



COVID Impacts on Mobility

Partnership for New York City

JUNE 2020

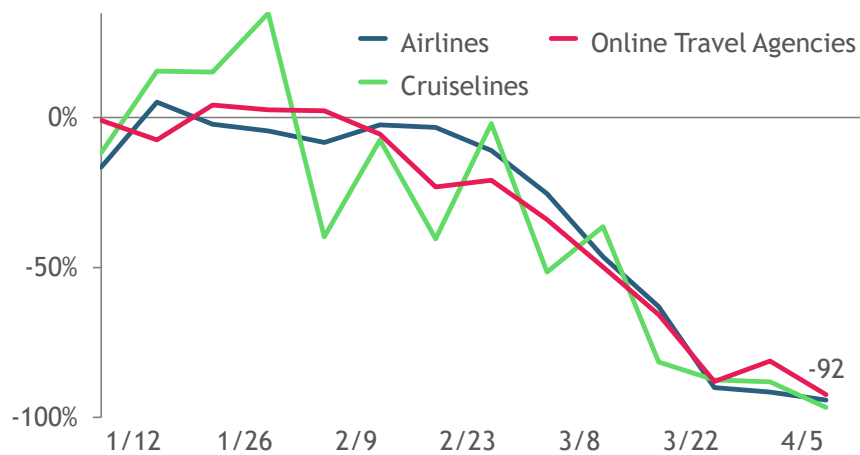
These analyses represent only potential scenarios based on discrete data from one point in time. They are not intended as a prediction or forecast, and the situation is changing daily

Transportation: Near term impact on revenue and employment followed by slower than average recovery due to social distancing and behavioral changes

Short term impact

- ~90% decline in air travel, 65-80% decline in NY mass transit ridership, 80% decline in rideshare
- +2,432% spike in unemployment claims

Credit card sales change YoY in NY State (% , 2019-2020)

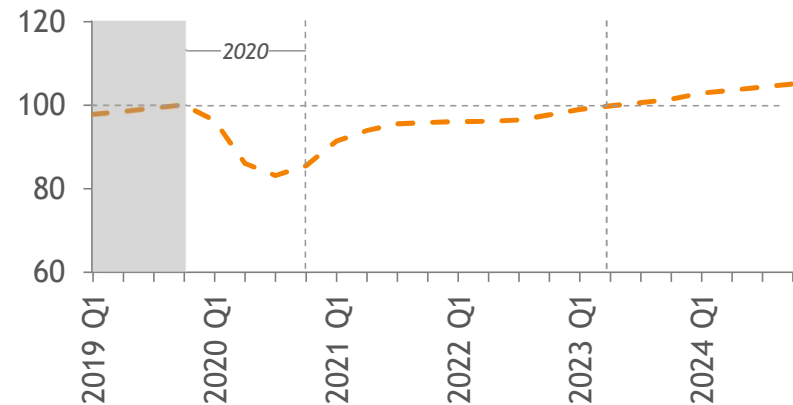


Recovery path

- In recent recessions, recovery in line with avg
- For C-19, likely slower recovery as consumers shift to teleconference vs. in person, and avoid crowded planes / trains

Total impact: 21.7% of pre-recession industry GDP

- 2020 impact: 10.4%
- Longer term impact: 11.3%



Source: Credit card sales data by Earnest Research. BCG analysis.

