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FINAL REGULATORY EVALUATION FINAL REGULATORY FLEXIBILITY DETERMINATION, TRADE IMPACT ASSESSMENT AND UNFUNDED MANDATE REFORM ACT ASSESSMENT

CONGESTION AND DELAY REDUCTION AT CHICAGO'S O'HARE INTERNATIONAL AIRPORT

Office of Aviation Policy and Plans

Gwendolyn Flowers

Michael Lukacs

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TABLE OF CONTENTS

CHECKLIST-PREAMBLE SUMMARY

Changes to Federal regulations must undergo several economic analyses. First, Executive Order 12866 directs that each Federal agency shall propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 (5 U.S.C. 5601, et seq) requires agencies to analyze the economic impact of regulatory changes on small entities. Third, the Trade Agreements Act (19 U.S.C. 4 §§ 2531-2533) prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the United States. In developing U.S. standards, this Trade Act requires agencies to consider international standards and, where appropriate, to be the basis of U.S. standards. Fourth, the Unfunded Mandate Reform Act of 1995 (Public Law 104-4) requires agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local, or tribal governments, in the aggregate, or by the private sector, of $100 million or more annually (adjusted for inflation).

In conducting these analyses, FAA has determined this final rule (1) has benefits that justify its costs; is not an economically significant regulatory action as defined by Executive Order 12866; and is "significant" as defined in DOT's Regulatory Policies and Procedures; (2) will not have a significant economic impact on a substantial number of small entities; (3) will not adversely affect international trade; and (4) will not impose an unfunded mandate on State, local, or tribal governments, or on the private sector. These analyses, set forth in this document, are summarized below.

TOTAL COSTS AND BENEFITS OF THIS RULEMAKING

FAA estimates that this final rule will result in a 32% reduction in delay at O'Hare, generating present value *benefits* of $475.6 million relative to November 2003 delays.

The estimated present value cost of this final rule is less than $1.0 million.

Who Is Potentially Affected By This Rulemaking

- Operators of scheduled, domestic and Canadian flights at O'Hare
- Domestic and foreign air carriers
- All communities, including small communities with air service to O'Hare
- Passengers of scheduled, domestic and Canadian flights to O'Hare
- Chicago Department of Aviation
- FAA Air Traffic Control

Key Assumptions

- Baseline Flight Operations -Official Airline Guide (OAG) Schedule November 20, 2003 of 1,464 daily arrival flights (OAG plus 96 unscheduled).
- Daily Flight Completion Factor: 97%/Daily Flight Cancellation Factor: 3%
- No lost revenue due to cancelled flights -- All Passengers are rebooked or rerouted to their destination.
- Delay improvements are 9.6 minutes per flight and equivalent to a 32% improvement in delay. We derive delay improvements from MITRE's Queuing Delay Model, which measures queuing delays against the OAG flight schedule.
- For this evaluation, the effective date is 10/29/06 and the sunset date is 10/31/08. We adjust annual estimates to reflect the 1.5 days per week when the limits are not in effect (all-day Saturday and until noon on Sunday).

Other Important Assumptions

- Discount Rate - 7%
- Assumes 2005 Current Year Dollars

- Final rule will sunset October 31, 2008
- Ground and Airborne average cost per hour -- $1,935
- Passenger Value of Time -- $28.60 per hour

Alternatives We Have Considered

- Alternative #1-This alternative would have let the August 18, 2004, order expire on April 30, 2005. Based on history, FAA expects that operators would most likely continue to expand operations, further increasing airport delays.
- Alternative #2- The FAA is continuing to explore the feasibility of a market-based solution such as an auction or congestion pricing.
- Alternative #3-The FAA implements this final rule providing an interim solution while capacity enhancement measures and market-based mechanisms are reviewed.

BENEFITS OF THIS RULEMAKING

The primary benefits of this rule will be the airline and passenger delay cost savings. The benefits reflect a prorating of the 5.5 days per week for which the operational limits are in effect, and the flight completion factor of 97%. The total estimated benefits, shown in table 1 are $475.6 million in present value dollars.

Table 1 Total Present Value Benefits of Final Rule

	Airline Delay Cost Savings	Passenger Delay Cost Savings	Total Benefits
2006	$19,094,170	$ 21,212,339	$ 40,306,510
2007	$ 111,337,400	$ 124,436,227	$ 235,773,627
2008	$82,300,269	$ 117,219,790	$ 199,520,059
TOTAL	$ 212,731,839	$262,868,357	$ 475,600,196

The total airline delay cost savings of $212.7 million is shown in Table 2. The total passenger delay costs savings of $262.9 million is shown in Table 3.

Table 2 Airline Delay Cost Saving

	Avg Total Delay (Minutes) per day	Avg Total Delay (Hours) per Day	Avg Variable Cost per Hour	Prorated Annual Airline Delay Cost Savings	Prorated Present Value of Airline Delay Cost Saving
2006	13,772	230	$1,935	$20,430,762	$19,094,170
2007	13,772	230	$1,935	$127,470,189	$111,337,400
2008	13,772	230	$1,935	$100,821,369	$82,300,269
Total				$248,722,320	$212,731,839

TABLE 3 PASSENGER DELAY COST SAVINGS

	Total Daily Arrivals	Average AC Seats	Average AC Load Factor	Passenger Per Flight	Passengers Per Day	Avg Delay Arrival	Total Delay Minutes	Total Delay Hours	Annual Daily Hours (prorated days rule is in effect)	Pax Value of Time	Daily Pax Delay Costs	Prorated Annual Pax Passenger Delay Reduction	Prorated PV of Pax Delay Reduction
2006	1,420	104.3	0.728	75	107,827	9.6	1,035,142	17,252	3,864,528	$28.60	$493,417	$22,697,203	$21,212,339
2007	1,420	104.5	0.731	76	108,479	9.6	1,041,400	17,357	4,981,365	$28.60	$496,401	$142,467,037	$124,436,227
2008	1,420	104.9	0.734	76	109,341	9.6	1,049,677	17,495	1,399,569	$28.60	$500,346	$143,599,283	$117,219,790
												$308,763,523	$262,868,357

COSTS OF THIS RULEMAKING

The major costs of this final rule cover the blind market costs incurred by buyers and sellers of Arrivals Authorizations, the public costs of developing and managing the blind market, and other administrative and compliance costs. FAA believes that market pressures as well as provisions in this rule should mitigate the potential impact of this final rule on competition and airfares at O'Hare. The total present value costs of less than $1.0 million are shown in the last column of Table 4.

