

The Air Travel Value Proposition: Safer, Cheaper, Greener, Quieter – and Fast

Updated December 4, 2019

# "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/



### By Almost Every Measure, the Golden Age of Air Travel Wasn't Then – It Is Now

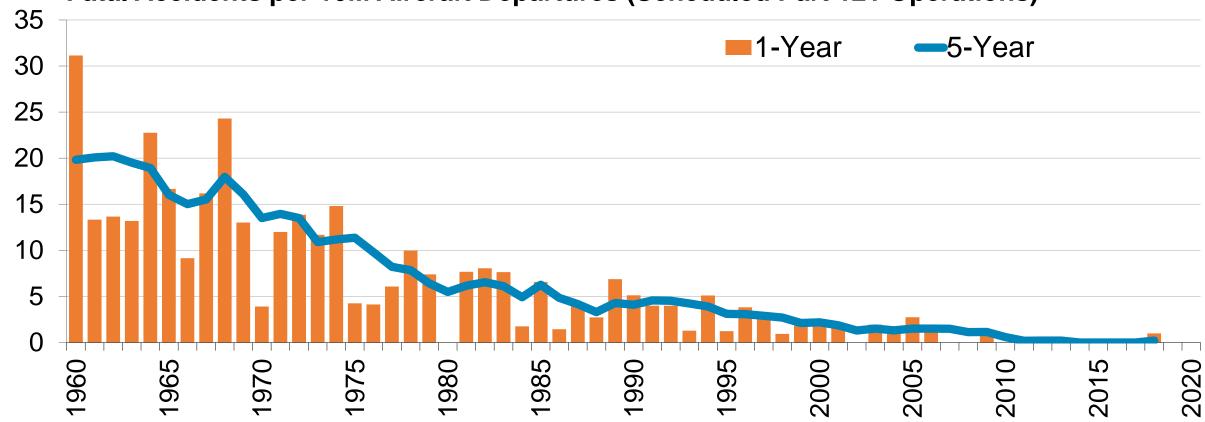
	Pre-Deregulation (Before 1979)	Today			
Safety	Feared by many; fatality risk = 1 in 1M	Safest travel mode; fatality risk = 1 in 135M			
Competition	Only 1-2 airlines per route, no price competition	No limit on carriers per route; vigorous competition			
Affordability	Average domestic round trip > \$600 including fees	Average domestic round trip < \$400 including fees			
Accessibility	Luxury good (mostly high-income) – 63% had flown	Accessible to all – 88% have flown; mass transit			
Small-market service	Often propeller aircraft, suboptimal times	Widespread jets, market-driven flight times			
International service	Flights, carriers, cities, sales limited by law	Plentiful, cheaper due to "Open Skies"			
Routings & frequency	Often multiple stops, few flights/day/week	Plentiful nonstop/one-stop, multiple flights/day			
Shopping	Phone calls, ticket offices, travel agents	A few clicks online			
Ticket delivery	By mail only	Universally electronic, retrievable			
Checking in	Lined up at the ticket counter	t counter Online, kiosk, mobile			
Inflight entertainment	Occasional movie, far-away shared screen	Unlimited options, streaming to personal devices			
Bag tracking	No tools at customers' disposal Mobile tools becoming universal				
Environmental impact	Not very fuel efficient; more CO <sub>2</sub> per flight	~130% more efficient; substantial avoidance of CO <sub>2</sub>			

Source: A4A and Patrick Smith, "There Was No 'Golden Age' of Air Travel," New York Times (May 27, 2017)



### **U.S. Airline Industry Safety Has Improved Markedly**

### Fatal Accidents per 10M Aircraft Departures (Scheduled Part 121 Operations)



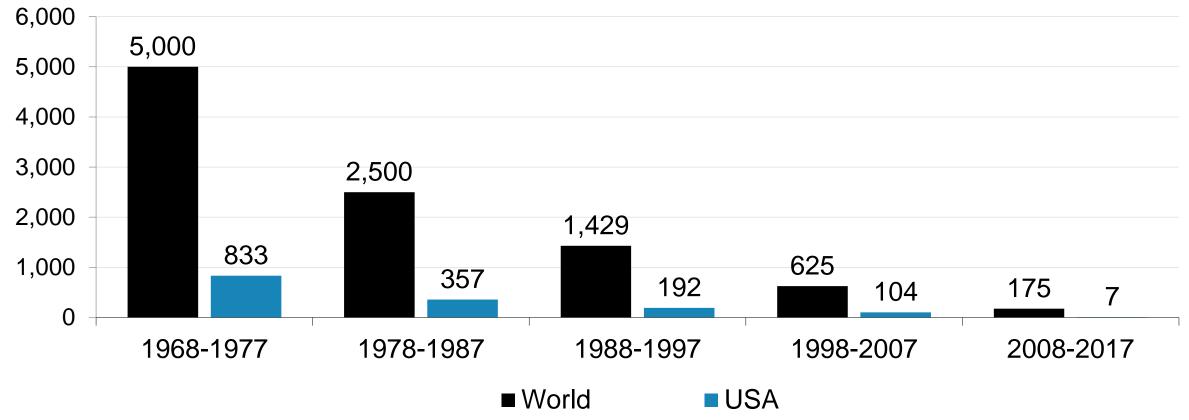
Source: A4A analysis of data from the National Transportation Safety Board (Tables 6 and 12) for U.S. air carriers operating under 14 CFR 121, scheduled service



