



**APRIL 2014** 

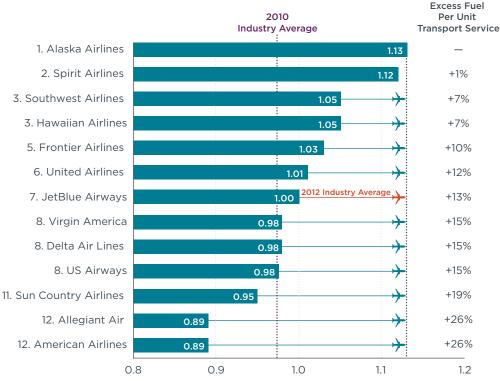
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# U.S. DOMESTIC AIRLINE FUEL EFFICIENCY, 2011-2012

A new report shows U.S. airlines' in-use fuel efficiency on domestic operations in 2011-2012, building on a baseline assessment published last year by the ICCT. Aviation accounted for roughly 5% of U.S. gross domestic product in 2009, equal to just over \$1 trillion in economic activity

that year, and for about 11% of energy-related carbon dioxide ( ${\rm CO_2}$ ) emissions from the U.S. transportation sector (4% of U.S. total) in 2010. Global  ${\rm CO_2}$  emissions from aviation are projected to grow around 3% to 4% per year, and may quadruple by mid-century if unchecked.

### **FUEL EFFICIENCY SCORES (FES) 2012**



In-Use Fuel Efficiency Score (longer bars = more efficient)

#### **HIGHLIGHTS**

- » In 2011 and 2012 Alaska and Spirit widened their lead over other airlines by adopting advanced technologies and aircraft (Alaska), and efficient operational practices (Spirit). American and Allegiant remained the least fuel-efficient U.S. carriers, largely due to aircraft choice for mainline and affiliate operations. Allegiant has gained ground on American in efficiency terms due to the increasing use of relatively newer, more efficient Boeing 757 aircraft.
- » The gap between the best and worst airlines in 2012 remained unchanged from 2010, at 26%. Overall, the fuel efficiency of U.S. domestic operations improved slightly more than 2% between 2010 and 2012.
- » Recent mergers impacted airline efficiency differently. Southwest improved its 2010 efficiency performance substantially, even after its 2012 merger with much less efficient AirTran Airways. In contrast, United's domestic operations were somewhat less efficient after its merger with the more efficient Continental than would have been predicted from the two airlines' pre-merger performance.
- » Technology has a strong impact on airline efficiency. The most efficient airlines fly newer, more fuel-efficient aircraft.

- » Operational practices are also important. Airlines utilize the same aircraft types in more and less efficient ways.
- » The link between airline efficiency and profitability remains complex. Airlines such as Allegiant and Delta are able to reap high profits in spite of, or even due to, their fuel-intensive business models.

#### **RANKINGS 2010-2012**

Rank	2010	2011	2012
1	Alaska	Alaska	Alaska
2	Spirit*	Spirit	Spirit
3	Hawaiian*	Southwest*	▲ Southwest*
4		Hawaiian*	Hawaiian*
5	Southwest		Frontier
6			
7			
8			Virgin*
9	Virgin		Delta*
10	Sun Country	Sun Country*	US Airways*
11		US Airways*	Sun Country
12	US Airways	Virgin*	Allegiant*
13	AirTran	AirTran	American*
14	American	American	-
15	Allegiant	Allegiant	-

 $^{st}$  Denotes ties between airlines in a given year.

Note: The total number of airlines surveyed dropped from 15 in 2010 to 13 in 2012 (arrows indicate a merger).

#### **PUBLICATION INFORMATION**

U.S. Domestic Airline Fuel Efficiency Ranking, 2011–2012 **Author:** Irene Kwan

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http://www.theicct.org/aviation

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