TABLE 4 PRESENT VALUES OF TOTAL ANNUAL COSTS

	FAA E-Bid Develop. Costs	E-Bid System Operating Costs	FAA E-Bid Admin. Costs	Other Admin. Costs	Reporting Costs	Total Costs
2006	$147,196	$23,364	$25,037	$125,183	$ 29,684	$350,464
2007	$0	$43,672	$46,797	$233,987	$ 15,734	$340,189
2008	$0	$20,407	$21,868	$109,339	$12,254	$163,868
Total	$147,196	$87,444	$93,702	$468,509	$57,672	$854,522

FINAL REGULATORY EVALUATION

INTRODUCTION

This regulatory evaluation presents the economic analysis of the Final rule: Congestion and Delay Reduction at Chicago's O'Hare International Airport (O'Hare). This rule requires an arrival authorization for any scheduled arrival at O'Hare during the period the rule is in effect. This final rule also limits authorized arrivals at Chicago's O'Hare International Airport during the peak hours for all scheduled, domestic flights and flights conducted by Canadian carriers to O'Hare. This rule establishes operational limits on scheduled arrivals to manage congestion and delays at O'Hare. The operational limit for scheduled arrivals at O'Hare is 88 arrivals per hour between 7:00 a.m. and 7:59 p.m. Monday through Friday and noon to 7:59 p.m. on Sundays; and 98 arrivals between 8:00 p.m. and 8:59 p.m. on the same days for all domestic and Canadian flights. Flights limits for unscheduled arrivals were established in a separate rule issued on May 24, 2005.[1] International flights conducted by U.S. and foreign registered operators above baseline schedules are excluded from the flight limits established in this rule (flights originated in Canada are included in the flight limits). As a result of the hourly and half-hourly scheduling limits in the rule, the FAA estimates a 32% reduction in delay.

[1] FAA established a limit on unscheduled arrivals of 4 hourly arrivals under a 72-hour advance reservation system in a separate rulemaking.

Other provisions of this rule include implementation of a blind buy-sell and leasing secondary market, a lottery system to allocate Arrival Authorizations, and a use or lose requirement. The final rule will be in effect through October 2008 but may terminate earlier under certain conditions.

BACKGROUND

The demand for access at O'Hare has historically outpaced available capacity and produced significant levels of congestion and delay. Since beginning the phase-out of the High Density Rule (HDR) in May 2000, some of the operators at O'Hare have consistently over scheduled arrivals resulting in considerable congestion and delays during peak hours of the day. In 2003, congestion and delays grew progressively worse. By November 2003, O'Hare had the worst on-time performance of any major airport. Arrivals were on-time only 57% of the time, well below the FAA NAS wide goal of 82%.

In January 2004, the Secretary of Transportation determined that this delay performance was unacceptable. Given the potential cost of these delays on operators and passengers at O'Hare and the overall efficiency throughout the National Airspace System (NAS), the FAA took several administrative actions to address the congestion and delay problem at O'Hare. The short-term voluntary agreements listed in Table 5 resulted in delay improvements.

Table 5 - 2004 FAA and Air Carriers Actions Limiting O'Hare Flight Arrivals

Date Action Taken	Constraining Action	O'Hare Affected Carriers	Effective Date
January 21, 2004	Voluntary reduction 5% - FAA Order	American and United Only	March 4, 2004
April 21, 2004	Voluntary reduction of additional 2.5% - FAA Order	American and United only	June 10, 2004
August 18, 2004	Voluntary Reduction/ FAA Order Operational limits established at 88 scheduled arrivals per hour during most hours of the day	All Domestic and Canadian Carriers Scheduled	November 1, 2004 – April 30, 2005
July 8, 2005	SFAR No. 105 - Operational limits established at 4 unscheduled arrivals per hour	Unscheduled	August 8, 2005- March 31, 2006
March 21, 2005	Extension of the August 2004 Order for 6 months	All Domestic and Canadian Carriers	May 1, 2005 – October 29, 2005
October 2, 2005	Extension of the August 2004 Order for 6 months	All Domestic and Canadian Carriers	October 30, 2005 – April 1, 2006
March 13, 2006	Extension of the August 2004 Order	All Domestic and Canadian Carriers	April 1, 2006 – October 28, 2006

In early 2004, DOT and FAA determined that a schedule reduction meeting was necessary to deal with the delay problem at O'Hare. In January 2004, the Secretary of Transportation authorized the FAA to request that airlines meet with the FAA to discuss flight reductions at severely congested airports to reduce over scheduling and flight delays

during hours of peak operation. However, the meeting was deferred when American and United Airlines voluntarily agreed to reduce operations by 5% effective between 1:00 p.m. and 8:00 p.m. for a 6-month period beginning before March 4, 2004. The FAA issued an order that required the 5% reduction in scheduled operations that United and American had accepted. Again, on April 21, 2004, the FAA amended the order and required additional flight reductions of 2.5%, depeaking of arrivals during certain periods, and extended restricted times until October 31, 2004.

Despite the flight reductions in March and June 2004, delays continued. Therefore, in July, FAA and DOT determined that the deferred scheduling reduction meetings were needed (69 FR 46201, August 2, 2004). An order limiting arrivals to 88 per hour during most hours of the day was issued on August 18, 2004. The order took effect on November 1, 2004, and expired April 30, 2005. The order was subsequently extended for 6 months through October 29, 2005, and for another 6 months through April 1, 2006. Currently the order is extended through October 28, 2006 at which time this final rule will become effective.

This final rule is effective upon expiration of order (Docket FAA-2004-16944). The FAA recognizes that the intended long-term solution for O'Hare will require additional capacity. This rule is an interim solution to address congestion and delay at O'Hare from October 2006 until October 2008, which is when we expect additional capacity. For purposes of this regulatory evaluation, the effective period of the final rule is October 29, 2006 through October 31, 2008. If additional capacity does not become available during this period, the FAA may consider other congestion management techniques such as a

market-based approach for allocating available capacity. Examples of two potential capacity enhancing projects at O'Hare include;

- The construction of a new Instrument Landing System (ILS) on runways 27 left and 27 right, which would increase the number of aircraft that can land in bad weather.
- The O'Hare Modernization Plan (OMP) proposed by the City of Chicago to bring additional capacity.

SUMMARY OF FINAL RULE

This final rule is an interim measure to address traffic congestion and delays at the O'Hare International Airport until longer-term solutions can be implemented. The major provisions of this final rule are summarized below:

Establish Limits on Scheduled, Domestic and Canadian Arrivals

Under this final rule, the FAA will limit the number of scheduled arrivals at O'Hare to 88 arrivals between 7:00 a.m. and 7:59 p.m. Monday through Friday and noon to 7:59 p.m. on Sundays; and 98 arrivals between 8:00 p.m. and 8:59 p.m. on the same days for all U.S. domestic flights and Canadian flights. These limits include most international arrivals at the airport but incremental increases and changes since August 2004 may be accommodated above those limits. In this analysis, scheduled arrivals include those published in the Official Airline Guide (OAG), as well as other regularly conducted arrivals. On July 8, 2005, FAA established a limit on unscheduled arrivals of 4 hourly arrivals under a 72-hour advance reservation system in a separate rulemaking action.

Sale and Lease of Arrival Authorizations through a Blind Market

Under the final rule, Arrival Authorizations can be bought, sold and leased in the blind market. All terms of the sales transactions will be transparent after completion of the sale. This will promote the efficient use of Arrival Authorizations and maximize reliance on market forces, which will minimize the need for continuing government intervention to assign and allocate authorizations. The FAA will oversee the blind market transactions. When an Arrival Authorization is for sale or lease, the FAA will post the information on its website giving notice to all interested airlines and providing all an equal opportunity to bid. The sellers and bidders will not be identified, until the sellers have accepted the highest bid. The seller must provide notice to the FAA of its intent to sell or lease an Arrival Authorization, and include the Arrival Authorization number, times, frequencies, and effective dates. The FAA will post information about the sale or lease and the closing date for bids. Information identifying the seller or lessor will not be posted in the notice. Bids must be made by the closing date.

