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Air Service and Airline Economics in 2018
Growing, Competing and Reinvesting

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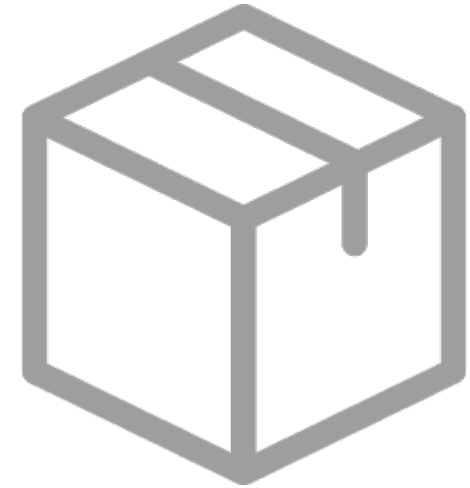
Presentation to the CAAFI Biennial General Meeting
December 5, 2018

The ~720,000 Employees* of U.S. Passenger and Cargo Airlines Offer an Extensive Worldwide Network Facilitating the Safe and Rapid Movement of People and Goods

27,000 daily **flights** to/from 800+ airports in nearly 80 countries

2.3 million **passengers** per day

55,000 tons of **cargo** per day



Source: A4A and Bureau of Transportation Statistics for U.S. passenger and cargo airlines

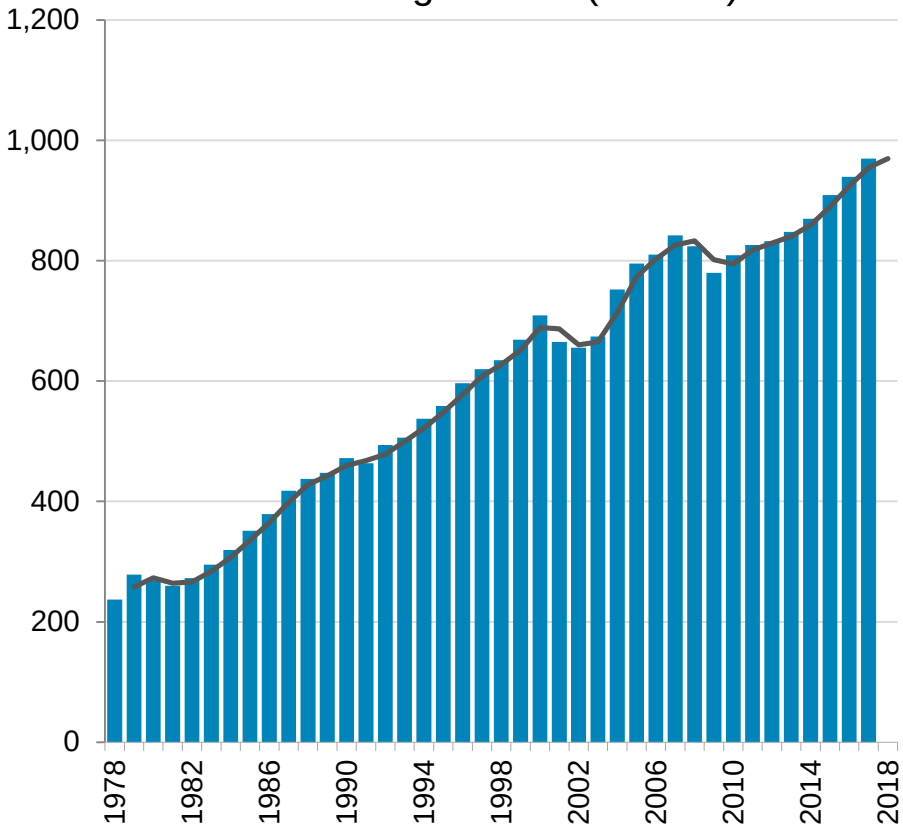
* Headcount as of July 2018

U.S. Airlines Are Moving More People and More Goods Over Longer Distances

Significant Growth of Demand for Air Transportation Services in the Deregulated Era

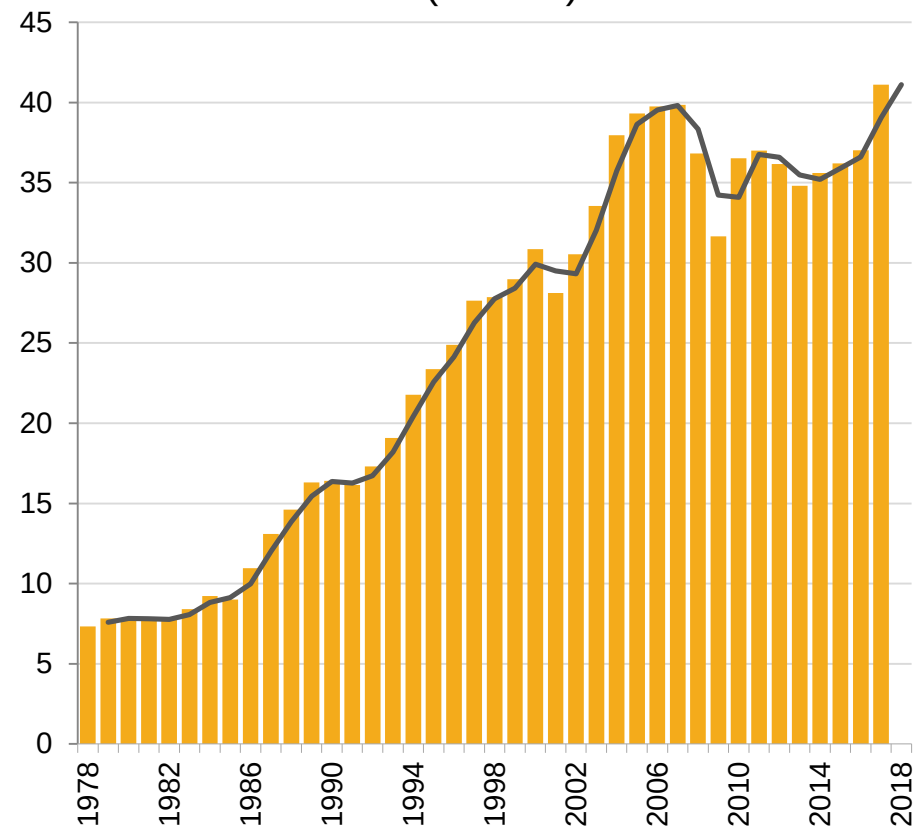
Passenger Traffic Up 4.1x

Revenue Passenger Miles (Billions)



