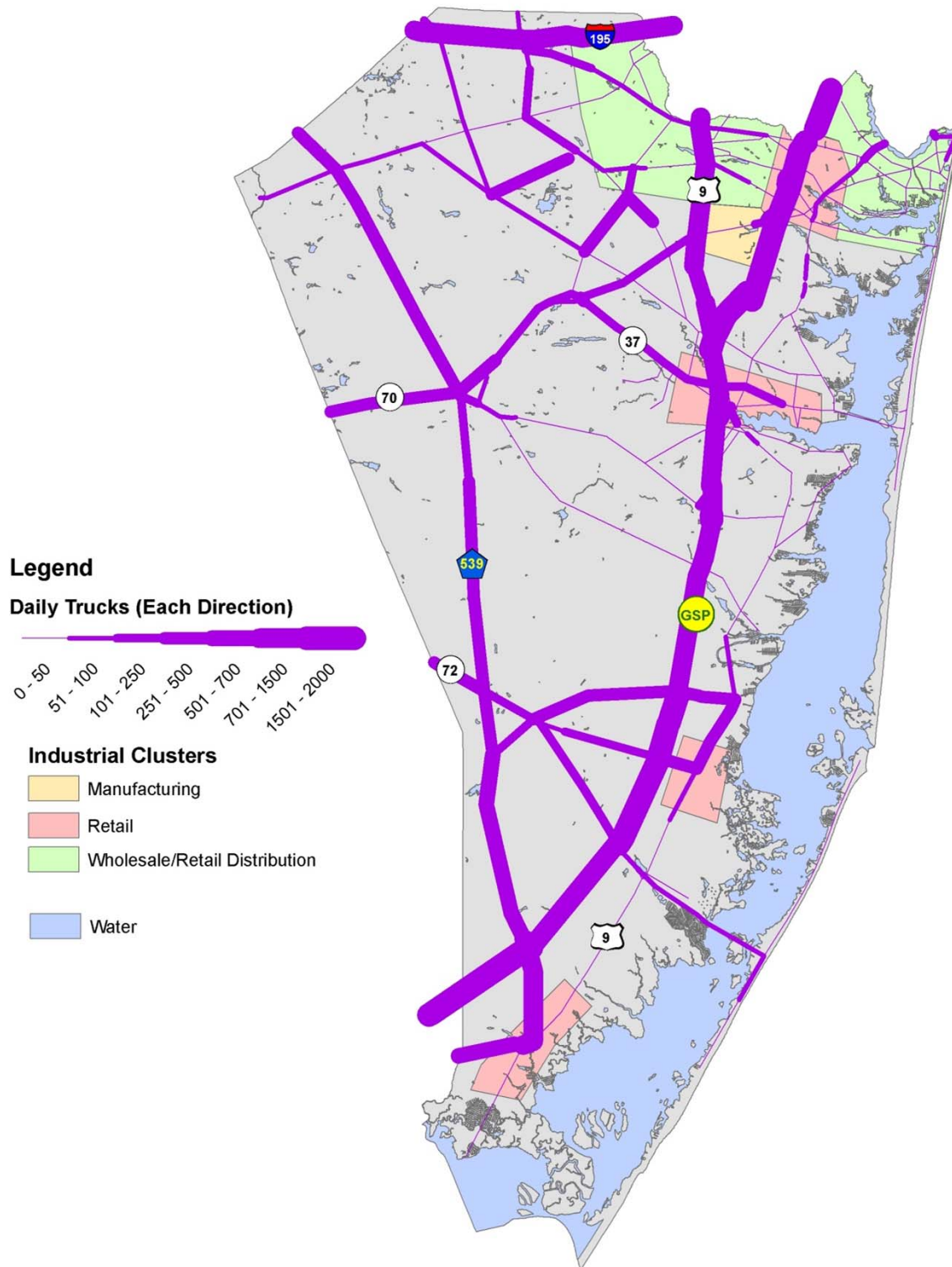
Future Highway Network Utilization

In 2040, Ocean County’s highway network is expected to remain the primary conveyor of freight into, out of, within and through the County. The highest volumes of trucks will likely remain on Interstate 195. The Garden State Parkway and US Route 9, however, are expected to achieve higher rates of growth, and commodity truck traffic could double along the length of the Parkway, and on Route 9 in Lakewood.

The map on Page 11 illustrates the projected truck volumes in 2040 on highways in Ocean County.

Commodity Truck Flows in Ocean County, 2040

Sources: IHS Global Insight, NJTPA Regional Transportation Model-Enhanced (NJRTM-E), Dun & Bradstreet (2010)



ABOUT THE NJTPA

The North Jersey Transportation Planning Authority (NJTPA) is the federally authorized Metropolitan Planning Organization for 6.6 million people in the 13-county northern New Jersey region. Each year, the NJTPA oversees the investment of more than \$1 billion in federal funding for transportation projects and provides a forum for interagency cooperation and public input into funding decisions. It also sponsors and conducts studies, assists County planning agencies and monitors compliance with national air quality goals.

The NJTPA Board of Trustees includes 15 local elected officials, including one representative from each of the 13 northern New Jersey counties—Bergen, Essex, Hudson, Hunterdon, Ocean, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, Union and Warren—as well as from the cities of Newark and Jersey City. The Board also includes the Commissioner of the New Jersey Department of Transportation (NJDOT), the Executive Directors of NJ Transit and the Port Authority of New York & New Jersey, a Governor’s Representative and a Citizens’ Representative appointed by the Governor.

Ocean County’s representative on the NJTPA Board of Trustees is Freeholder James F. Lacey, who also serves as Secretary of the Board and Vice-Chairman of the Project Prioritization Committee.

ABOUT THIS STUDY

The North Jersey Transportation Planning Authority (NJTPA) is pleased to announce the completion of a major new freight planning initiative – the development of Year 2040 Freight Industry Level Forecasts.

Freight issues are extremely important in the NJTPA planning region, which includes thirteen counties in Northern New Jersey. The region hosts: the Port of New York and New Jersey, one of the nation’s top three ports on the basis of tonnage and containers; heavily-used local, regional, and interstate truck corridors and crossings; heavy concentrations of intermodal and non-intermodal rail activity; significant national and international air cargo facilities; and hundreds of millions of square feet of warehouse/distribution space. These networks and facilities are essential to the economic and transportation well-being of 6.6 million residents in the NJTPA region and 20 million in the NY/NJ metropolitan statistical area, along with more than 312,000 regional businesses. Understanding the effects and importance of freight is therefore critical – not only to ensure the accuracy of the regional transportation planning process, but also to effectively communicate the importance of freight to the region’s freight stakeholders, businesses, communities, residents, and funding decision-makers.

The primary goal of the 2040 Freight Industry Level Forecasts project was to develop a clear, accurate and comprehensive picture of regional freight activity, both current and future. The end product is an accurate picture of where concentrations of goods movement activity can be expected to occur in the region in the future, the types of commodities that will be moving, and where strategic investments should be made.

FOR FURTHER INFORMATION

For further information, please contact Jakub Rowinski, NJTPA Project Manager, at jrowinski@njtpa.org.

This Freight Profile is one of a series of profiles, covering the 13 counties of the NJTPA region, the City of Newark, Jersey City, and the region as a whole. This document was prepared by the North Jersey Transportation Planning Authority, Inc. with funding from the Federal Transit Administration and the Federal Highway Administration. The NJTPA is solely responsible for its contents.