



**Airlines for America<sup>®</sup>**

**We Connect the World**

# Industry Review: Allocating Capital to Benefit Customers, Employees and Investors

Updated December 12, 2019

<http://airlines.org/dataset/a4a-presentation-industry-review-and-outlook/>

<http://airlines.org/blog/the-nature-and-status-of-u-s-airline-competition-beyond-the-80-percent-rhetoric/>

<https://atwonline.com/aeropolitics/op-ed-how-lower-aviation-fuel-taxes-boost-local-economies>

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“This is probably the best time in modern history in which to fly.”

Michael Taylor, Sr. Director, Travel & Hospitality Intelligence, J.D. Power (May 29, 2019)

Source: <https://www.usatoday.com/story/travel/flights/2019/05/29/j-d-powers-best-airlines-customer-satisfaction-2019-southwest-jetblue-alaska/1256499001/>

# U.S. Airlines\* Facilitate the Safe and Rapid Movement of People and Goods Worldwide

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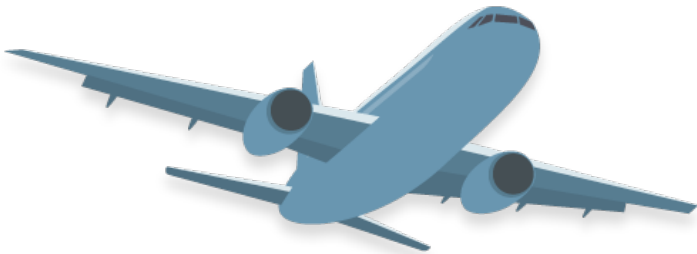
Over 740,000 **direct employees**



2.4 million **passengers** per day



28,000 worldwide **flights** per day



58,000 tons of **cargo** per day



Source: A4A and Bureau of Transportation Statistics

\* Includes passenger/combination and cargo-only carriers

# Contents

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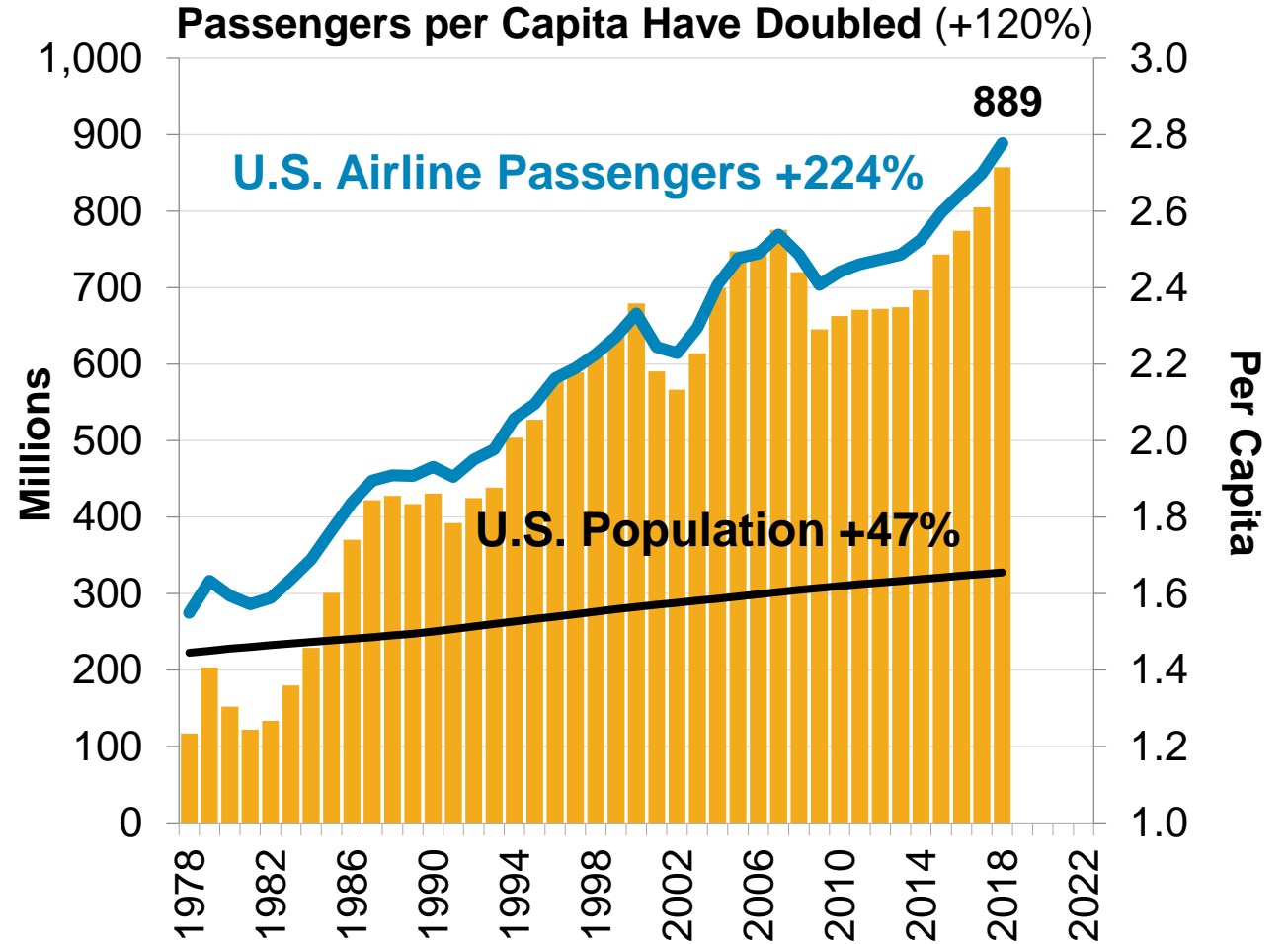
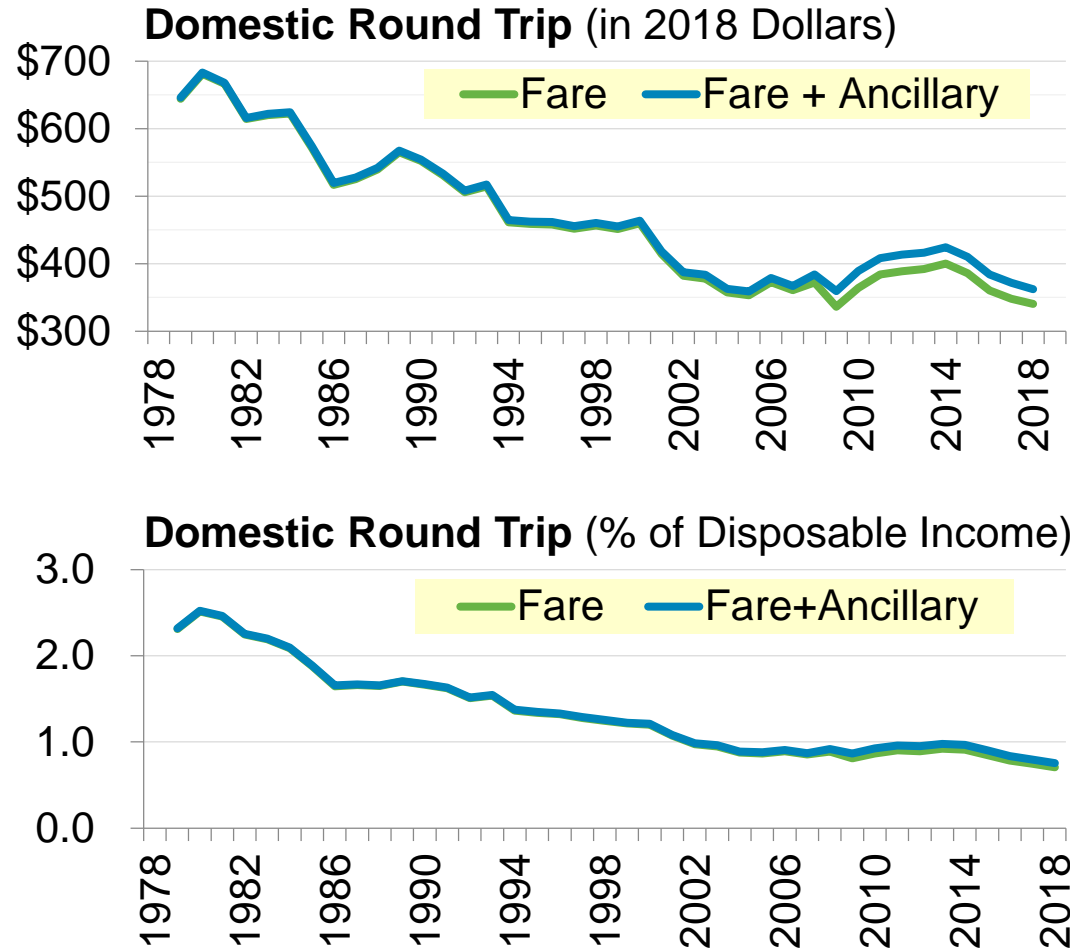
## » Core

- » Trends in Traffic, Fares, Operations and Financial Performance
- » Initiatives to Improve Profitability
- » Affordability, Competition and Access to Air Travel
- » Reinvestment in People and Product
- » Customer Satisfaction

## » APPENDIX

# As Real Airfares Have Plunged, Growth in Flyers = 4.7x Growth in U.S. Population

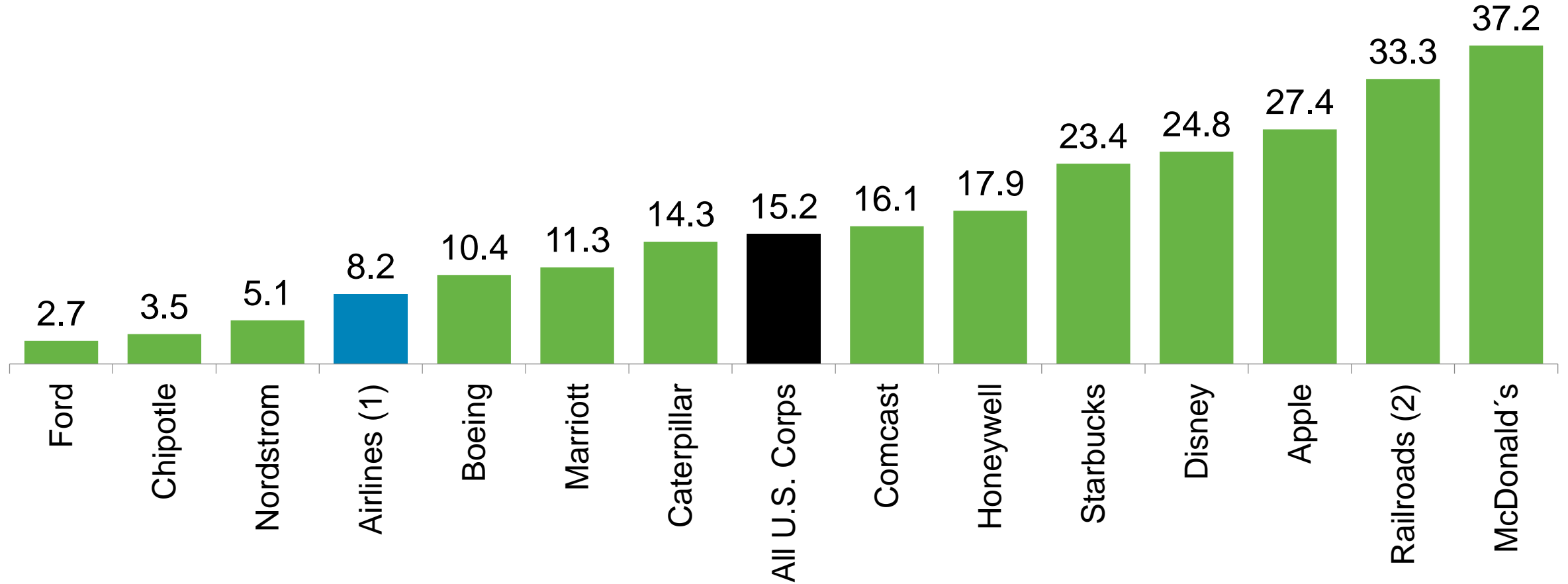
Ancillary Services Included, 2018 Domestic Air Travel Was ~44% Cheaper Than in 1980



Source: Bureau of Economic Analysis, Bureau of Labor Statistics and Bureau of Transportation Statistics (DB1B via Airline Data Inc. and T1 scheduled service for U.S. airlines)

# In 2018, U.S. Airline\* Profitability Was a Little Over Half the U.S. Average

Pre-Tax Profit Margin (% of Operating Revenues)

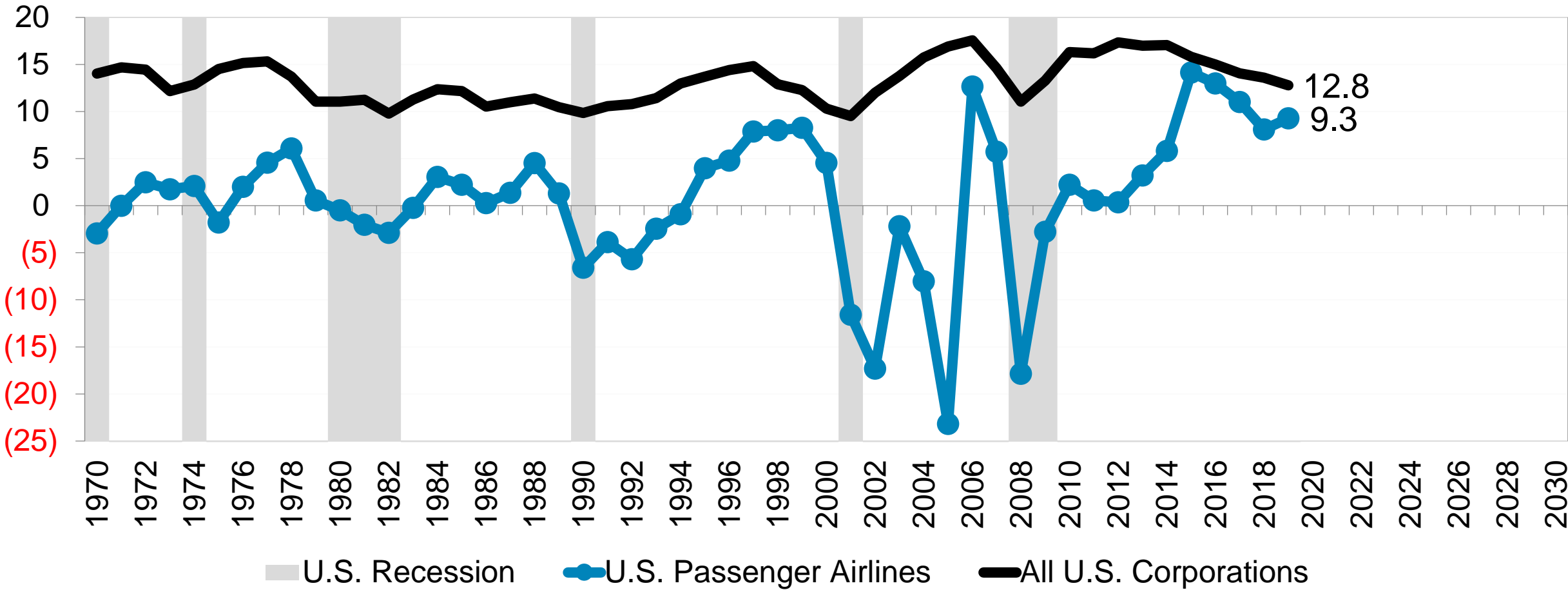


Source: Company SEC filings

<sup>1</sup> Alaska, Allegiant, American, Delta, Hawaiian, JetBlue, Southwest, Spirit and United  
<sup>2</sup> CSX, Norfolk Southern and Union Pacific

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

Pre-Tax Profit Margin (%) *Gap Widened in 2016-2018*

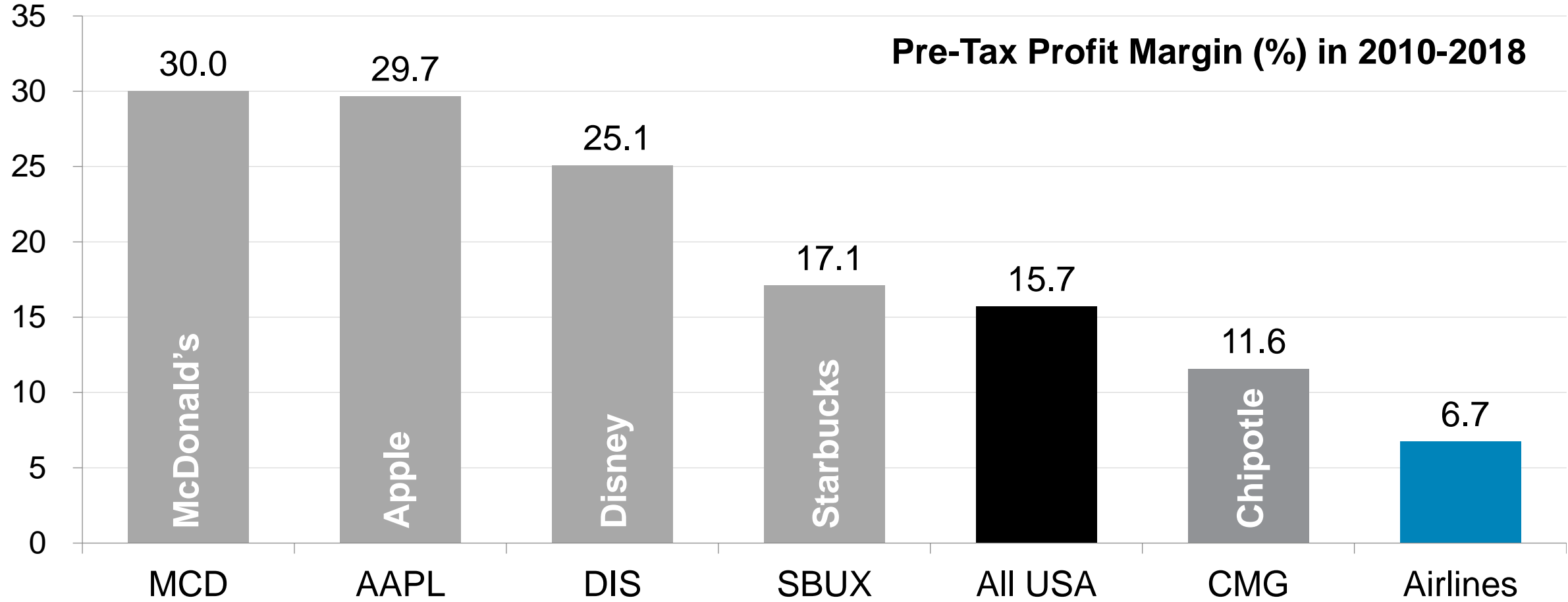


Source: ATA Annual Reports (1970-1976), A4A Passenger Airline Cost Index (1977-present); Bureau of Economic Analysis

Note: Recessions highlighted in gray

# U.S. Airlines Continue to Strive for Solid Profitability Across the Business Cycle

In Current U.S. Business Cycle, Airline Margins Are Less Than Half the U.S. Average