### We're Experiencing the Safest Period in Aviation History

The Fatality Risk for a U.S. Airline Passenger Has Fallen to 1 in 135 Million

### Airline Passenger Fatalities per Billion Passengers Boarded\*

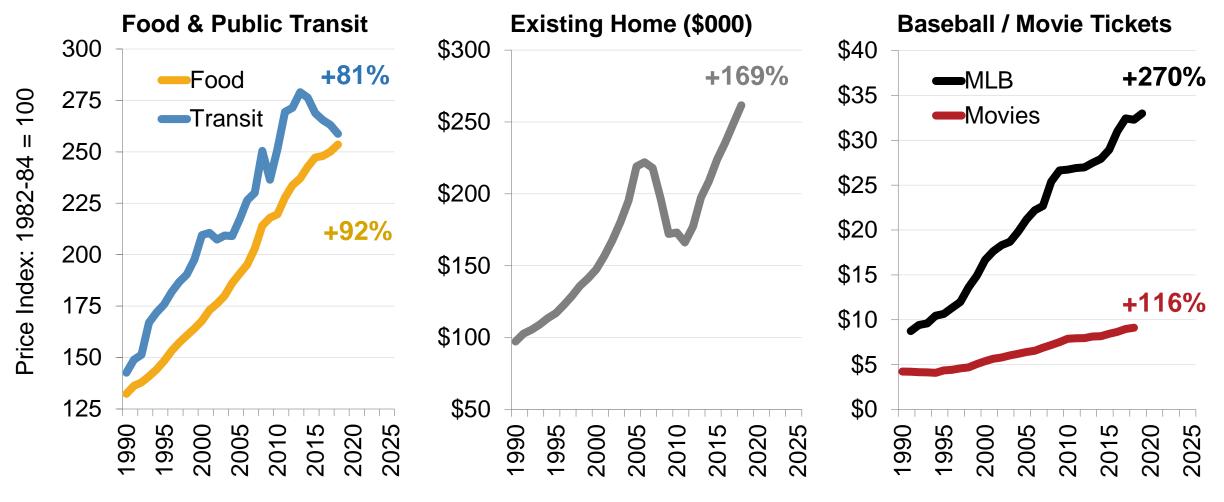


Source: Dr. Arnold Barnett, Massachusetts Institute of Technology

\* Includes deliberate acts



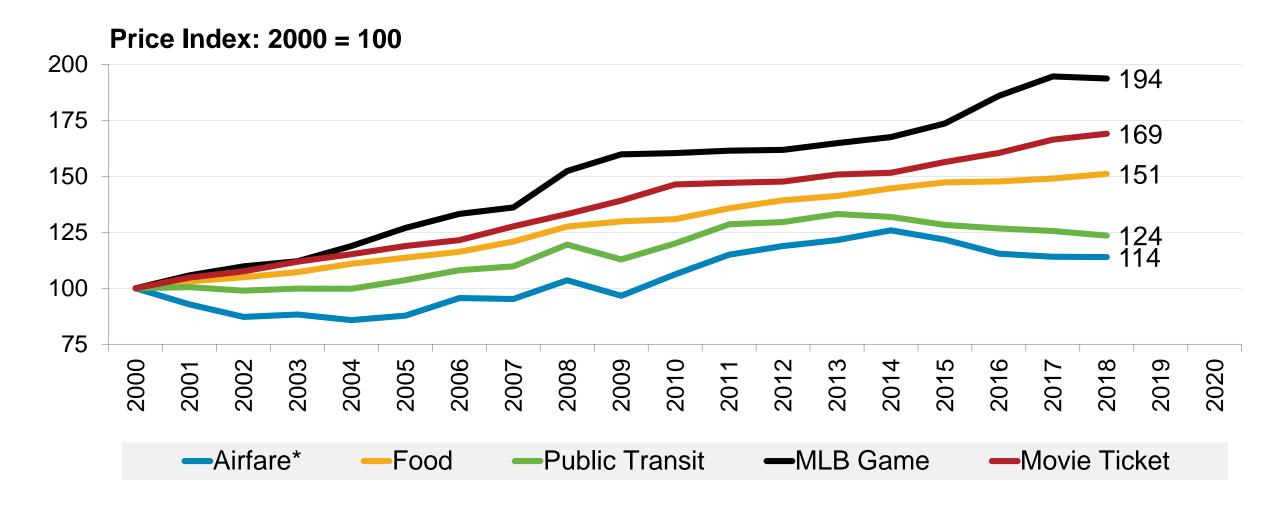
# Americans Have Seen Increases in the Average Price of Food, Shelter, Public Transportation and Entertainment Over The Past Two and a Half Decades



