FACT SHEET: U.S.

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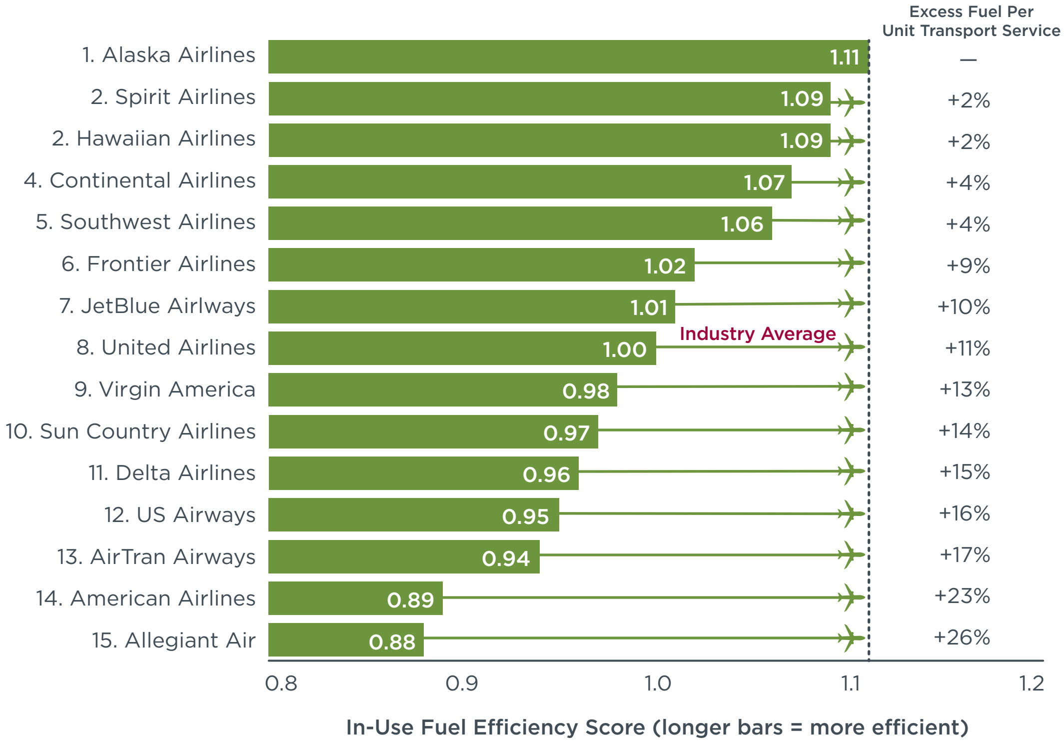
U.S. DOMESTIC AIRLINE FUEL EFFICIENCY, 2010

A new report by the International Council on Clean Transportation ranks the 15 mainline domestic carriers operating in the U.S. in 2010 in terms of their overall in-service fuel efficiency. This is the first such analysis done using publicly available data and adjusting for variations among airlines in business operations, networks, and scale to provide an apples-to-apples comparison.