The FAA will forward the highest bid to the seller or lessor without disclosing the identity of the proposed buyer or lessee. The seller has 3 business days to accept or decline the offer. After acceptance, the FAA will notify the winning bidder and both carriers must submit the necessary information to transfer the Arrival Authorization. The buyer will not be able to use the Arrival Authorization until the FAA confirms the transfer. A record of each sale and its terms will be kept on file by the FAA and made available to the public.

Purchases in the blind market are strictly limited to cash. Using gates, non-monetary assets or other services instead of cash is not permitted.

In the NPRM, the FAA requested comments about whether it should allow carriers to lease Arrival Authorizations and the potential impact of leases and subleases on the proposed use-or-lose provisions. In consideration of the comments, the final rule permits leasing. The terms of the lease agreement will be transparent once the agreement is finalized. The leasing provision will include conditions similar to those developed for the sales transactions, which is intended to promote efficient use while reducing opportunities for collusion. FAA expects that leasing will give carriers additional flexibility to adjust their schedules to changes in seasonal and market conditions and make it easier to enter new markets.

One-for-One Trading of Arrival Authorizations Between Airlines

The final rule will allow one-for-one trading of Arrival Authorizations between carriers. Such trades are an effective way to deal with variations in seasonal demand, schedule adjustments, and airline operational issues. These trades take place outside the blind market since many of these arrangements can be accomplished only through multicarrier trades.

Minimum Use of Arrival Authorizations

In the NPRM, the FAA requested comments on three minimum usage options. Based on the comments received for the NPRM, the FAA has concluded that an 80 percent minimum usage over a 2-month period will be implemented in this rule.

The Treatment of Foreign Carriers

Non-Canadian foreign air carriers were not included in the August 2004 Order limiting schedules, although their arrivals were considered by the FAA in determining the current demand and the accepted hourly limits in the Order. Foreign air carriers will be assigned Arrival Authorizations based on historic schedules. Incremental changes or additional international arrivals of domestic and foreign flag carriers are excluded from the operational limits established in this rule. Carriers however, must receive an Arrival Authorization for each arrival during the regulated hours. FAA reserves the right to modify the arrival time to minimize the impact on delays.

Lottery Assignment of Existing and Additional Capacity

The FAA will allocate by lottery, currently available Arrival Authorizations within the adopted hourly limits, returned or withdrawn Arrival Authorizations, and any new capacity if the hourly limits are increased under the rule. The FAA will make these Arrival Authorizations available without cost to eligible carriers based on a random rank order established for each lottery.

METHODOLOGY

This section of the regulatory evaluation describes the method used to determine the costs and benefits of this final rule. We begin by identifying the key assumptions and affected entities. We list the potential benefits and cost impacts expected because of this final rule. Next, we describe the modeled and actual delay performance used to determine our estimates of delay improvements. The key assumptions used to derive the cost and

benefit estimates are:

Key Assumptions

- Baseline Flight Operations -Official Airline Guide (OAG) Schedule November 20, 2003 of 1,464 daily arrival flights (OAG plus 96 unscheduled).
- Daily Flight Completion Factor: 97%/Daily Flight Cancellation Factor: 3%
- No lost revenue due to cancelled flights -- All Passengers are rebooked or rerouted to their destination.
- Delay improvements are 9.6 minutes per flight and equivalent to a 32% improvement in delay. We derive delay improvements from MITRE's Queuing Delay Model, which measures queuing delays against the OAG flight schedule.
- For this evaluation, the effective date is 10/29/06 and the sunset date is 10/31/08. We adjust annual estimates to reflect the 1.5 days per week when the limits are not in effect (all-day Saturday and until noon on Sunday)[2].

Affected Entities

The provisions of this rule affect domestic and Canadian carriers with scheduled operations at O'Hare, their passengers, foreign air carriers, FAA Air Traffic Control, and the City of Chicago's Department of Aviation. Unlike the NPRM, the new international (non Canadian) flights of U.S. and foreign registered carriers are excluded from the operational limits established in this rule. FAA has also considered the potential impact on small communities with air service from O'Hare.

[2] To calculate the quantitative benefits of this final rule, the number of days the rule is in effect, are 64 days in 2006, 365 in 2007 and 305 days in 2008.

Potential Benefit and Costs Impacts

The expected benefits for this final rule are categorized as follows:

- Costs savings to O'Hare air carriers and passengers because of the expected decline in the number and duration of delays.
- Improved transparency and efficiency of blind secondary market transactions and lottery system. FAA has not attempted to quantify the benefits of transparency and efficiency.

The potential costs of this final rule include:

- The cost to develop the E-Bid System
- The cost to operate the E-Bid System
- Administrative Costs
- Reporting Cost

ACTUAL AND MODELED ESTIMATES OF O'HARE DELAY IMPROVEMENTS

Under optimal weather and operating conditions, FAA's Air Traffic Control (ATC) can handle approximately 100 arriving flights per hour. FAA has determined that on average over a one-year period, 88 scheduled arrivals per hour can be accommodated.

To estimate the delay improvements likely from this final rule, we have used results of a queuing delay model and actual delay performance at O'Hare constraining flights similar to those imposed in this rule. When we conducted the preliminary regulatory evaluation for the NPRM, the FAA relied on the MITRE queuing delay model to estimate the expected impact of the flight limits. For the final regulatory evaluation, FAA has examined both the results of the MITRE queuing delay model as well as

observations of O'Hare's actual delay performance from November 2004 through June 2005.

MITRE Queuing Delay Models

FAA used MITRE's initial queuing delay model results in the preliminary regulatory evaluation. For the final regulatory evaluation, FAA uses the results of an updated queuing delay model. The initial model used actual OAG flight schedules for November 20, 2003 and August 19, 2004, which was representative of the unconstrained and constrained flight operations at O'Hare, with ATCs called rates, (ATC called rates are the number of arrivals Air Traffic Control accepts each hour) to derive estimates of queuing delay.

The MITRE queuing model randomly adds four flights to O'Hare OAG schedules to simulate the effect on airport delays of average hourly unscheduled flights. Because these flights arrive at unknown times, they were randomly assigned during each hour. Since queuing delays depend heavily on when these flights are added, 100 runs were performed for each schedule randomizing the unscheduled flights during each run.

For this final rule, FAA uses a revised MITRE model which reflects changes in the provisions of the rule as well as updates to the OAG schedule. Further, in the original model, MITRE constrained flights hourly as well as for each 15-minute and 30-minute segments. In the revised model, these 15- minute and 30-minute constraints are relaxed consistent with the adopted limits. As before, MITRE randomly applied 4 flights per hour

to account for the unscheduled arrivals. The revised model results also used 19 months of capacity information versus 7 months in the original modeling.

This revised MITRE model is based upon a *modified* May 19, 2005, OAG schedule. Although the May 19, 2005 schedule from the OAG meets current restriction levels of 88 scheduled arrivals per hour, not all available arrival allocations were utilized. To evaluate the impact at the traffic levels possible with the rule, the published schedule was modified for the purpose of this analysis by increasing traffic levels up to the full 88 scheduled arrivals per hour (4 unscheduled arrivals per hour were also added). If the May 19, 2005, schedule from the OAG was used directly, without modification, this assessment would have overestimated the benefits of the final rule due to the unused arrival allocations.