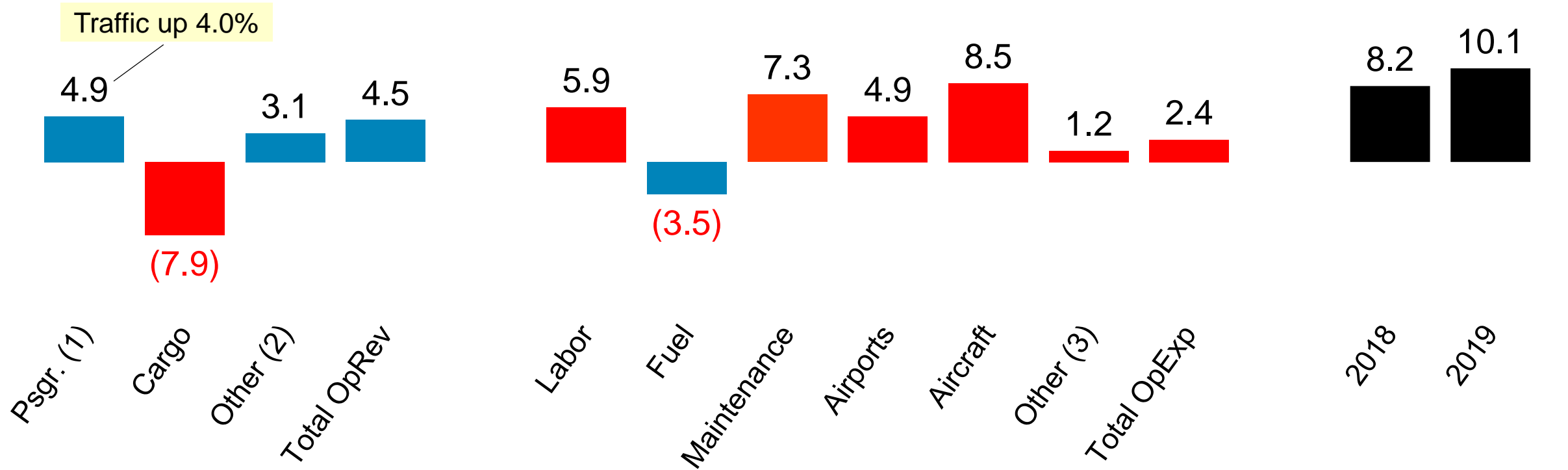
Sources: U.S. Bureau of Economic Analysis, A4A Passenger Airline Cost Index and company SEC filings



# In First Nine Months of 2019, U.S. Airlines Saw Average Profit Margin Rise 1.9 Points

## Strong Travel Demand Helped Offset Cargo Weakness and Continued Cost Pressure

### Change (%) in Operating *Revenues* and *Expenses*: YTD3Q19 vs. YTD3Q18



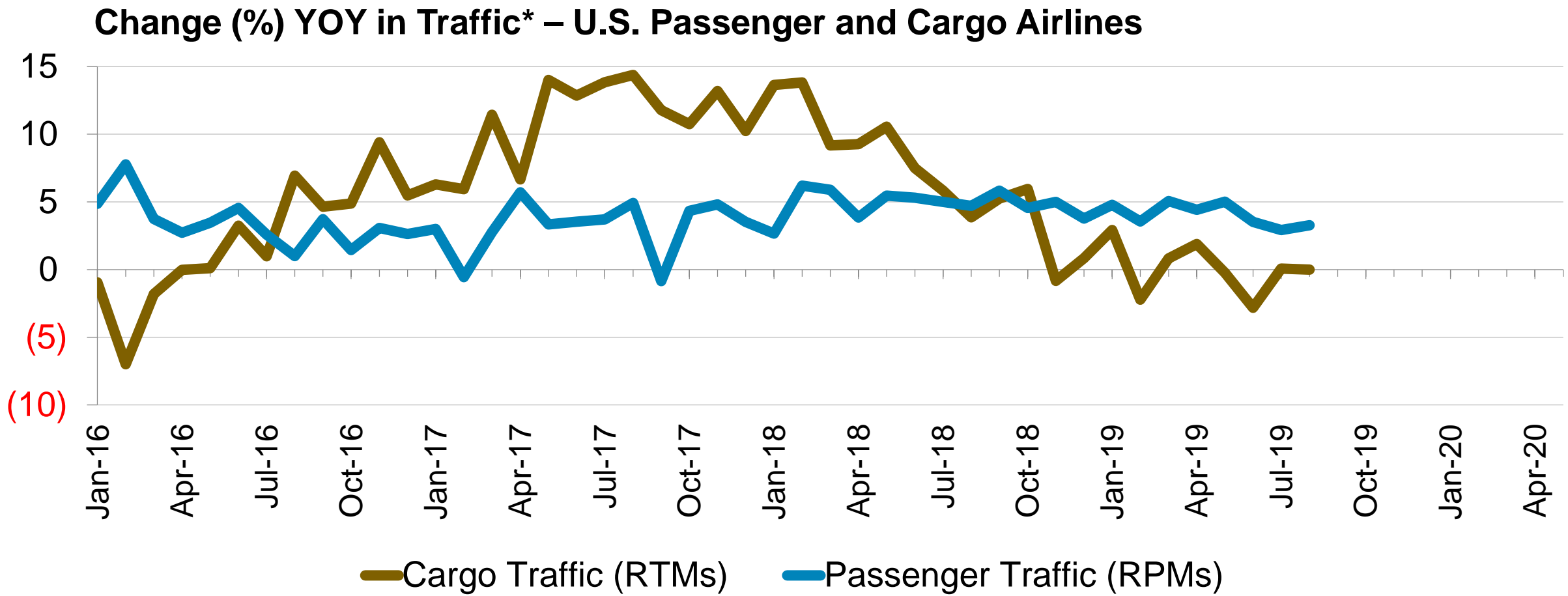
1. Traffic = revenue passenger miles; yield = revenue per passenger-mile flown; U.S. CPI up 1.7 percent

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. Aircraft rents, professional fees, food/beverage, insurance, commissions, GDS fees, communications, advertising, utilities, office supplies, crew hotels, payments to regionals

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

# U.S. Airline Passenger Traffic Holding Steady, But Air Cargo Volumes Have Weakened

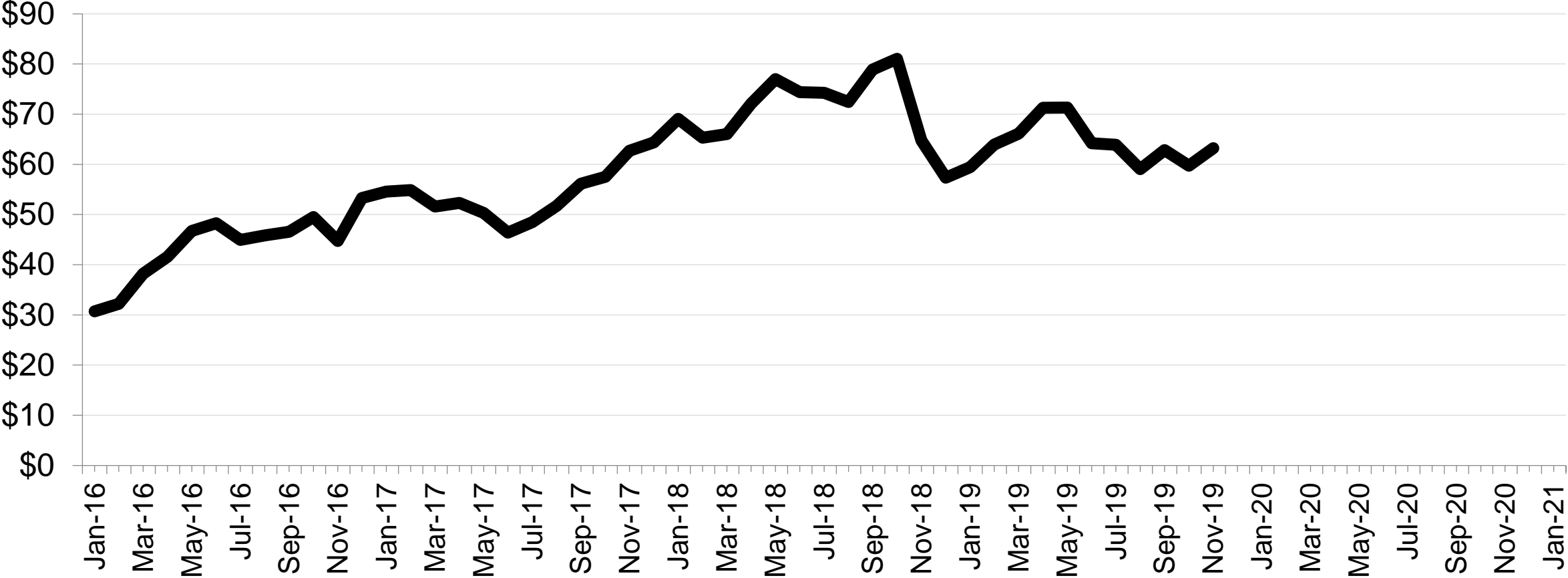


Sources: Bureau of Transportation Statistics T1 all services

\* RTMs = freight, mail and express revenue ton miles; RPMs = revenue passenger miles

# World Crude-Oil Prices Averaged \$64 in First 11 Months of 2019

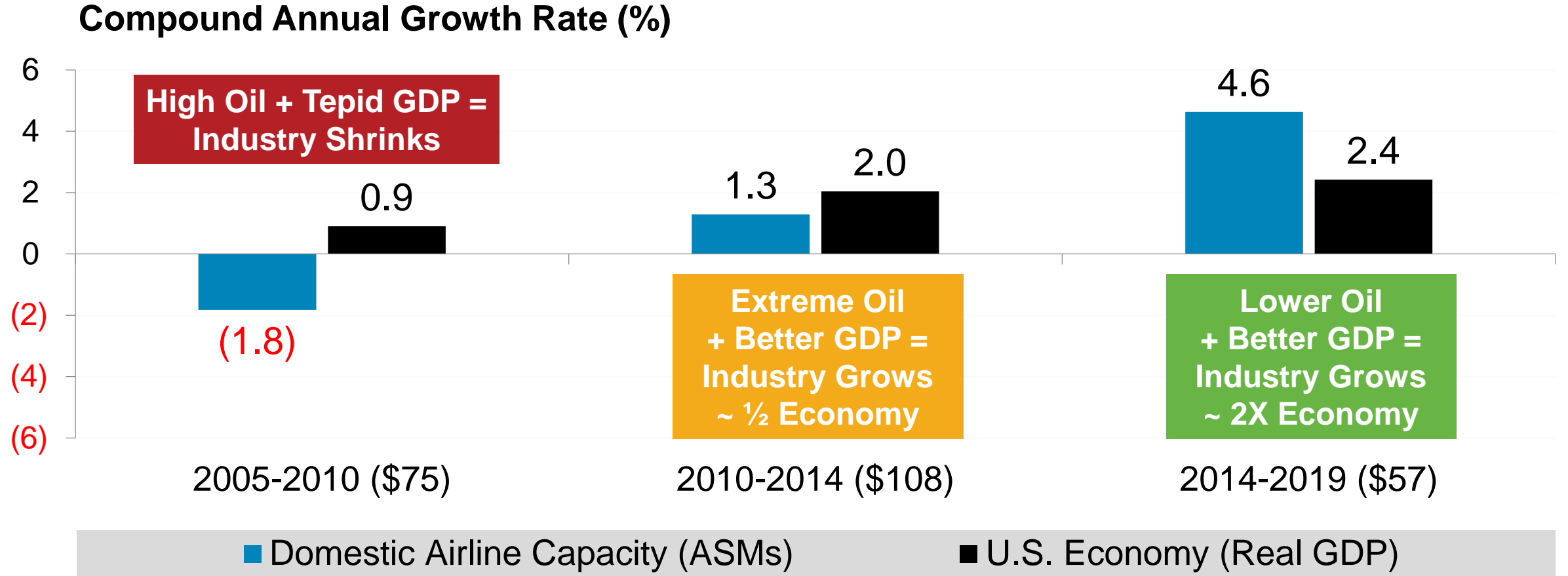
## Spot Price of Brent Crude Oil (\$ per Barrel)



Sources: A4A and Energy Information Administration ([http://www.eia.gov/dnav/pet/pet\\_pri\\_spt\\_s1\\_d.htm](http://www.eia.gov/dnav/pet/pet_pri_spt_s1_d.htm))

# For U.S. Airlines, the Price of Oil\* Is a Huge Determinant of Capacity Growth

## When Fuel Costs Decline and Finances Improve, Growth Accelerates



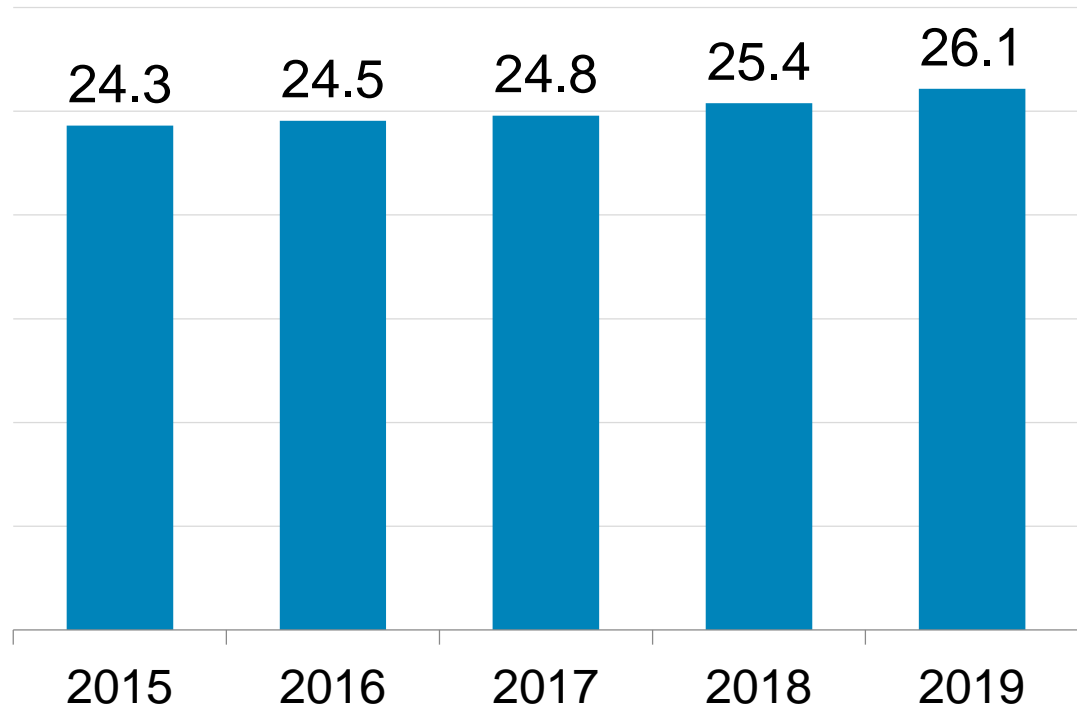
Source: Bureau of Economic Analysis, EIA, IHS Markit and published airline schedules via Diio by Cirium as of Nov. 29, 2019

\* Brent crude oil in dollars per barrel, shown next to each time period

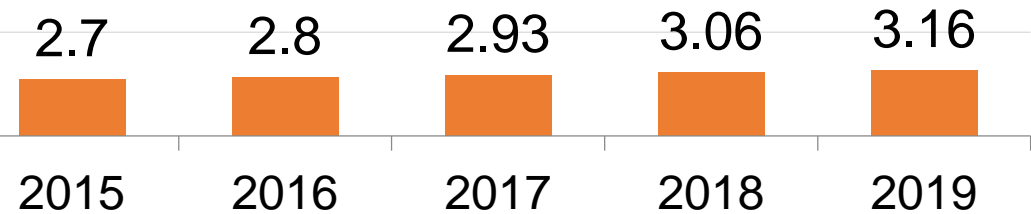
# U.S. and Foreign Airlines Offering a Record 3.16M Daily Seats From U.S. Airports

In 2019, ~2.7 Percent YOY Growth in Flights Driving ~3.5 Percent Growth in Seats

### Scheduled U.S. Airport Flights/Day (000s)



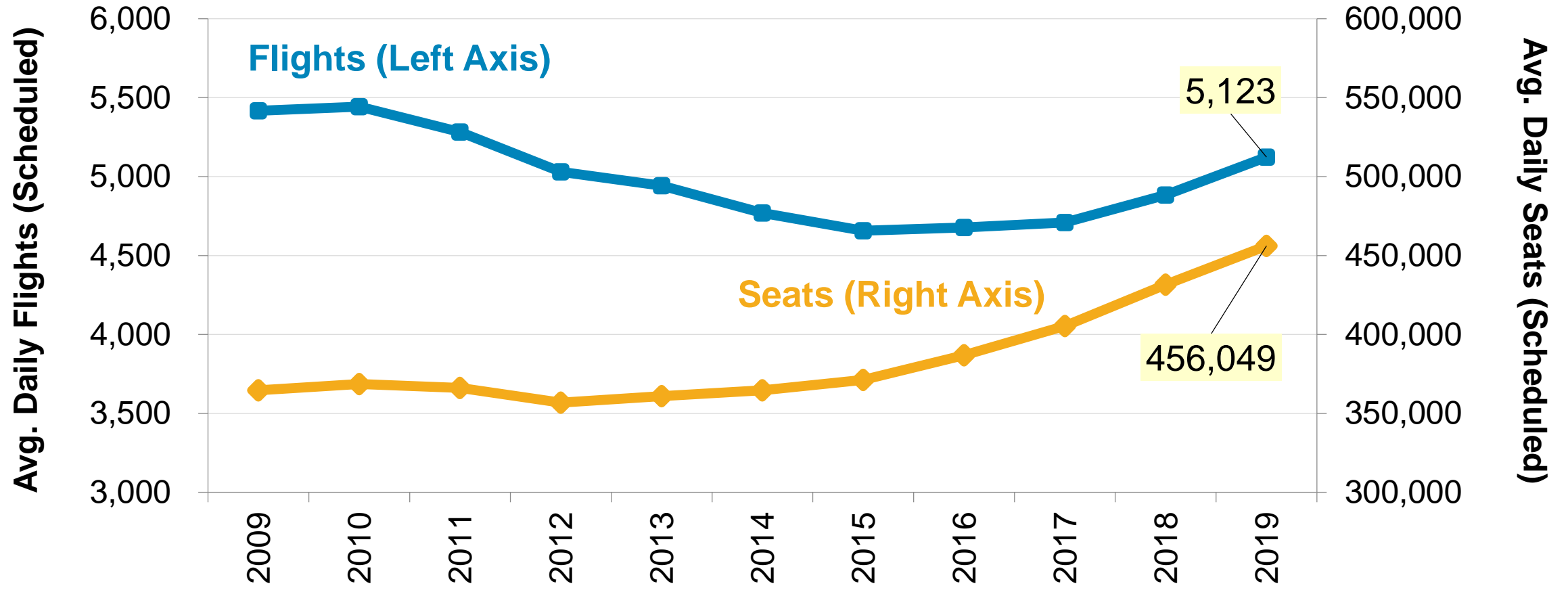
### Scheduled U.S. Airport Seats/Day (Millions)



Sources: Diio by Cirium published schedules as of Dec. 6, 2019, for all U.S. and non-U.S. airlines

# Scheduled Flights and Seats in Small Communities\* Rebounding Steadily in Recent Years

Small U.S. Airports Seeing Most Flights Since 2011, Most Seats Ever



Notes: Recession (Dec-2007–Jun-2009); FAA pilot qualification (1,500-hour) rule effective Jul-2013; pilot flight/duty/rest rule effective Jan-2014

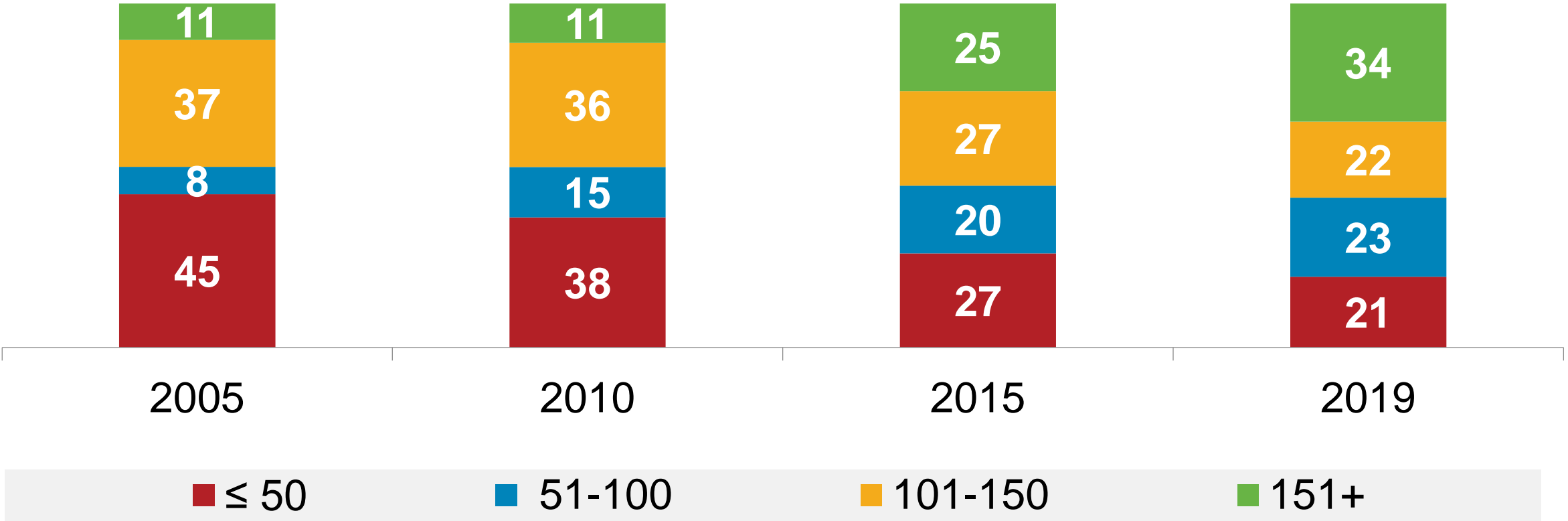
\* Per [https://www.faa.gov/airports/planning\\_capacity/passenger\\_allcargo\\_stats/categories/](https://www.faa.gov/airports/planning_capacity/passenger_allcargo_stats/categories/), U.S. airports with less than 0.25% of annual passenger boardings