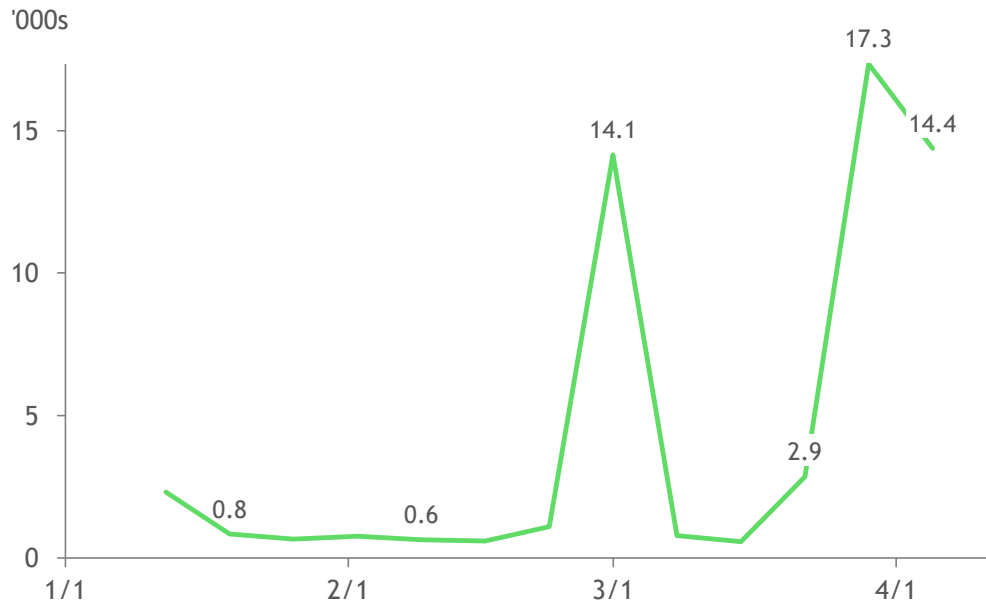
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Deep dive: transportation and logistics

Covid-19 is significantly hurting state-wide demands on passenger transportation, while limited impact on logistic transportation

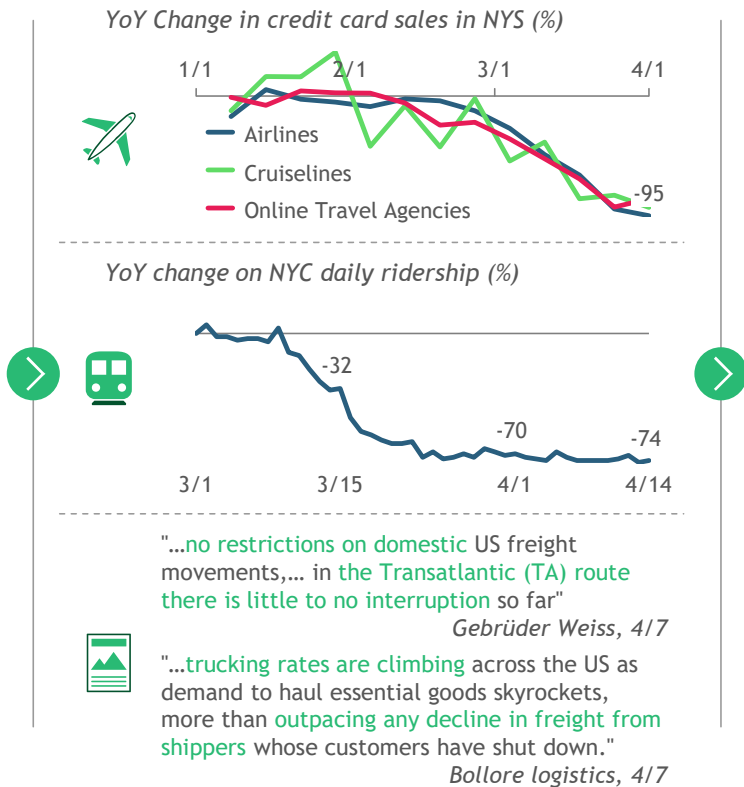
14.4k unemployment claims from T&L employees in NY State during week of 4/5

of weekly NY State unemployment insurance claims from T&L employees ('000s - 2020)



Source: NY State DoL, TSA, MTA, Transitapp, Earnest / BCG credit card sales data

Airline & local transportation have been severely impacted; freight & cargo transport remain resilient