In this final rule, the MITRE delay model predicts an improvement in average daily delays of 13,772 minutes and a reduction of average delays per flight of 9.6 minutes—a 32% improvement over what could occur without the rule.

The FAA uses the baseline of November 20, 2003, as the baseline and the constrained conditions of May 19, 2005, to reflect the changes in the carriers' OAG schedule. The NPRM delay savings were estimated at 43%. The delay savings in this final rule are 32% using the updated model (May 19 scheduled arrivals).

MITRE revised model results are in Table 6. The table shows the percent change in daily delay minutes and delay minutes per flight for the baseline and modeled conditions that characterize the May 2005 scheduled and historic, unscheduled arrival demand at

O'Hare.

Table 6 - MITRE Revised Model Results

Modeled Results	Comments	Total Daily Delays (Minutes)	Change In Delay Minutes Per Flight
November 20, 2003	Baseline Used in Final Rule	43,196	29.7
May 19, 2005	Constrained	29,424	20.1
	Relative baseline	-13,772	-9.6
	Percent change relative to baseline	-32 %	-32%

Actual Delay Performance at O'Hare

Delay improvements predicted by MITRE's initial and revised model are reasonably consistent with the actual delay improvements observed since the August 2004 Order went into effect beginning November 1, 2004. Delay performance data is reported in FAA's Aviation System Performance Metrics (ASPM) database. Since air travel and weather-related delays have a large seasonal component, it is useful to compare trends in the same month over time to net out the seasonal variation. Table 7 shows the history of arrivals and delays at O'Hare from January 2003 until June 2005. These observations provide a useful point of reference to show the experience at O'Hare resulting from the Order, which limited flights to the same levels established under this final rule.

Table 7 shows the year-over-year change in monthly arrivals and gate delays from January 2003 through June 2005. For the NPRM preliminary regulatory evaluation, the August Order had been in effect for just one month. In November 2003, the average gate

arrival delay was 26.43 minutes per arrival and by November 2004 had fallen to 16.06 minutes per arrival. The observed delay metrics indicate a 38% reduction when looking at weekday only flights.

For this final regulatory analysis, we are able to review additional observations from December 2004 through June 2005. Beginning in November 2004, the first month the limit was in effect and the subsequent months the limit has been into effect also shows a sizable reduction in delays. The year-over-year change in monthly gate delays from December 2003 to December 2004 shows an increase of only 2 percent. From January 2005 to June 2005 however, the delay improvements increased. Table 8 summarizes the average improvement for the 6-month period. The pre Order period has markedly higher delays than the post limit period. FAA believes these improvements are due to the series of actions taken by FAA and industry beginning in January 2004 to limit arrivals at O'Hare. This final rule will temporarily codify these actions and permit the improvements to continue until other longer-term solutions are implemented.

There are multiple reasons the model and actual delay results can differ. Three of the most important reasons are weather (both en route and airport), traffic flow management, and delay reporting differences. Weather is the most common cause of airspace system delays and can reduce the number of available runways and/or reduce the number of operations on a runway. Based on the FAA ASPM database in November 2003, 54 percent of the arrivals occurred in moderate to severe weather; whereas in November 2004, 34 percent of the arrivals occurred in moderate to severe weather. A direct comparison of the ASPM delays and the MITRE delay model is not appropriate. Given the

substantial variation in delays because of weather, the FAA believes the MITRE model provides a more accurate estimate as the basis to calculate queuing delay savings because schedule changes can be evaluated independent of the weather conditions.

Table 7 - O'Hare's Actual Arrival and Delay Performance: January 2003 – June 2005

Date	Daily Arrivals	Gate Arrival Delay	Arrival delay Minutes	Arrival Delay Hours	Monthly Change	% Change	Monthly year-over-year Change	% Change Year To Year
03-Jan	1,186	12.05	14,297	238				
03-Feb	1,165	13.47	15,687	261	1.42	11%		
03-Mar	1,178	13.09	15,423	257	-0.38	-3%		
03-Apr	1,156	11.93	13,796	230	-1.16	-10%		
03-May	1,169	11.28	13,190	220	-0.65	-6%		
03-Jun	1,247	10.14	12,644	211	-1.14	-11%		
03-Jul	1,226	18.7	22,935	382	8.56	46%		
03-Aug	1,243	15.54	19,318	322	-3.16	-20%		
03-Sep	1,223	9.87	12,073	201	-5.67	-57%		
03-Oct	1,281	8.78	11,250	188	-1.09	-12%		
03-Nov	1,277	26.43	33,754	563	17.65	67%		
03-Dec	1,318	22.17	29,219	487	-4.26	-19%		
04-Jan	1,249	31.84	39,784	663	9.67	30%	19.79	164%
04-Feb	1,328	17.91	23,776	396	-13.93	-78%	4.44	33%
04-Mar	1,324	26.02	34,450	574	8.11	31%	12.93	99%
04-Apr	1,353	14.68	19,862	331	-11.34	-77%	2.75	23%
04-May	1,286	29.05	37,354	623	14.37	49%	17.77	158%
04-Jun	1,361	19.19	26,112	435	-9.86	-51%	9.05	89%
04-Jul	1,356	19.95	27,048	451	0.76	4%	1.25	7%
04-Aug	1,369	16.79	22,984	383	-3.16	-19%	1.25	8%
04-Sep	1,339	6.43	8,611	144	-10.36	-161%	-3.44	-35%
04-Oct	1,348	10.59	14,272	238	4.16	39%	1.81	21%
04-Nov	1,296	16.06	20,820	347	5.47	34%	-10.37	-39%
04-Dec	1,290	22.61	29,163	486	6.55	29%	0.44	2%
05-Jan	1,215	26.73	32,485	541	4.12	15%	-5.11	-16%
05-Feb	1,294	13.96	18,071	301	-12.77	-91%	-3.95	-22%
05-Mar	1,321	14.00	18,494	308	0.04	0%	-12.02	-46%
05-Apr	1,333	8.01	10,677	178	-5.99	-75%	-6.67	-45%
05-May	1,300	12.37	16,081	268	4.36	35%	-16.68	-57%
05-Jun	928	17.09	15,858	264	4.72	28%	-2.1	-11%

Table 8- Average Actual Delay Performance

	Nov 2003 - June 2004	Nov 2004 - June 2005	Percent Change
% On Time Arrivals	65.0	75.2	16%
Monthly Arrivals	39,839	39,305	-1%
Delay Minutes	23	16	-30%

The FAA Administrator will continue to monitor delay performance and operating conditions at the airport and may increase arrivals at O'Hare up to 100 arrivals per hour, if airport conditions permit.

BENEFITS OF DELAY SAVINGS

The key determinants in estimating the delay cost savings used in this analysis are the number of scheduled flights at O'Hare, the estimated delay improvement minutes, the unit costs of flight and ground operating costs for operators, and the value of passenger time. While the MITRE delay model assumes the planned OAG flights will be completed, in estimating the delay cost savings FAA has reduced the number of completed flights by the estimated cancellation rate of 3%[3]. We assume that all passengers will be rebooked on other flights or rerouted to reach their destinations.