Sources: Diio by Cirium published schedules as of Nov. 29, 2019, for all airlines providing scheduled passenger service from U.S. airports to all destinations

# Airlines Are Deploying Larger Aircraft, and Mainline-Only Carriers Are Growing

Regionals Now Just 43% of Domestic Departures; Over Half of Those are Large RJs

% of Domestic U.S. Departures by Aircraft Size\*



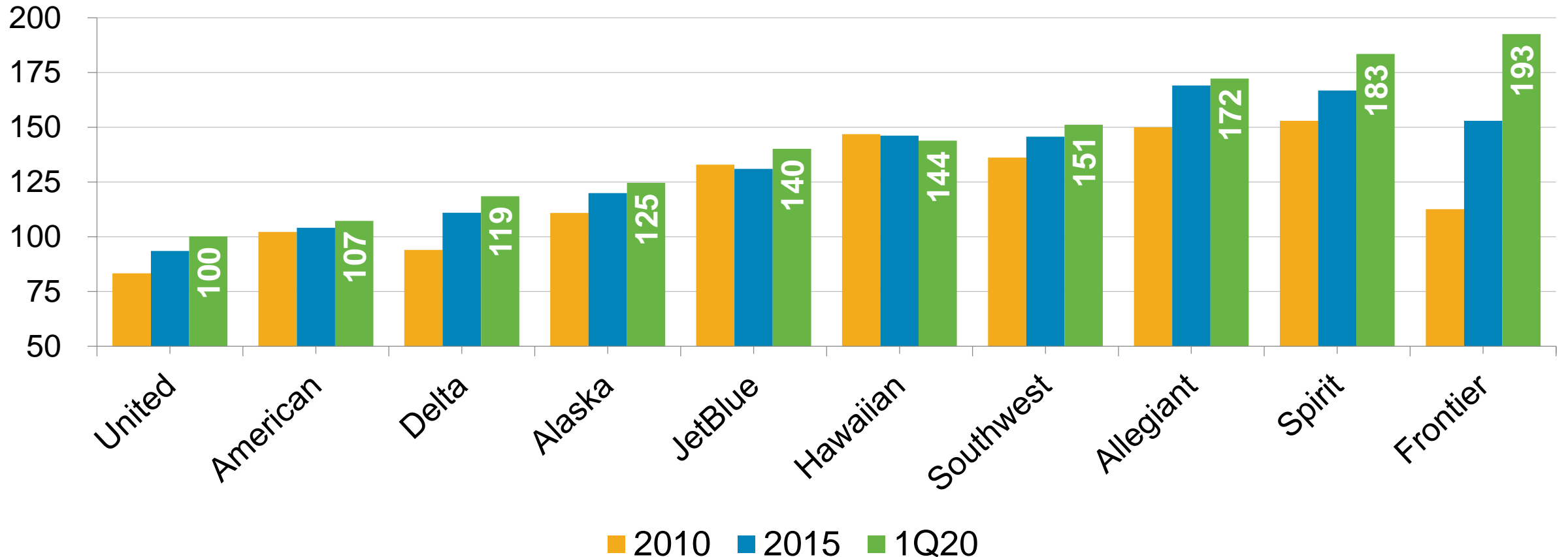
Source: Dii by Cirium published schedules as of May 13, 2019

\* Numbers may not add to 100 due to rounding

# Almost All U.S. Airlines Have Migrated to Larger Aircraft Domestically

## Ultra Low-Cost Carriers Operate the Most Seats per Domestic Flight

### Average Seats per Domestic Departure by Marketing Airline\*



Source: Diio by Cirium schedules as of Dec. 6, 2019, for selected marketing airlines

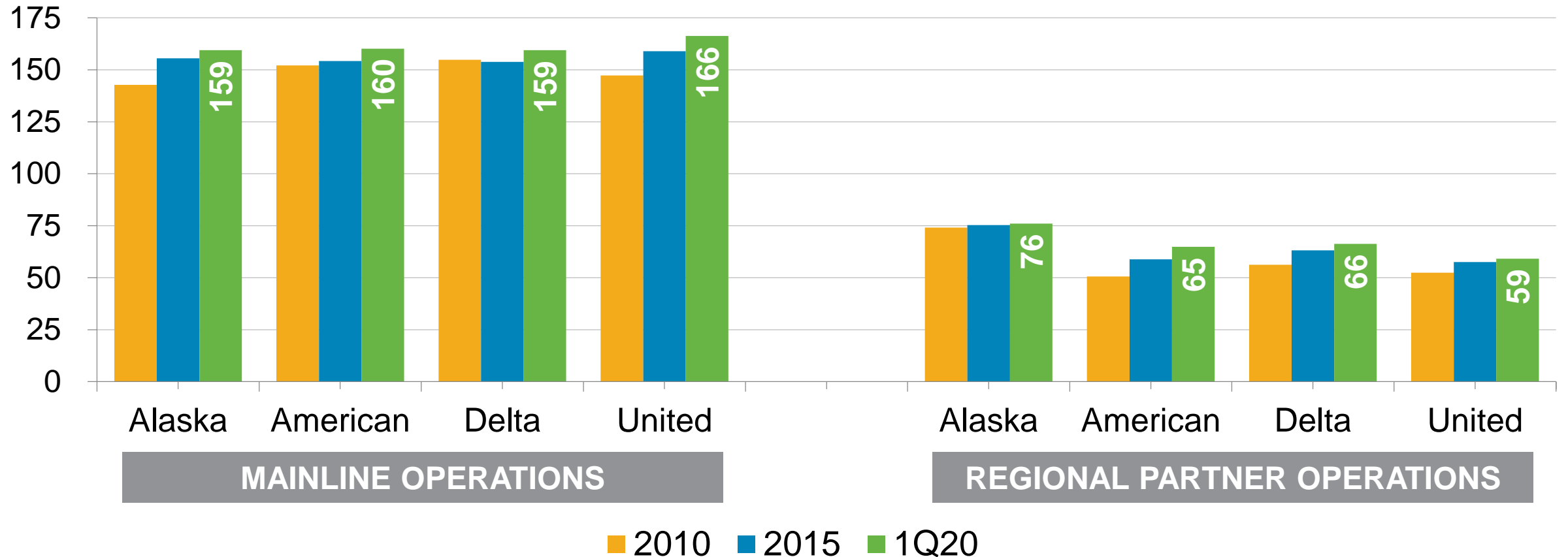
\* Includes flights operated by regional/express airline partners



# Domestically, Traditional U.S. Network Carriers Fly Similarly Sized Mainline Equipment

## Aircraft Size Varies More Widely Across Their Regional/Express Partners

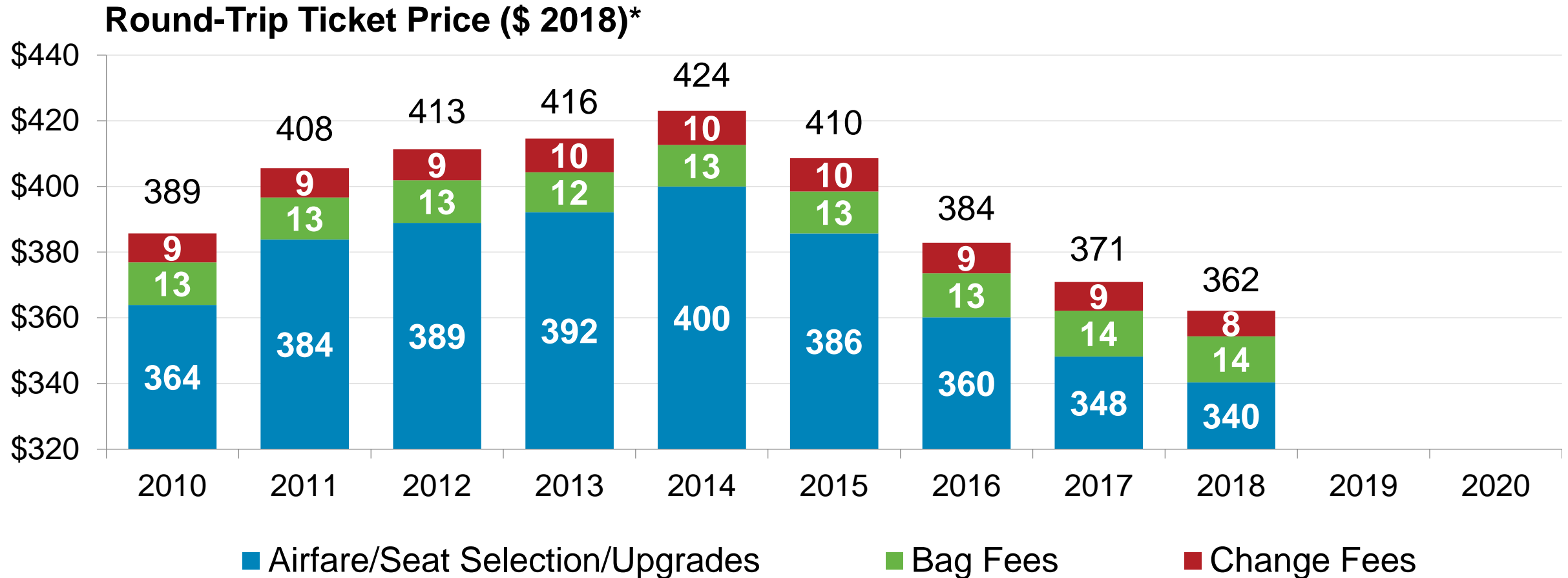
### Average Seats per Domestic Departure for Traditional U.S. Network Carriers



Source: Diio by Cirium schedules as of Dec. 6, 2019

# In 2018, Inflation-Adjusted Domestic Fares/Fees Fell for Fourth Consecutive Year

From 2010-2018, the Real Price\* of Domestic Air Travel – Including Ancillaries – Fell 6.9 Percent

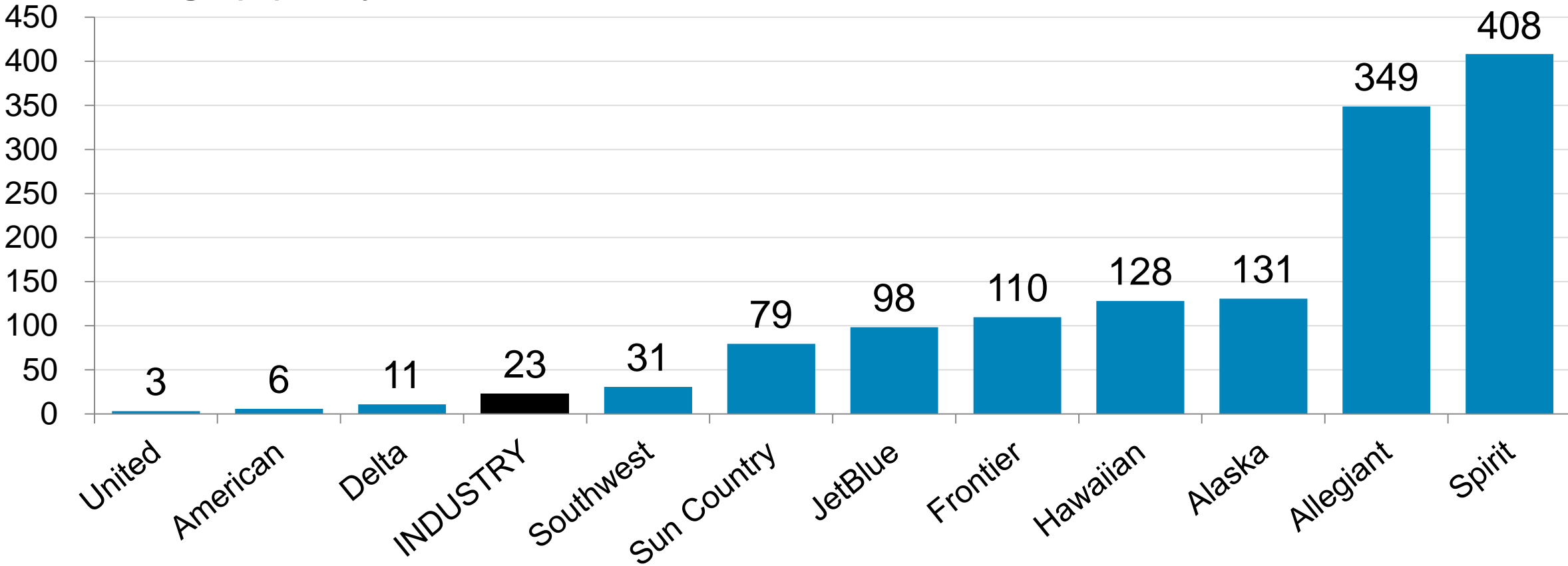


Source: A4A analysis of DOT Data Bank 1B (all cabins and fare basis codes) and DOT Form 41 via Airline Data Inc. (airlinedata.com)

\* Excludes taxes; CPI rose 2.4% YOY

**Among 11 U.S. Airline Brands, Smaller Carriers Have Been Growing the Fastest**  
*Allegiant and Spirit Are Now Four to Five Times as Large as They Were in 2007*

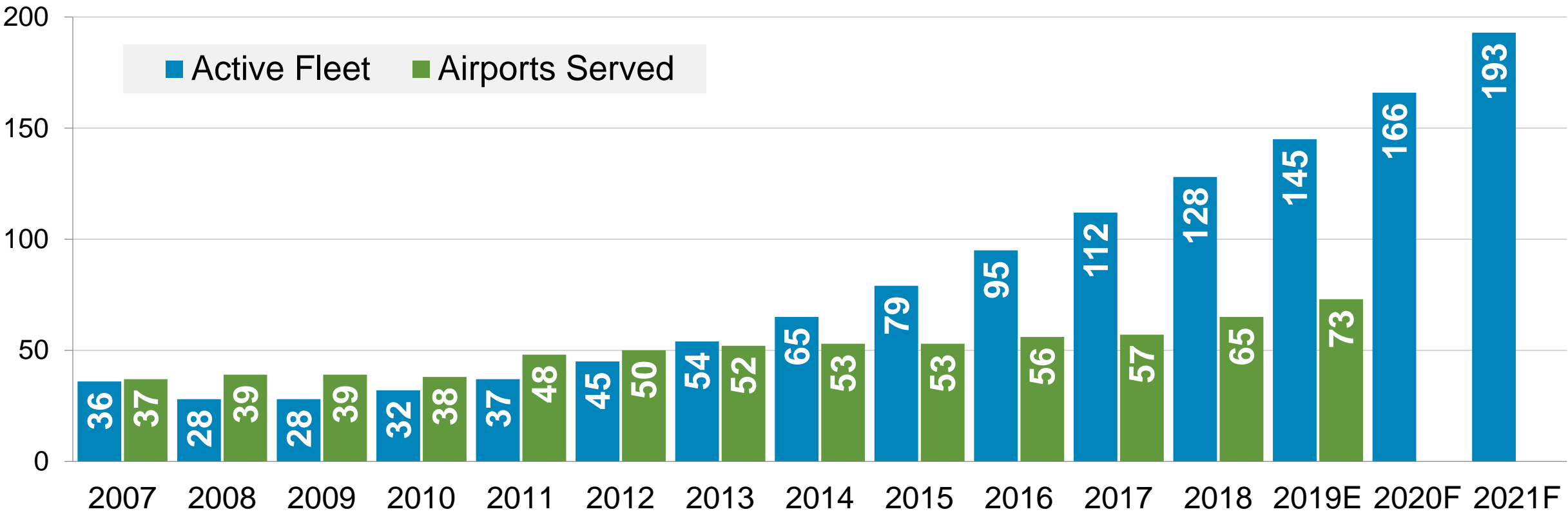
**Change (%) in Systemwide Scheduled ASMs – 2007 to 2019**



Source: Dii by Cirium schedules as of Nov. 8, 2019, for selected marketing airlines including predecessors

# Spirit Airlines Will Continue to Be the Fastest Growing U.S. Carrier for the Foreseeable Future

## Year-End Active Fleet\* and Airports Served



**On October 23, 2019, Spirit announced an MOU with Airbus for the purchase of 100 A320 family (A319neo/A320neo/A321neo) aircraft (plus 50 options) for delivery through 2027.**

Source: Fleet data from Spirit Airlines as of Oct. 23, 2019; airports served from Diio by Cirum as of Nov. 15, 2019

# The Grounding of the B737 Max, Airbus Production Delays, Changing Market Conditions and Other Considerations Have Led Several Airlines to Modify 2019 Growth Plans

**Company Guidance re: 2019 Growth (%) in Scheduled ASMs**

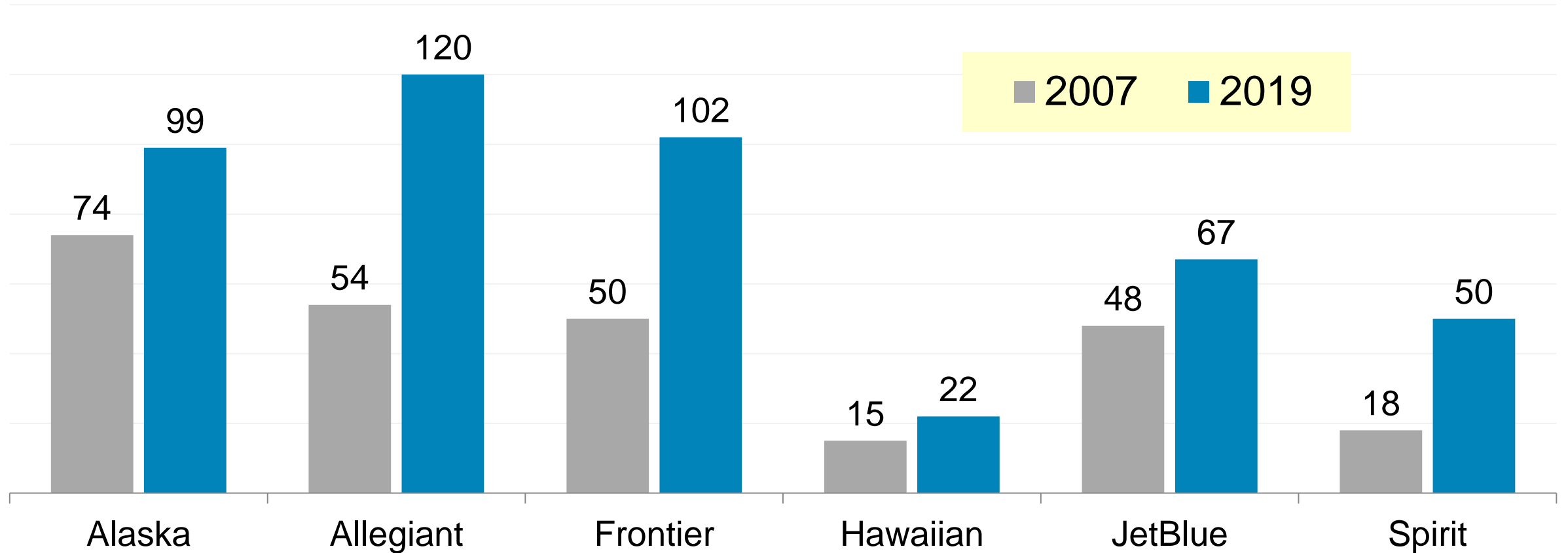
	Early 2019	10/24/19	Change
Spirit	15	14.5	--
Allegiant	7-9	8.5-8.9	--
JetBlue	4.5-6.5	6-7	↑
Delta	3	4	↑
United	4-6	3-4	↓
Hawaiian	1.5-4.5	1.9-2.4	--
Alaska	2	2.1	--
American	3	1	↓
Southwest	5	(1.5)	↓