Source: Federal Reserve Bank of St. Louis, National Association of Relators, National Association of Theatre Owners, Team Marketing Report



# Since 2000, the Price of Purchasing Food, Taking the Bus/Train, or Going to the Movies/Ballpark Has Significantly Outpaced the Price of Taking a Trip by Air



Source: A4A, BTS, FRB St. Louis, National Association of Theatre Owners, Team Marketing Report

\* Domestic round-trip average, including bag and change fees



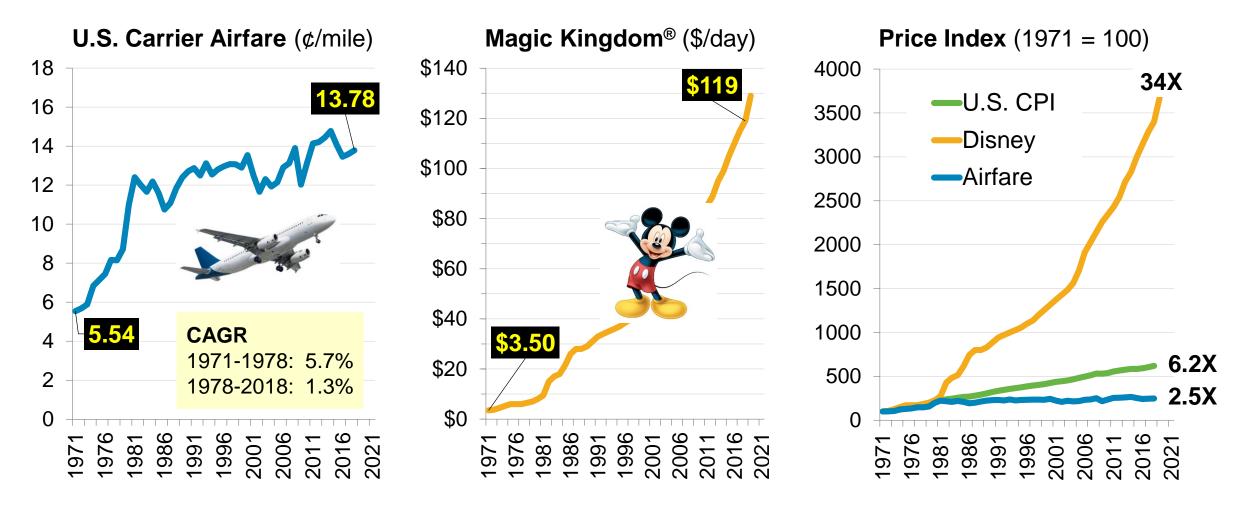
### Relative to Most Consumer Goods and Services, Air Travel Is a Bargain

### U.S. Inflation and Personal Incomes Have Sharply Outpaced Price of Domestic Air Travel

	U.S. Consumer Good (Unit)	2000	<b>2018</b>	<b>%</b> Δ
٢	Public College Tuition & Fees (4-Year, In-State, Net)	\$1 <u>,159</u>	\$3,740	223
	Jet Fuel (Gallon, Price Paid by U.S. Airlines)	\$0.81	\$2.16	167
	Disney World® Magic Kingdom (1-Day, Adult, Regular Season)	\$46	\$119	159
ψ	National Football League Game (Nonpremium Ticket)	\$43.70	\$100.26	129
as	Major League Baseball Game (Nonpremium Ticket)	\$16.67	\$32.29	94
ē -	Prescription Drugs (BLS Index)	285.425	528.003	85
ncrea	Disposable Personal Income per Capita (Annual)	\$26,262	\$48,075	83
=	Gasoline (Gallon, Unleaded Regular, Retail Including Taxes)	\$1.510	\$2.735	81
	Single-Family Home (Existing)	\$147,300	\$261,600	78
	Movie Ticket (One Adult)	\$5.39	\$9.11	69
L	Food (BLS Index)	167.817	253.562	51
	U.S. Consumer Price Index (CPI-U) <sup>1</sup>	172.200	251.107	46
a [	Vehicle (New, Retail)	\$24,900	\$35,608	43
186	Public Transit	209.492	258.795	24
eg _	Indoor Plants and Flowers	114.700	131.121	14
ecrease	Air Travel (R/T Domestic Fare + Ancillary) <sup>2</sup>	\$317.84	\$362.13	14
e l	Apparel: Clothing/Shoes/Jewelry (BLS Index)	129.575	125.654	(3)
_ [	Television (BLS Index)	49.925	1.966	(96)

