

COVID-19 and the Supply Chain

State of Global Value Chains and Supply Chains 4.0

February 2021

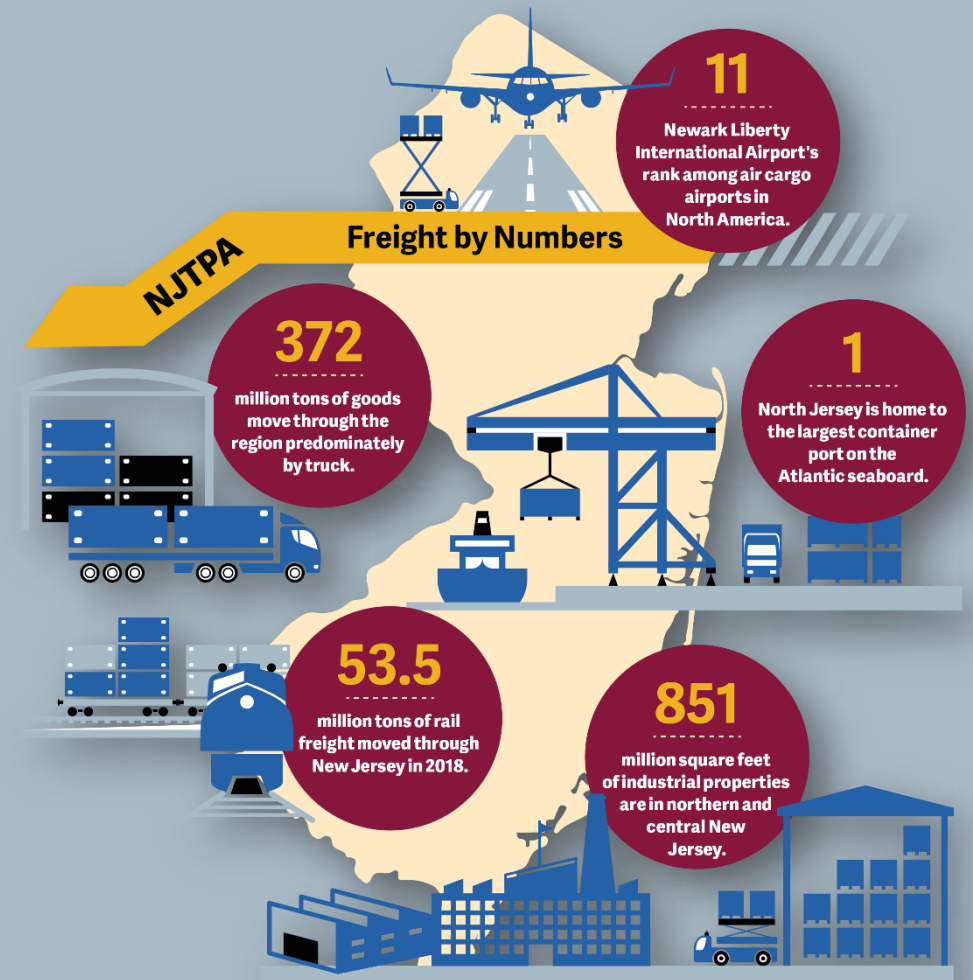


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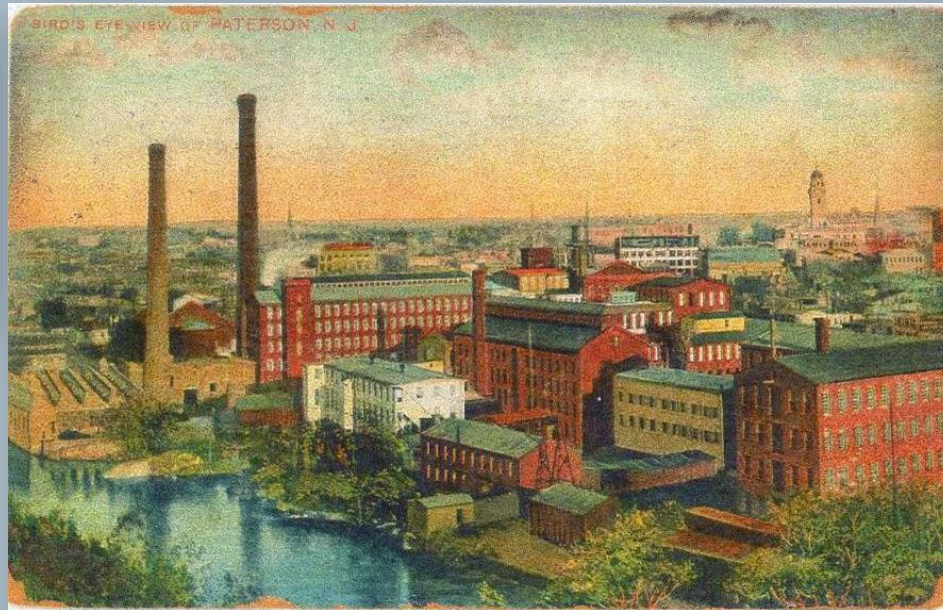
New Jersey is the Supply Chain State