Source: Company SEC filings

# Smaller U.S. Carriers Are Serving More and More Domestic Markets

Competitive Presence of Low-Cost and Ultra Low-Cost Carriers Continues to Expand

## Number of U.S. Airports Served\*



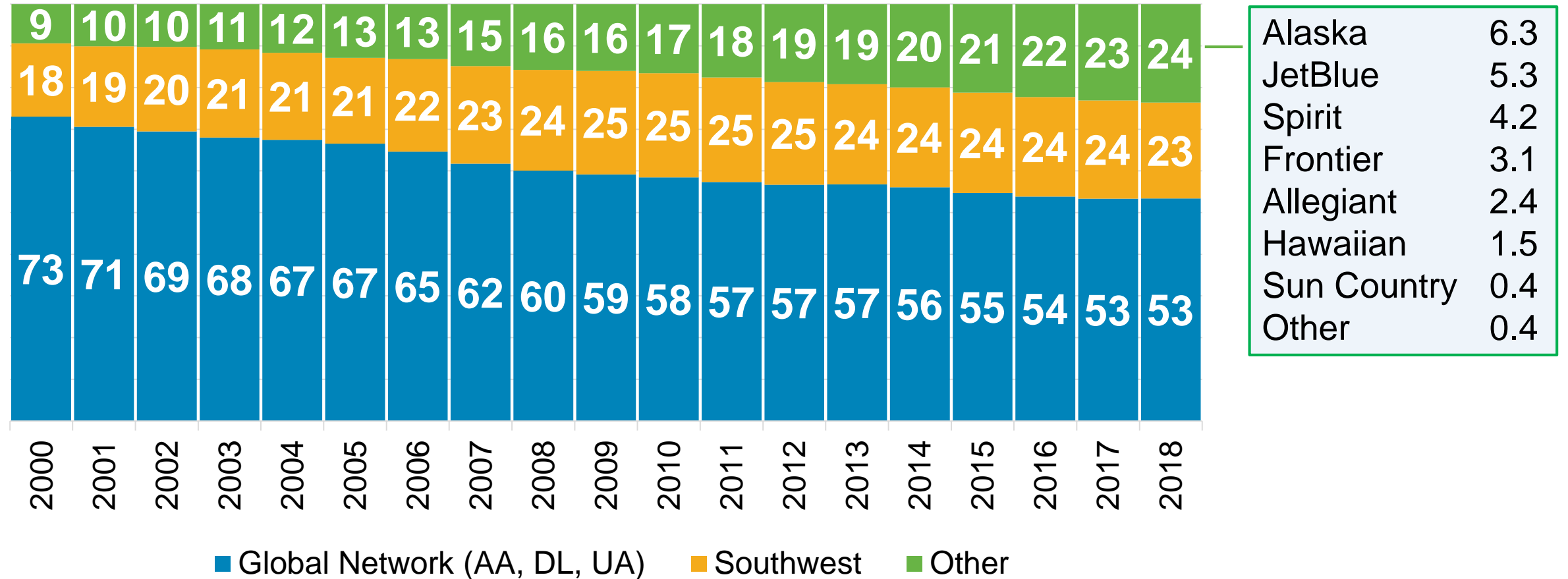
Source: Dii by Cirium schedules as of August 30, 2019, for selected marketing airlines including predecessors

\* July 15-21 of each year

# ALK/Hawaiian/JBLU/ULCCs Could Carry a Third of Domestic Passengers By 2030

Global Network Carrier Share Fell From 73 Percent in 2000 to 53 Percent in 2018

## Share (%) of U.S. Domestic O&D 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])

## LCCs/ULCCs and Other Non-AA/DL/UA Airlines\* Now Carry Significant Share of Domestic Origin-Destination (O&D) Passengers in the Largest U.S. Metro Areas

Metro Area	Airport(s)	2000	2007	2018
Atlanta, GA	ATL	14.4	28.1	28.9
Boston, MA	BOS	7.8	27.1	49.5
Charlotte, NC	CLT	0.0	8.8	10.4
Chicago, IL	MDW/ORD	26.0	30.6	35.9
Dallas/Fort Worth, TX	DAL/DFW	27.3	26.6	36.6
Denver, CO	DEN	14.7	38.8	55.0
Detroit, MI	DTW	15.0	23.3	29.7
Houston, TX	HOU/IAH	34.0	30.6	42.7
Los Angeles, CA	BUR/LAX/LGB	35.8	43.7	50.8
Miami, FL	FLL/MIA	19.1	35.5	45.2
Minneapolis/St. Paul, MN	MSP	12.7	14.6	29.7
New York, NY-NJ	EWR/JFK/LGA	8.5	25.8	29.8
Orlando, FL	MCO/SFB	24.2	52.3	66.2
Philadelphia, PA	PHL	6.6	28.0	28.8
Phoenix, AZ	PHX	39.4	46.5	52.0
St. Louis, MO	STL	26.5	35.5	61.3
Salt Lake City, UT	SLC	23.3	34.2	30.5
San Diego, CA	SAN	48.5	55.0	63.4
San Francisco, CA	OAK/SFO	33.9	45.0	52.2
Seattle, WA	SEA	51.4	57.0	63.8
Tampa, FL	TPA/PIE	29.2	48.6	61.6
Washington, DC	BWI/DCA/IAD	17.5	35.7	46.0

Source: Compass Lexecon and A4A analysis of DOT Origin-Destination Survey (Data Bank 1B)



# Competitive Choices for Domestic Flyers Have Continued to Increase

Contrary to Some Assertions, Traffic Analysis Shows More Competitors on U.S. City Pairs

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## Average Number of Competitors\* on All Reported Domestic U.S. Itineraries



\* Carrying at least 5 percent of O&D passengers in the city pair; average number of competitors is passenger-weighted across city pairs

Source: Compass Lexecon analysis of DOT Origin-Destination Survey (Data Bank 1B)

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# Competition in Select City Pairs: Airline Share of O&D Passengers in 2018 vs. 2007

## Competitive Presence of Low-Cost and Ultra Low-Cost Carriers Continues to Expand

### Los Angeles (BUR/LAX/LGB)-Seattle

	<u>2007</u>		<u>2018</u>
Alaska	63.7	Alaska	56.4
United	17.1	Delta	20.6
Southwest	7.9	JetBlue	6.3
American	6.5	Southwest	6.0
		American	5.7

### Boston-Cleveland/Akron

	<u>2007</u>		<u>2018</u>
Continental	63.2	JetBlue	48.5
AirTran	29.5	United	25.7
		Spirit	13.4
		American	5.1
		Delta	5.1

### Chicago (MDW/ORD)-Sacramento

	<u>2007</u>		<u>2018</u>
United	45.1	Southwest	37.4
Southwest	41.8	United	34.1
US Airways	5.0	American	24.1

### Memphis-Orlando (MCO/SFB)

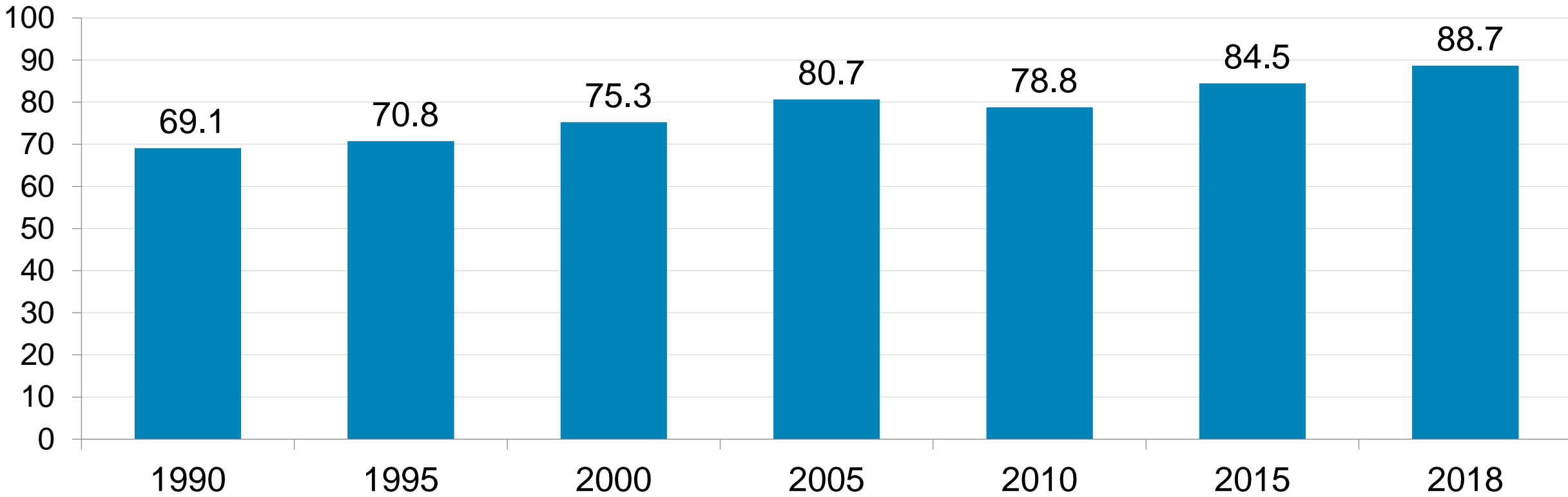
	<u>2007</u>		<u>2018</u>
Northwest	60.6	Southwest	44.9
AirTran	22.2	Delta	16.2
Frontier	8.7	Frontier	16.2
Delta	5.6	Allegiant	15.0
		American	5.8

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

# Nonstop Service Is Available in More Domestic Air-Travel Markets Than Ever Before

Share of Busiest Markets With Nonstop Service Rose From 69 Percent in 1990 to 89 Percent in 2018

Share (%) of Top 2000 Domestic Markets (Origin-Destination Airport Pairs) With Nonstop Service\*



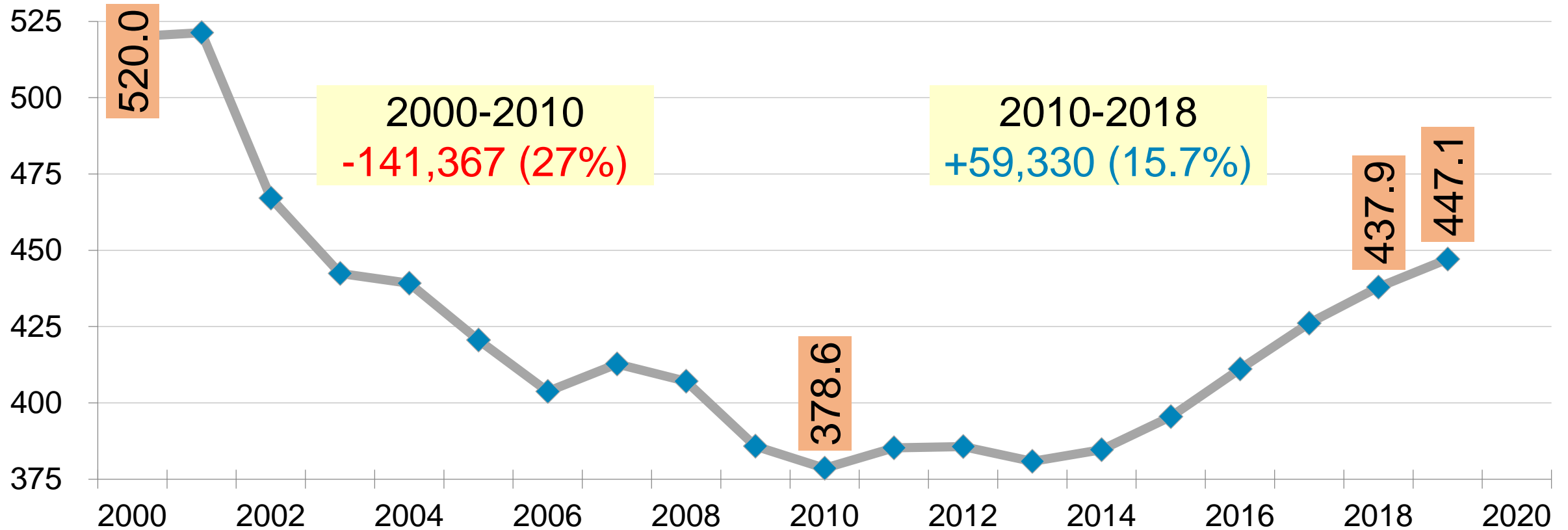
Source: Compass Lexecon analysis of DOT O&D traffic data, OAG schedule data, and T100 and Form 298C traffic data

\* Top 2000 markets accounted for 81% of domestic O&D passengers in 2018

# U.S. Passenger Airline Jobs Averaging Highest Level Since 2002

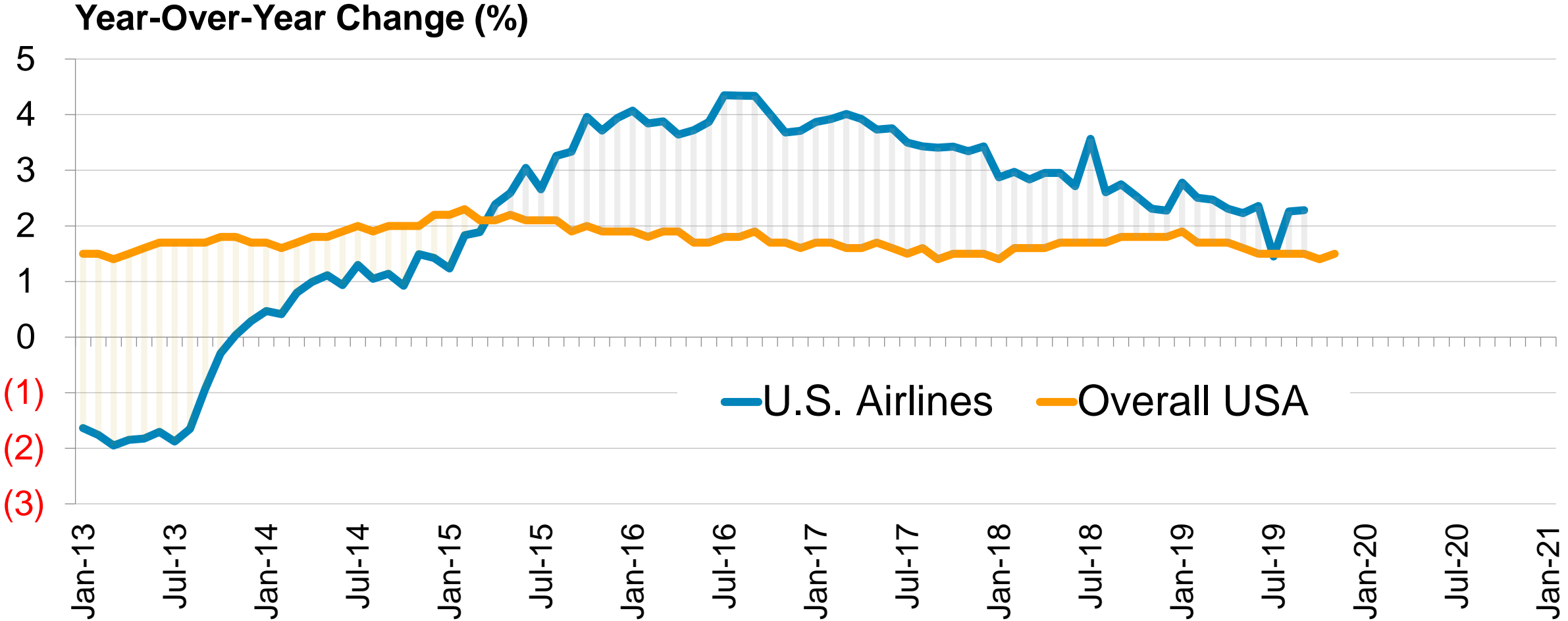
September 2019 Represented the **71<sup>st</sup> Consecutive Month** of YOY Gains

## U.S. Scheduled Passenger Airline Full-Time Equivalent Employees (000s)



Source: Bureau of Transportation Statistics for scheduled U.S. passenger airlines

# U.S. Airline Job Growth Continues to Outpace Overall U.S. Job Growth

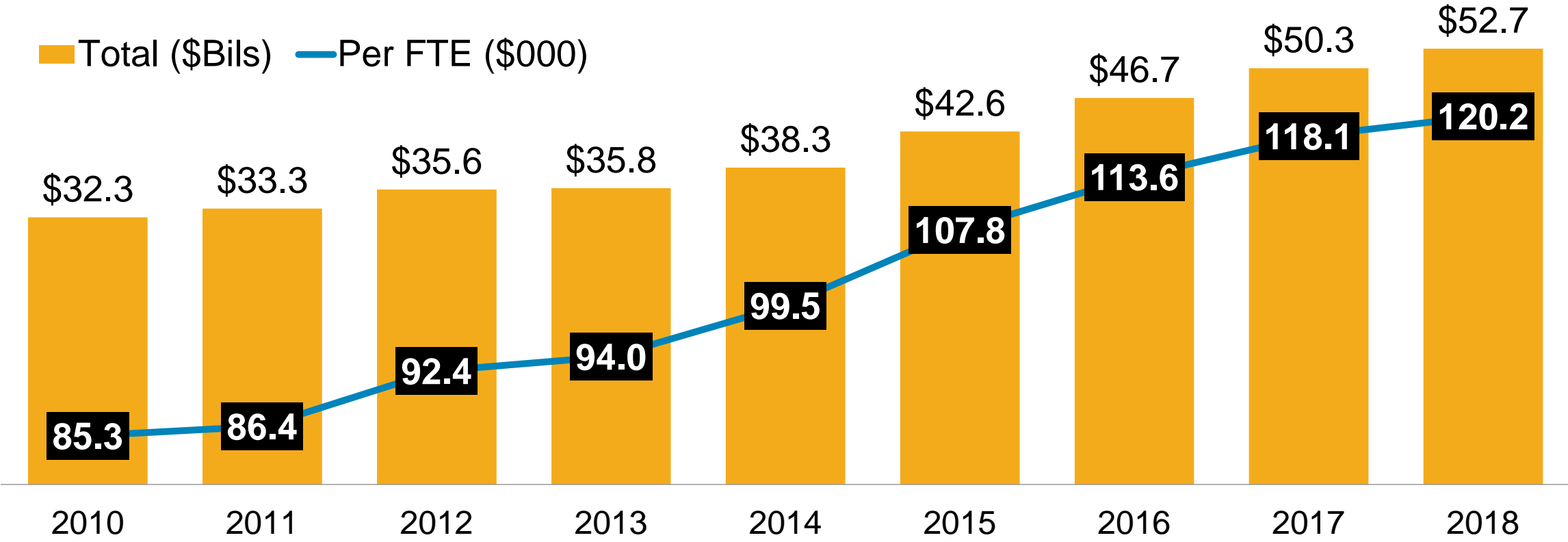


Source: Bureau of Labor Statistics (U.S. nonfarm employment, CES0000000001) and Bureau of Transportation Statistics (U.S. scheduled passenger airline FTEs)

# U.S. Passenger Airlines Spent \$53 Billion on Employee Wages & Benefits in 2018

Average Compensation per Employee Rose Approximately \$35K (41 Percent) From 2010-2018

## Employee Wages and Benefits



Source: A4A Passenger Airline Cost Index

# From 2010-2018, U.S. Airlines Plowed 75 Percent of Operating Cash Flow Back Into the Product While Retiring \$79 Billion in Debt and Returning \$48 Billion in Cash to Shareholders

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2010-2018	Total	Per Passenger	% of Ops CF
Retire Debt	\$78.8B	~\$12	49%
Enhance the Product*	\$120.9B	~\$18	75%
Reward Shareholders	\$47.5B	~\$7	29%

Source: SEC filings of Alaska, Allegiant, American, Delta, Hawaiian, JetBlue, Southwest, Spirit, United and merged/acquired predecessors