### Within the Travel-and-Tourism Sector, Airfare Remains One of the Better Bargains

In Contrast to Air Travel, the Price of a Day at Disney Rose 34-Fold From 1971 to 2018

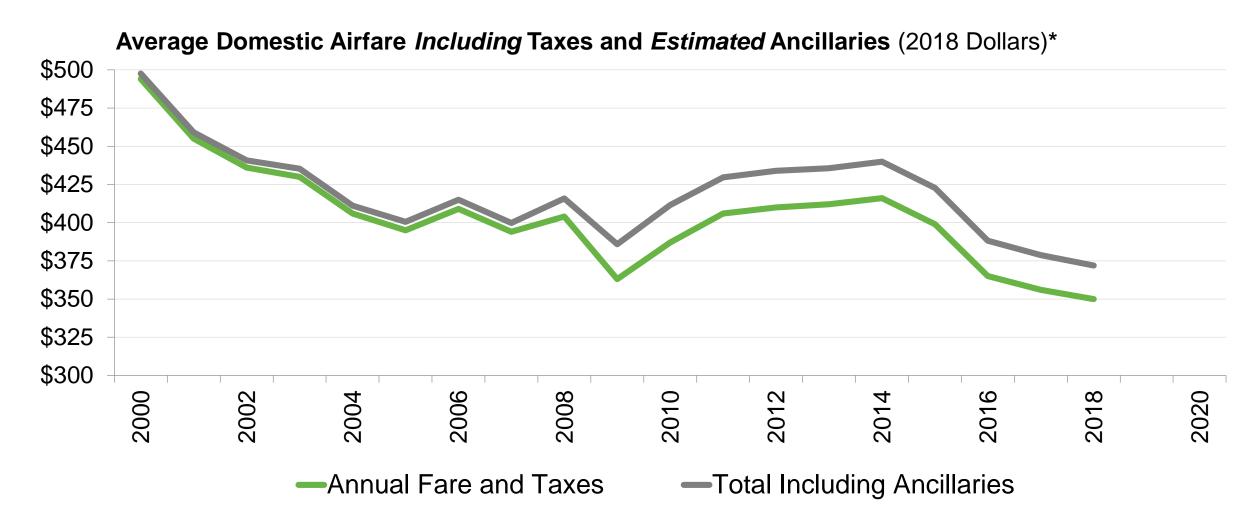


Sources: A4A Passenger Airline Cost Index (using DOT Form 41 passenger yield), allears.net, "How theme parks like Disney World left the middle class behind" (Drew Harwell, *The Washington Post*, June 12, 2015) and "Disney Introduces Demand-Based Pricing at Theme Parks" (Brooks Barnes, *The New York Times*, Feb. 27, 2016)



### 2018 Inflation-Adjusted Fares Were Lowest Ever Recorded by DOT

Fares/Taxes/Ancillaries Down 10 Percent From 2010, 25 Percent From 2000



Source: A4A (ancillaries) and Bureau of Transportation Statistics (fares and taxes)

\* Adjusted for inflation; round trips, but includes one-ways if no return purchased



### Air Transport Association Advertisement, The Saturday Evening Post, March 22, 1941

### "Air Travel Is Not Expensive: See for Yourself...It Costs Less Than You Think"

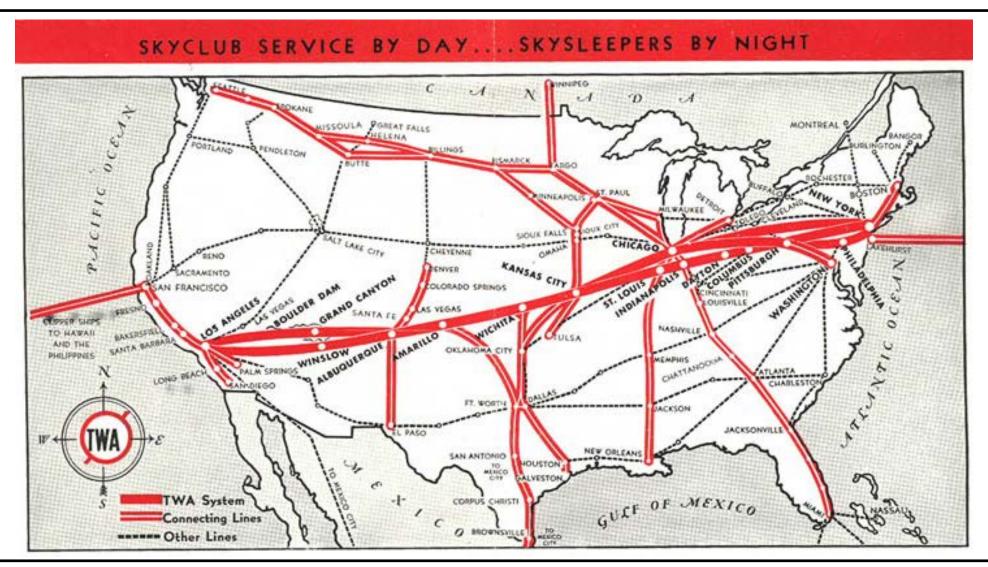
In 1941, a one-way ticket from BOS to LAX in cost the traveler \$156.42 and required 15 hours and 15 minutes including 12 stops