- Over 500,000 workers employed in transportation, logistics and distribution
- Over 1 billion SF of industrial space in NJ
 - Over 851 million SF in NJTPA region, with 12 million SF in new starts
- Largest Port on the East Coast – nearly 7.5 million TEUs in 2019
- Robust Rail Freight Network – 2 Class Is, Conrail, shortlines
- Extensive Roadway Network



New Jersey: A History of Supply Chain Innovation

- Birthplace of the American Industrial Revolution
- One of the earliest US railroads
- Birthplace of containerization – the Ideal X



Functional Disruption Tools and Phases

- Toolbox: Coordinate, Collaborate, Communicate
- Phases: React, Retool, Reshape



COVID-19 as a Supply Chain Disruption



Abrupt Increases in Demand

Examples: Personal Protection Equipment, Cleaning Supplies, Food, Household Items, Ecommerce Provision

Sharply Decreased Demand

Examples: Restaurants and Office Building Supplies, In-Store Retail

React: Keep Critical Goods Flowing

- Pivot to manage changing product demands and supply chain issues.
 - 94% of the Fortune 1000 companies experienced supply chain issues in February 2020
- Adjust to changing equipment capacity while anticipating future surges.
 - Port of NY/NJ “Blank Sailings” – 25 in June 2020 and 19 in July 2020
- Keep the workforce safe and healthy.
- Enhance information systems connectivity



