

Annual and Per-Minute Cost of Delays to U.S. Airlines

Direct Costs

In 2012, 92 million system delay minutes are estimated by A4A to have driven \$7.2 billion in direct aircraft operating costs for scheduled U.S. passenger airlines. The cost of aircraft block (taxi plus airborne) time was \$78.17 per minute, 3.5 percent more than in 2011. Fuel costs increased 5.3 percent to \$39.26 per minute. Crew costs are estimated to have cost \$16.26 per minute, followed by maintenance and aircraft ownership (\$12.02 and \$7.92, respectively) and all other costs (\$2.71).

Calendar Year 2012	Direct Aircraft Operating Cost per Block Minute	Δ vs. 2011	2012 Delay Costs (\$ millions)
Fuel	\$39.26	5.3%	\$3,603
Crew - Pilots/Flight Attendants	16.26	1.7%	1,492
Maintenance	12.02	3.1%	1,103
Aircraft Ownership	7.92	-1.1%	727
Other	2.71	5.0%	249
Total DOCs	\$78.17	3.5%	\$7,175

Notes:

1. Costs based on DOT Form 41 data for U.S. scheduled passenger airlines 2. Arrival delay minutes (Arr:00) reflect operations at 77 U.S. airports as captured in the FAA ASPM database

Additional Costs

Delayed aircraft also drive the need for extra gates and ground personnel and impose costs on airline customers (including shippers) in the form of lost productivity, wages and goodwill. Assuming \$39.74 per hour* as the average value of a passenger's time, 2012 delays are estimated to have cost air travelers billions of dollars.

Implications

ATC delays, especially enroute delays, prevail in many parts of the national airspace system. Moreover, our airport and airway infrastructure can not be scaled to meet future demand as anticipated in the [FAA aerospace forecasts](http://www.faa.gov/data_research/aviation/) (http://www.faa.gov/data_research/aviation/). In addition to new runways, the deployment of modern ATC technologies and changes to operational procedures are critical to the nation's air system and the economy.

* derived from FAA-recommended values as adjusted using BLS employment cost index.