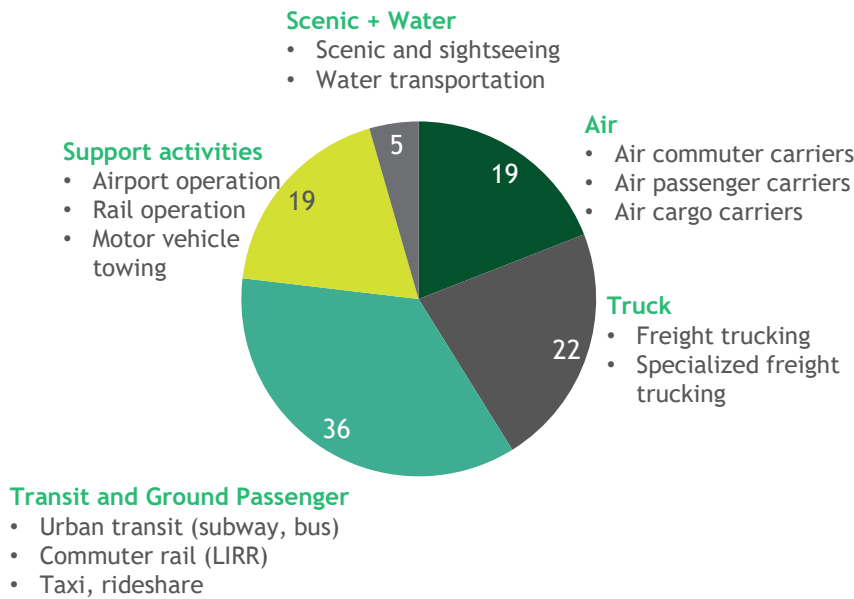


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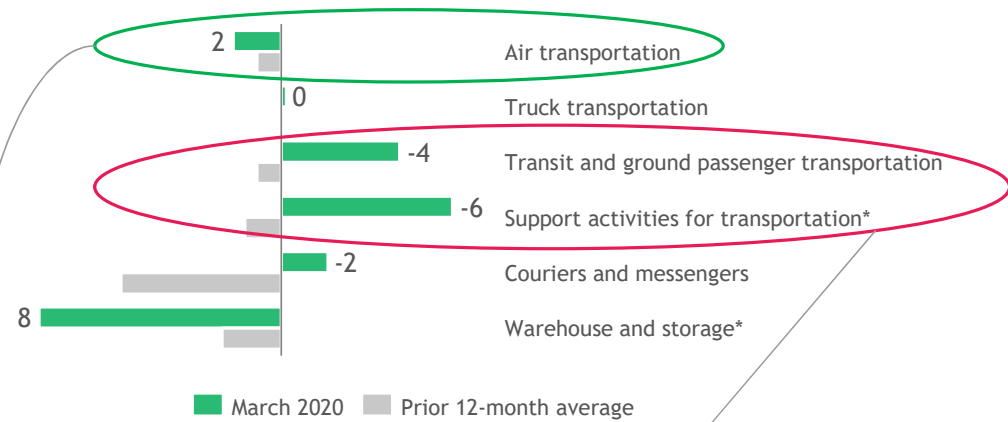
Transit and ground passenger, truck, air and support activities consists of over 90% of state employment in transportation industry

National employment statistics in transportation sector show that transit and ground passenger transportation and supportive activities were mostly impacted in March 2020

Composition of State employment in transportation industry



Employment in selected transportation and warehouse industries
Over-the-month change, March 2020, SA in '000