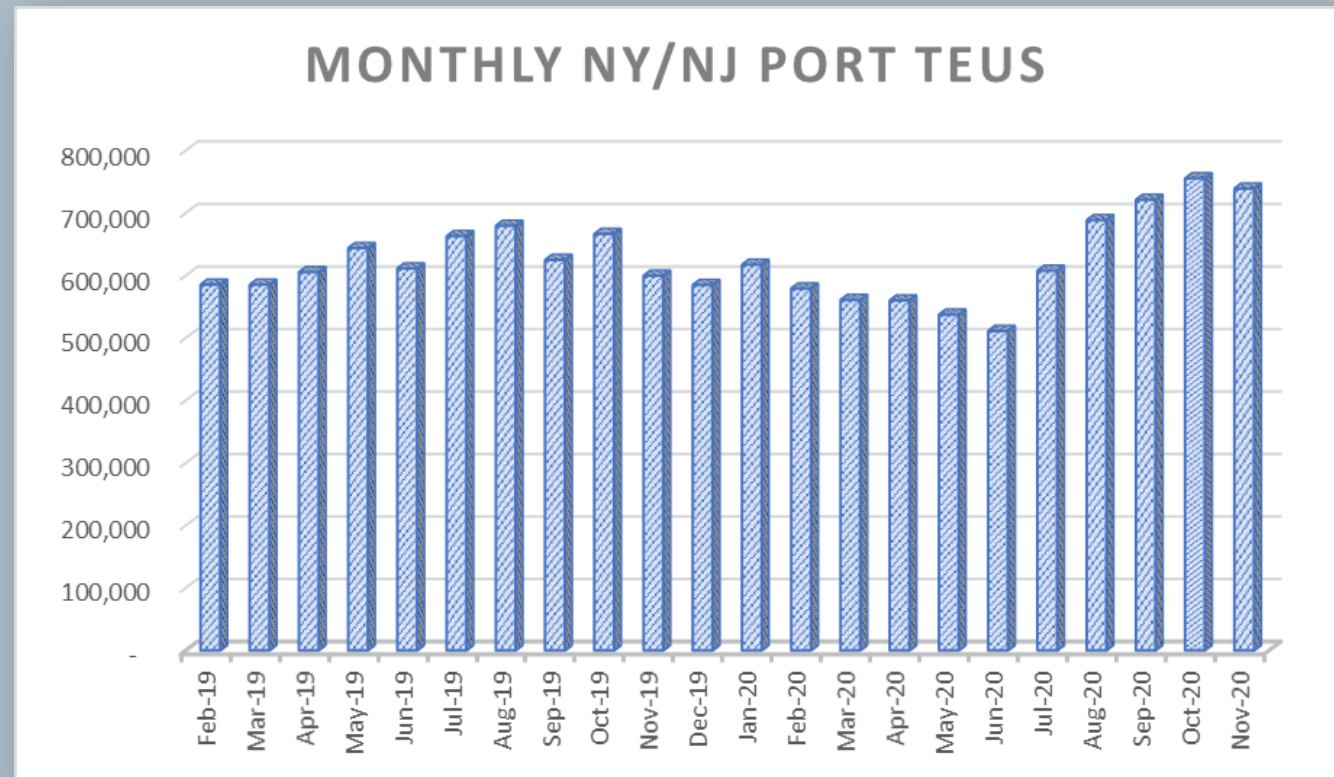
Collaborate, Coordinate, Communicate

- Activate and/or form public/private sector teams.
- Proactively and immediately address freight movement issues.
- Identify and address the range of resident and business needs.
- Understand and address the multi-state considerations and issues.



Reboot: The Intermediate Phase

- Assess Operations:
 - Customer needs, suppliers, production facilities, distribution facilities, transportation, information systems
- Manage Changing Freight Flows
- Ensure Workforce Health



Reshape: Context Changers

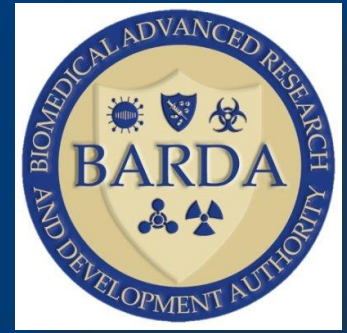
- Increased ecommerce and “buy online pick up in store” (BOPIS)
- Increased online grocery store sales



Source: Forbes



Reshape: Production Facility and Supplier Shifts



Biomedical Advanced Research & Development Authority Grants:

- \$117M — needles & syringes (Retractable Technologies, Inc; Becton, Dickinson and Company; and Smiths Medical, Inc)
- \$204M — glass tubing and vials (Corning Pharmaceutical Technologies and Corning Incorporated)
- \$143M — high performance glass/plastic vials (SiO2 USA)
- \$49M — sterile injectable drug products (Thermo Fisher Scientific)
- \$700,000 — continuous manufacturing process platform (Snapdragon Chemistry)

Reshape: Context Changers

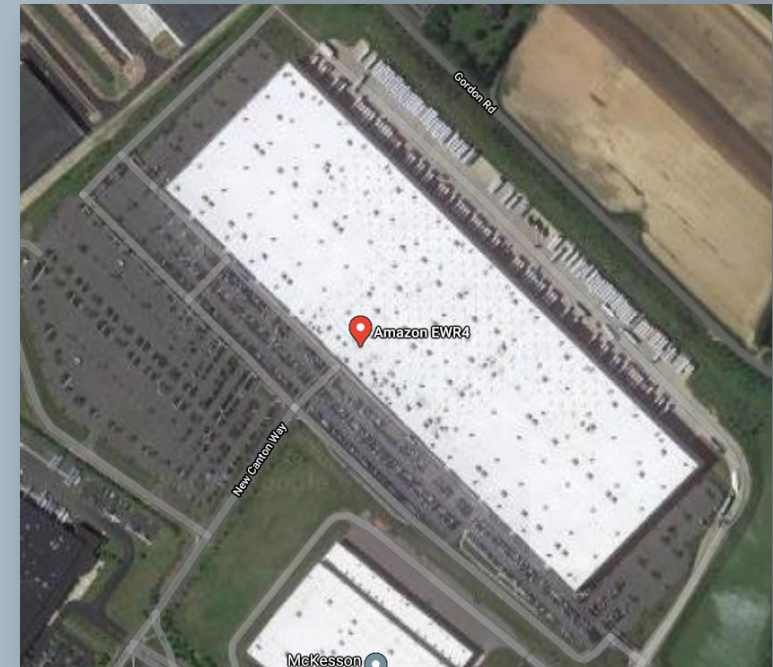
- Shift to having more inventory
- Increased importance of information technologies
- Continuing workforce shortages
- Enhanced deployment of automation



Source: Joliet Herald News

Implications for the Region

- Pursue potential new production operations
- Anticipate more industrial space requirements
- Address workforce needs and accessibility
- Continue to optimize the multimodal freight system
- Proactively address information and automation technologies requirements



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