One-way Fares Elapsed Time ★ between	Atlanta	Chicago	Cleve- land	Hous- ton	Kansas City	Los Angeles	Mem- phis	Mexico City	Mlami	Phoe- nix	St. Louis
Bermuda ★Tin	118.15	114.95	96.70	164.15	136.45	219.95	132.10	222.60	141.75	209.90	123.5
	e 12:35	12:35	10:35	21:00	15:30	25:50	13:09	28:05	15:20	22:50	13:5
Boston Tin	60.10	51.42	35.17	106.10	72.92	156.42	74.05	164.55	83.70	148.57	63.3
	e 7:47	5:03	3:37	12:25	7:26	15:15	8:10	20:40	8:47	17:10	8:0
Dallas-	38.50	46.85	64.40	14.00	27.50	69.85	27.40	70.00	75.75	57.30	33.9
Ft. Worth Tin	e 5:27	6:22	8:57	1:35	3:38	<b>7:23</b>	2:30	<b>7:10</b>	10:42	<b>6:07</b>	4:2
Denver Tim	79.90	51.47	69.72	60.80	36.15	57.23	61.98	116.80	122.55	58.95	49.1
	e 14:50	5:17	<b>7:20</b>	8:12	5:04	6:50	11:07	16:07	20:30	9:13	7:0
Detroit Tim	46.40	13.75	7.90	74.10	35.25	118.75	40.13	130.10	83.65	113.65	26.2
	e 7:10	1:38	0:39	11:29	4:13	13:03	6:18	18:08	10:40	14:38	8:2
Minneapolis-	55.40	16.50	34.75	65.50	24.00	101.91	42.28	121.50	92.65	107.50	28.3
St. Paul Tim	e 10:25	2:15	4:45	11:47	3:26	14:17	5:55	18:35	13:35	16:55	4:0
New Orleans Tim	25.70	46.64	63.46	20.30	46.64	99.46	19.76	80.30	47.20	86.91	33.6
	e 2:40	6:15	8:15	2:05	3:35	16:20	2:30	9:10	6:23	14:00	4:2
New York Tim	48.15	44.95	26.70	94.15	66.45	149.95	62.10	152.60	71.75	139.90	53.5
	5:30	3:33	2:23	11:10	6:03	13:45	5:57	18:20	8:25	14:57	5:4
Pittsburgh Tin	49.35	23.95	7.00	80.40	45.45	128.95	45.70	136.40	72.95	119.50	32.5
	e <b>5:38</b>	2:29	0:50	12:08	4:42	12:35	6:02	19:15	8:15	13:52	3:0
San	126.55	105.00	123.25	102.80	94.03	18.95	115.45	128.95	168.20	42.10	105.0
Francisco Tim	e 16:50	11:12	13:45	12:40	11:24	2:00	13:16	18:15	14:30	4:30	14:0
Seattle Tin	137.90	99.00	117.25	127.23	96.24	62.93	125.88	172.93	175.15	86.08	111.9
	e 21:50	13:05	15:40	17:40	13:08	7:00	18:16	23:15	26:50	10:00	15:1
Washington Tim	35.95	36.00	19.10	81.95	56.65	139.75	49.90	140.45	59.55	127.75	43.7
	e 2:50	3:49	1:55	9:15	6:06	13:55	4:15	16:30	6:45	13:15	4:4

Fares subject to change without notice ★ Elapsed time in hours and minu



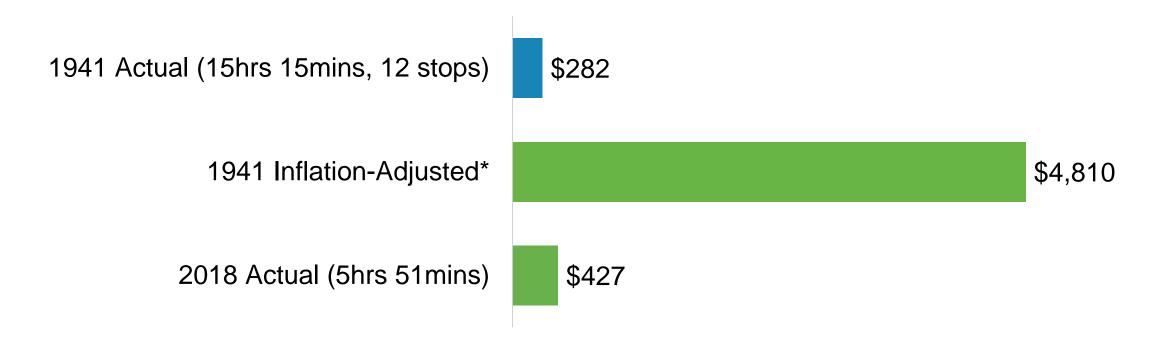
### BOS-LAX Was Not a Simple Journey in the So-Called "Golden Age" of Air Travel





