

**ESTIMATED ANNUAL SOURCE AND VALUE OF ATC LOSSES  
ATA MEMBER AIRLINES**

	FOUR REPORTING AIRLINES	TWELVE ESTIMATED AIRLINES	TOTAL	ATA DELAY COST ESTIMATE
Gate Delays				117,382,349
Flow Control	49,176,392	45,960,830	95,137,222	
Air Traffic	38,200,175	35,702,329	73,902,504	
Airport	3,820,005	3,570,221	7,390,226	
Taxi Delays				
Outbound	628,316,080	587,231,542	1,215,547,622	639,314,533
Inbound	186,618,765	174,416,076	361,034,841	168,530,709
Enroute Losses				576,589,795
Indirect Routes	663,029,831	619,675,419	1,282,705,250	
Execution & Delays	50,298,861	47,009,903	97,308,764	
Cruise Inefficiency				
Altitude	18,799,935	17,570,639	36,370,574	
Winds	18,799,935	17,570,639	36,370,574	
Weather				
Diversions	24,707,840	23,092,236	47,800,076	
Cancellations	114,759,528	107,255,594	222,015,122	
Misconnects	8,867,216	8,287,404	17,154,620	
Total	1,805,394,563	1,687,342,830	3,492,737,393	1,501,817,386
DEPARTURES IN U.S.	3,088,854	2,886,879	5,975,733	6,032,500

Reporting Airlines:

American, Delta, Northwest, United

Estimated Airlines:

Alaska, Aloha, American Trans Air, Continental, Evergreen, Federal Express, Hawaiian, Reeve, Southwest, Trans World, UPS, USAir

**AIRCRAFT OPERATING COSTS BY STAGE OF FLIGHT  
AND ASSOCIATED AIR TRAFFIC CONTROL DELAY COSTS  
BASED ON A TYPICAL FLIGHT  
1993**

	GATE	TAXI OUT	AIRBORNE	TAXI IN	TOTAL
TIME (MINUTES)	----	----	----	----	----
TIME (MINUTES)	50	13	106	7	176
FLIGHT DECK CREW	\$327	\$88	\$695	\$43	\$1,153
FUEL	46	46	1,438	16	1,545
MAINTENANCE	58	68	984	34	1,143
EQUIPMENT CHARGES	321	87	682	43	1,132
OTHER	45	12	97	6	160
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TOTAL ACFT OPERATING	\$796	\$300	\$3,895	\$142	\$5,134
CABIN CREW	193	52	411	26	682
FOOD			444		444
OTHER INFLIGHT	28	8	125	4	164
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TOTAL	\$1,018	\$360	\$4,875	\$171	\$6,424
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COST/MINUTE	\$20.35	\$26.69	\$45.85	\$25.79	\$36.40
DAILY DELAY MINUTES	15,803	65,629	34,455	17,904	133,791
DELAY COST/DAY	321,595	1,751,547	1,579,698	461,728	4,114,568
DELAY COST/YEAR	117,382,349	639,314,533	576,589,795	168,530,709	1,501,817,386
GROUND COSTS (EST.)					800,000,000
PASSENGER COSTS					1,000,000,000
TOTAL ATC DELAY COSTS					3,301,817,386

## DELAY DEFINITION

### Gate delays: (minutes)

Gate delays were calculated by subtracting the scheduled out time from the actual for the gate delays identified in the following categories:

- \*Flow Control: Delays where the flight was held in the gate due to Flow Control restrictions into destination airport.
- \*Air Traffic: Flights that were held in the gates by Air Traffic control due to airport congestion or capacity constraints.
- \*Airport: Flights that were held in the gate due to airport congestion that was non ATC related.

### Taxi delays: (minutes)

Taxi delays were calculated by subtracting the **Historical Figure of Merit** (out to off time [50% percentile]) taxi times from the actual (approximately 12 mins.).

- \*Outbound: Time from when the aircraft was electronically logged off the gate until airborne.
- \*Inbound: Time from when the aircraft was electronically logged on the ground until in the gate.

### Enroute Losses: (minutes)

Enroute delays were calculated by subtracting the actual enroute time from a time determined by taking the great circle mileage between two city pairs and dividing by 7 miles per minute to derive enroute time.

- \*Indirect Routes: Time between great circle and actual.
- \*Execution and Delays: Time between the flight plan time and enroute time.

### Cruise Inefficiency: (gals fuel)

Cruise inefficiency was calculated by calculating that ½ of one (1%) of the flight was flown at non-optimum altitudes or wind conditions.

- \*Altitude: Excessive fuel burned from not being able to obtain a optimized cruise altitude through out the flight.
- \*Winds: Excessive fuel burned due to not being able to fly the optimum wind route for the flight.

### Weather:

Total number events recorded in each of the categories due to weather.

- \*Diversions: Number of diversions (segments) recorded due to weather. (approx. 50%)
- \*Cancellations: Number of cancellations (segments) recorded due to weather. (approx. 50%)
- \*Misconnects: Number of misconnects (segments) recorded due to weather. (approx. 50%)

**AIRCRAFT OPERATING COSTS BY STAGE OF FLIGHT  
AND ASSOCIATED AIR TRAFFIC CONTROL DELAY COSTS  
BASED ON A TYPICAL FLIGHT  
1996**

	GATE	TAXI OUT	AIRBORNE	TAXI IN	TOTAL
TIME (MINUTES)	----	----	----	----	----
TIME (MINUTES)	50	14	111	7	182
FLIGHT DECK CREW	\$368	\$102	\$818	\$50	\$1,338
FUEL	49	49	1,537	16	1,651
MAINTENANCE	61	72	1,037	36	1,205
EQUIPMENT CHARGES	315	87	699	43	1,143
OTHER	87	24	193	12	316
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TOTAL ACFT OPERATING	\$879	\$333	\$4,285	\$157	\$5,653
CABIN CREW	212	59	472	29	772
FOOD			397		397
OTHER INFLIGHT	31	9	128	4	172
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TOTAL	\$1,123	\$400	\$5,281	\$190	\$6,993
	=====	=====	=====	=====	=====
COST/MINUTE	\$22.46	\$28.98	\$47.55	\$27.92	\$38.50
DAILY DELAY MINUTES	12,280	62,908	36,009	17,608	128,805
DELAY COST/DAY	275,771	1,823,130	1,712,354	491,617	4,302,872
DELAY COST/YEAR	100,656,316	665,442,565	625,009,135	179,440,115	1,570,548,131
GROUND COSTS (EST.)					840,000,000
PASSENGER COSTS					1,500,000,000
TOTAL ATC DELAY COSTS					3,910,548,131