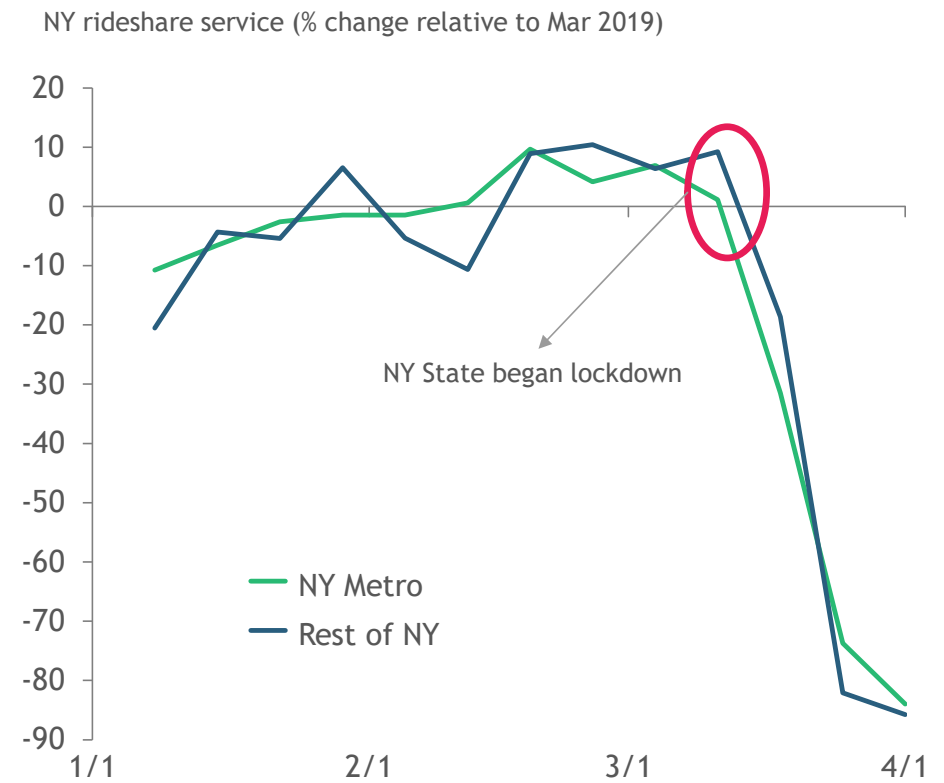
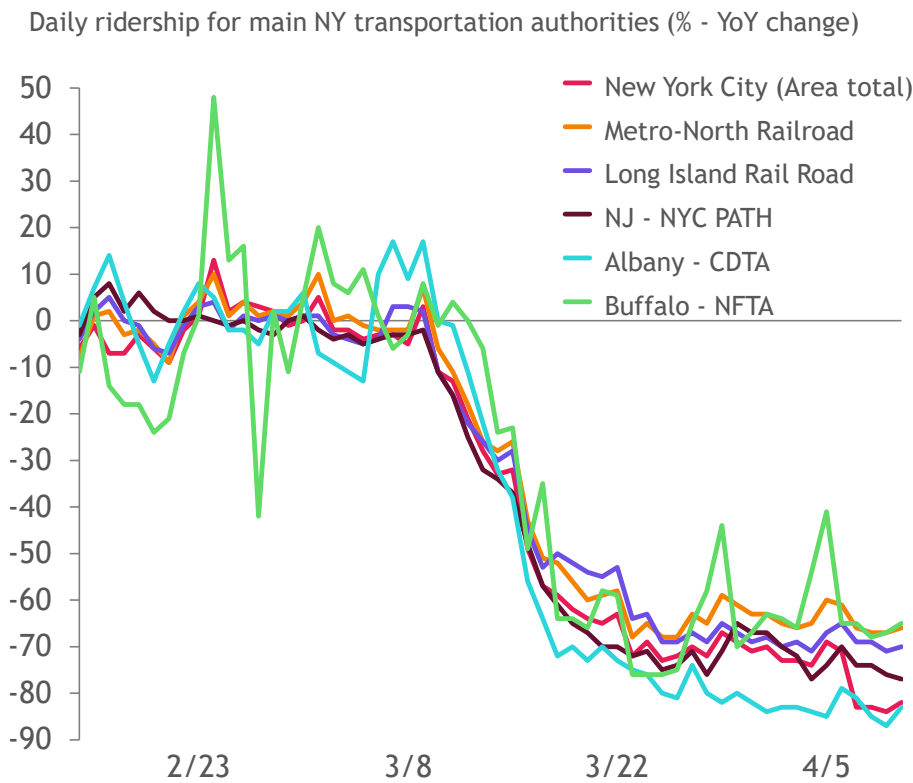
Although significant reduce in air traffic and demands reduced significantly, \$25 Billion from Covid-19 stimulus package goes into Airlines and cargo carriers

Transit and ground passenger and supportive activities sectors are laying off employees due to reduced activities and demands

Source: NY State DoL, Bureau of Labor Statistics, current employment statistics survey, April 3, 2020.