### Boston-Los Angeles Air Travel: ~9.4 Hours Faster, ~90% Cheaper (in Real\* Terms)

### Average Round-Trip BOS-LAX Airfare and One-Way Block Time

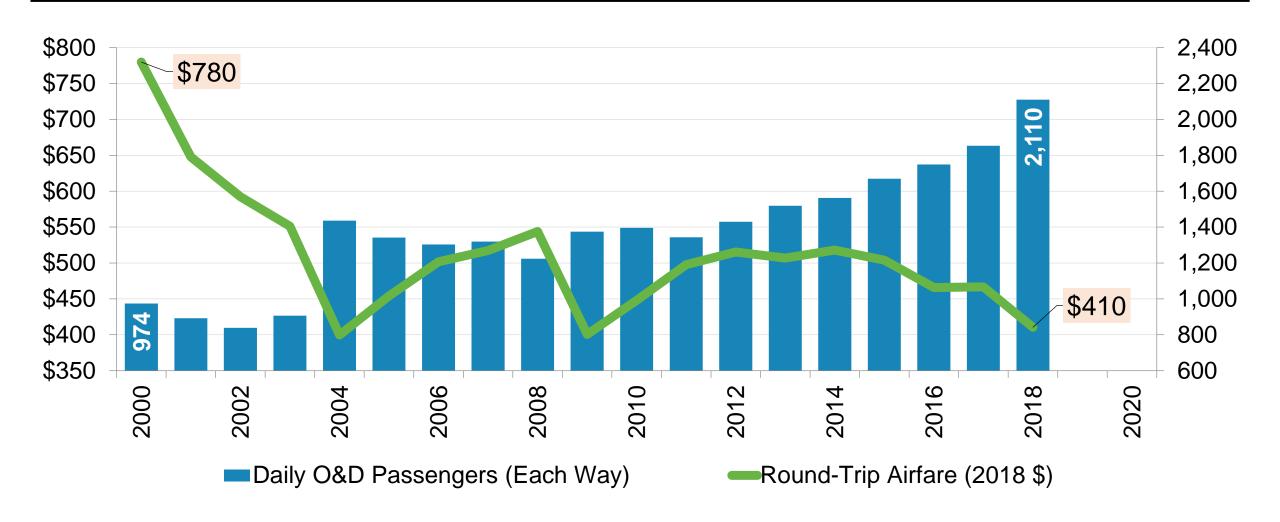


Source: DOT Data Bank 1B via Diio Mi; "Air Travel Is Not Expensive," The Saturday Evening Post (Mar. 22, 1941), p. 59; Campbell-Hill Aviation Group



<sup>\*</sup> Adjusted using 2018 constant dollars (http://www.bls.gov/cpi/#tables)

### From 2000-2018, Boston-Los Angeles\* Airfare Declined Materially; Traffic More Than Doubled



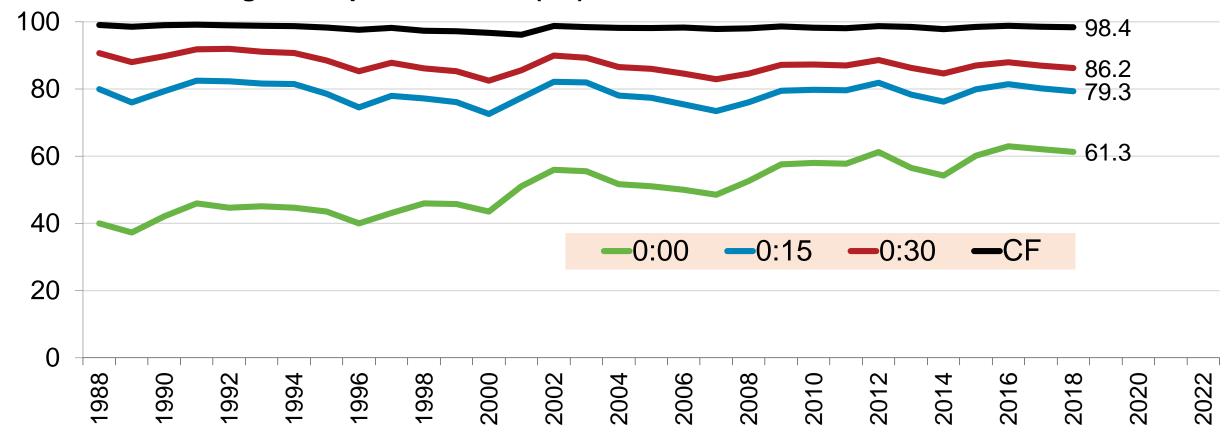
Source: DOT Data Bank 1B (Passenger Origin-Destination Survey) via Diio Mi