FAA will assign Arrival Authorizations based on the operations assigned under the Order. For passengers traveling to or from communities with limited service to O'Hare, because of the final rule, the flight restrictions may require a more circuitous route. However, FAA expects the costs and disruptions that result from the limits on flights are far less than the costs and disruptions incurred by the delays and congestion without any flight limits. Additionally, FAA assumes there is some ability for O'Hare's operators, particularly the two largest, to adjust their O'Hare operations, for example by changing aircraft type on some routes, to accommodate passenger demand under the final rule. Therefore, in this regulatory evaluation, we assume in the aggregate, all passengers will reach their destinations and overall, operators will not lose passenger revenue.

[3] The Daily Flight Completion Factor is 97% and the Daily Flight Cancellation Factor is 3%.

AIRLINE DELAY COST SAVINGS

Flight delays can generate significant costs for airlines and their passengers. For an airline, costs accrue because of the extra hours worked by aircrews; additional fuel consumption during holding, and additional maintenance because of increased airborne and ground delays. The airline delay cost savings are measured as the minutes of delay saved multiplied by the aircraft variable costs. The cost savings for the delay improvements adjust to reflect the average flight completion rate of 97% and the 1.5 days per week when the flight limits do not apply. For airline's passengers, delay costs accrue because of the lost use of personal or work time.

The FAA uses the MITRE model to calculate the airline delay cost savings. In this analysis, FAA estimates the Airline Delay Cost Savings under the assumption that 80% of delays are airborne and 20% are ground delays. The May 19 model scenario of 29,424 delay minutes are subtracted from the base case scenario of 43,196 delay minutes, to arrive at a difference/savings of 13,772 minutes (32%). In this analysis, we used the latest estimate of aircraft variable operating costs per block hour of $2,078. [4] Excluding the fuel and oil costs of airborne flight operations, the average variable cost for delays taken on the ground is $1,364 per hour. On a per minute basis, the aircraft variable operating cost is $32.25, slightly more than the $30.00 per minute cited by United Airlines. (See "Delays at

[4] Provided by Part 121 and Part 135 operators reporting on DOT Form 41 and 298C. Aircraft variable operating costs cover the variable costs for crews, fuel and oil, and maintenance (See FAA Draft Economic Values for Evaluation of Federal Investment and Regulatory Programs: Office of Aviation Policy and Plans, May 20, 2004).

O'Hare Cause Frustration and Debate": New York Times, July 31, 2004). The average hourly cost of delay equals 0.80 multiplied by the block hour cost of $2,078 plus 0.20 multiplied by the average ground variable cost of $1,364 resulting in a blended cost of $1,935. Shown in table 9 is the airline delay savings of $248.7 million ($212.7 million present value).

TABLE 9 AIRLINE DELAY COST SAVINGS

	Avg Total Delay (Minutes) per day	Avg Total Delay (Hours) per Day	Avg Variable Cost per Hour	Annual Airline Delay Cost Savings	Present Value of Airline Delay Cost Saving
2006	13,772	230	$1,935	$20,430,762	$19,094,170
2007	13,772	230	$1,935	$127,470,189	$111,337,400
2008	13,772	230	$1,935	$100,821,369	$82,300,269
Total				$248,722,320	$212,731,839

PASSENGER DELAY COST SAVINGS

Passengers also incur costs from flight delays. For the passengers, the principal effect of flight delays is the opportunity cost of their personal and work-related time—an approximation for the value of the alternative use of passenger's time. The value of reduced passenger delay time derived from the MITRE delay model is computed by multiplying the value of passenger time by the improvements in delay minutes. The Department of Transportation's recommended hourly value for passenger delay timesaving—a composite of personal and business travelers—is $28.60 per hour of delay[5].

Number of Affected Passengers

We estimate the number of affected passengers using O'Hare's average total scheduled arrival results of constrained flights (1464 X.97) in the revised MITRE model and the appropriate load factor and average aircraft seats per arrival in current FAA (2005) Terminal Area Forecasts (TAF). The TAF forecasts of aircraft seats and load factor are provided in Table 10. The expected number of passengers affected by the rule will grow with the growth in seat capacity and load factor. The number of passengers per flight equals the average O'Hare aircraft size of about 105 seats multiplied by an average passenger load factor of approximately 73%. The delay cost savings are computed by multiplying the hourly value for passenger timesaving, $28.60 by the reduction in delay

[5] Draft Economic Values for FAA Investment and Regulatory Decisions, A Guide, December 31, 2004 and Revised Department of Transportation Guidance—Valuation of Travel Time in Economic Analysis. Office of Secretary of Transportation Memorandum, February 11, 2003.

hours as estimated from the MITRE model results (average of 9.6 minutes of delay reduction per flight per day). The dollar value of this delay improvement reflects adjustments for the expected number of completed flights as well as the 1.5 days per week the flight limits are not in effect.

Table 10-- TAF Forecasts of O'Hare Seat Capacity and Load Factors: 2006 - 2008

Forecast Period	Flights	Seat Capacity	Load Factor	Daily Passenger Estimate
2006	1,420	104.3	0.728	107,827
2007	1,420	104.5	0.731	108,479
2008	1,420	104.9	0.734	109,341

*Forecast of seats per aircraft for all O'Hare operations.

Passenger Delay Cost Savings Results

FAA estimates the total present value of passengers' time for the composite of personal and business travelers resulting from the reduced passenger delay time to be $308.8 million ($262.9 million present value) over the period of analysis. Because of this proposal, the constrained scenario in the MITRE model results in 20.1 minutes of delay per flight. When compared to the base case scenario of 29.7 minutes per flight. The difference is 9.6 minutes per flight or a 32% savings. Table 11 below gives a breakdown of the factors used to estimate the passenger delay benefits of this final rule. The right-hand column of the table contains the dollar amounts of the delay improvements to O'Hare's passengers.

TABLE 11 PASSENGER DELAY COST SAVINGS

	Total Daily Arrivals	Average AC Seats	Average AC Load Factor	Passenger Per Flight	Passengers Per Day	Avg Delay Arrival	Total Delay Minutes	Total Delay Hours	Annual Daily Hours (prorated days rule is in effect)	Pax Value of Time	Daily Pax Delay Costs	Prorated Annual Pax Passenger Delay Reduction	Prorated PV of Pax Delay Reduction
2006	1,420	104.3	0.728	75	107,827	9.6	1,035,142	17,252	3,864,528	$28.60	$493,417	$22,697,203	$21,212,339
2007	1,420	104.5	0.731	76	108,479	9.6	1,041,400	17,357	4,981,365	$28.60	$496,401	$142,467,037	$124,436,227
2008	1,420	104.9	0.734	76	109,341	9.6	1,049,677	17,495	1,399,569	$28.60	$500,346	$143,599,283	$117,219,790
												$308,763,523	$262,868,357

QUEUING MODEL SENSITIVITY

To assess the overall impact of this final rule, the FAA performed sensitivity analyses based on the underlying assumptions and baseline in the MITRE model. By assessing the sensitivity of the queuing model results to different levels of traffic, the MITRE model can be used to predict different delay reductions under various restriction scenarios. For this sensitivity analysis, we continued to use the same baseline of November 20, 2003 for delay change calculations. MITRE analyzed arrival queuing delay using a schedule based upon the May 19, 2005, OAG and building up hourly traffic levels to 88 through 92 scheduled arrivals per hour. The percentage reduction from the November 2003 baseline ranged from 32% for 88 scheduled arrivals per hour to 5% for 92 scheduled arrivals per hour.