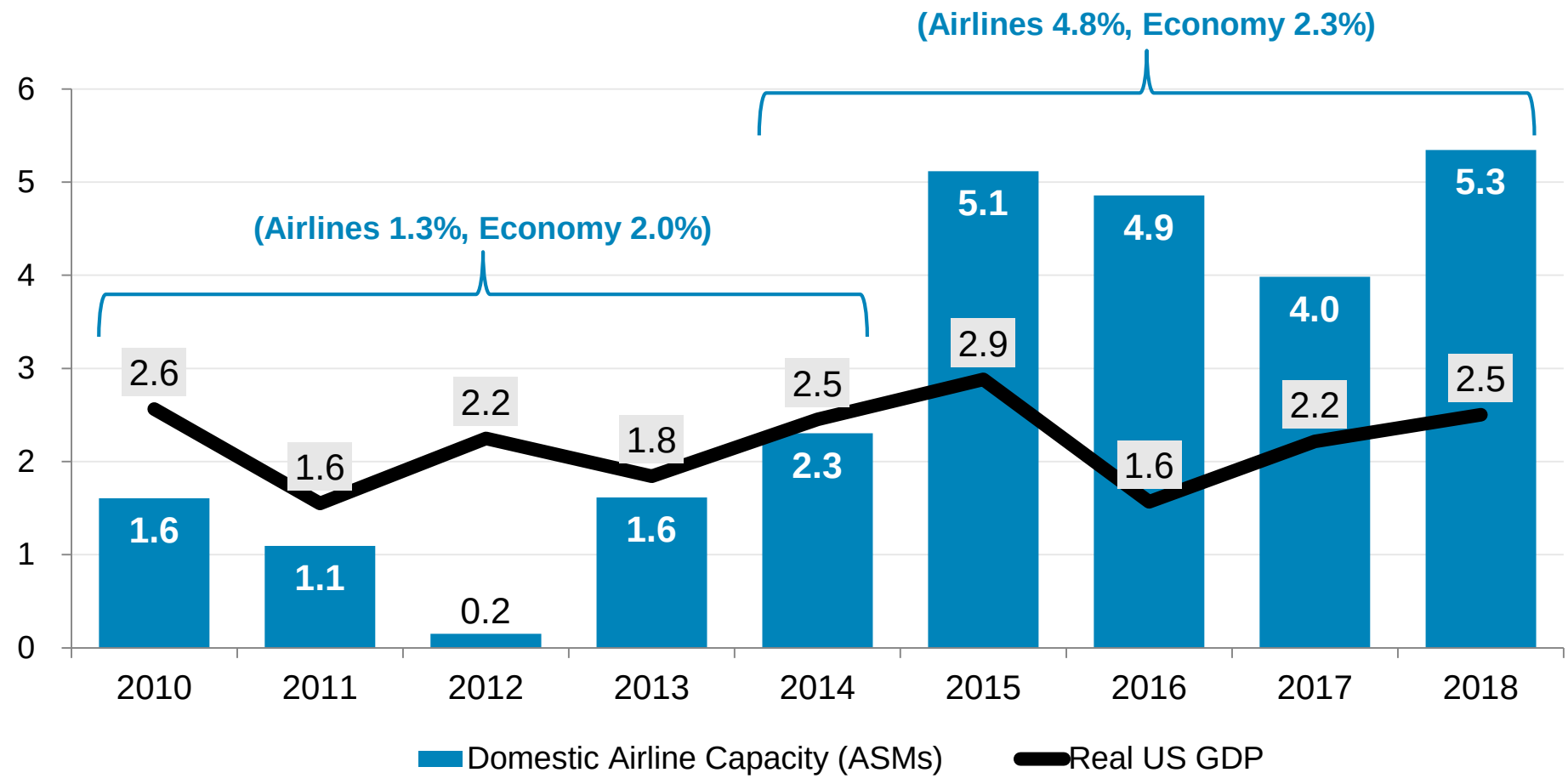
Cargo Traffic Up 5.6x

Revenue Ton Miles (Billions)



Source: U.S. Bureau of Transportation Statistics (T1 systemwide for U.S. airlines)

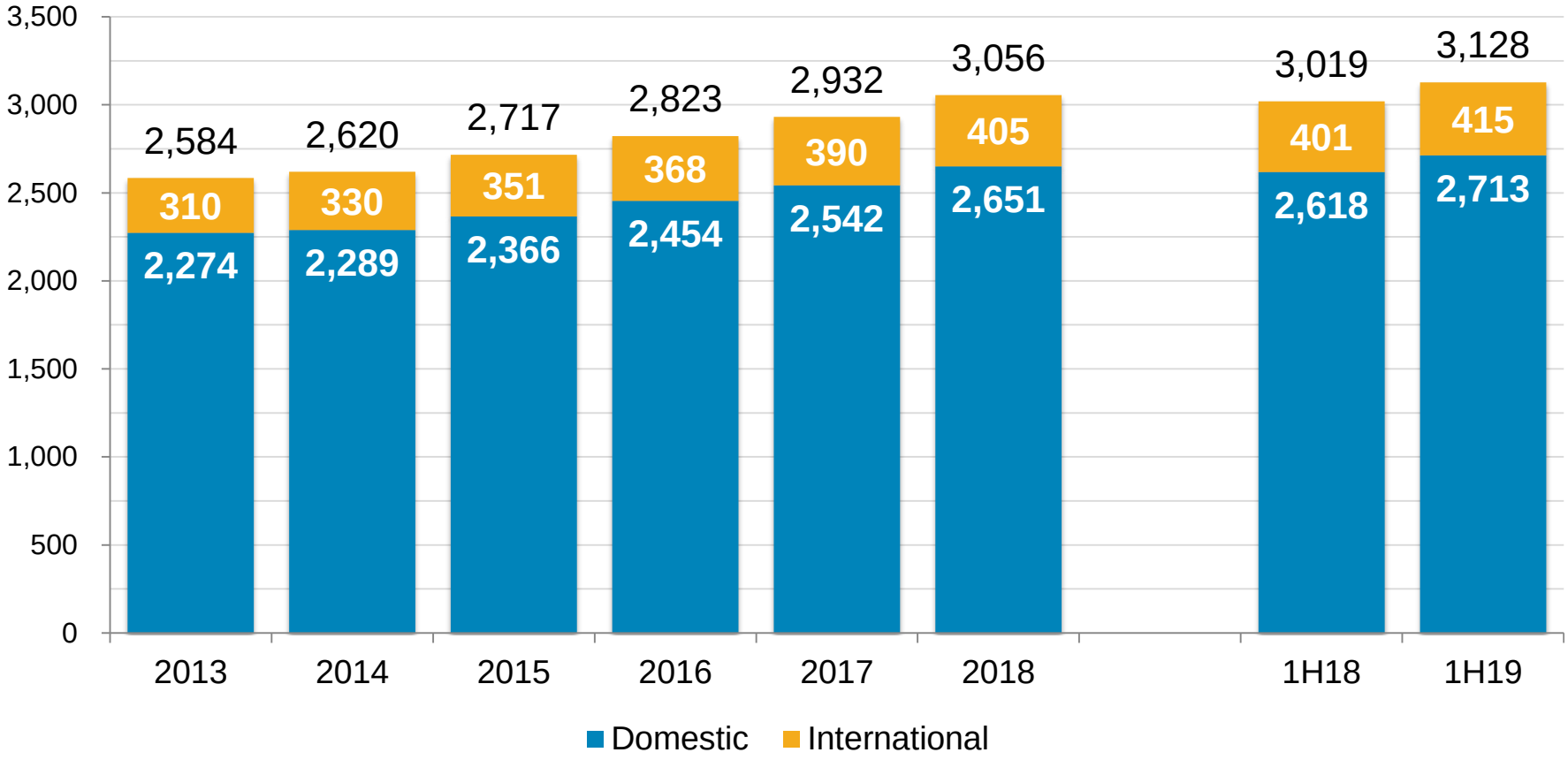
In 2014-2018, Domestic Airline Capacity Grew at Twice the Rate of the U.S. Economy



Source: Bureau of Economic Analysis and published airline schedules via Diio Mi

Customers Will See All-Time High of 3.07M Daily Seats Departing U.S. Airports

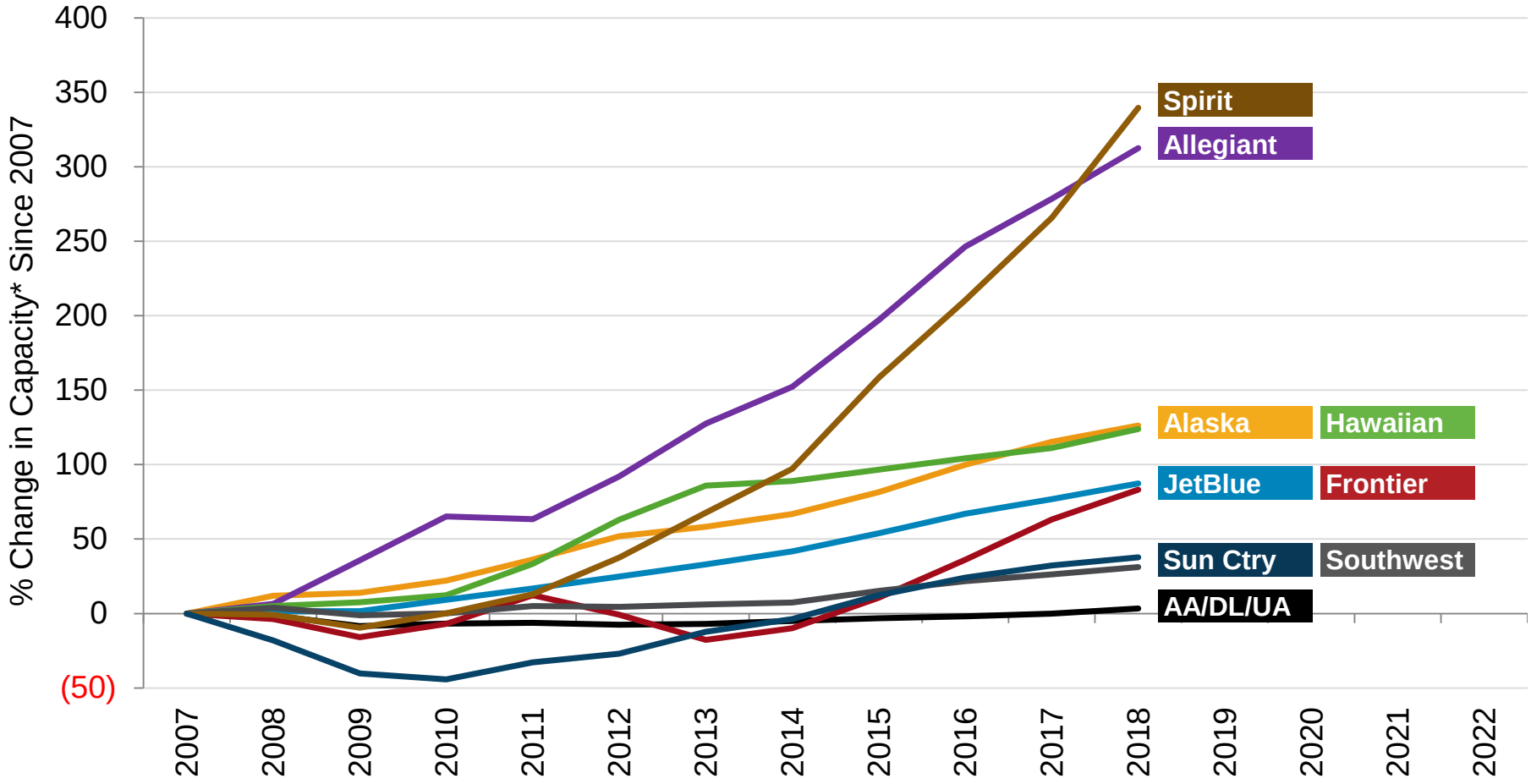
Daily Seats (000) Departing U.S. Airports: Up 4.2% YOY in 2018 and 3.6% in 1H 2019