RANKING



HIGHLIGHTS

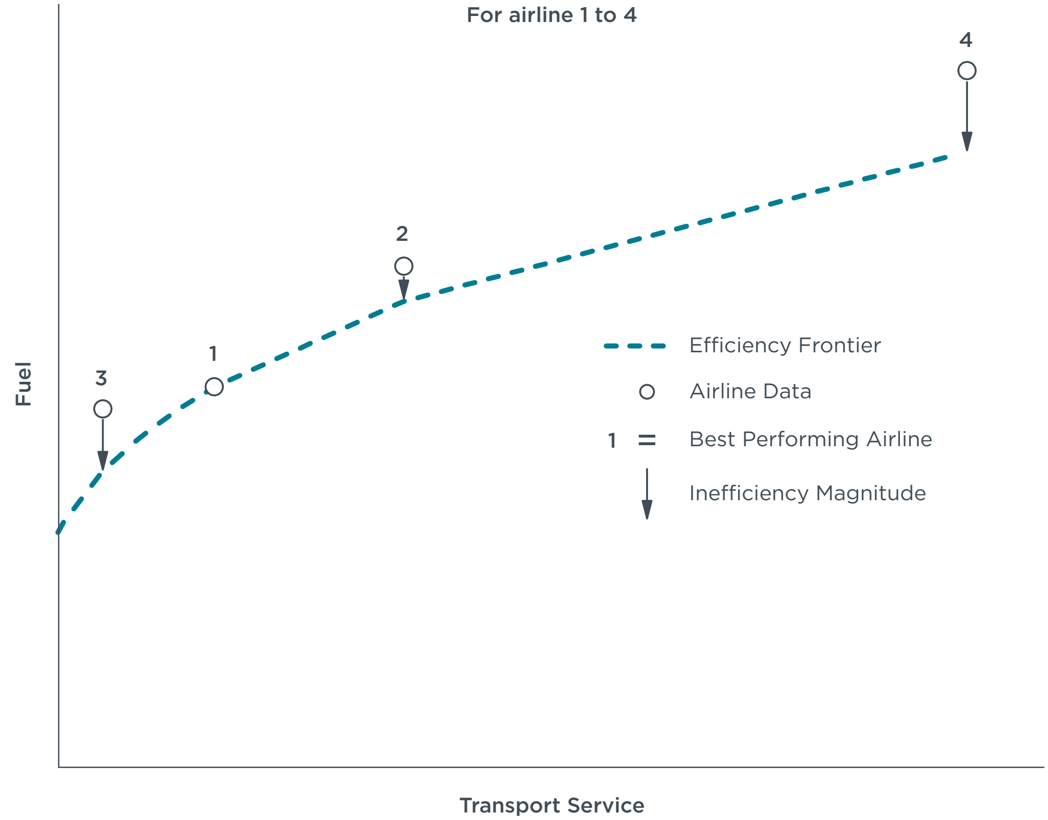
- The fuel efficiency gap between the best and worst airlines flying US domestic routes was 26%.
- An airline's investment in more efficient aircraft designs and technologies, such as winglets and high bypass ratio engines, explains about one-third of the variation in fuel efficiency between airlines.

- Other factors influencing efficiency include seating density, percent seat occupancy, and operational practices such as fuel loading and single-engine taxiing.
- Profitability and in-service fuel efficiency were not well correlated. The most profitable airline from 2009 to 2011 was Allegiant Air, which ranked last in fuel efficiency.
- Four of the five least-efficient airlines—Delta, US Airways, AirTran, and American—have been involved in mergers since 2010.

METHODOLOGY

KEY FEATURES

- Based on publicly available fuel consumption data reported by airlines to the Bureau of Transportation Statistics, not modeled estimates.
- Deterministic frontier analysis benchmarks less-efficient airlines against the best-performing airline (see figure).
- Ranking metric recognizes that airlines burn fuel to provide both mobility (passengers moved over a distance) and access (number of airports served and/or flight frequency), thus enabling fair comparisons between airlines with different business and operational models.
- Distinguishes between productive and non-productive miles by accounting for route circuity.
- Incorporates regional airlines to account for full business operations.



ROUTE-SPECIFIC ANALYSIS (CITY-CITY PAIRS)

In addition to ranking airline efficiency across the entire US network, the estimated fuel efficiency of airlines was compared across the top 10 city-city pairs traveled based on passenger count.

KEY FINDINGS

- The difference between most- and least-efficient airlines serving the same route ranged from 9% to 87%.
- Airline performance on specific routes does not track overall in-service efficiency closely. In several cases, the most fuel-efficient airline on a given route was below average overall.
- Shorter flights are significantly more fuel intensive on a passenger-mile basis (see figure), due to the large amount of fuel consumed in landing and takeoff.

Average Passenger Miles Per Pound of Fuel

FURTHER INFORMATION

U.S. Domestic Airline Fuel Efficiency Ranking 2010

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DOWNLOAD

http://theicct.org/airline-ranking

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