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Transportation: Ridership for NY public transportation authorities has declined 65-80% YoY, while rideshare services dropped >80%



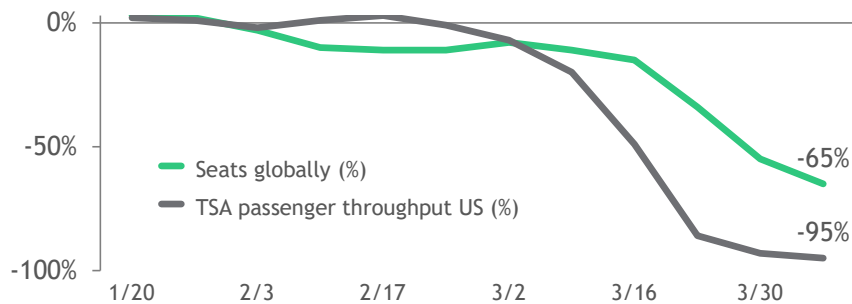
Notes: Ridership data is measured as usage of the "Transit" app, a proxy for demand. Rideshare service based on credit card data from Earnest Research and BCG Analytics.

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Air transportation faces heavy disruption as COVID-19 spreads rapidly

Global air travel reductions and restrictions have significantly impacted air transportation in NY

Weekly global seats and US TSA passenger throughput YoY change against COVID-19 cases reported weekly globally



As one of the busiest air hubs world-wide, NY State's air transportation is closely associated with global air traffic changes

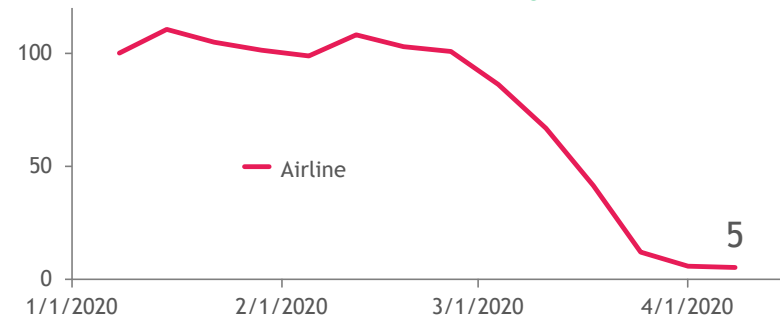
- 1 **JFK** and **Newark** are among the top 10 airports globally)
- 2 **LaGuardia** is among the top 10 airports globally)
- 3 **138.8 millions** passenger traffic as of 2018
- 4 Over **80,000** employees supporting airports operations



Covid-19 economic impact forecast - IATA

Region of airline registration	Revenue Passenger Kilometers 2020 (% YoY)	Passenger revenue \$ Bn 2020 vs. 2019 levels
Asia-Pacific	-37%	-88
North America	-27%	-50
Europe	-46%	-76
Middle East	-39%	-19
Africa	-32%	-4
Latin America	-41%	-15