Source: Innovata (via Diio Mi) published schedules as of Nov. 23, 2018, for all airlines providing scheduled passenger service from U.S. airports to all destinations

Among 11 U.S. Airline Brands, Smaller Carriers Have Been Growing the Fastest

Different Types of Carriers Market Their Prices and Services Differently

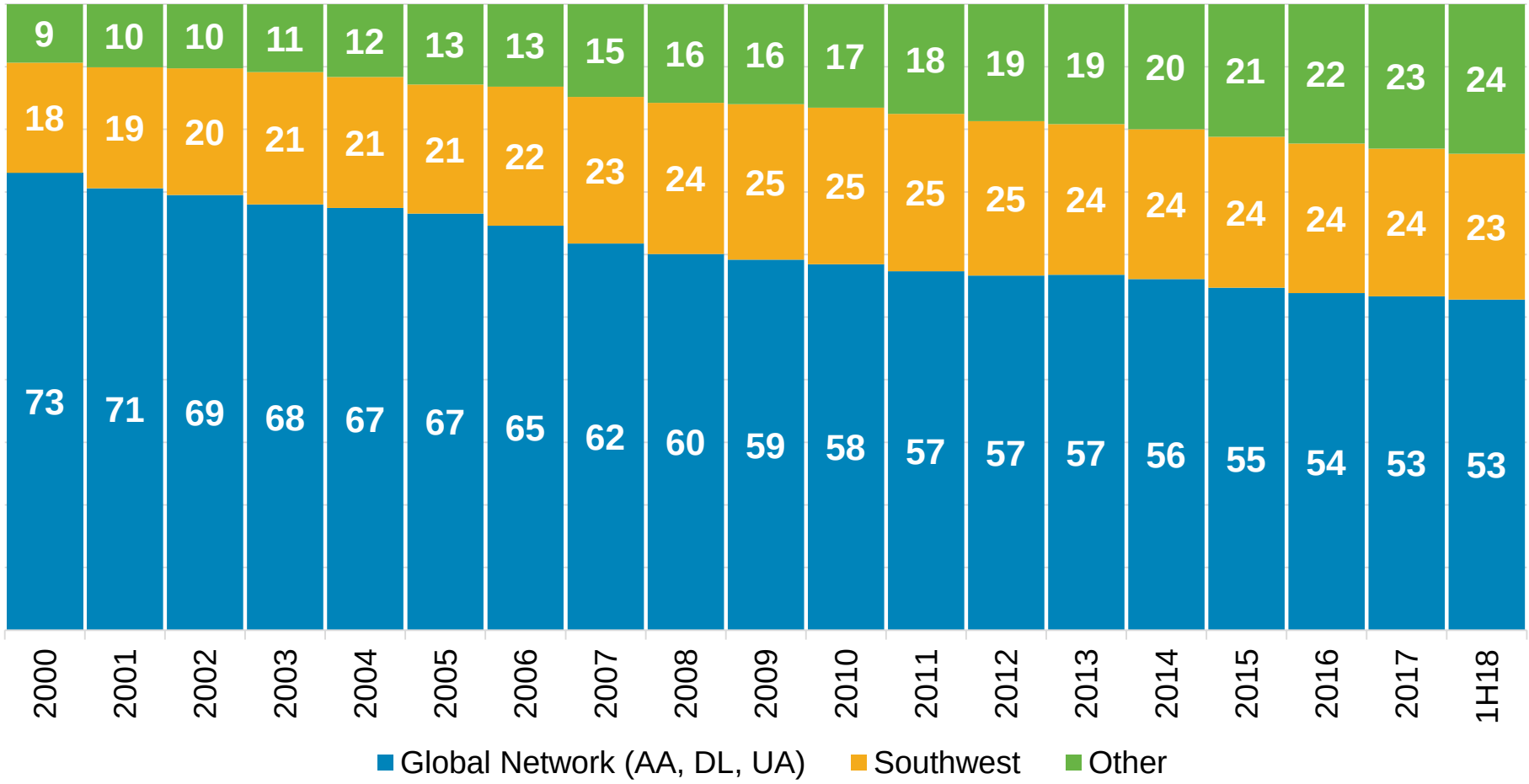


Source: Innovata (via Diio Mi) schedules as of Oct. 5, 2018, for selected marketing airlines including predecessors

* Systemwide scheduled available seat miles

From 2000-2017, Global Network Carrier Domestic Share Fell From 73% to Just 53%

Share (%) of U.S. Domestic Origin-and-Destination Passengers by Airline Business Model



Source: DOT Data Bank 1B (each airline shown on a marketing-carrier basis and tracked with its respective merged/acquired predecessors [e.g., UA/CO]

Los Angeles-Seattle Is Among Countless Domestic City Pairs on Which Competition* *Increased* From 2007-2017 (Real Fares *Down* 20%, Passengers *Up* 78%)

2007 O&D Passenger Share

2017 O&D Passenger Share

Source: DOT Data Bank 1B and Innovata published schedules via Diio Mi

* Defined as carrying at least 5 percent of O&D passengers between BUR/LAX/LGB and SEA

Boston-Akron/Cleveland Is Among Countless Domestic City Pairs on Which Competition* *Increased* From 2007-2017 (Real Fares *Down* 20%, Passengers *Up* 23%)

2007 O&D Passenger Share

2017 O&D Passenger Share

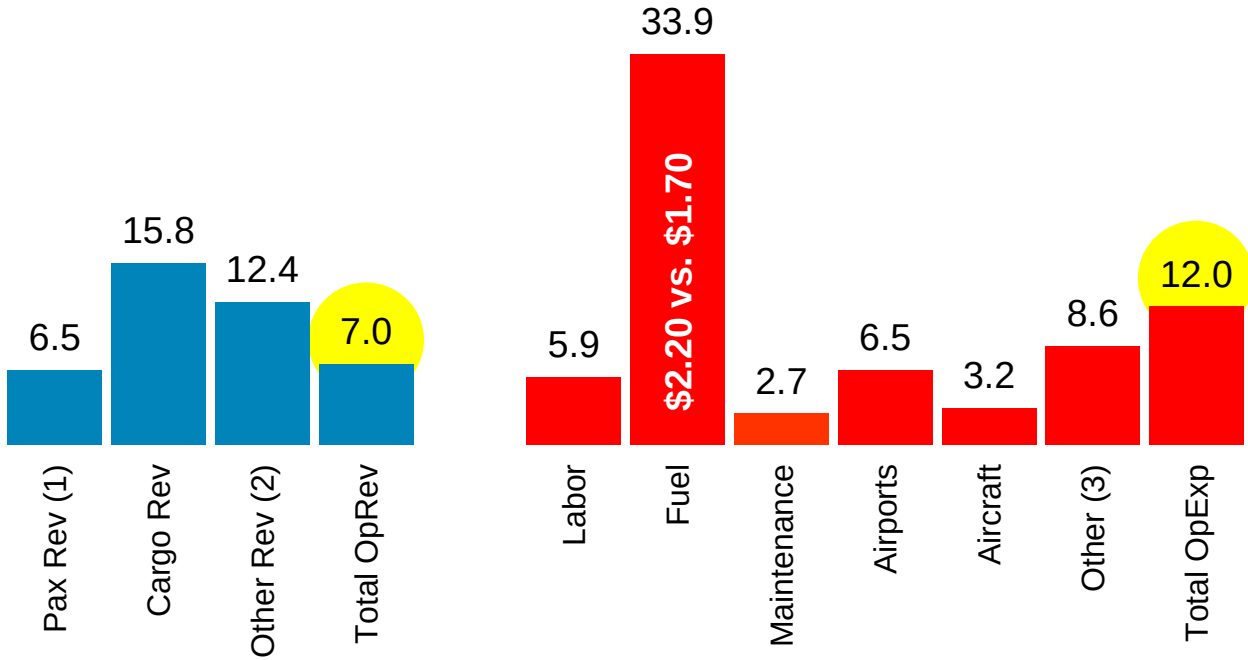
Source: DOT Data Bank 1B and Innovata published schedules via Diio Mi

* Defined as carrying at least 5 percent of O&D passengers between BOS and CAK/CLE

