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Planning and Regional Development Department

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Evolution of the Regional Logistics Industry: From "Just in time" to "right now" to "too late"

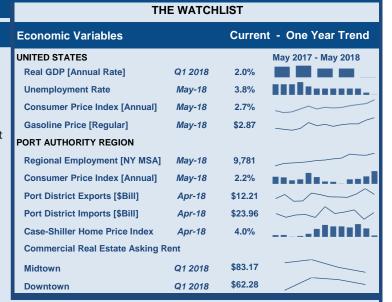
Transporting goods has come a long way since the early days of containerization. First, businesses wanted their inventory levels low and demanded goods just when they needed them. Then, customers asked for goods to be shipped to them in a few days. Today, companies like Amazon are promising a customer will get their goods the same day. The previous pace of "just in time" logistics has evolved into "right now!" fulfillment.

Within this evolution of the logistics industry has come a merging of new technologies, processes, and strategies to ensure speed, precision, and cost efficiency of ordering and delivering goods. The port region is not only the birthplace of containerization, it is also undeniably emerging as an epicenter of this paradigm shift in the logistics revolution. With a major port, three large airports, a robust highway system, and a massive population of consumers, the region is a microcosm of the changing global logistics chain. But these trends are disrupting long standing trends in the region.

Warehousing in the region is undergoing a transformation. Since 2011, real estate in New York City has exploded with condo prices increasing by 37%. During this time, warehousing space in New York City was being converted into premium livable space. The City's tax data show that nearly 13% of warehousing and factory space was converted and in Manhattan, almost 40% or 24 million square feet of space was gone by 2016.

As warehousing space in the city was declining, online store sales increased from 6% to 10% of total city retail sales. To accommodate the region's demand for increased retail and internet sales, New Jersey has become a prime spot for warehousing. The state has permitted over 15 million square feet annually of new storage/warehousing space from 2013 to 2016. Since July 2014, New Jersey's warehousing employment has more than doubled despite New Jersey having one of the highest tax rates for distribution centers¹ in the country. The growth in New Jersey's logistics industry

¹Location Matters- A Comparative Analysis of State Tax Costs on Business: <u>Tax Policy Center Report</u> 2015



shows that the close proximity to the ports and the end user market is worth the price despite the relative attractiveness of warehousing space in Pennsylvania.

The second trend that has changed logistics patterns is the use of trucks. Since 2010 the regional trucking industry has boosted its productivity more than the national average. This has been accomplished by increasing the length of the trucks, carrying greater weight, and better utilizing a limited trucker labor force that is facing more regulations (see our April MEI). Additionally, smaller trucks have begun to outpace the growth of larger trucks. This reflects the use of more final delivery vehicles.

A third, and closely related trend, is the change in shipping hours for larger trucks. The Port's data show that more large trucks are moving in the middle of the night. Reasons for this shift are two-fold. The PA provides reduced tolls for trucks traveling in late night and early morning hours at its Trans-Hudson crossings, and new Federal trucker time logging legislation combined with the City's efforts to promote night time deliveries. Moreover, trucking during times of low traffic pays off in time savings as trucks move quicker through empty streets.

Table 1. New York City Factory and Storage Space (in mill sqft)

	Staten Island	Bronx	Brooklyn	Manhattan	Queens	Total
2010	7.2	32.0	89.9	56.7	71.5	257.4
2016	7.4	31.7	81.0	32.8	70.7	223.6
Change	0.2	-0.3	-9.0	-23.9	-0.8	-33.8
%	3.0%	-0.9%	-10.0%	-42.1%	-1.1%	-13.1%
Change						