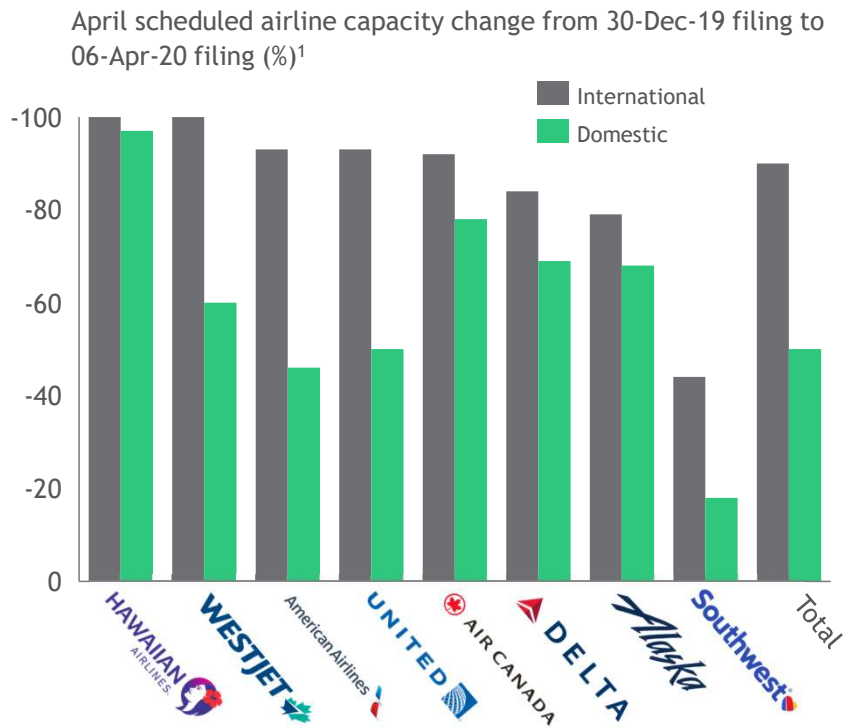
Credit card sales made in NYS on airlines dropped over 95% in March due to travel restrictions and flight reductions



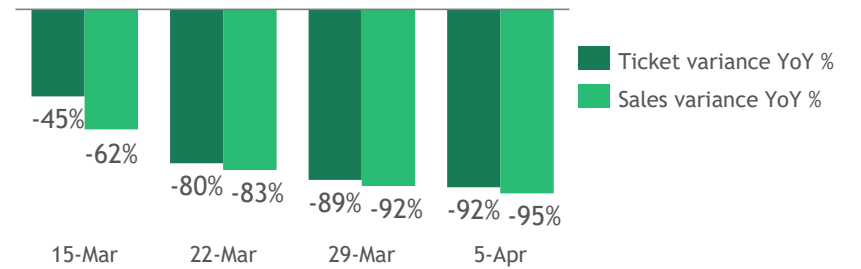
Source: Desk research; OAG Schedules Analyser; CAPA, IATA

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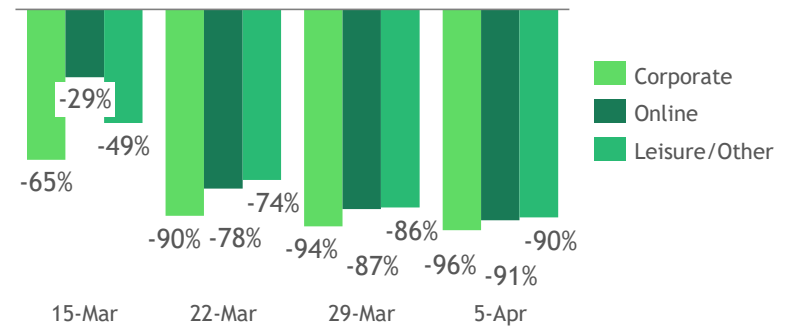
Airlines are cancelling both domestic and international routes, as demand dropping significantly



Year over year variance in ticket quantity and revenue²



Segment analysis shows corporate bookings leading the decline in ticket quantity



Source 1: ARC data as of 4/5/20, results are based on weekly sales data ending April 5, 2020, from 11,800 U.S. retail and corporate travel agency locations, and online travel agencies. Results do not include sales of tickets purchased directly from airlines and are not net of refunds or exchanges.