\* Capital expenditures

# U.S. Airlines Have Been Spending Billions on Planes/Facilities/Ground Equipment/Technology Collectively, Passenger Carriers Took Delivery of One New Aircraft per Day in 2017-2019

## Capital Expenditures (Billions) for U.S. Passenger Airlines

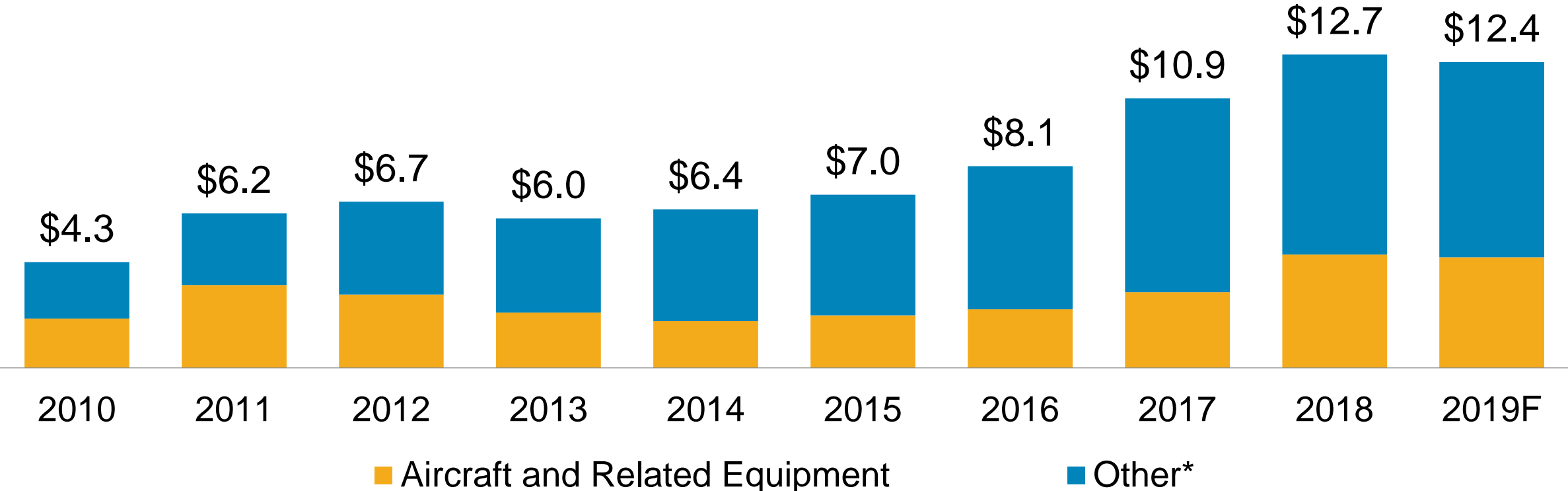


\* Includes payments made for aircraft and other flight equipment, ground and other property and equipment (e.g., vans, air stairs, lavatory trucks, deicing vehicles), airport and other facility construction and information technology  
 Source: SEC filings of Alaska, Allegiant, American, Delta, Hawaiian, JetBlue, Southwest, Spirit, United and merged/acquired predecessors



# Investments in Aircraft, Facilities, Ground Vehicles and IT on the Rise for U.S. Cargo Airlines

## Capital Expenditures (Billions) for Atlas/FedEx/UPS



Source: SEC filings of Atlas, FedEx and UPS

\* Facilities, vehicles, information technology, package handling and ground support equipment

# Airline-Airport Collaboration Has Paved Way for Widespread Infrastructure Investment

## More Than \$200B of Airport Infrastructure Development Across the USA Since 2008

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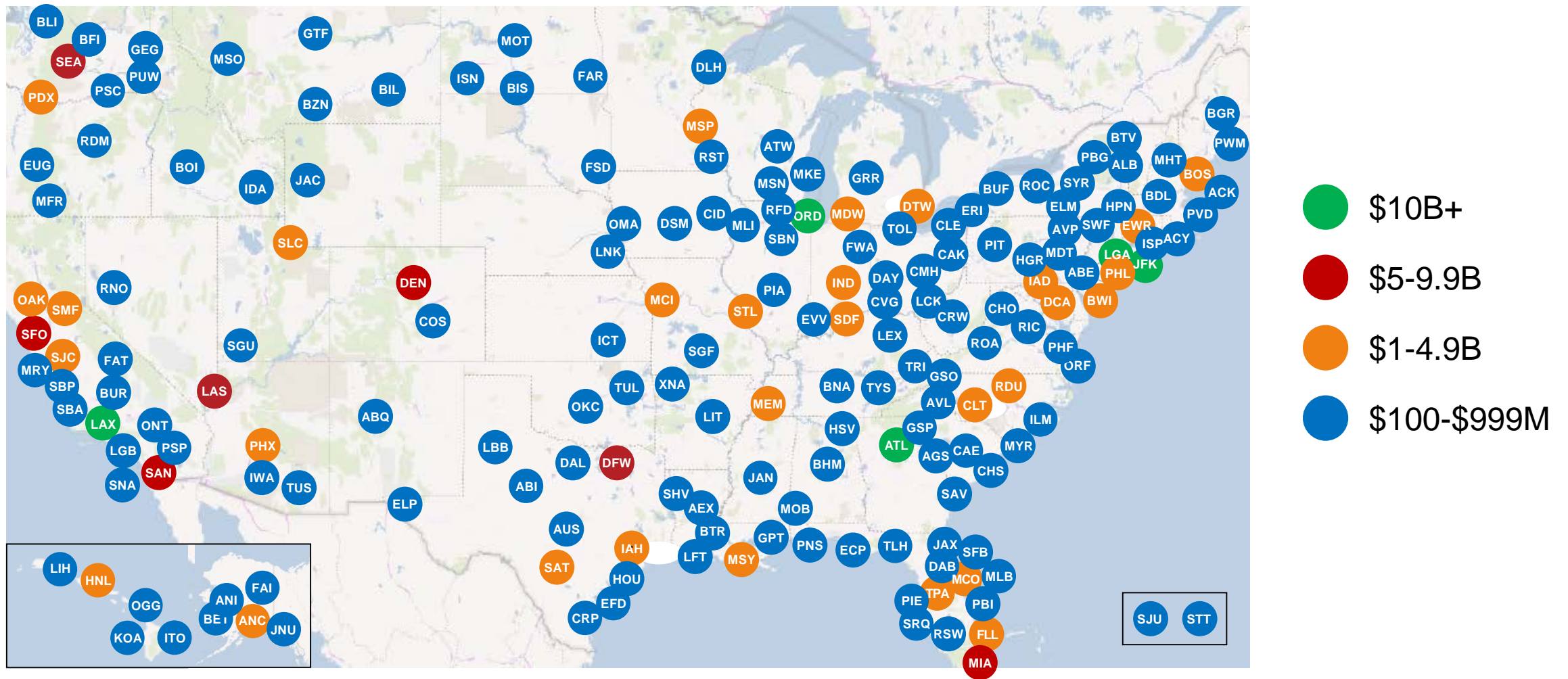
- » New, expanded or **modernized terminal facilities** at Atlanta, Bangor, Boston, Charlotte, Chicago (ORD), Dallas (DAL and DFW), Denver, Eugene, Everett, Grand Rapids, Greenville-Spartanburg, Honolulu, Houston (IAH), Kansas City, Las Vegas, Los Angeles, Miami, Nashville, Newark, New Orleans, New York (JFK and LGA), Oakland, Orlando, Pasco, Phoenix, Portland, Reno-Tahoe, Salt Lake City, San Antonio, San Diego, San Francisco, San Luis Obispo Seattle, Washington (DCA) and Wichita
- » 27 airfield capacity projects including **new runways** at Charlotte, Chicago (ORD), Fort Lauderdale, Seattle and Washington (IAD) and **airfield projects** at Anchorage, Columbus, Des Moines, El Paso, Manchester, Philadelphia, Providence and Sioux Falls
- » Investment in **cargo** and **maintenance infrastructure** is also robust, including projects in Baltimore, Cedar Rapids, Charlotte, Chicago (ORD), Cincinnati, Denver, Des Moines, Fort Worth, Greensboro, Indianapolis, Lafayette, Louisville, Memphis, Miami, Newark, Ontario, Phoenix, Rockford and Tampa
- » In 2018 alone, airlines and airports together invested a record \$14.7 billion on U.S. airport capital projects – up 16 percent from 2017 and 43 percent from 2016

Source: A4A research and FAA Form 127 reports filed by U.S. airports

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# Airport Investment Is Booming Across the United States

## U.S. Airports With Capital Improvements Exceeding \$100M From 2001-2018



Source: FAA Form 127 reports (capital expenditures and construction in progress) and A4A research; note: large hub airports include projects underway or approved

## Fitch Ratings: Skies Remain Friendly for U.S. Airports

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“...**strong overall performance for U.S. airports should continue undeterred for the foreseeable future** according to Fitch Ratings in its latest annual peer review for the sector...”

Fitch-rated airports are still **largely entrenched in ‘A’ territory**. ‘**Airports in general are showing a lot of resilience** as the industry continues to evolve and event-driven challenges from the broader economy take shape,’ said Senior Director Seth Lehman. ‘**Over 90% of the airports Fitch rates currently have a Stable Rating Outlook, which signifies continued stability deep into next year.**’

**GDP growth and general airline health remain the most important revenue gauges for airports**, though rising rates could make borrowing debt more expensive for airports with a **substantial pipeline of investments on the horizon.**”

-- Fitch Ratings: “Skies Remain Friendly for U.S. Airports” (Oct. 29, 2018)

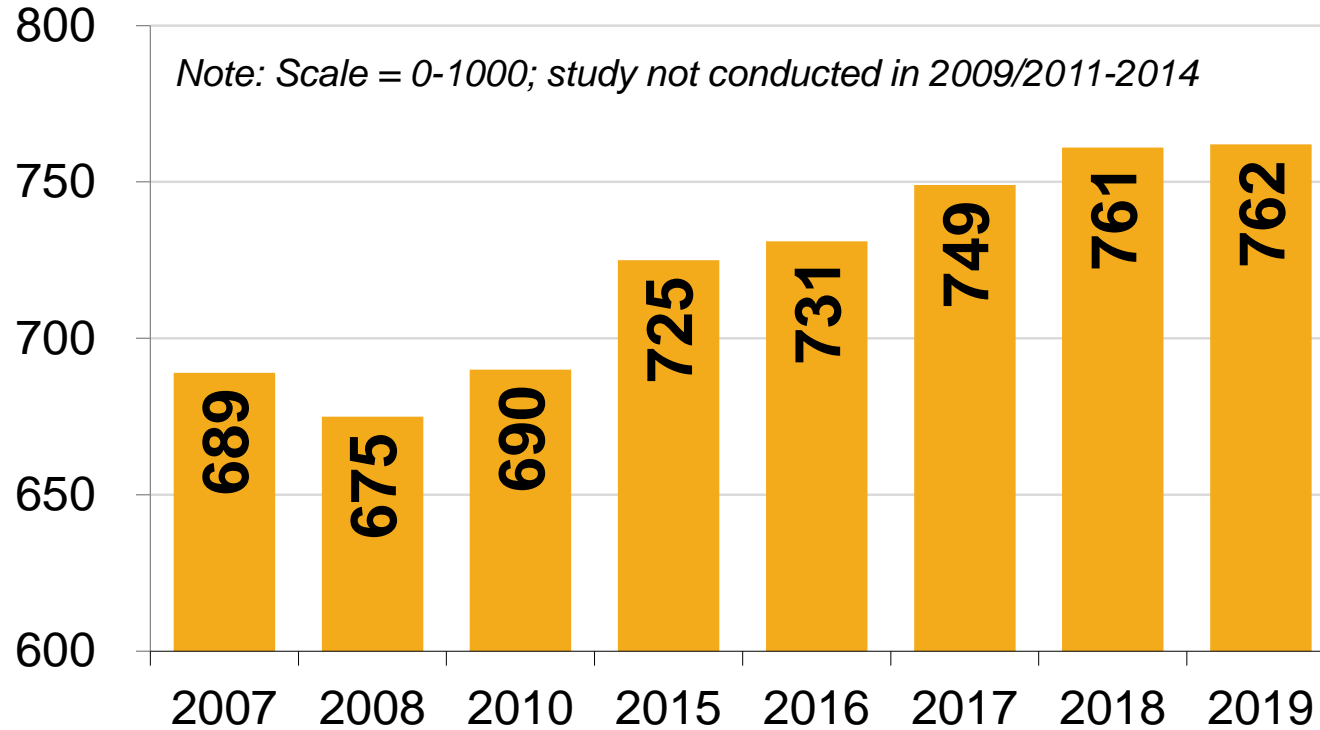
Source: <https://www.fitchratings.com/site/pr/10049679> and Peer Review of U.S. Airports (Attribute Assessments, Metrics and Ratings), Oct. 29, 2018

# J.D. Power: North America Airport Satisfaction\* Climbs to Record High

Latest Results Released Sept. 25, 2019



“Scaffolding and cranes are official welcome signs to several North American airports these days as record passenger volumes force **major expansion efforts.**”



## Six factors (in order of importance):

- Terminal Facilities\*
- Airport Accessibility
- Baggage Claim
- Security Check
- Check-In / Baggage Check
- Food / Beverage / Retail

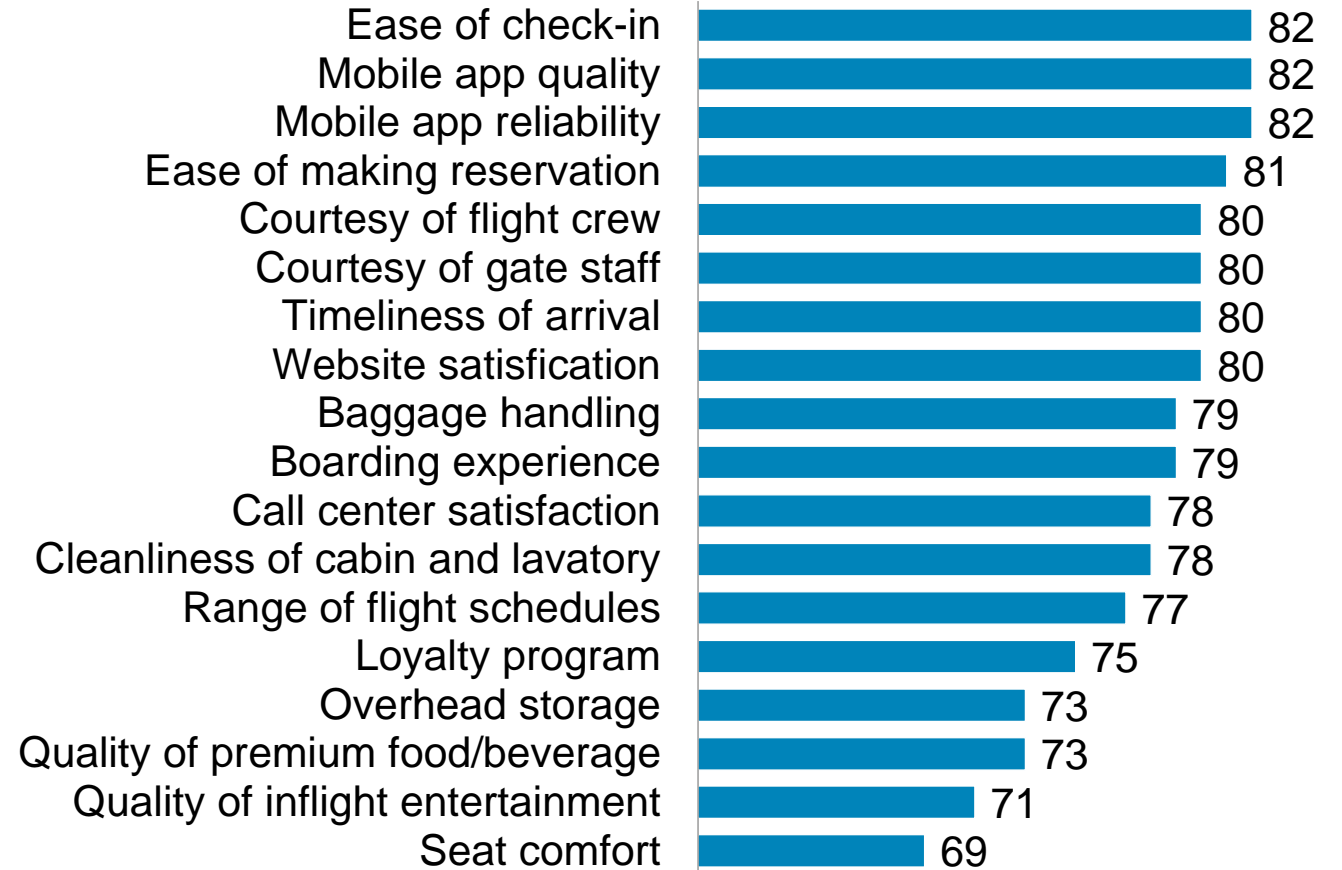
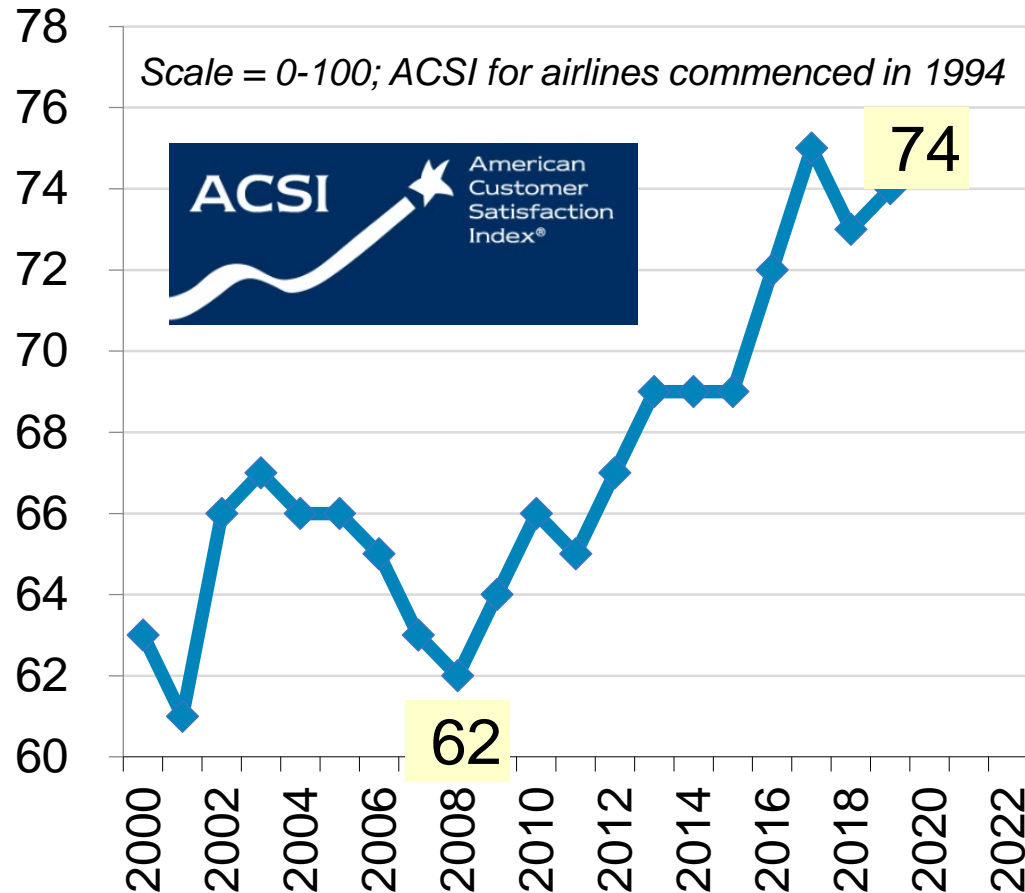
\* Concourses, lounges, signage, restrooms, gate areas

\* Now in its 14<sup>th</sup> year, the study is based on responses from 32,276 U.S. or Canadian residents who traveled through at least one U.S. or Canadian airport and covers both departure and arrival experiences (including connecting airports) during the past three months. Travelers evaluated either a departing or arriving airport from their round-trip experience. The study was fielded from October 2018 through September 2019..