\* BUR/LAX/LGB; 91% of BOS-LAX\* passengers flew nonstop in 2018



# The Share of Flights Arriving Early or on Schedule Has Risen Steadily Over the Past Few Decades, Whereas On-Time 0:15 and 0:30 Have Been Relatively Flat

### **Domestic Flight Completion Factor (CF) and On-Time Arrival Rates – Percent**



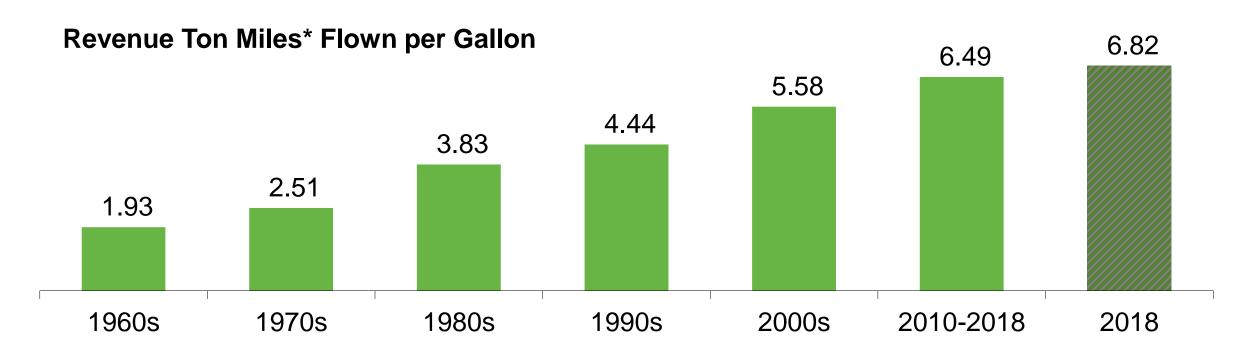
Source: Bureau of Transportation Statistics



### With Each Decade, U.S. Airline Fuel Efficiency Has Improved – Up 134% From 1978-2018

"[T]his is not an industry that is sitting still on sustainability. It is working, investing and collaborating to minimize its environmental impact. The same cannot be said of most governments..."

-- Karen Walker, "Aviation taxes don't reduce emissions," Air Transport World (Sept. 24, 2019)

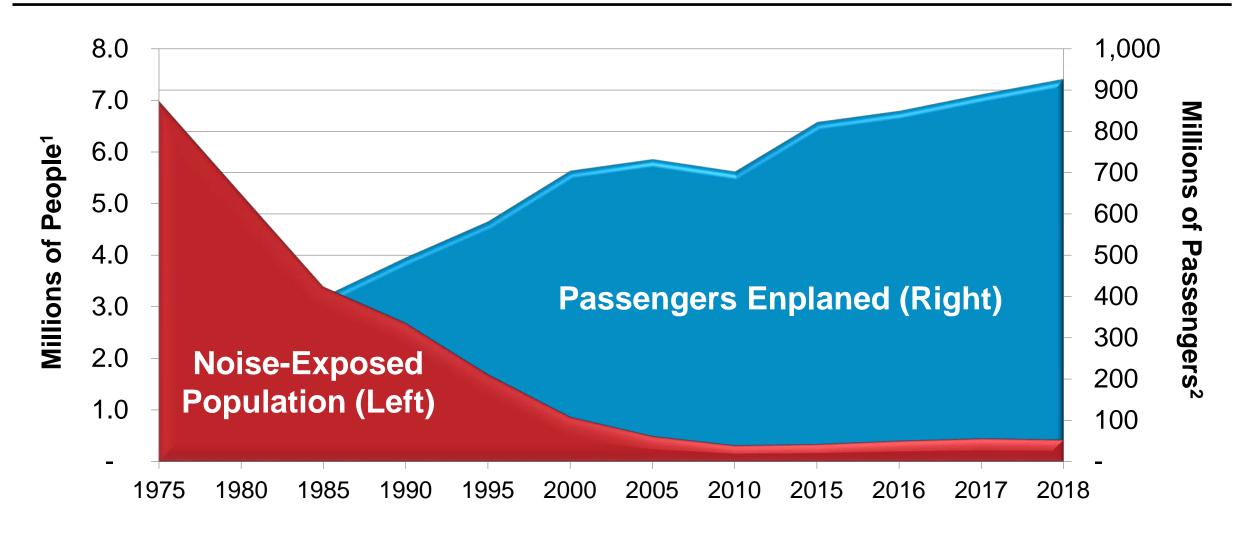


Source: A4A and BTS, for all U.S. passenger and all-cargo airlines

\* An RTM is a single ton of payload (passengers or cargo) carried one mile in revenue service