COSTS

The major quantifiable costs of this final rule cover the blind market costs incurred by buyers and sellers of the Arrival Authorizations, the public costs of developing and managing the blind market, and other administration and compliance costs. As shown in Table 12, the costs of this final rule will total less than $1.0 million in present value terms. We do not include transfer costs in the total cost estimate. A sale or lease by one air carrier to another provides an arrival authorization to one carrier and compensation to another carrier. These transfers of compensation from one carrier to another net to zero at the cost-to-society aggregate level.

Table 12 Present Values of Total Annual Costs

	FAA E-Bid Develop. Costs	E-Bid System Operating Costs	FAA E-Bid Admin. Costs	Other Admin. Costs	Reporting Costs	Total Costs
2006	$147,196	$23,364	$25,037	$125,183	$ 29,684	$350,464
2007	$0	$43,672	$46,797	$233,987	$ 15,734	$340,189
2008	$0	$20,407	$21,868	$109,339	$12,254	$163,868
Total	$147,196	$87,444	$93,702	$468,509	$57,672	$854,522

FAA E-Bid Development Costs

The design and development of the electronic bidding system would require a software developer and internet/web-based systems developer. The system development would cost $150,000 ($147,196 present value). A list of the major technical requirements used to compute the costs of developing and operating the electronic bidding system are as follows:

Technical Requirements for the Electronic Bidding System

- Registration and login of sellers and bidders
- Develop online web based system to register bidders-- capture the data needed about bidders. Permit vendors to upload or download required documents, such as qualification statements required for bidding on O'Hare Arrival Authorizations; permit FAA online approval of bidders; allow bidders to edit profile/required information: maintain database of information.
- Accept and display information for O'Hare Arrival Authorizations up for sale
- Create electronic bid solicitation; allow uploading for sellers and downloading by potential bidders; allow listing of all bids/bids by time slot.
- Accept and display bid quotes for each Arrival Authorization up for sale.
- Accept and display information on the bids submitted by eligible bidders; compare bid quotes for each Arrival Authorization up for sale; select highest bid.
- Track open and closed bids; broadcast notification of new solicitations.
- Broadcast notifications of new solicitations, accept and display addenda, events, or other important information via e-mail and fax. Track open and closed bids; allow print, upload, and download of bids.

For software development, we use 750 hours for a software designer and a senior systems analyst. Using a fully burdened labor rate of $130 per hour, the software development would cost about $88,000. The internet/based interface is would require an Internet developer approximately 600 hours. At the fully burdened rate of $100 per hour, the Internet interface would add $60,000 to the cost of the electronic bidding system.

FAA E-Bid Operating Costs

The total E-Bid Operating Cost is $100,000 ($87,444 present value) and covers the operating and maintenance costs for a systems analyst to support the blind market at roughly $25,000 per blind market opportunity, or $50,000 annually. For this evaluation, we assume there will be one opportunity in 2006 and 2008, and two opportunities in 2007.

Air carriers would be able to access the FAA web-based bidding system from their computer desktop system to place a notice of their interest to participate and would not likely incur any additional costs to notify the FAA.

FAA E-Bid Admin. Costs

The provisions providing for a blind secondary market will make the existence of such transactions transparent and facilitate the use of the authorization by the carriers and their passengers who place the highest value on the scarce Arrival Authorizations. FAA expects the blind market to improve allocating Arrival Authorizations, by reducing the potential to collude and to improve efficiency of Arrival Authorizations.

Besides the development and operational costs to administer the blind market, the FAA will also incur other administrative costs to implement the other provisions of this final rule such as the lottery system, the use or lose provision, and other compliance and reporting systems. The other administrative costs incurred by FAA include the fully burdened labor costs for 10 months to cover an FAA manager; an employee to serve as an assistant to the manager, and an employee serving as support. We estimate that these three employees will support this final rule roughly $5/6^{th}$ of the time (roughly 10 months per year). FAA estimates that other E-bid administrative costs will be $93,702 in present value dollars.

Other Admin. Costs

To implement this final rule, other administrative costs will occur. The other administrative costs would be $535,782 ($468,509 in present value dollars). Other costs include implementing the provisions such as the lottery system, the use or lose provision, and other compliance and reporting systems. The estimated 12-month annual undiscounted other administrative costs for three employees is $321,469. That amount includes the fully burdened labor costs for roughly 10 months to cover a manager (with a fully burdened annual rate of $150,459); a senior staff employee (with a fully burdened hourly rate of $108,242), and a support staff (with a fully burdened hourly rate of $62,768). We estimate that these three employees will support this final rule roughly 5/6th of the time (roughly 10 months per year). Therefore, annual costs of $267,891 will occur in 2007 and roughly ½ year cost of $133,946 will occur in 2006 and 2008.

Reporting Costs

Air carriers will access the web-based bidding system from their computer desktops to notify the FAA of their plans to take part in the blind market. FAA estimates the total present value reporting costs to air carriers providing notice under the blind market provisions will be $64,787 ($57,672 present value). The reporting costs shown in Table 13 are divided into two categories, development reporting costs and annual reporting costs.

Table 13 Reporting Costs

	Development Costs	Annual Reporting Costs	Total Nominal Reporting Cost	Total Present Value Reporting Cost
2006	$28,760	$3,002	$ 31,762	$29,684
2007	$-	$18,014	$ 18,014	$15,734
2008	$-	$15,011	$ 15,011	$12,254
	$28,760	$36,027	$ 64,787	$57,672

The nominal development reporting costs are roughly $28,760 and are calculated by multiplying the mean hour wage of a computer support specialist ($39.94) by the number of carriers affected (36) and finally by the estimated set up hours per carrier (20).

For this final rule, we estimate total annual reporting costs of $36,027. To estimate the annual reporting cost of this final rule, we multiply the number of carriers (36) by the approximate number of hours per carrier per report (1.5). This product is multiplied by the annual number of reporting periods in the calendar year and subsequently by the mean hourly reporting rate of $55.60 (fully burdened wage rate for a scheduling manager). Based upon a 2 month estimated reporting period, in 2006 there will be one reporting period, in 2007- six reporting periods, and in 2008 roughly five reporting periods. Each carrier would take 1.5 hours to file the reports.

IMPACT ON COMPETITION AND AIR FARES AT O'HARE

While this final rule will limit airport access, the FAA has attempted to balance the need to limit the number of flights at O'Hare against other policy goals, such as promoting market forces, competition, and open skies. The final rule will limit arrivals at O'Hare and thus could reduce the number of airline operations below the number that would be

operated if no cap were imposed on O'Hare arrivals. The FAA believes the final rule will provide benefits that substantially exceed the costs imposed on airlines by limiting their schedule flexibility and the potential cost for consumers of higher fares.

This rule will initially retain the same operational limits that applied under the Order. Looking at the last 6-month period since the Order went into effect shows that despite the reduction in monthly flights at O'Hare, there has continued to be modest growth in passengers. Under this final rule, air carriers will lose some schedule flexibility except for the two dominant carriers, which will still have considerable flexibility to adjust operations given the large number of Arrival Authorizations they hold.