Source: : J.D. Power North America Airport Satisfaction Study<sup>SM</sup>

# ACSI 2019 Airline Customer Satisfaction Index: Second Best in 25-Year History

## Ease of Booking and Checking in for Flight Rank Highest



Note: ACSI and its logo are Registered Marks of the University of Michigan; see <http://www.theacsi.org/the-american-customer-satisfaction-index>

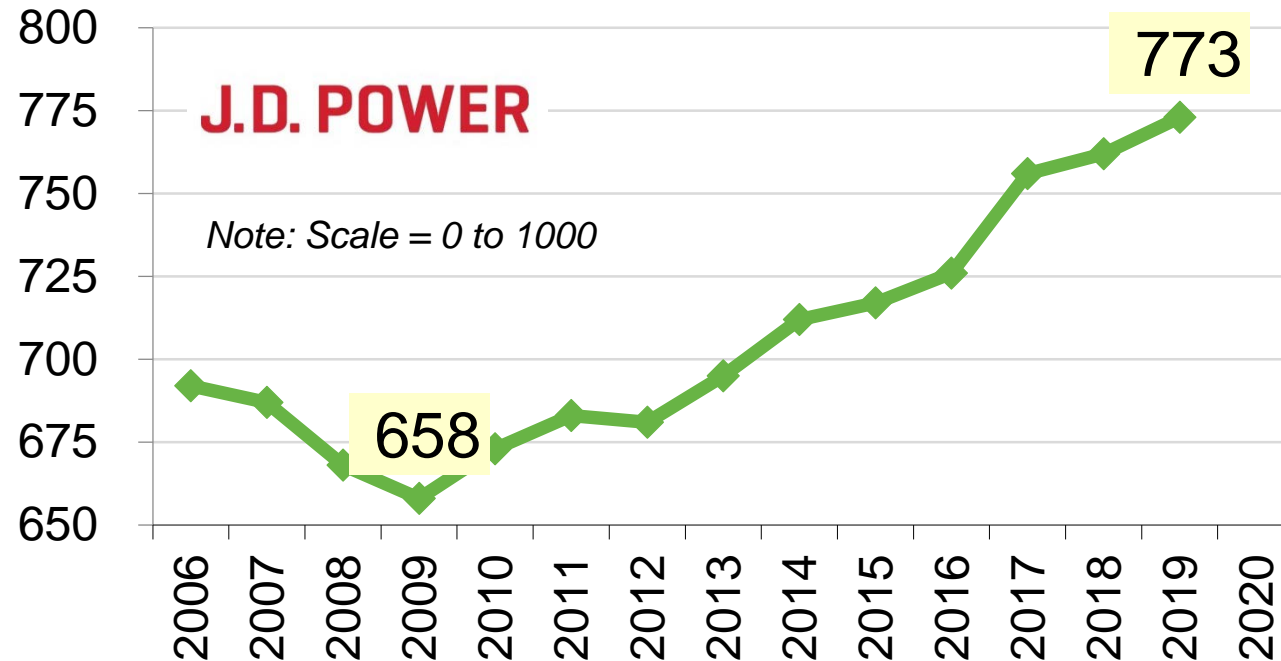
Source: ACSI Travel Report 2018-2019 (April 30, 2019)

# J.D. Power: North America Airline Customer Satisfaction Climbs to Record High

Latest Results Released May 29, 2019

“**Airlines continue to deliver on the operational side of air travel.** New **technology investments** have dramatically improved the reservation and check-in process. **Fleets are newer** and travelers generally feel that they are getting **great value** for their money. These improvements have been most profound in the traditional carrier segment, where **customer satisfaction has climbed considerably.**”

— Michael Taylor, J.D. Power (May 29, 2019)



## Seven factors (in order of importance):

- Cost and fees
- In-flight services (food/beverage/IFE)
- Aircraft
- Boarding/deplaning/baggage
- Flight crew
- Check-in
- Reservation

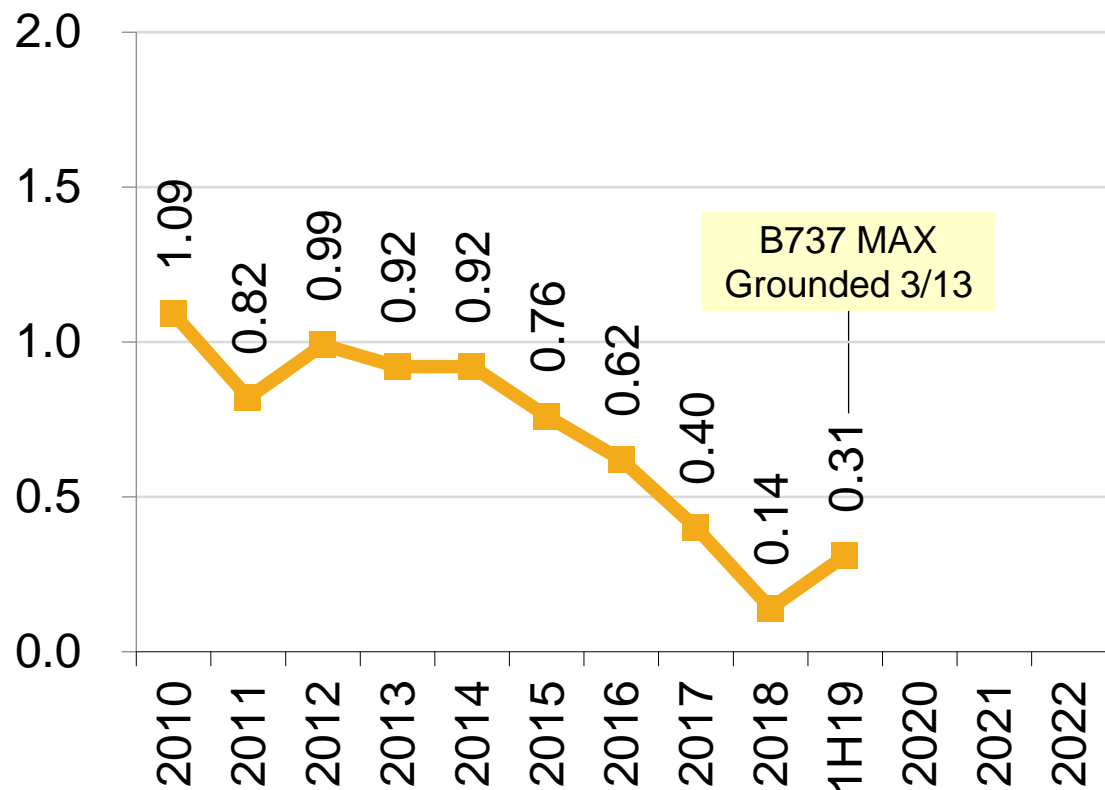
Notes: The study is based on responses from 5,966 passengers who flew on a major North American airline between March 2018 and March 2019.

Source: : J.D. Power North America Airline Satisfaction Study<sup>SM</sup>

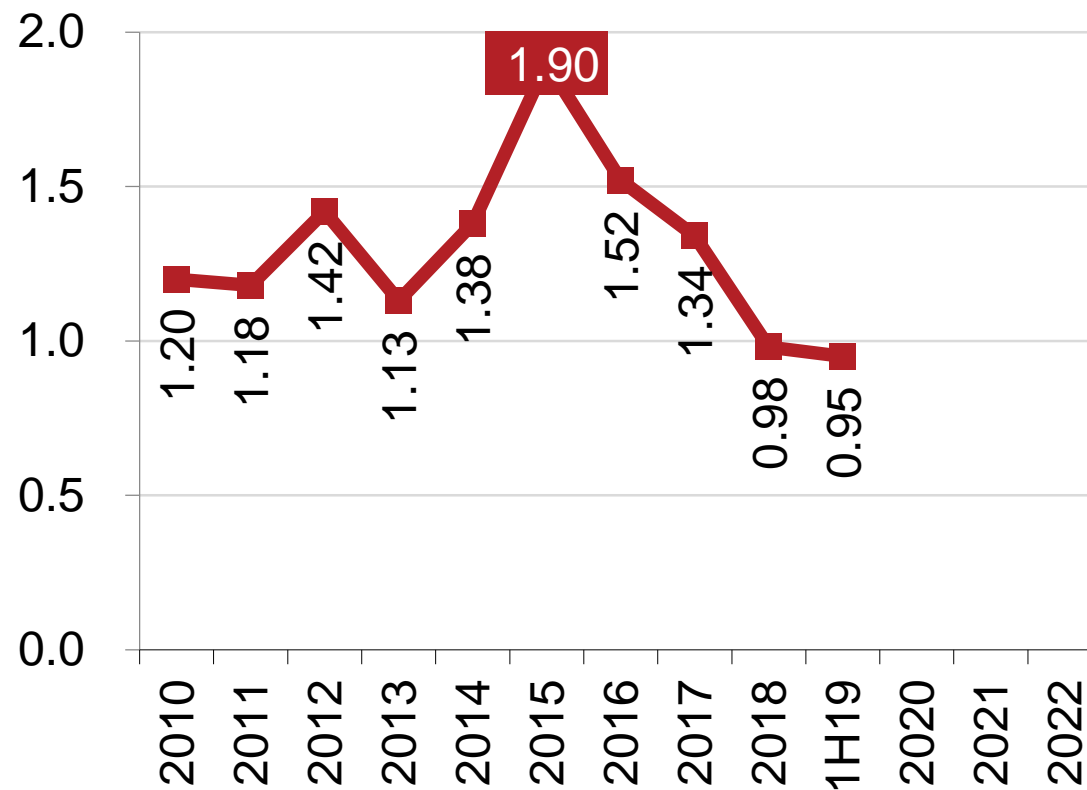
# Involuntary Denied Boardings and Customer Complaints Have Been Trending Down

## Grounding of B737 MAX Largely Responsible for Anomalous 1H 2019 Increase

### Involuntary Denied Boardings per 10K Pax\*



### DOT Customer Complaints per 100K Pax\*



Source: DOT Air Travel Consumer Report (<http://www.dot.gov/airconsumer/air-travel-consumer-reports>)

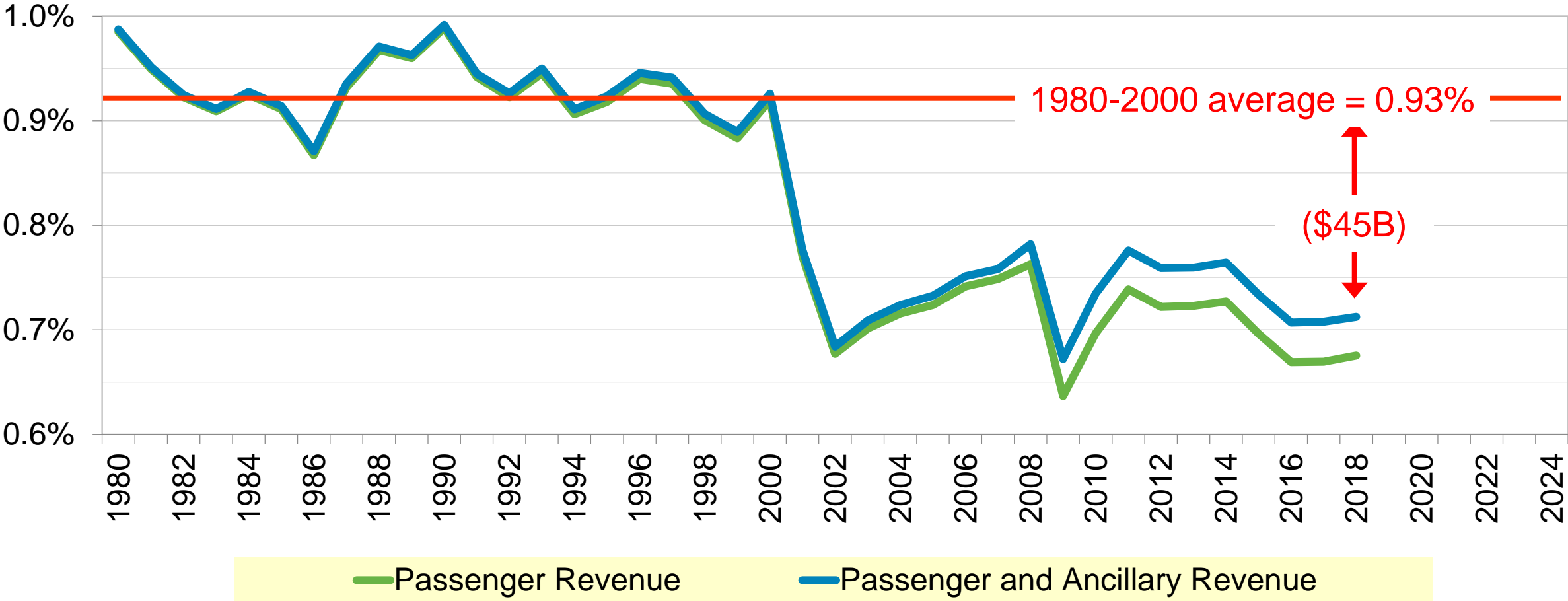
\* U.S. passenger airlines





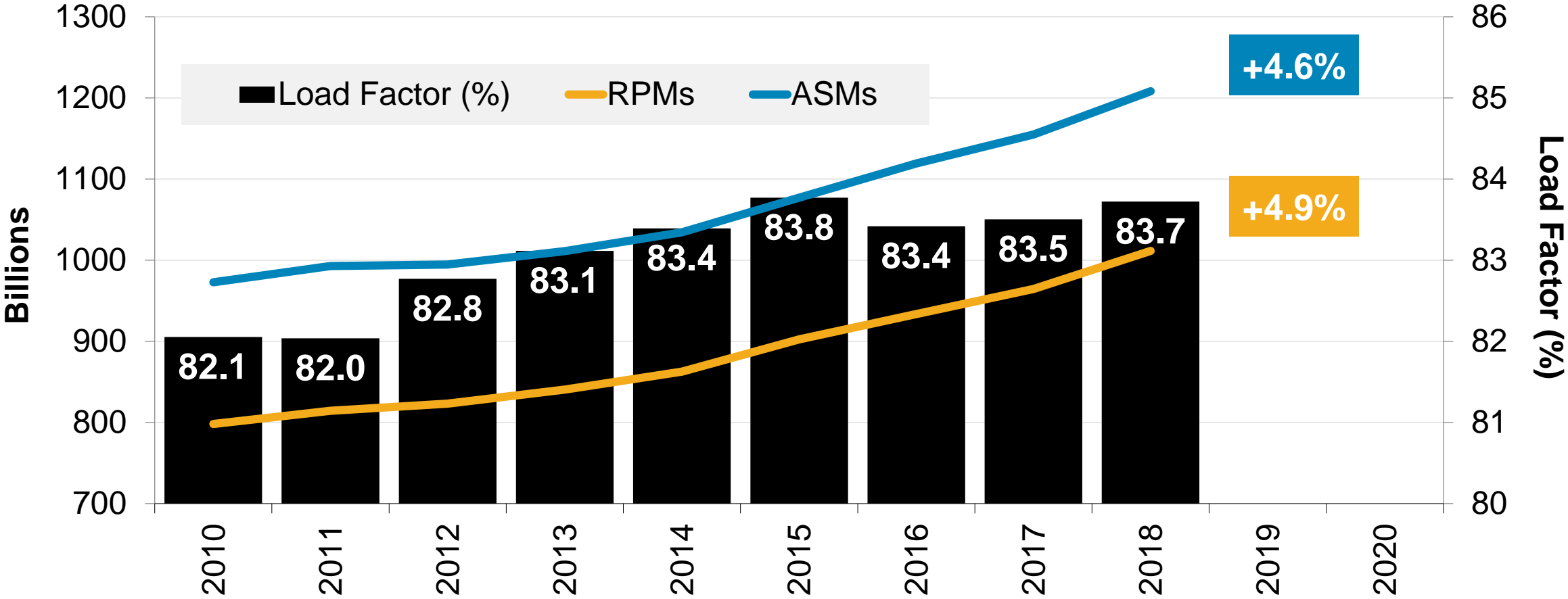
# Diminished Airline Pricing Power Has Led to Diminished “Take” of U.S. Economy

## Systemwide Passenger and Ancillary Revenues as Share of U.S. Gross Domestic Product



Source: A4A Passenger Airline Cost Index

# In 2018, Passenger Traffic (Revenue Passenger Miles) on U.S. Airlines Grew Faster Than Capacity (Available Seat Miles), Lifting the Industry's Average Load Factor to 83.7 Percent

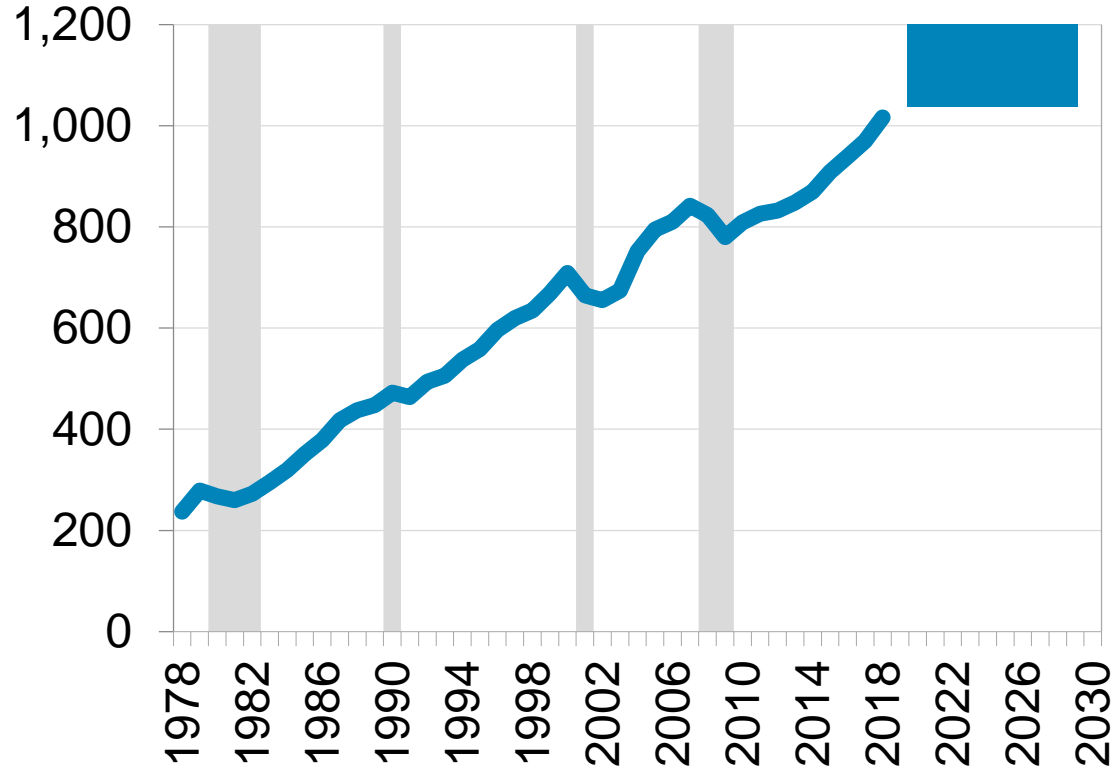


Source: U.S. Bureau of Transportation Statistics T1, systemwide scheduled service on U.S. airlines – revenue passenger miles (RPMs) and available seat miles (ASMs)