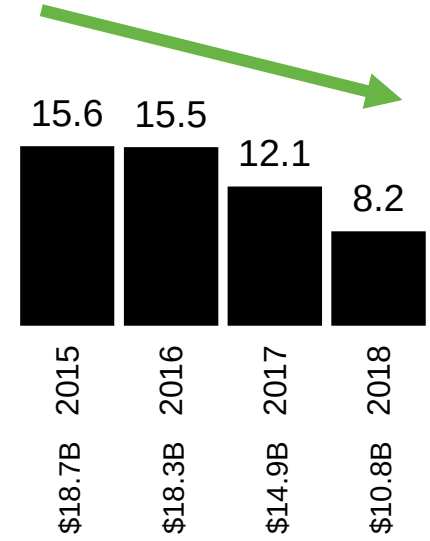
YTD 3Q18 Expenses Rose Faster Than Revenues, Reducing Profitability Yet Again

Carriers Under Cost Pressure in Every Major Category, Driving Margins Lower in 2018

Change (%) in Operating Revenues and Expenses
First Nine Months 2018 vs. First Nine Months 2017



Pre-Tax Profit Margin (%)
YTD 3Q Four-Year Trend



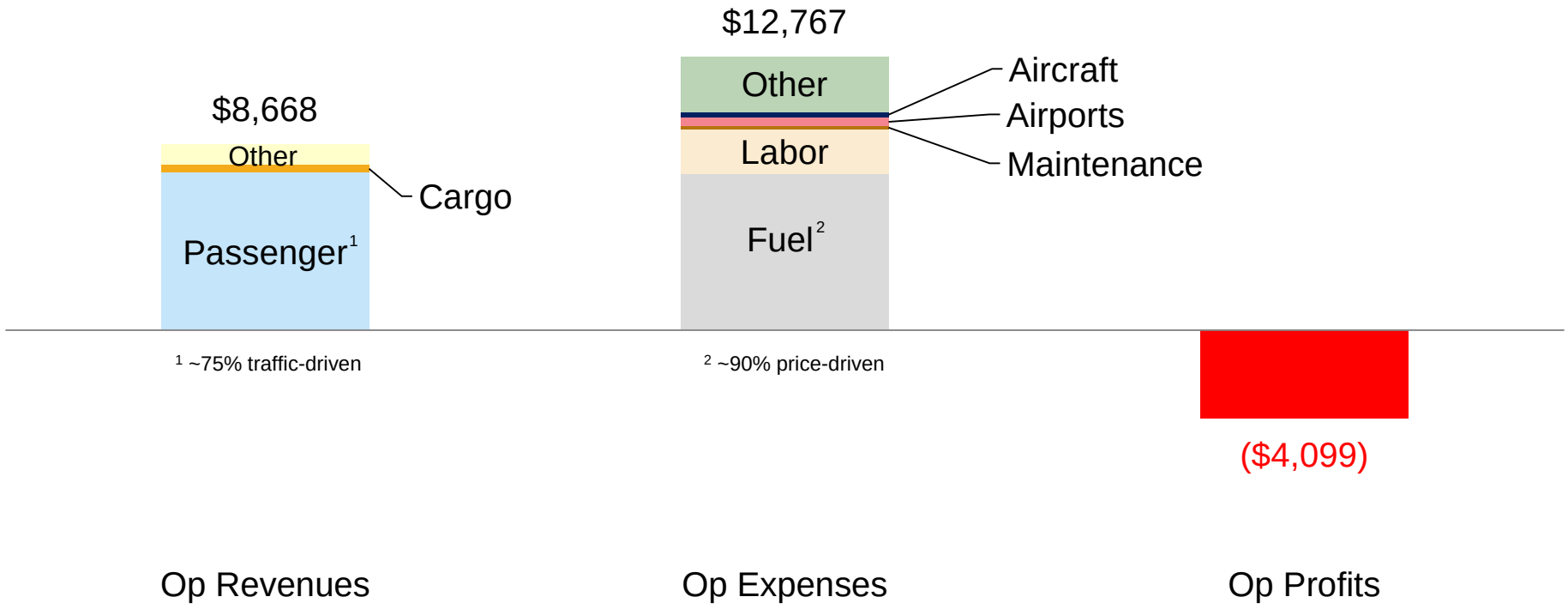
1. Traffic (revenue passenger miles) up 4.8 percent; yield (revenue per passenger-mile flown) up 1.6 percent; U.S. CPI up 2.5 percent
2. Sale of frequent flyer award miles to airline business partners, transportation of pets, in-sourced aircraft and engine repair, flight simulator rentals, inflight sales, etc.
3. Professional fees, food/beverage, insurance, commissions, GDS fees, communications, advertising, utilities, office supplies, crew hotels, nonfuel payments to regionals

Source: A4A analysis of reports by Alaska, Allegiant, American, Delta, Hawaiian, JetBlue, Southwest, Spirit and United

Airlines Recovered $0.68 in Revenue for Every $1.00 Increase in Operating Costs

Fuel Alone Accounted for 57 Percent of the Year-Over-Year Increase in Costs

Change ($ Millions) in Revenues and Expenses – First Nine Months 2018 vs. First Nine Months 2017



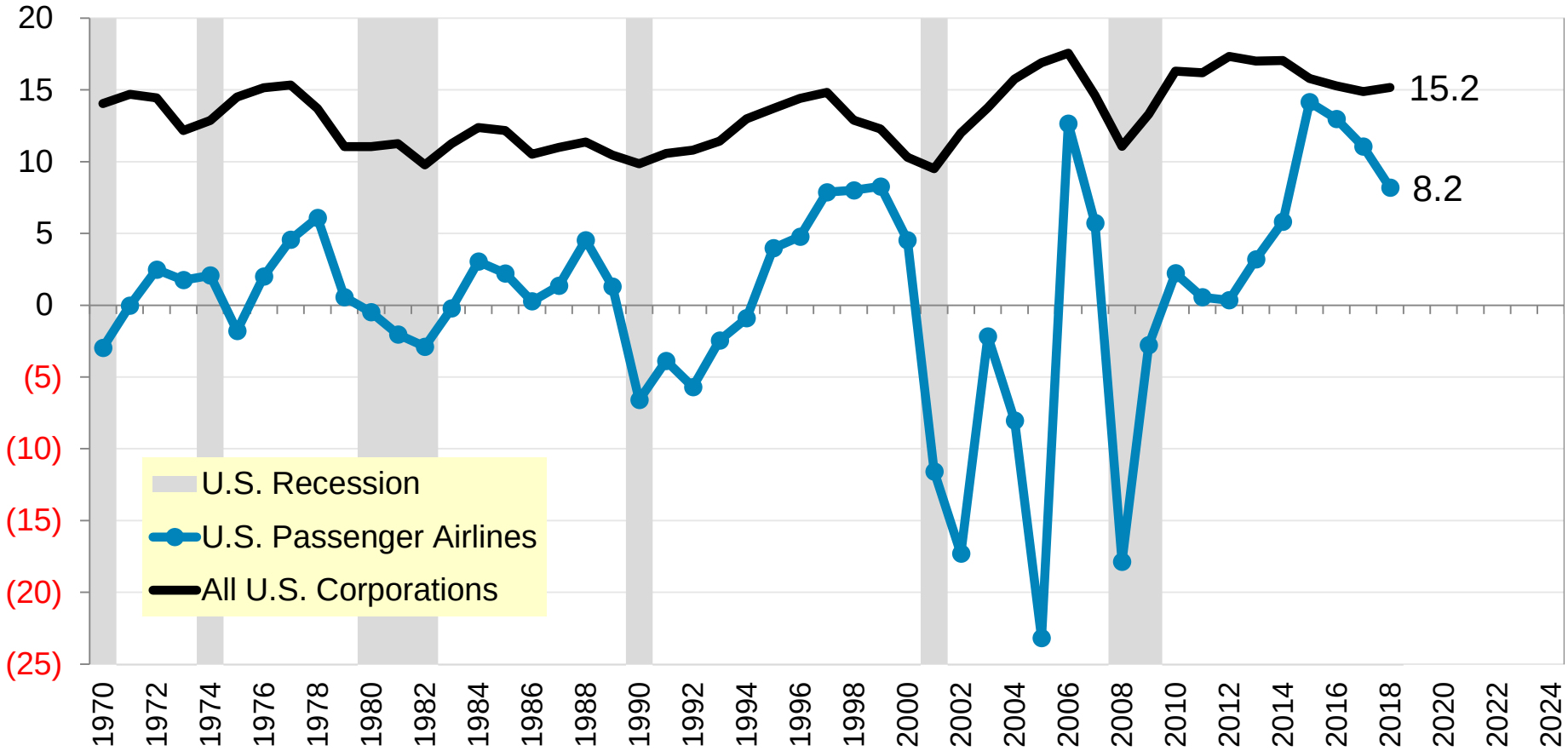
[1] ~75% traffic-driven

[2] ~90% price-driven

Source: A4A analysis of reports by Alaska, Allegiant, American, Delta, Hawaiian, JetBlue, Southwest, Spirit and United

Even in Best Years, Profitability of U.S. Airlines *Lags* U.S. Corporate Average

Pre-Tax Profit Margin (%) *Gap Widened* in 2016 and 2017, Widening Further in 2018