With the majority of the passengers traveling through O'Hare on connecting flights, most will continue to have multiple alternatives independent of O'Hare, helping to discourage fare increases for the connecting routes. Local passengers—those who use O'Hare as the place of origin or destination for their trip—could be more vulnerable to fare increases, but also comprise a smaller share of traffic through O'Hare. The large carriers transport most of these passengers, but face increasing competition from the limited incumbents and new entrants at O'Hare and from the growth at Midway airport. Again, while some local passengers may pay higher prices than without the final rule, they will also benefit from the more reliable schedules that will result from controlling congestion.

This final rule also contains a sunset provision. Given the expected duration of this final rule, we expect the potential impact on competition and fares will be small. While there may be short-run impacts to reduce competition, any revenue gains of individual carriers or passenger fare increases will likely be temporary given the short duration of this

final rule. In addition, lotteries to assign available Arrival Authorizations free of charge and the ability for air carriers to buy or lease Arrival Authorizations through the blind market process keep open the possibility for more competition, at least in some markets.

Overall, the FAA believes the impact on competition will not be significant given the competitive market pressures internal and external to O'Hare, and the short duration of this final rule**.**

THE IMPACT OF DEMAND AND CAPACITY GROWTH

The FAA expects both air traffic demand and capacity to continue to grow over the period of analysis. In this analysis, we used the Terminal Area Forecast (TAF) 2004 - 2021 report, which forecasts the future O'Hare airport operations and air carrier operating parameters such as aircraft seat capacity and load factors. Hence, the growth in seat capacity and load factor incorporates expected growth in passenger traffic, while constraining the number of flights to the operational constraints established in the final rule.

Over the medium to long-term, O'Hare is expected to add new navigational aids. In addition, the City's O'Hare Modernization Program will increase the airport's runway capacity.

Under the final rule, the FAA has the flexibility of adjusting the constraints to account for expansion of airport capacity up to 100 authorizations per hour. Our approach is to assume that adding flights will not reduce delay performance below the levels likely to be experienced with flight limits established under the final rule.

THE IMPACT OF MINIMUM USE REQUIREMENTS

In this final rule, FAA has considered several alternatives pertaining to minimum use requirements. In the NPRM, the FAA sought comments on the three alternatives of utilization or Arrival Authorization provision. (1) no use-or-lose; (2) withdrawal of the bottom 1 percent; (3) 90 percent use-or-lose, over 2 months. Most respondents supported the minimum use requirements but offered standards ranging from 80 percent to 90 percent. In addition, they offered suggestions in modifying the provisions such as allowing lost authorizations to be sold, including arrivals by foreign airlines in the operational cap, implementing standards consistent with IATA, and extending the 45-day notice of failure to meet the use standard.

FAA also sought comment on reallocating withdrawn authorizations for under utilization. Arrival Authorizations subject to withdrawal under this provision, may be either sold in the blind market, with new entrants and limited incumbents getting the first opportunity to purchase them, or reallocated by the FAA in a lottery with preference to new entrants and limited incumbents. Proceeds of any sale would go to the airline that lost the Arrival Authorizations and any unsold Arrival Authorizations will be returned to the airline that lost them.

The FAA adopts a minimum use requirement of 80 percent over a 2-month period. The domestic and Canadian carriers at O'Hare will have to file utilization reports every two months with the FAA. FAA has determined that these Arrival Authorizations will be reallocated via lottery with preference for new entrants and limited incumbents.

Overall, the minimum usage requirement will have a neutral impact on scheduled air carriers serving O'Hare, except for reporting costs. Lost Arrival Authorizations of one carrier are allocated to another carrier. The minimum usage requirement that each authorization be used at least 80 percent of the time or be withdrawn will impose a cost on any airline that will operate a flight merely to avoid losing an Arrival Authorization.

The FAA's initial consideration of each option of the use or lose provision suggests that this provision will have a distributional impact on the affected entities and so will be cost neutral for all the operators. For the traveling public, the FAA expects that passengers will benefit under minimum usage requirements as the O'Hare Arrival Authorizations will be reassigned to operators that will use them more intensely.

The FAA does not expect carriers to incur significant recordkeeping and reporting costs because of a use-or-lose requirement. Most operate at one or more of the other HDR airports so they currently track slots and submit usage reports. The largest carriers all have automated slot-tracking programs that tie into the company's operations database to get the actual flight information. The other carriers may not have the same automated slot tracking systems, but their slot totals can be readily tracked in a spreadsheet format like Excel. All carriers have readily accessible internal information on their own actual flight operations. The usage reports will not require a carrier to provide the exact time of arrival, but simply to indicate whether a scheduled arrival actually took place on a given day. In that way, we simplify the burden on the smaller carriers since they do not need to worry about reporting the actual arrival time.

Given the limits being placed on O'Hare arrivals, consumers should benefit if Arrival Authorizations are fully used. However, a minimum usage requirement may impose minor costs on some carriers. The minimum usage costs included in this regulatory evaluation cover the costs for domestic and Canadian scheduled carriers to submit the minimum use report by an automated reporting system and the initial development costs to cover the setup costs for the reporting system. These costs are expected to be minor since automated reporting processes on slot use are already in place for most air carriers operating at O'Hare.

The withdrawn authorizations will be reallocated via lottery, with preference to new entrants and limited incumbents. This provision will encourage airlines holding Arrival Authorizations to either fully use their Arrival Authorizations or sell them to another airline that will use the rights productively rather than have them withdrawn by the FAA.

Minimum usage requirements could provide incentives for air carriers to operate low-revenue flights, further congesting the airspace. If so, the economic gains to individual carriers and passengers from adding flights will be offset by the externalities of higher congestion and delay costs for the remaining carriers and passengers. Overall, this provision is expected to create minor direct costs to the operators or passengers.

OTHER POTENTIAL IMPACTS

The O'Hare Ripple Effect

The FAA expects the delay improvements at O'Hare to benefit the entire national airspace system. While weather events are the largest contributor to National Airspace

System (NAS) delays, air traffic congestion at O'Hare has been estimated to contribute as much as 11% of the NAS-wide delays. FAA's Air Traffic Management tries to confine the O'Hare traffic delays, however, they often spill over into the national airspace system causing arrival and departure congestion, ground delays, and rerouting from other airports sometimes as far away as Florida. Results of a separate MITRE simulation model conducted for the August 18, 2004 Order indicated that reducing O'Hare's average delays by 20% would reduce system-wide schedule delays by nearly 5%. We did not quantify the benefit from system wide delays as we thought the estimate was suggestive of potential gains.

Net Revenue Gained/(Lost) Due To Reduced O'Hare Flights

In this analysis, the FAA assumes that operators will not lose revenue because of this final rule. While there will be fewer flights under the final rule than without restrictions, the FAA believes that operators will have some flexibility to adjust their operations, such as modifying aircraft type and routes, to accommodate the expected passenger demand during this time period.

Flight reductions could also affect the airport's revenues. The O'Hare International Airport earns revenue from passenger facility charges, airport terminal concessions, landing fees and other airport revenues such as parking. The FAA assumes that airport revenue will not be affected by this final rule

One-For-One Arrival Authorization Trading

One-for-one trades of Arrival Authorizations are expected to be cost neutral for all the effected entities of this final rule. We expect this provision to generate a distributional

impact for O'Hare operators, since this will be an exchange of Arrival Authorizations from one operator to another and may further improve efficiency of Arrival Authorizations. We do not expect this exchange is to have any adverse impact on passengers.