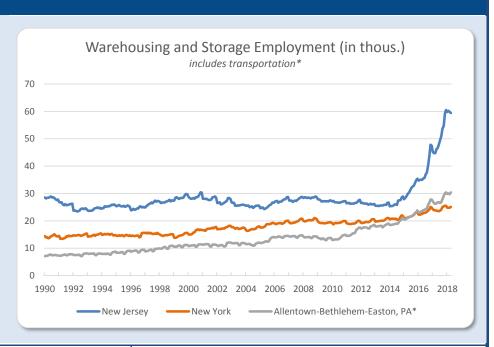
THE PORT AUTHORITY OF NY & NJ

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June 2018									
AVIATION	Apr '18	YTD	Apr '18/'17	YTD '18/'17	PORT COMMERCE	Apr '18	YTD	Apr '18/'17	YTE '18/'17
Revenue Passengers (000's)	11,512	41,332.5	3.3%	2.6%	Port Trade				
John F. Kennedy International Airport (JFK)	5,037.3	18,051.9	0.0%	0.3%	Container Imports (TEUs)	272,903	1,145,006	-2.1%	8.8%
LaGuardia Airport (LGA)	2,534.9	8,879.3	2.7%	0.7%	Container Exports (TEUs)	134,843	496,543	12.9%	10.1%
Newark Liberty International Airport (EWR)	3,892.4	14,223.5	7.5%	6.3%	Containers lifted on/off Express Rail	51,777	202,573	10.1%	15.7%
Stewart International Airport (SWF)	47.8	177.8	105.0%	100.2%	TUNNELS, BRIDGES & TERMINALS	Apr '18	YTD	Apr '18/'17	YTE '18/'17
Revenue Freight (Short Tons)	185,700	737,226	4.0%	7.2%	Eastbound Vehicle Volumes (000's)	9,946	37,145	-0.2%	0.5%
Domestic	63,929	260,031	4.9%	7.4%	George Washington Bridge	4,275	15,934	-1.0%	-0.2%
International	121,771	477,195	3.6%	7.0%	Lincoln Tunnel	1,605	6,032	-0.2%	0.1%
Flights	123,628	467,475	1.1%	0.6%	Holland Tunnel	1,218	4,655	-1.2%	-0.8%
Domestic Air Carrier	79,030	298,827	2.8%	1.2%	Bayonne Bridge	224	863	15.5%	37.9%
International Air Carrier	25,173	95,500	0.6%	2.8%	Goethals Bridge	1,348	4,936	3.0%	1.2%
General Aviation	19,425	73,148	-4.7%	-4.5%	Outerbridge Crossing	1,276	4,725	-1.9%	-0.8%
Paid Parked Cars	551,479	2,058,389	-4.8%	-5.2%	Eastbound Volumes by Vehicle Type (000's)				
Revenue AirTrain Passengers	1,754,783	6,240,967	114.9%	16.1%	Autos	9,087	33,852	-0.6%	0.4%
					Trucks	610	2,353	5.2%	2.5%
FERRY OPERATIONS	Apr '18	YTD	Apr '18/'17	YTD '18/'17	Buses	249	942	3.8%	2.0%
Passengers (000's)									
New Jersey Ferries	757.0	2,763.8	1.8%	6.5%					
PATH	Apr '18	YTD	Apr '18/'17	YTD '18/'17	U.S. TRANSPORT. SERVICES INDEX	Apr '18	Mar '18	Change	
Passengers (000's)	6,905.5	26,270.5	0.6%	1.0%	(Prelim., Seasonally Adj., 2000=100)				
Average Weekday	284.3	1,095.6	-1.8%	0.6%	TSI - Combined Index	132.5	132.4	0.1%	
Average Saturday	127.0	448.1	4.2%	2.6%	TSI - Freight	134.3	134.5	-0.1%	
Average Sunday	85.5	314.0	-9.0%	-5.0%	TSI - Passenger	128.7	128.3	0.3%	

TRANSPORTATION FOCUS

These changes are impacting how the region's transportation network functions. More importantly with shifts in high revenue generating toll users like trucks, transportation agencies may need to alter their financing outlooks in the future and change their policies and regulations to ensure the region's economic success. With the advent of drones, self-driving vehicles, and continually more efficient logistics chains consumers will no doubt expect their packages even faster in the future. However, the acceleration of goods movements may not always translate into sufficient funding for the transportation systems. As the logistics industry streamlines and grows, tolling facilities may not count on seeing their financial fulfillment just in time.



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