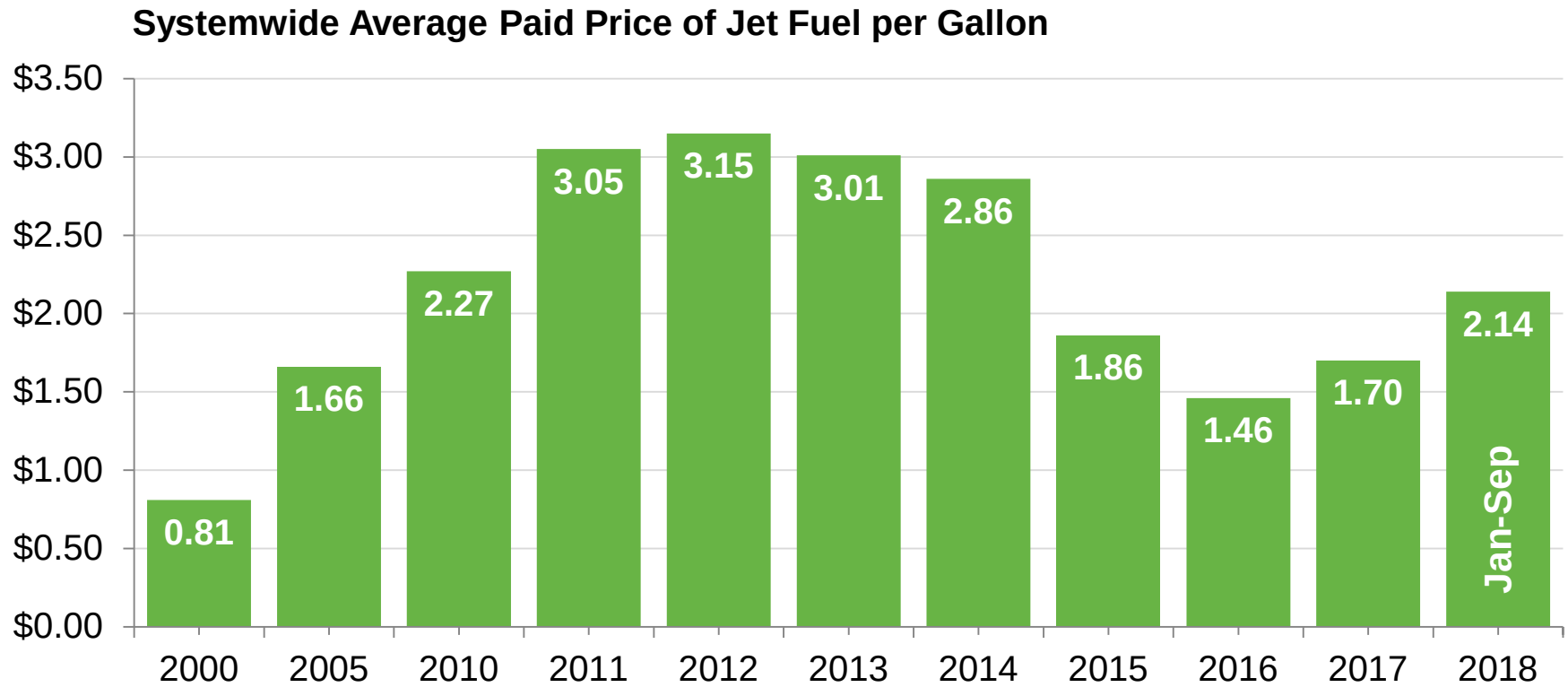


Source: ATA Annual Reports (1970-1976), A4A Passenger Airline Cost Index (1977-present); Bureau of Economic Analysis

Note: Recessions highlighted in gray

Jet-Fuel Prices Creeping Up Again

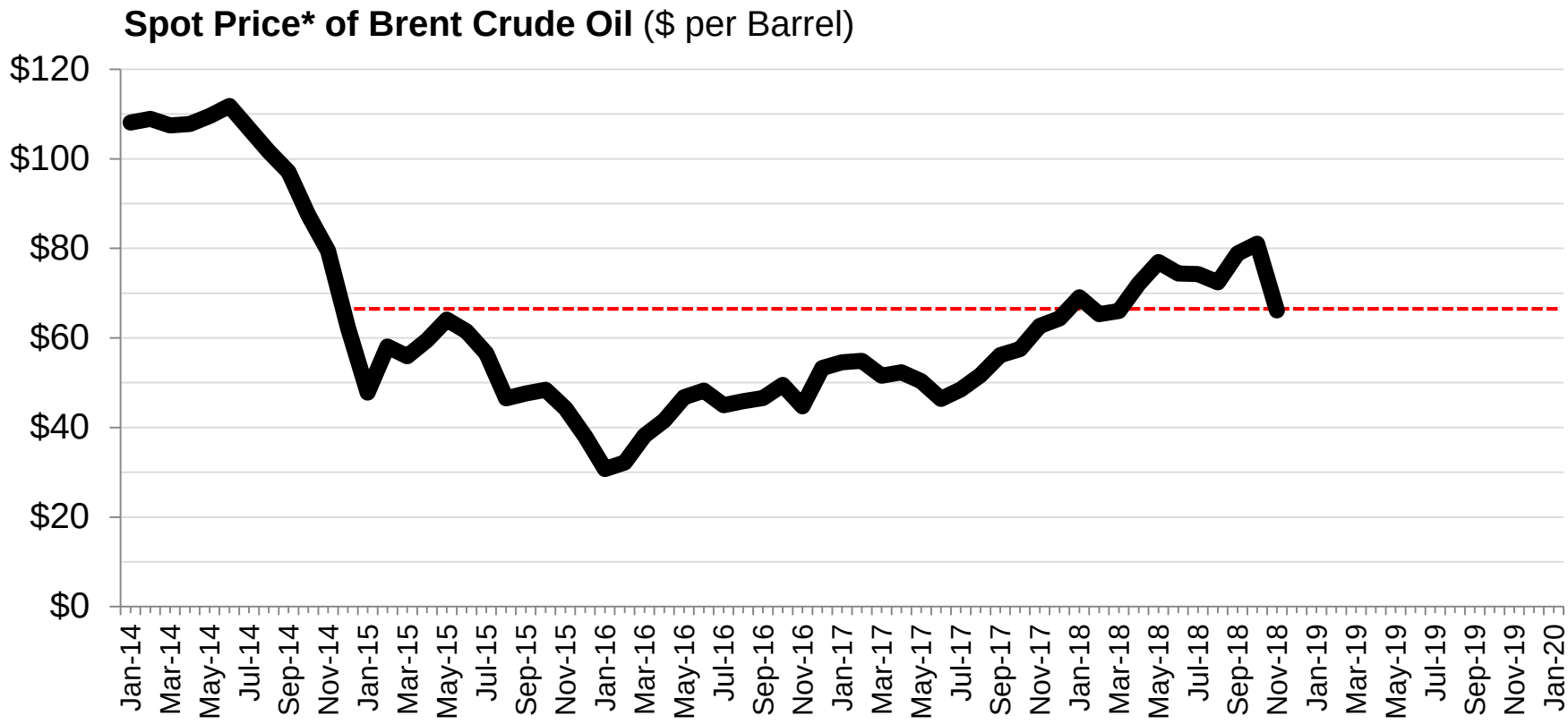
A Penny per Gallon per Year Equates to ~$200M in U.S. Airline Industry Fuel Expenses



Source: A4A and Bureau of Transportation Statistics (all U.S. carriers, scheduled an nonscheduled services)

Crude-Oil Prices Surged Through October, Plunging in November

October 2018 Averaged 41% More Than October 2017; Remain Highest in Four Years



Source: A4A and Energy Information Administration (http://www.eia.gov/dnav/pet/pet_pri_spt_s1_d.htm)