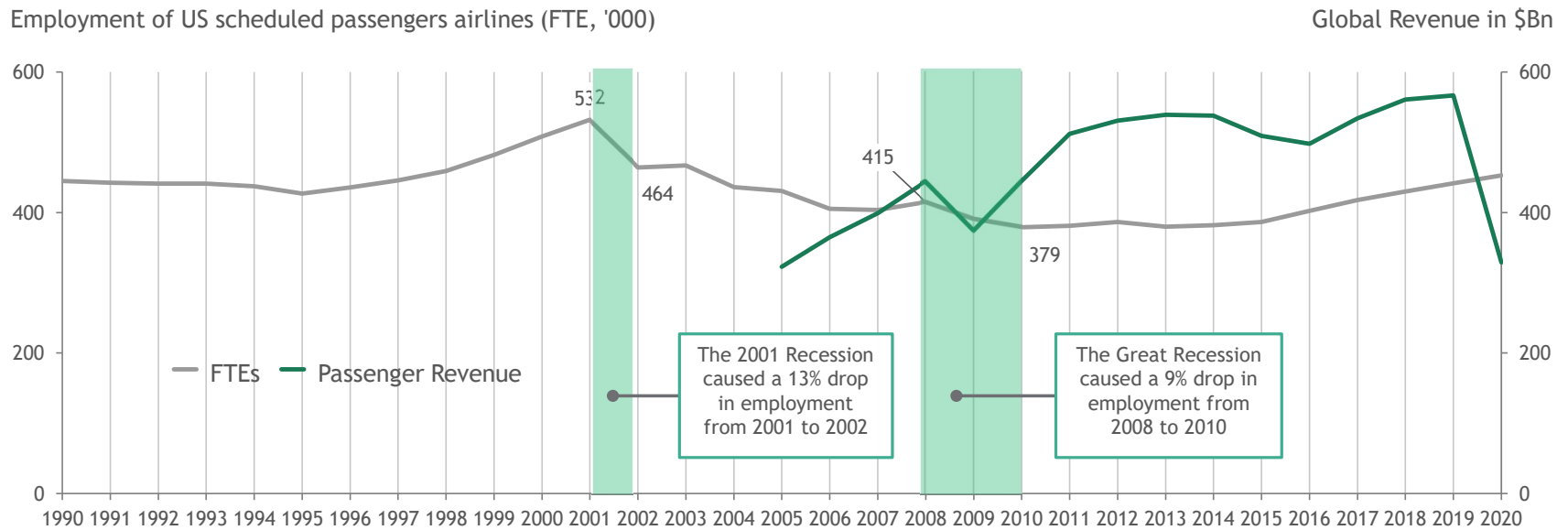
Source 2: OAG Schedules Anayser

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Air transportation is facing declining revenue causing employment uncertainty

As of February 2020, 34.9K NY State workforces are employed in air transportation sector

Employment vs. Revenue in Airline transportation



Note: FTE calculations count two part-time employees as one full-time employee; Estimated passenger revenue loss provided by IATA in their latest COVID-19 Updated Impact Assessment on March 24
Source: IATA; US BTS

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Transportation network severely disrupted which compromised logistics / cargo operations



Airlines shutting down routes and part of their operations...

- International air cargo capacity might be affected
 - Multiple US and international airlines reduced or suspended all passenger flights to mainland China, Europe, Japan, and others, directly affecting 3PLs and companies that leveraged these flights to fly their parcels
- However some airlines already shifting passenger flights to cargo-only flights which could be a relief to parcel companies



Ocean cargo rerouted around Asia...

- Under-capacity ships are taking on cargo en-route, at times exiting Chinese ports at 10% capacity
- 26% YoY increase in withdrawn capacity from canceled Asia to NAMR routes

... affecting service level and capacity to serve demands

- **Reduced capacity:** Passenger flight cancellations reduce total air cargo capacity (e.g., commercial airlines as freight forwarders)
- **Increased demand:** FedEx and others complain they cannot handle increased demand for its international express-delivery services due to the reduction in commercial airlines (less capacity available); American Airlines, Korean Air, and others, already shifting passengers flight to cargo-only flight mode
- **Lost trips leading to lost backhaul:** Reduction in Asia-to-Europe shipping routes resulting in decreased shipping capacity on return trips
- **Cross border e-Com suffering** - Parcel companies and e-Tailers hostage of delays and cancellations from Ocean cargo transportation



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