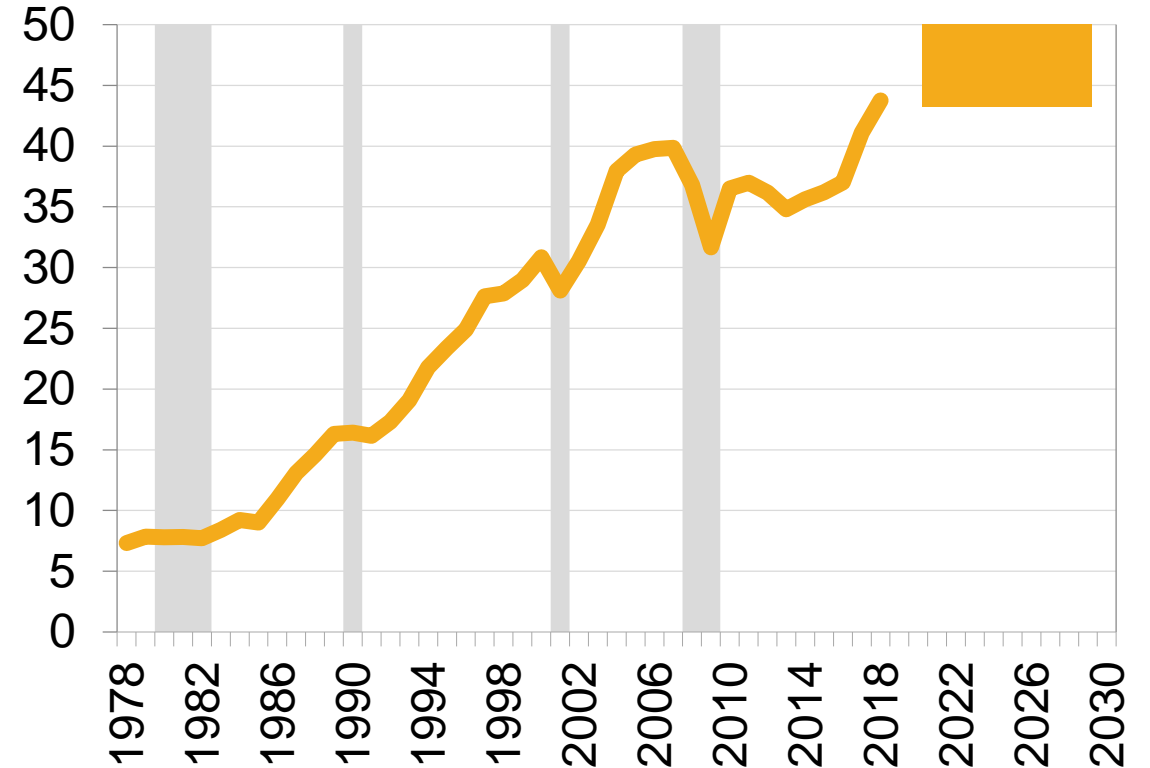
# U.S. Airlines Will Continue to Move More People and Goods Over Longer Distances

In the 2020s, RPMs Will Exceed 1 Trillion Annually; Cargo RTMs Will Surpass 50 Billion Annually

### Revenue Passenger Miles (Billions)



### Cargo Revenue Ton Miles (Billions)



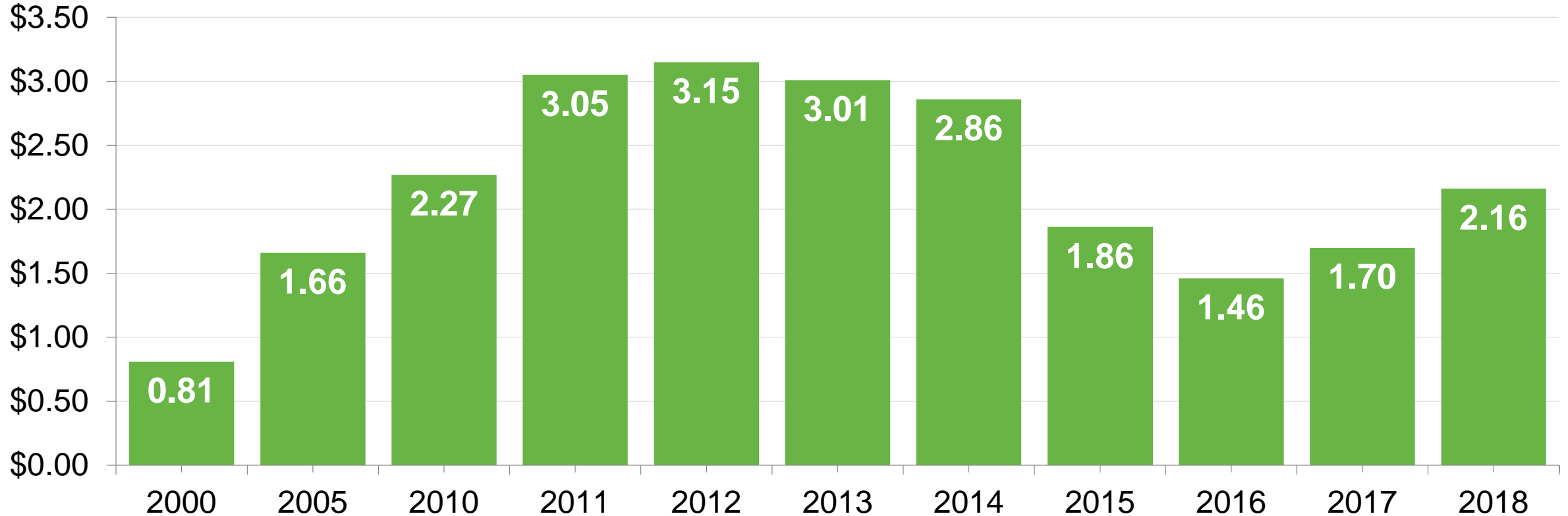
Source: U.S. Bureau of Transportation Statistics (T1 systemwide for U.S. airlines – all services)

Note: Recessions highlighted in gray

# Jet-Fuel Prices Rose in 2017 and 2018

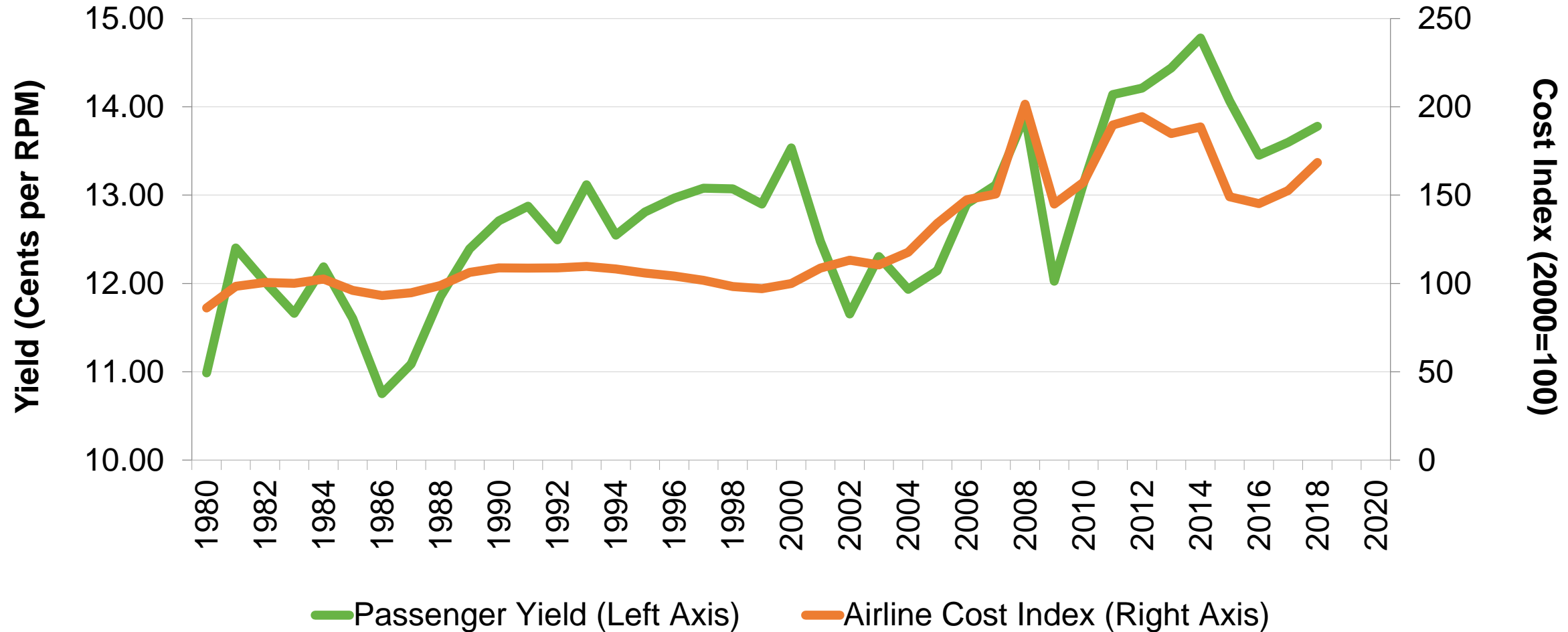
A Penny per Gallon per Year Equates to ~\$200M in U.S. Airline Industry Fuel Expenses

## Systemwide Average Paid Price of Jet Fuel per Gallon



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

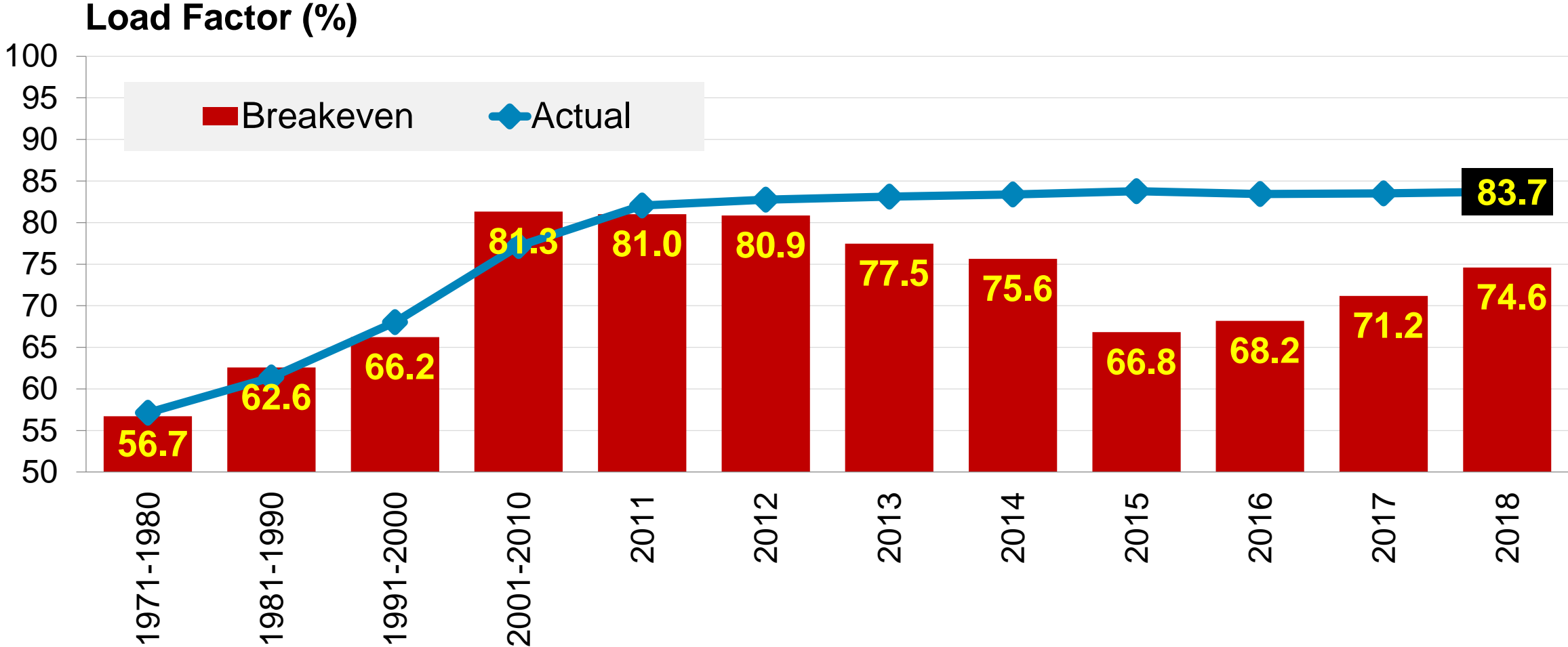
# Especially Since 2000, Changes in the Price to Fly a Mile on U.S. Carriers Have Correlated Closely With Changes in the Cost of Inputs to Airline Production



Source: A4A Passenger Airline Cost Index

# In 2011-2018, Average Load Factor Has Exceeded Breakeven Requirement

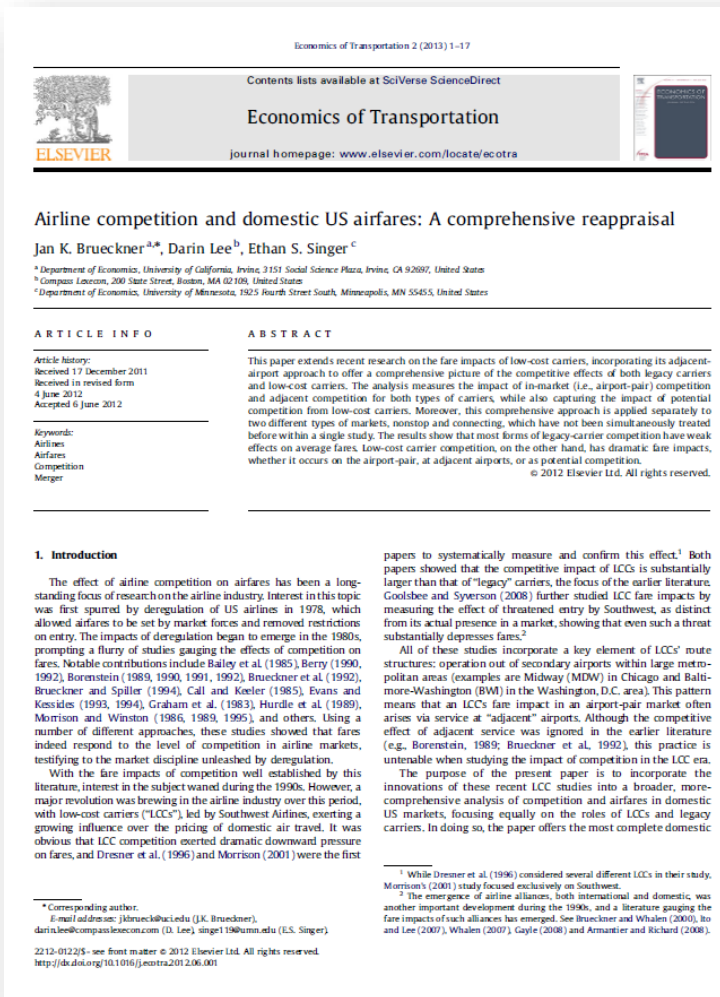
Stable at 82 to 84 Percent Over Past Several Years, With Breakeven Rising to 75 Percent



Source: A4A Passenger Airline Cost Index (<http://airlines.org/dataset/a4a-quarterly-passenger-airline-cost-index-u-s-passenger-airlines/>)

# Low-Cost Carriers In Particular Continue to Put Substantial Pressure on Fares

## “Southwest Effect” Remains in Force – Brueckner/Lee/Singer



- A December 2016 update of the frequently cited Brueckner/Lee/Singer study (2013) demonstrated that the “Southwest Effect” remains in force:
  - In the period 3Q 2015 through 2Q 2016, Southwest’s presence on a route **lowered fares 21.2 percent**
  - In addition, the update found that many smaller but rapidly expanding carriers put substantial **downward pressure** on global network carrier domestic air fares, e.g.:
    - Alaska ↓ 24.0 percent
    - JetBlue ↓ 25.4 percent
    - Spirit ↓ 18.5 percent

Source: Jan K. Brueckner, Darin Lee and Ethan S. Singer, “Airline competition and domestic US airfares: A comprehensive reappraisal,” *Economics of Transportation*, 2013



# Low-Cost Carriers In Particular Continue to Put Substantial Pressure on Fares

## “Southwest Effect” Remains in Force – Beckenstein/Campbell

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“The presence and magnitude of the Southwest Effect has endured through time. Even today, when new markets have frequently been affected already by Southwest’s fares on connecting services, **the Southwest Effect still shows, on average, an additional market fare reduction of 15% and corresponding traffic increase of 28% to 30%, from the introduction of nonstop service by Southwest.**”

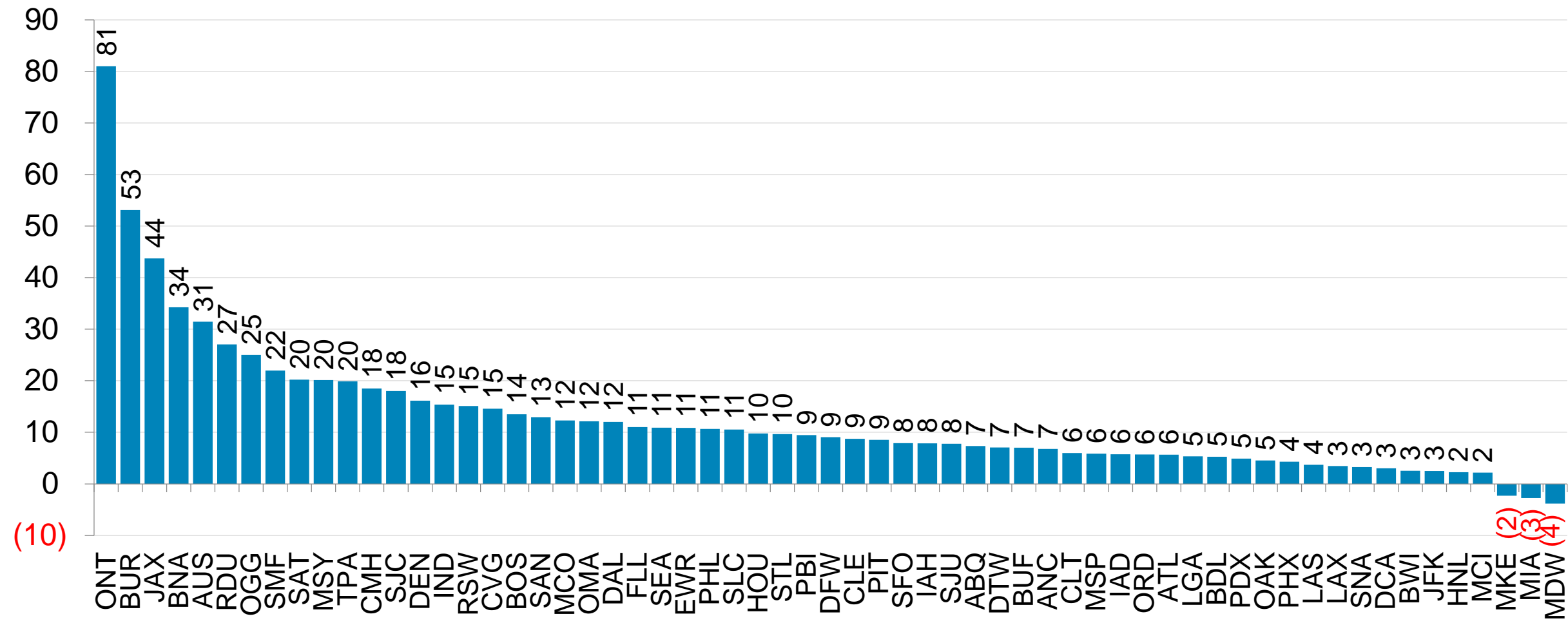
“**The Southwest Effect is alive and well.** We find no evidence that the Southwest Effect has been eroded or overtaken in significance or magnitude by other airlines... Our study finds that Southwest produces \$9.1 billion annually in domestic consumer fare savings. **One-way average market fares are \$45 lower when Southwest serves a market nonstop than when it does not. If Southwest provides only connecting service in a city-pair market, average market fares are \$17 lower (one-way) than when there is no competitive effect from Southwest.**”

Source: Alan R. Beckenstein, Ph.D., Professor of Business Administration at the Darden School of Business, University of Virginia; and Brian M. Campbell, Ph.D., Principal, the Campbell-Hill Aviation Group, LLC, “Public Benefits and Private Success: The Southwest Effect Revisited,” *Darden Business School Working Paper Number 206* (August 2017)

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# Over Past Two Years, Medium-Sized Airports Have Seen the Fastest U.S. Growth