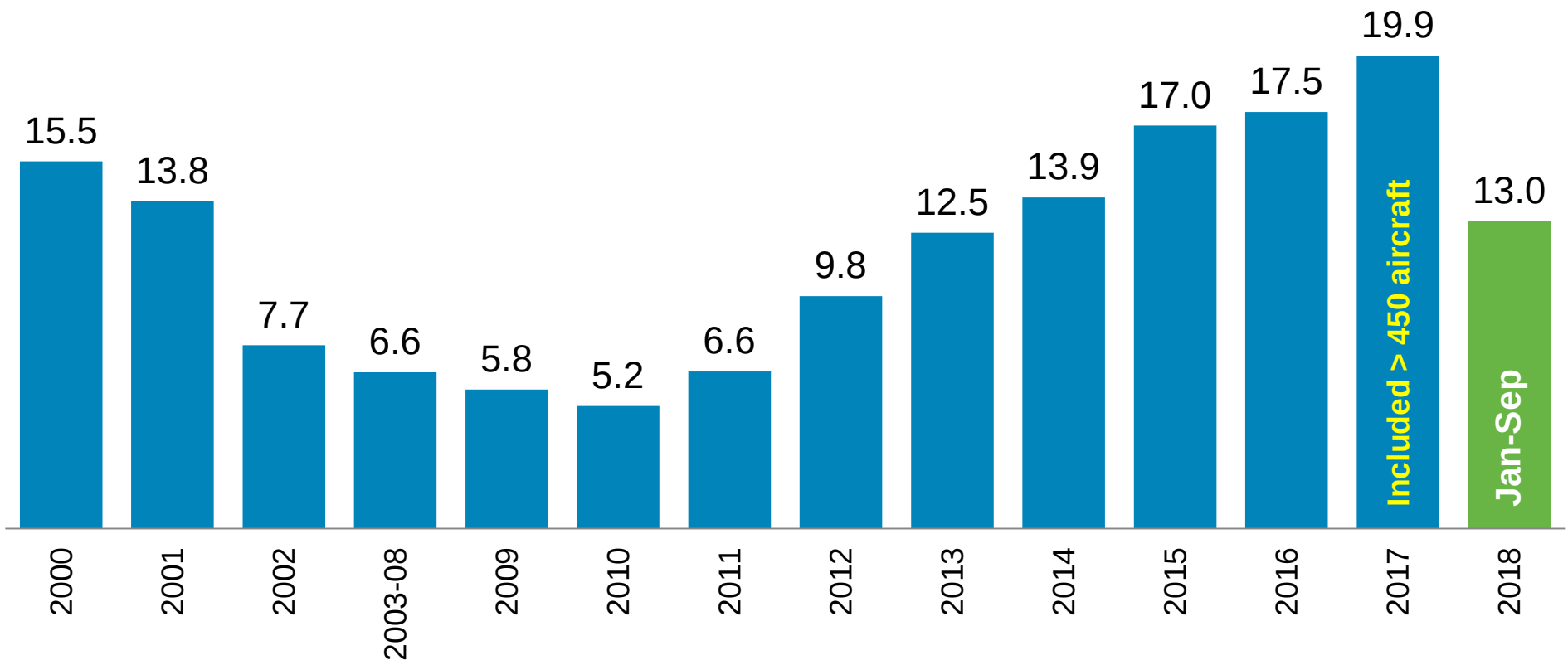
Airlines Utilize a Wide Array of Tools to Minimize Fuel Consumption

- Continue to replace older (often smaller) aircraft with typically larger, next-generation or re-engined aircraft
- Deploy state-of-the-art flight planning/navigation software to optimize airborne movement of aircraft

- Utilize taxi-management technologies – and single-engine taxi – to minimize ground-based fuel burn
- Consistently employ ground power while parked at gate instead of aircraft auxiliary power unit (APU)
- Reduce onboard weight (e.g., lighter materials/structures, inflight entertainment systems, excess fuel)

Substantial U.S. Airline Capital Investment* Has Continued in 2018 Despite Waning Profits – Bringing Total for This Business Cycle to $115 Billion

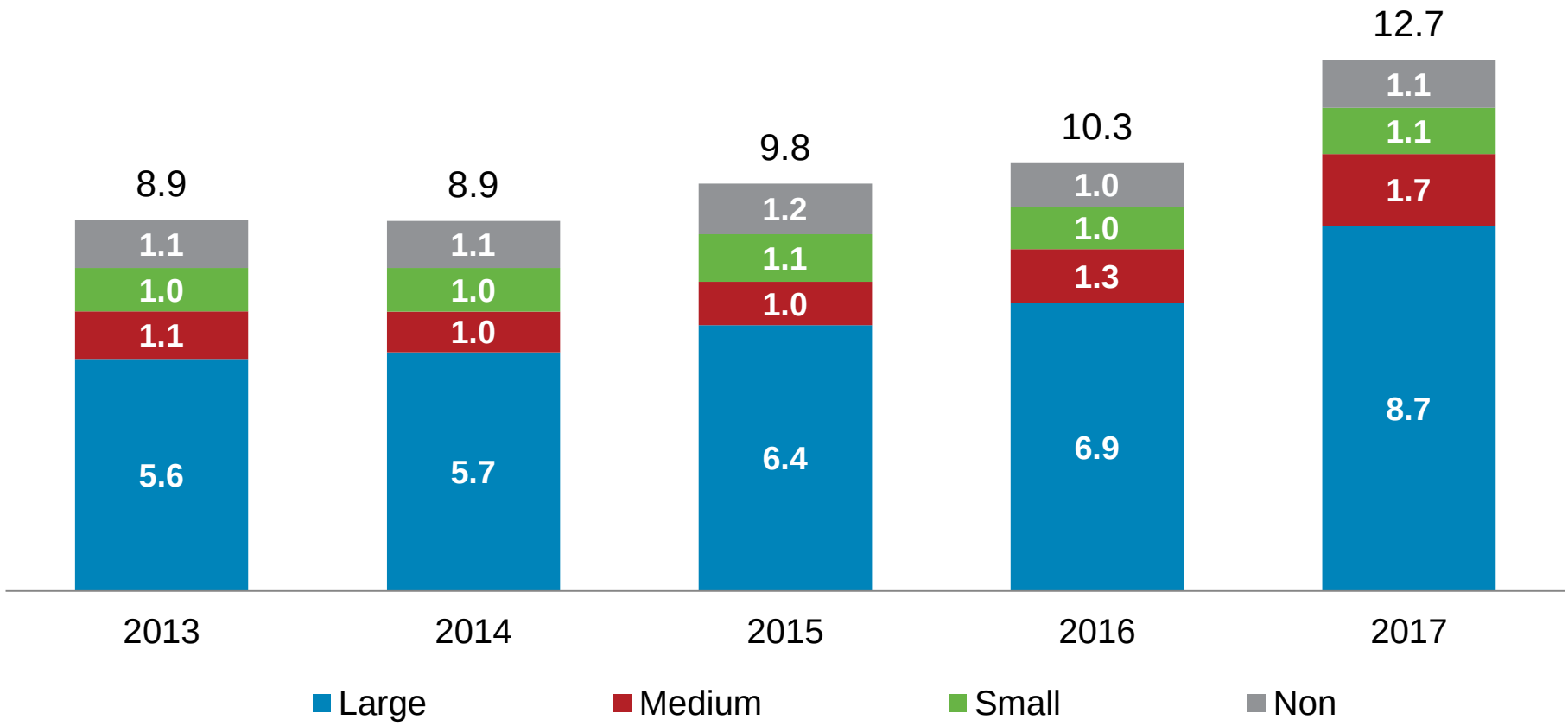
U.S. Passenger Airline Capital Expenditures* ($ Billions per Year)



* Includes payments made for aircraft and other flight equipment, ground and other property and equipment, airport and other facility construction and information technology
Source: SEC filings of Alaska, Allegiant, American, Delta, Hawaiian, JetBlue, Southwest, Spirit, United and merged/acquired predecessors

Infrastructure Investment Is Robust and Growing at Airports of All Sizes

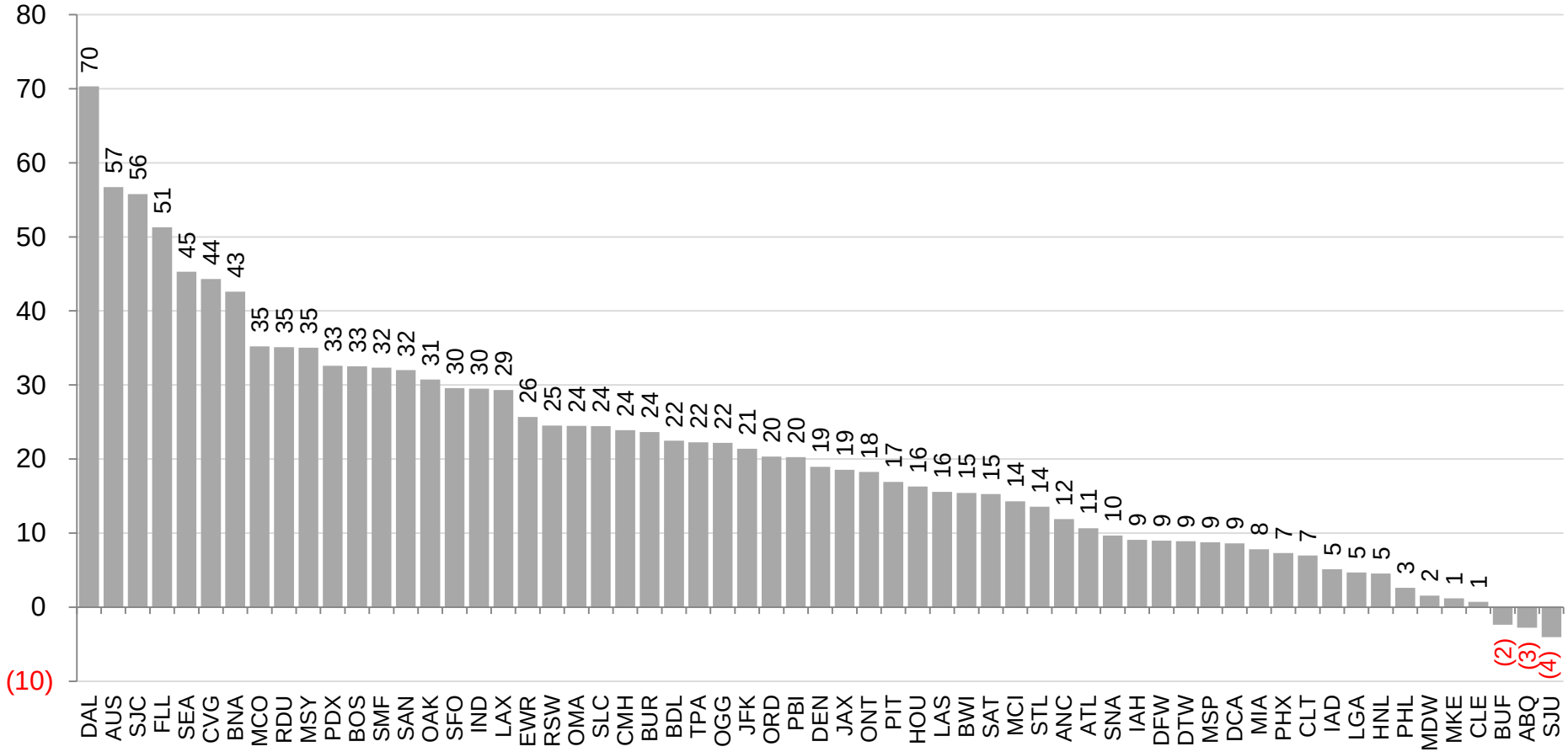
U.S. Airport Capital Expenditures ($ Billions) by FAA Hub Size