### Commercial Aviation Has Gotten Markedly Quieter: Noise Exposure Plunged As Traffic Surged

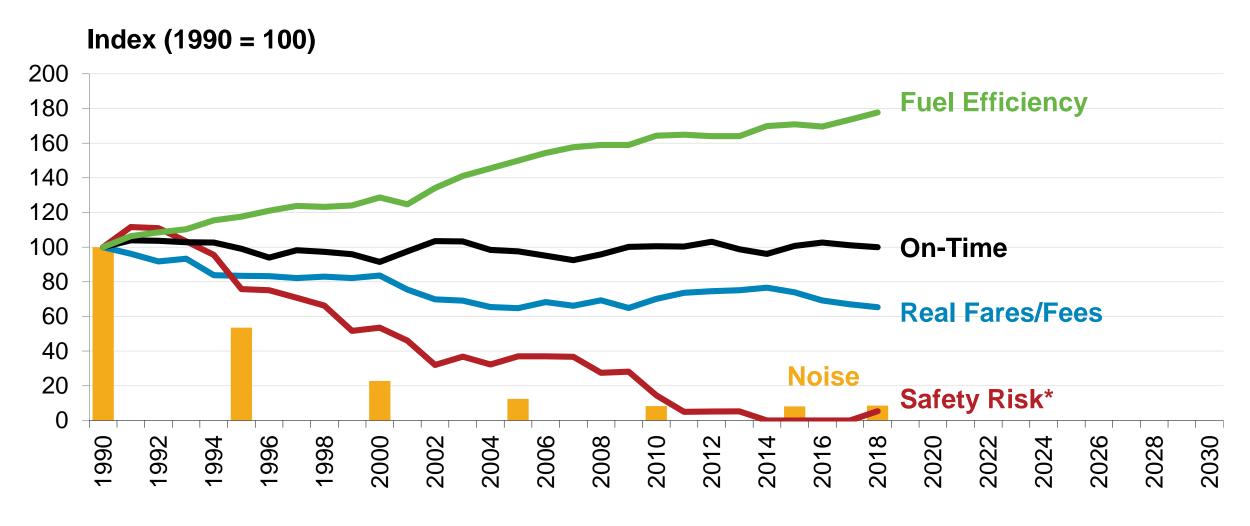


1. U.S. residents exposed to significant (65 dB DNL) noise levels from all aviation operations within U.S. airspace 2. Passengers enplaned on U.S. and foreign flag carriers as captured in the FAA Terminal Area Forecast (TAF)



### The Value Proposition for U.S. Air Travelers Is Alive and Well

It's Safer, It's Greener, It's Quieter, It's ~80 Percent On-Time and It's Still a Bargain

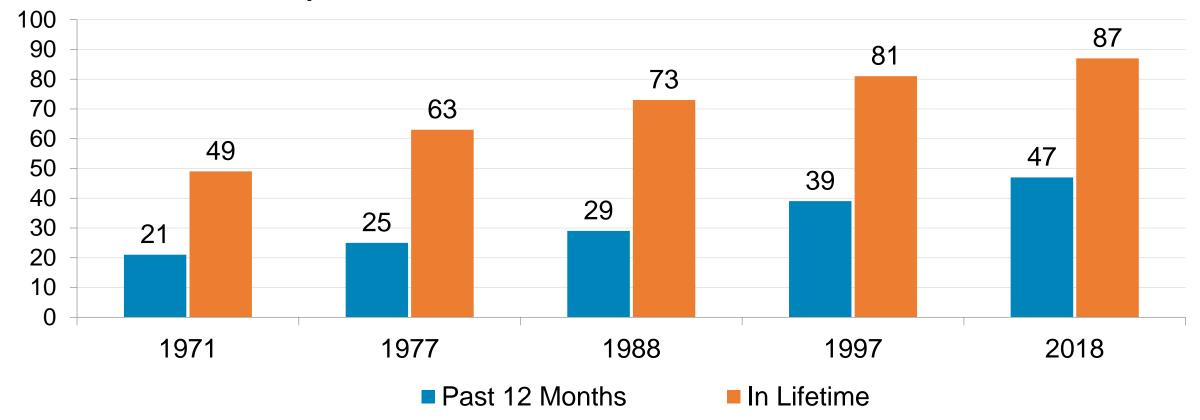


<sup>\*</sup> Five-year-moving-average fatal accident rate for U.S. air carriers operating under 14 CFR 121 scheduled service



# As Commercial Air Travel Has Become Safer and More Accessible, More Americans Are Taking to the Skies: Almost 90 Percent in Their Lifetimes, Almost 50 Percent in Past Year

% of U.S. Adult Population That Flew...



Source: Gallup and Ipsos Public Affairs; NBC News (Dec. 20, 2017)





## **Airlines for America®**

We Connect the World