Impact Of Flexible Operational Limits

FAA believes that air carriers will continue to have some flexibility in scheduling their operations since they can make one-for-one trades to accommodate schedule changes. We recognize the limitations on arrivals because this final rule could have some impact on the carriers. However, these costs are not quantifiable. Further, we believe the benefits of reduced congestion and delay outweigh these potential costs. Therefore, in this economic analysis we have assumed the costs of the flight restriction on carriers' operational flexibility will be de minimus.

If O'Hare capacity grows during the period of this final rule, the FAA has the option of increasing operating limits. The flexible operational limits will add additional capacity, increasing opportunities for operators to expand operations. Under ideal conditions, the final rule will allow the FAA to increase the operating limits to as high as 100 arrivals per hour, if it determines that there is additional operating capacity available. Increased operating limits will facilitate competition, contributing to lower fares. We do not estimate benefits to the affected entities from increased capacity; however, we assume the increased capacity will be utilized while maintaining the level of delay with the initial limit of 88 arrivals during most hours.

Impact on Small Communities

This final rule will assign Arrival Authorizations in a manner that corresponds with the schedules actually published by each carrier during the first week of November 2004. The intent of this action is to lessen economic disruption in general and to small communities. This final rule does not specify O'Hare scheduled arrival from any community. Therefore, operators will continue to determine service to communities. FAA intends to monitor the impact of this final rule on small communities and may take action to mitigate adverse effects on small communities.

Impact of Additional International Arrivals

FAA has excluded future international arrivals from the hourly cap at O'Hare. FAA will monitor international arrivals and may request that carriers who want additional arrivals, move those operations to alternative hours, if necessary. We will continue to accommodate international carriers as required by bi-lateral aviation agreements.

The MITRE model results for various scenarios indicate that flight limits at 92 scheduled arrivals per hour during the peak periods generate delays nearing those of the baseline November 20, 2003 schedule. Therefore, adding flights above the 88 scheduled arrivals per hour limit may result in reduced delay savings than have been estimated for this rule. However, FAA does not expect significant increases in international operations.

BENEFIT AND COST ANALYSIS SUMMARY

This section summarizes the results of the cost/benefit analysis for the final rule. Tables 13 and 14 summarize the present value benefits and costs. The quantitative benefits of this rule are derived from airline delay cost savings and passenger delay cost savings. Table 13 shows the annual present value benefits, prorated for the days the operational caps are in effect. FAA estimates that limiting flights at O'Hare will reduce delays by 32%, producing benefits of $475.6 million in present value terms.

Table 13 Total Present Value Benefits

	Airline Delay Cost Savings	Passenger Delay Cost Savings	Total Benefits
2006	$19,094,170	$ 21,212,339	$ 40,306,510
2007	$ 111,337,400	$ 124,436,227	$ 235,773,627
2008	$82,300,269	$ 117,219,790	$ 199,520,059
TOTAL	$ 212,731,839	$262,868,357	$ 475,600,196

The total costs of this final rule, shown in Table 14, are less than $1.0 million in present value dollars.

TABLE 14 - TOTAL ANNUAL COSTS (PRESENT VALUE DOLLARS)

	FAA E-Bid Develop. Costs	E-Bid System Operating Costs	FAA E-Bid Admin. Costs	Other Admin. Costs	Reporting Costs	Total Costs
2006	$147,196	$23,364	$25,037	$125,183	$ 29,684	$350,464
2007	$0	$43,672	$46,797	$233,987	$ 15,734	$340,189
2008	$0	$20,407	$21,868	$109,339	$12,254	$163,868
Total	$147,196	$87,444	$93,702	$468,509	$57,672	$854,522

Thus, the total present value benefits of $475.6 million greatly outweigh the minor total costs of less than $1 million.

REGULATORY FLEXIBILITY DETERMINATION

The Regulatory Flexibility Act of 1980 (RFA) establishes "as a principle of regulatory issuance that agencies shall endeavor, consistent with the objective of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the business, organizations, and governmental jurisdictions subject to regulation". To achieve that principle, the RFA requires agencies to solicit and consider flexible regulatory proposals and to explain the rationale for their actions. The RFA covers a wide-range of small entities, including small businesses, not-for-profit organizations, and small governmental jurisdictions.

Agencies must perform a review to determine whether a proposed or final rule will have a significant economic impact on a substantial number of small entities. If the agency determines that it will, the agency must prepare a regulatory flexibility analysis as described in the Act.

However, if an agency determines that a proposed or final rule is not expected to have a significant economic impact on a substantial number of small entities, section 605(b) of the 1980 RFA provides that the head of the agency may so certify and a regulatory flexibility analysis is not required. The certification must include a statement providing the factual basis for this determination, and the reasoning should be clear. The basis for such FAA determination follows.

The final rule affects all scheduled operators at O'Hare, more than just a few of which are small entities (where "small entities" are firms with 1,500 or fewer employees).

The arrivals of all carriers currently providing service at O'Hare will be accommodated, thereby minimizing the impact on their schedules. For their given schedules, this final rule will lower their fuel burn costs substantially by reducing the number and magnitude of delays below those experienced prior to the August 2004 order.

If Arrival Authorizations are returned or withdrawn for nonuse, new entrants and limited incumbents (many of which are likely to be small entities) receive a preference in the reassignment of those authorities. If additional (new) capacity becomes available during the duration of this final rule, new entrants, limited incumbents and incumbents have equal opportunity to receive additional Arrival Authorizations through a lottery. Carriers with a limited number of operations at O'Hare are also protected from withdrawal of Arrival Authorizations if the FAA determines it is operationally necessary to reduce the number of flights at the airport. Therefore, this rule affords limited preference to small entity operators for the assignment of available capacity and again favors these small entity operators if airport operations are reduced.

In "grandfathering" the air carriers' existing schedules, the final rule enables airlines to continue operating all existing air service to airports of communities with populations less than 50,000. Consequently, we do not expect this final rule to negatively impact airports in small communities.

Therefore, the FAA certifies that this final rule will not have a significant economic impact on a substantial number of small entities.

INTERNATIONAL TRADE IMPACT ASSESSMENT

The Trade Agreement Act of 1979 prohibits Federal agencies from establishing any standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. Legitimate domestic objectives, such as safety, are not considered unnecessary obstacles. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards. This rule excludes future growth in non-Canadian international arrivals from the hourly caps imposed. Thus, the FAA has assessed the potential effect of this final rule and determined that it will not create unnecessary obstacles to the foreign commerce of the United States.

UNFUNDED MANDATES ASSESSMENT

The Unfunded Mandates Reform Act of 1995 (the Act) is intended, among other things, to curb the practice of imposing unfunded Federal mandates on State, local, and tribal governments. Title II of the Act requires each Federal agency to prepare a written statement assessing the effects of any Federal mandate in a proposed or final agency rule that may result in an expenditure of $100 million or more (adjusted annually for inflation) in any one year by State, local, and tribal governments, in the aggregate, or by the private sector; such a mandate is deemed to be a "significant regulatory action." The FAA currently uses an inflation-adjusted value of $120.7 million in lieu of $100 million.

This final rule does not contain such a mandate. Therefore, the-requirements of Title II of the Unfunded Mandate Reform Act of 1995 do not apply.