Source: FAA Form 5100-127 reports, section 10: “Capital Expenditures and Construction in Progress”

Almost Every Major* U.S. Airport Has Seen Supply of Seats Rise Over Past 5 Years

% Change in Scheduled-Service Seats Available: 2018 vs. 2013



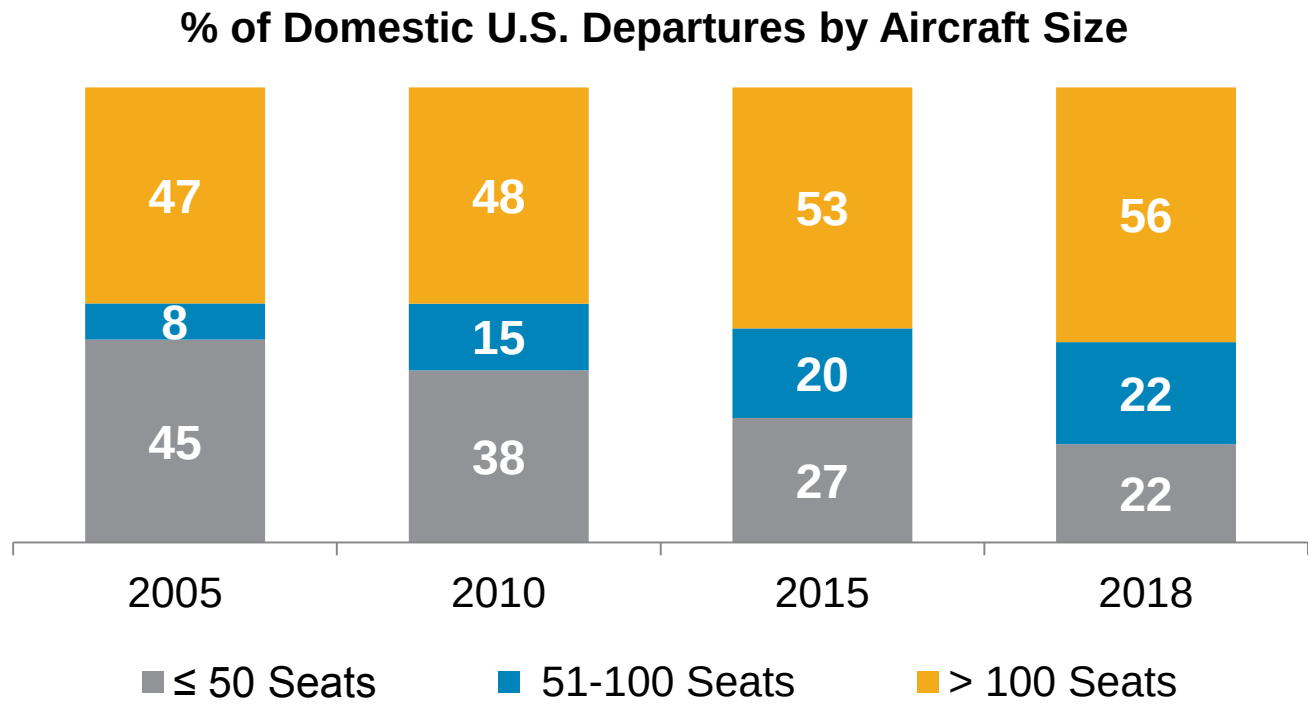
Source: Innovata (via Diio Mi) published schedules as of Nov. 23, 2018, for all airlines providing scheduled service

* FAA large and medium hub airports

In Addition to Expanding Schedules, Airlines Are Deploying Larger Aircraft

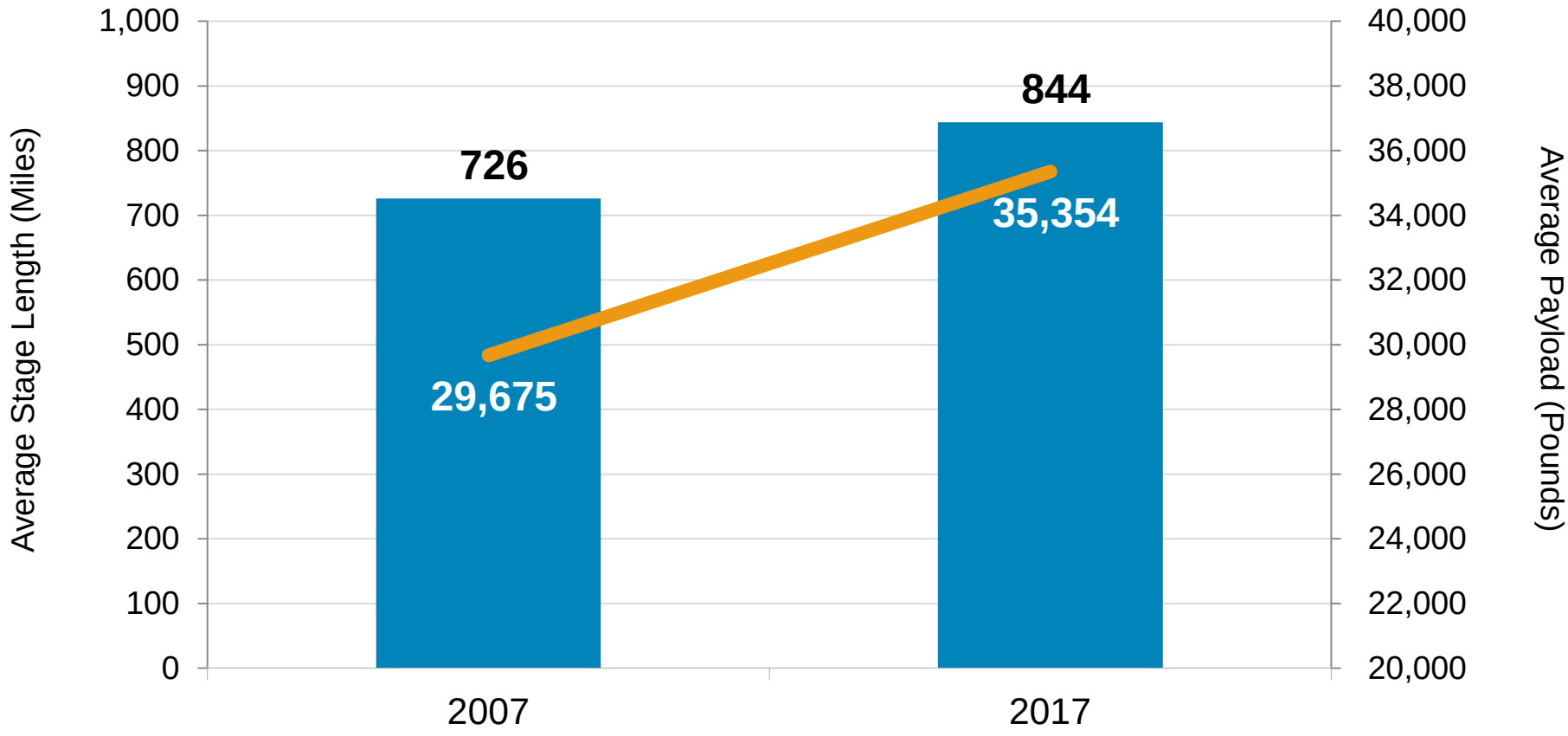
Replacement of 50-Seaters With Larger Regional Jets Is Primary Driver

- Factors include availability of pilots, fuel efficiency, congested airspace/airfields, improving economics of large regional jets, lack of new-generation in-production small aircraft



Source: Innovata (via Diio Mi) published schedules as of Dec. 29, 2017

In 2017, the Average Airline Flight Departing a U.S. Airport Traveled 16 Percent Farther and Carried an 19 Percent Larger Payload Than It Did in 2007