## Percent Change in Scheduled Available Seat Miles at Top U.S. Airports: 2017 to 2019

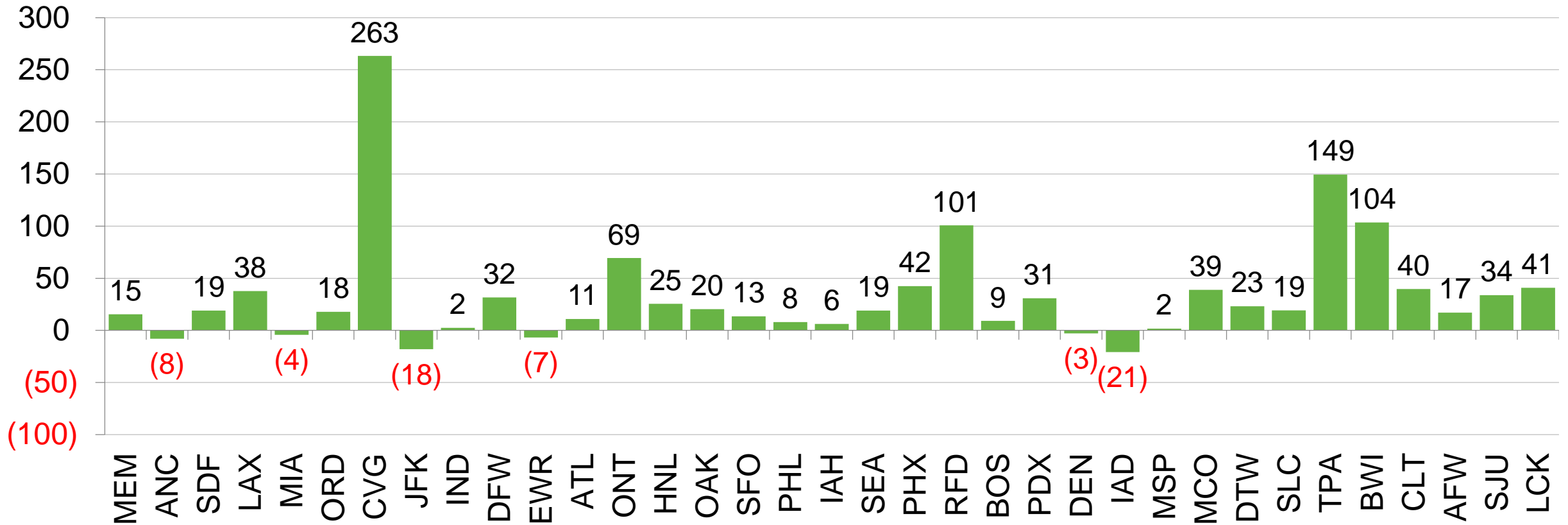


Source: Diio by Cirium published schedules as of Dec. 6, 2019, for all airlines providing scheduled service

# E-Commerce and Rapid Fulfillment Redrawing the Map for Distribution of Air Cargo

Cincinnati (CVG) and Tampa (TPA) Are Among the Biggest Winners

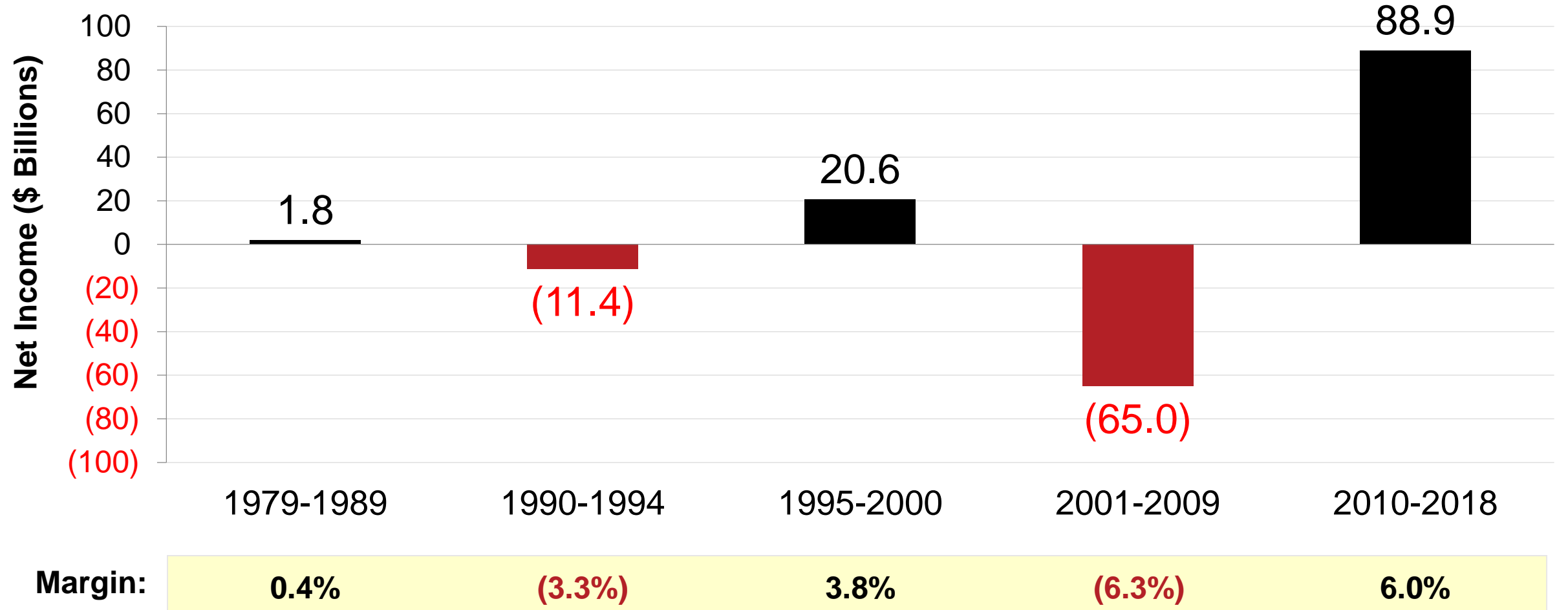
## % Change in Outbound Cargo Payload at Largest U.S. Cargo Airports, 2010-2018



Source: DOT T100 segment data

# In the Deregulated Period, U.S. Airline “Earnings” Have Been Cyclical and Volatile

Cumulative Net Income = \$35 Billion (0.9 Percent of Revenues)



Source: A4A Passenger Airline Cost Index

# Airline Creditworthiness Has Improved But Continues to Lag Many Fortune 500s

## Per S&P, Only Two U.S. Passenger Airlines Have Investment-Grade Credit

“Standard & Poor’s ratings express the agency’s opinion about the ability and willingness of an issuer...to meet its financial obligations in full and on time.”

Johnson & Johnson, Microsoft	AAA
Alphabet (Google), ExxonMobil, USA	AA+
Wal-Mart	AA
Toyota	AA-
Airbus, PepsiCo, UPS	A+
<a href="#">Etihad</a> *, Amtrak, Boeing, GE, Target	A
BP	A-
<a href="#">EasyJet</a> , <a href="#">Ryanair</a> , <a href="#">Southwest</a> , eBay, McDonald’s, Starbucks	BBB+
<a href="#">British Airways</a> , FedEx, Ford, Marriott, <a href="#">Wizz Air</a> *	BBB
<a href="#">Delta</a> , <a href="#">Lufthansa</a> , <a href="#">Qantas</a>	BBB-
<a href="#">Alaska</a> , <a href="#">Air Canada</a>	BB+
Avis, <a href="#">JetBlue</a> , <a href="#">United</a> , Sabre	BB
<a href="#">Aeroflot</a> , <a href="#">American</a> , <a href="#">Hawaiian</a> , <a href="#">LATAM</a> , <a href="#">Spirit</a>	BB-
<a href="#">SAS</a> , <a href="#">Turkish</a> , <a href="#">Virgin Australia</a> , <a href="#">WestJet</a> , Hertz	B+
<a href="#">Avianca</a> , <a href="#">Gol Linhas Aereas (GOL)</a>	B

**Investment  
Grade<sup>1</sup>**

**Speculative<sup>2</sup>  
Grade**

<sup>1</sup> Describes issuers with relatively high levels of creditworthiness and credit quality

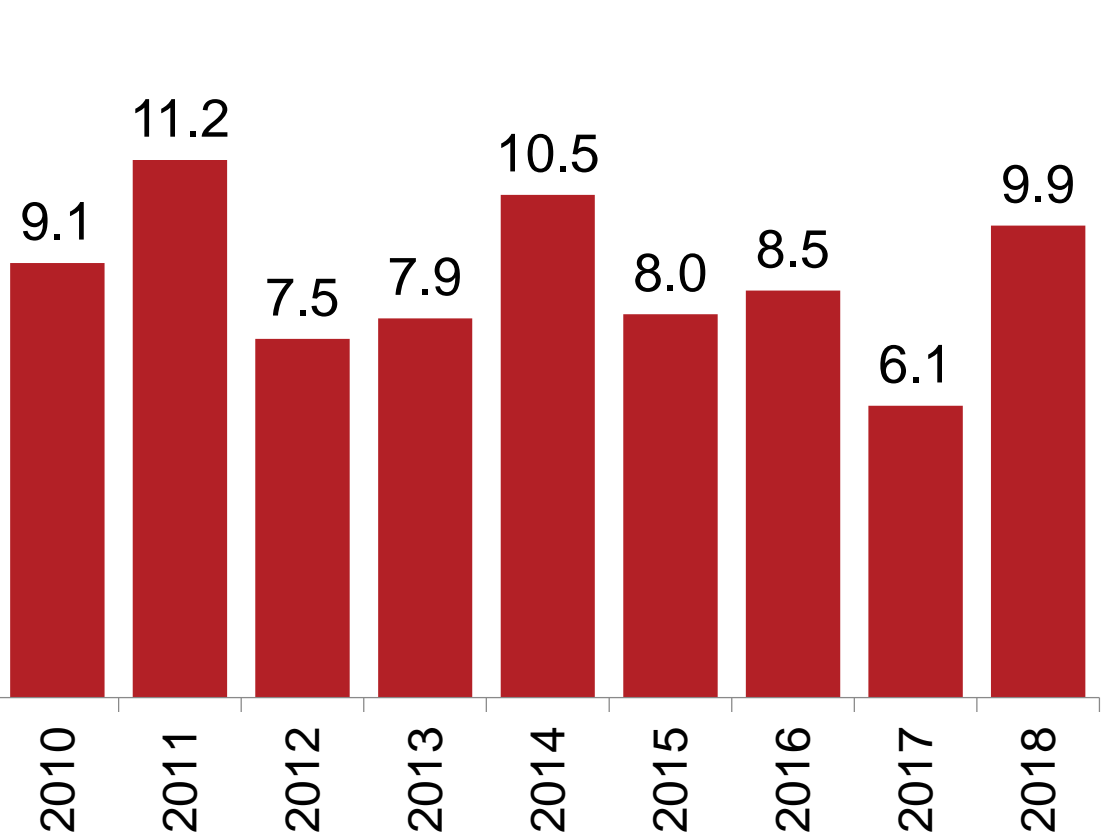
<sup>2</sup> Describes issuers with ability to repay but facing significant uncertainties, such as adverse business or financial circumstances that could affect credit risk

Source: Standard and Poor’s; “Guide to Credit Rating Essentials: What are credit ratings and how do they work?”

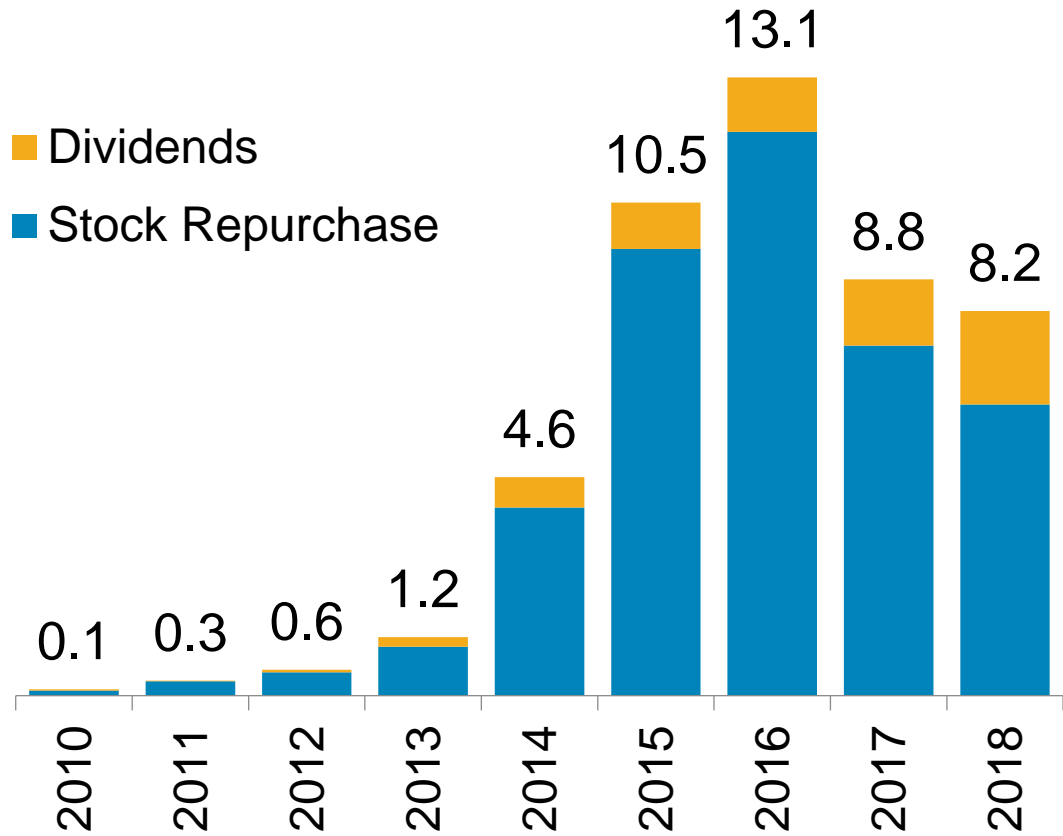
\* Rated by Fitch (not currently rated by S&P)

# Following 2001-2009 Financial Crisis, U.S. Airlines Have Retired ~\$79 Billion in Debt and Returned ~\$48 Billion to Shareholders to Lure and Retain New Equity Investors

**Retirement of Debt (\$ Billions)**



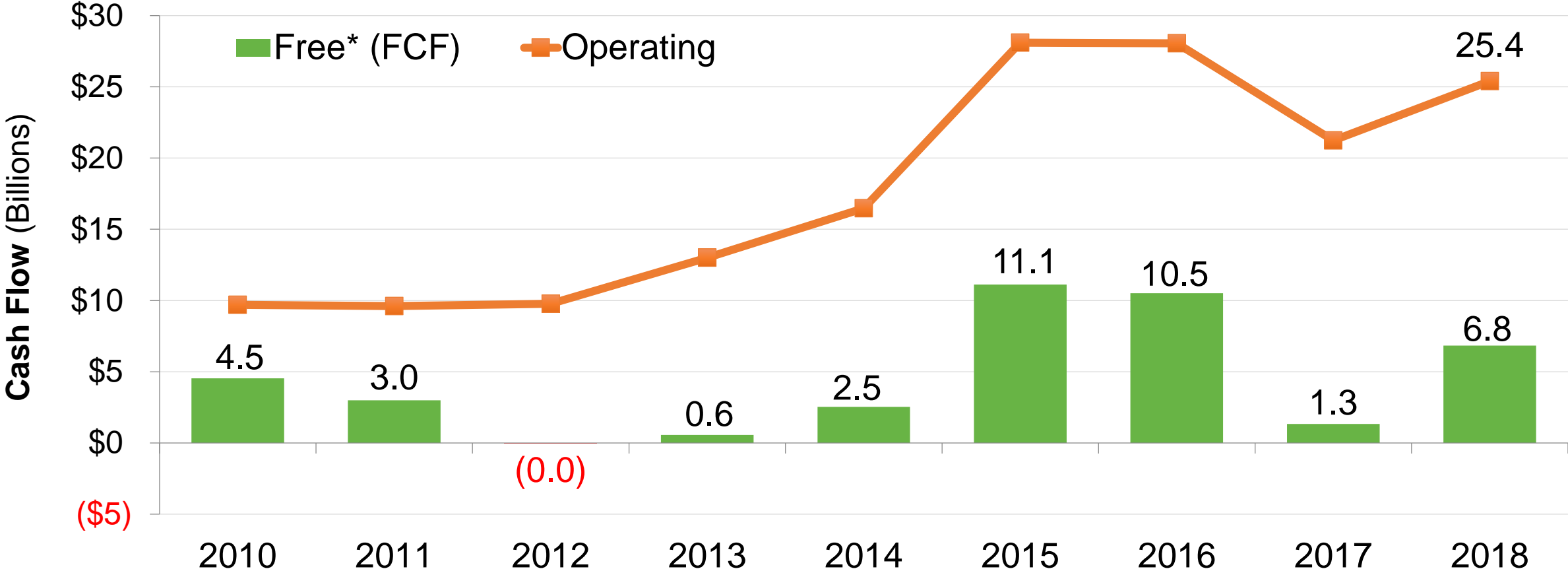
**Returns to Shareholders (\$ Billions)**



Source: SEC filings of AAL/ALGT/ALK/DAL/HA/JBLU/LUV/SAVE/UAL and merged predecessors

\* Payments on long-term debt and capital lease obligations

# As U.S. Airlines Generate Sufficient Cash from Operations, They Are Better Able to Fund Capital Improvements and Enhance Shareholder Value

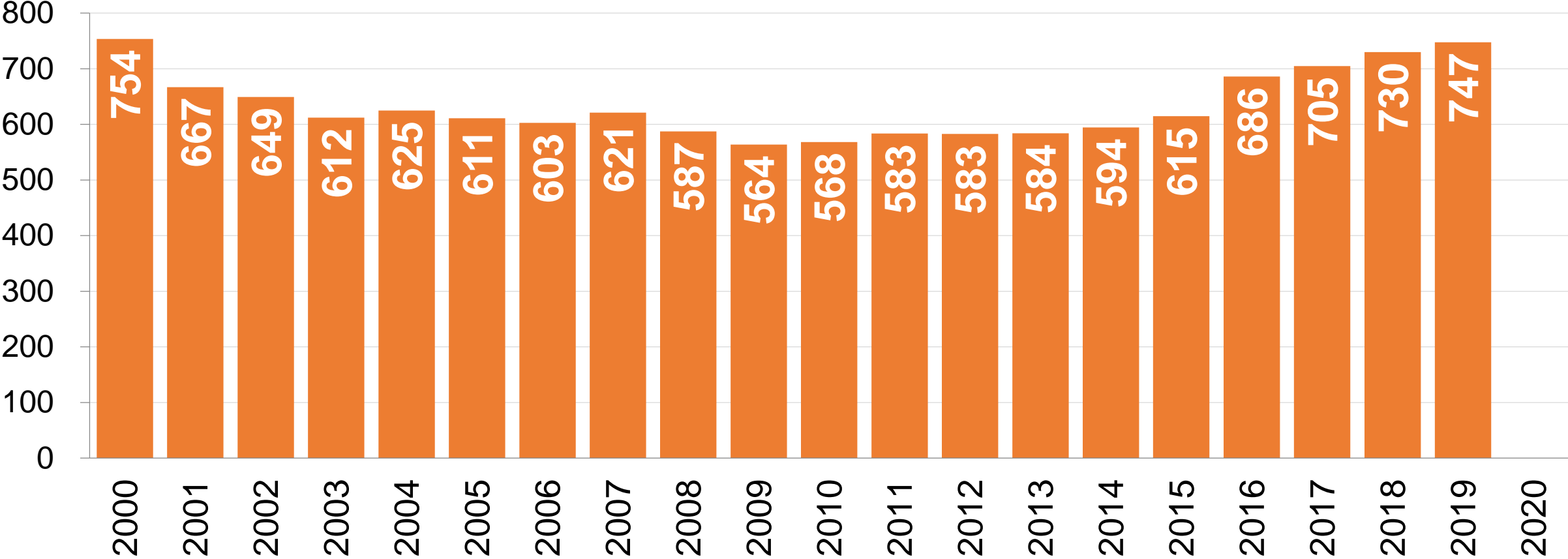


Source: SEC filings of AAL/ALGT/ALK/DAL/HA/JBLU/LUV/SAVE/UAL and merged predecessors

\* Operating cash flow minus capital expenditures

# U.S. Airline Industry Employment at Highest Level Since 2000

## Year-End Full-Time + Part-Time Employees at U.S. Passenger and Cargo Airlines (000s)



Source: Bureau of Transportation Statistics

\* 2016 includes FedEx acquisition of TNT on May 25, 2016, which increased headcount by approximately 55,000





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