

Detailed Calculations of Consumer Welfare Impact

KEY ASSUMPTIONS	QUANTITY/ UNIT	PRICE/ VALUE	CHANGE DURING FIRST YEAR	CHANGE OVER 20 YEARS @ 7% 2.6% INFLATION	SOURCE MATERIAL
			(millions)	(millions)	
Tarmac delayed flights (2007-2008)	1,481				DOT (RIA p42)
Flights with 2.5-3.0 hour taxi time (07-08)	1,284				DOT (RIA p40)
Passengers on flights with 2.5-3.0 hour taxi	86,689				DOT (RIA p40)
Average passengers per flight	68				DOT (RIA p40)
Value of passenger time (per hour)		\$29.53			DOT (RIA p42)
Passenger fee (per enplanement & deboarding)		\$1.37			DOT (RIA p42)
Taxi cost (for each gate return or redeparture)		\$88.24			DOT (RIA p42)
DOT assumed passenger rebook time (hrs)	5.9				DOT (RIA p42)
Adjusted rebook time @ 83% load factor (hrs)	18.6				Marks and Jenkins (2010)
Cancellations, DOT estimate (2.75%)	41				DOT (RIA p42)
Passengers on DOT cancelled flights above	3,176				DOT (RIA p42)
Cancellations, observed rate of 4:1	5,924				Marks and Jenkins (2010)
Cost per cancellation, airline		\$14,818.00			DOT (RIA p42)
STATED PUBLIC BENEFIT OF CHANGES				\$69.1	DOT (RIA p61)
Part One: New Returns to Gate & Re-Departure					
Fuel Cost Taxi-in	1,284	(\$88.24)	(\$0.11)	(\$1.5)	Returns to gate * taxi-in fuel
Fuel Cost Taxi-out	1,284	(\$88.24)	(\$0.11)	(\$1.5)	Gate departures * taxi-out fuel
Passenger disembarkation fee	86,689	(\$1.37)	(\$0.12)	(\$1.5)	Pax on 2.5-3.0 hr flights * fee
Passenger reboarding fee	86,689	(\$1.37)	(\$0.12)	(\$1.5)	Pax on 2.5-3.0 hr flights * fee
Part Two: Observed Cancellations					
Airline cost of incremental cancellations	5,883	(\$14,818.00)	(\$87.17)	(\$1,125)	(5,924 less 41) * Cost per cancel
Credit for taxi-out fuel	5,883	\$88.24	\$0.52	\$6.7	Fewer taxi-out because of cancels
Credit for passenger reboarding	397,190	\$1.37	\$0.54	\$7.0	Fewer reboarding costs
Part Three: Increased Passenger Travel Time					
Original DOT passengers cancelled	3,176				Initial DOT projection of cancelled pax
Increased travel time, per passenger	12.7				Increase due to higher load factors
Value of increased travel time across group	40,335	(\$29.53)	(\$1.19)	(\$15.4)	(Pax) * (hours) * (value of time)
Passengers on cancelled flights	397,190				Incremental passengers cancelled
Increase in hours travelled	18.6				Incremental hours to rebook
Value of increased travel time across group	7,387,726	(\$29.53)	(\$218.16)	(\$2,816)	(Pax) * (hours) * (value of time)
CHANGE IN PUBLIC BENEFIT (millions)			(\$305.93)	(\$3,949)	
NET PUBLIC BENEFIT (millions)				(\$3,880)	\$3.88 billion over 20 years