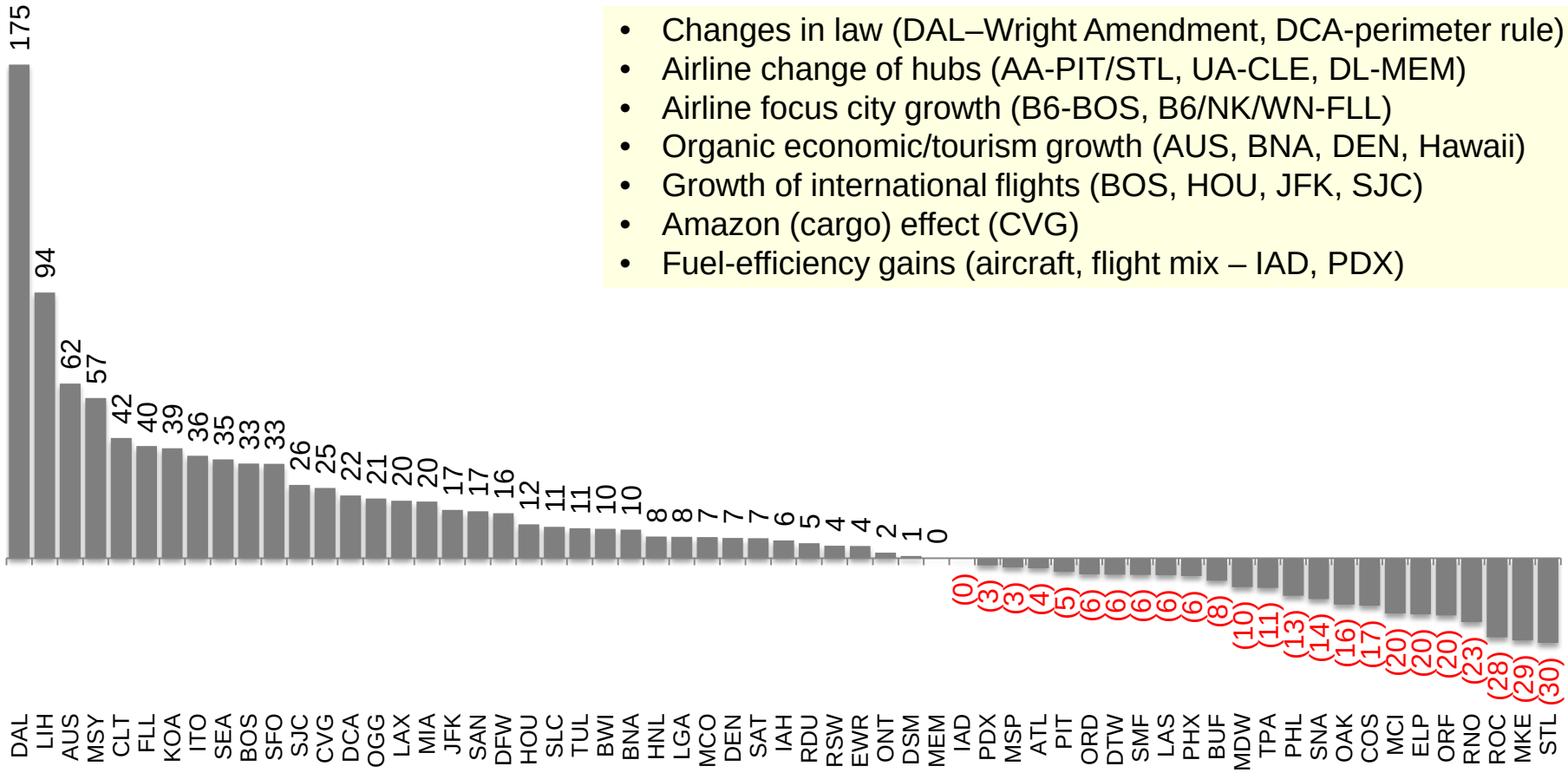


Source: Innovata (via Diio Mi) published schedules as of Dec. 29, 2017

Jet-Fuel Demand Growth at U.S. Airports Varied Widely From 2007 to 2017

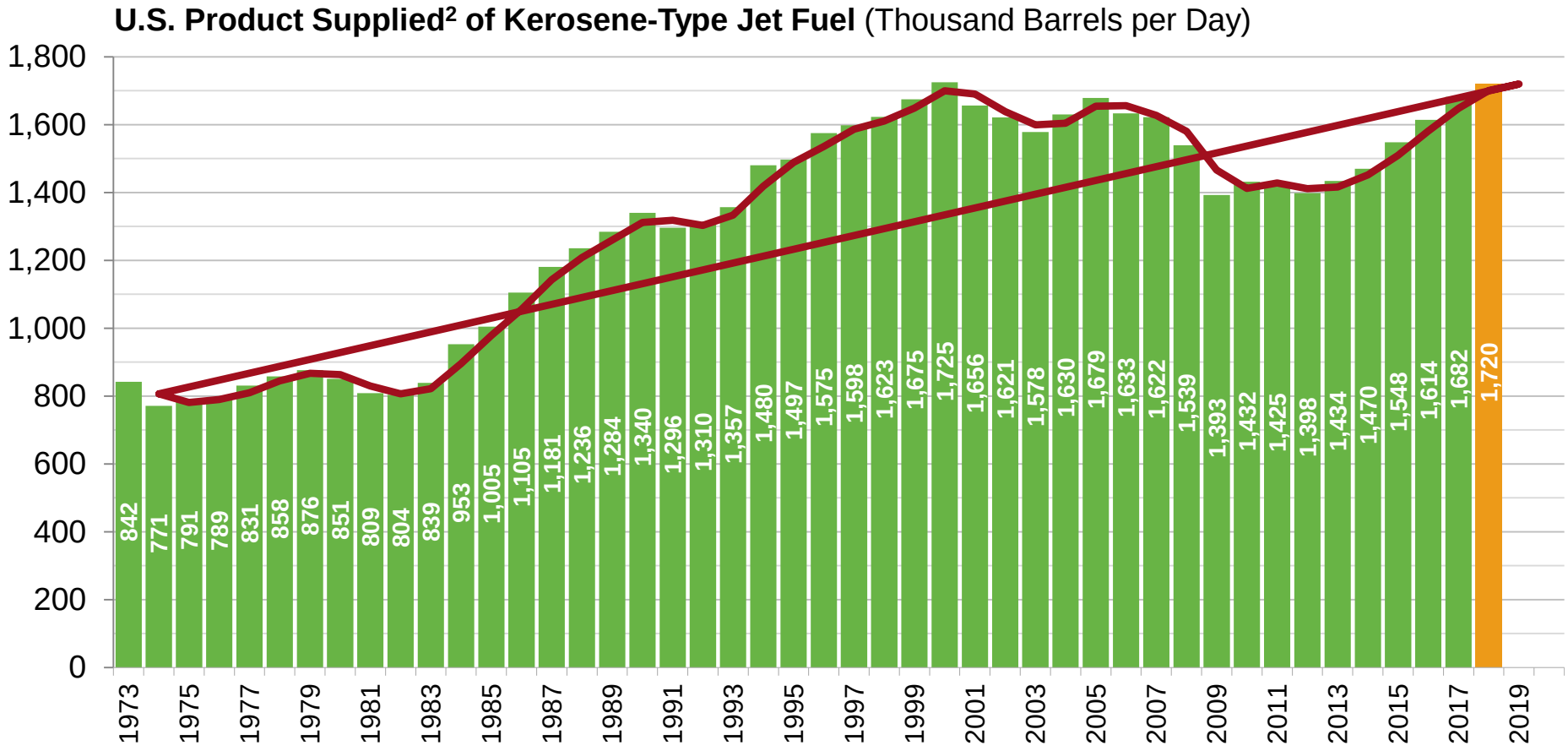
% Change in Gallons Dispensed at 65 U.S. Airports: 2007 to 2017

- Changes in law (DAL–Wright Amendment, DCA-perimeter rule)
- Airline change of hubs (AA-PIT/STL, UA-CLE, DL-MEM)
- Airline focus city growth (B6-BOS, B6/NK/WN-FLL)
- Organic economic/tourism growth (AUS, BNA, DEN, Hawaii)
- Growth of international flights (BOS, HOU, JFK, SJC)
- Amazon (cargo) effect (CVG)
- Fuel-efficiency gains (aircraft, flight mix – IAD, PDX)



Source: A4A Fuel Portal

Total U.S.-Based Jet Fuel Demand[1] Back to 2000 All-Time High



[1] Jet fuel supplied within the United States to all users (i.e., U.S. and foreign airlines, recreational and business aviation, civilian government, military)

[2] Per EIA, approximates consumption by measuring the disappearance of these products from primary sources (i.e., refineries, natural gas processing plants, blending plants, pipelines, bulk terminals). Generally computed as follows: field production, plus renewable fuels and oxygenate plant net production, plus refinery and blender net production, plus imports, plus net receipts, plus adjustments, minus stock change, minus refinery and blender net inputs, minus exports.

Source: U.S. Energy Information Administration

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