

REGULATORY EVALUATION
FINAL RULE ON
OVERSALES AND DENIED BOARDING COMPENSATION

The Economic Rationale for Regulation

The regulatory approach adopted by the Civil Aeronautics Board (CAB) and maintained by DOT has been successful in promoting efficient markets. Between 1987 and 1998, the number of passengers involuntarily denied boarding fell from 168,942 to 44,797, while the ratio of passengers voluntarily denied boarding (VDB) to passengers involuntarily denied boarding (IVDB) rose from 4.17 to 24.14. The trend shown in the table below indicates that, with the exception of one year (2000), the reduction in IVDB passengers per 10,000 passengers was generally sustained through 2004. Since 2005, however, the trend has been reversed, with the rate climbing back above one IVDB passenger per 10,000 passengers. The number of passengers involuntarily denied boarding rose from 55,828 in 2006 and 63,878 in 2007. Moreover, the ratio of voluntary to involuntary denied boardings has fallen to 11.12 in 2006 and 9.73 in 2007. These figures suggest that the incentive to rely on voluntarily negotiated compensation has weakened.

Year	Involuntarily Denied Boardings per 10,000 passengers
1997	1.06
1998	0.87
1999	0.88
2000	1.04
2001	0.82
2002	0.72
2003	0.86
2004	0.86
2005	0.89
2006	1.01
2007	1.12

The costs of regulation of denied boarding compensation comprise primarily the slight reduction in load factor that probably occurs because airlines are required to compensate passengers for denied boarding. Such a cost would not arise if the flight were underbooked (i.e., if fewer seats were reserved than there were seats). It would only arise if the flight were fully booked and the airline were trying to decide by how many seats to

overbook the flight. We do not have data on the number of flights that are oversold, although, in its comments in response to the ANPRM, the Air Transport Association (the trade association of the larger U.S. airlines) stated “It is likely that as many as 20% or more of the flights operated by U.S. carriers reach an ‘overbooked’ status at some point in the booking cycle before the moment of departure of the flight.” We do know that only 0.1 percent of passengers are denied boarding, whether voluntarily or involuntarily. If the average flight held 100 passengers, then the percentage of flights on which a passenger was denied boarding would be approximately 10 percent if only one passenger were denied boarding on each oversold flight. This includes voluntary bumpings, where passengers with confirmed reservations agree to give up their reservation in exchange for compensation in an amount and type offered by the carrier and which is acceptable to those passengers. Since multiple passengers are denied boarding on some flights, the actual percentage of flights for which a passenger is denied boarding voluntarily or involuntarily is probably somewhat less than 10 percent. But most flights that are overbooked do not result in any denied boardings, because there are enough no-shows so that all reserved passengers can be accommodated. So an estimate of 20 percent of flights being overbooked and something less than 10 percent of flights having at least one passenger denied boarding seems reasonable.

Denied boarding compensation currently involves about \$6.8 million annually in denied boarding compensation payments from the air carriers to their passengers. These payments reflect the amount that air carriers are willing to pay to passengers to maximize air carrier net revenues under the terms of the previous compensation caps. As such, the \$6.8 million per year reflects the net costs to air carriers of the previous rule.

Choosing the Best Form of Regulation

One option, of course, would be simply to prohibit overbooking. This would solve the problem of denied boarding, but would do so at substantial cost to both airlines and passengers. Since many passengers with uncertain schedules fly on unrestricted tickets and make multiple reservations for the same trip, they then become no-shows for the extra flights for which they have made reservations. Even some passengers with non-refundable tickets are no-shows, due to unavoidable personal exigencies. Prohibiting overbooking would prevent these seats from being filled, and would thus also prevent more passengers from obtaining a reservation on the flight of their first choice. If airlines could not overbook flights, they would either have to charge penalties for not showing up for a flight (i.e., they would essentially have to eliminate unrestricted tickets which allow people to cancel reservations without penalty), or they would have to accept substantially reduced load factors as passengers continue to become no-shows on flights that were not overbooked. The reduction in load factors would increase per-passenger airline costs, which would be passed along to passengers in increased ticket prices. Moreover, the reduced load factors would reduce the number of passengers that airlines could serve, so passengers would find more flights sold out and service more often unavailable. Eliminating unrestricted tickets would deny a valuable service to those whose schedules are uncertain and who cannot know in advance when they are able to travel.

Permitting oversales, but regulating the required amount of compensation for denied boarding, thus becomes a way of avoiding the burdens on consumers of not having any regulation, while avoiding the burdens on the airlines and their passengers of prohibiting overbooking altogether. The guiding principle that we want to follow in regulating oversales is to allow airlines to offset no-shows by overbooking flights (thus avoiding low load factors and their attendant high service costs and denial of service to passengers who could be accommodated if overbooking were possible), while at the same time minimizing the burden that a small number of passengers must pay who are denied boarding on oversold flights.

The approach taken to denied boarding compensation by the Civil Aeronautics Board was to encourage airlines to offer passengers voluntary denied boarding, in which the airlines would offer compensation, typically in the form of free flights, to encourage passengers to voluntarily give up their seats. If VDB volunteers were not sufficiently forthcoming at a price that the airline was willing to pay, then the airline could impose involuntary denied boarding, and the rules would specify how much compensation passengers subject to IVDB would receive. We have evaluated a number of options for updating the rule.

Regulatory Options

Changing the limits on denied boarding compensation. In the Advance Notice of Proposed Rulemaking we presented three options that stayed within the basic structure of the existing rule by simply adjusting the limits on the amount of denied boarding compensation. A fourth option would remove the limits, and a fifth would make no change to the current limits. Before we can provide an economic evaluation of these options, we need to understand the purpose of the existing compensation amounts. As noted above, most passengers who are denied boarding are eligible for denied boarding compensation, with the amount for passengers who are bumped involuntarily depending on the price of each passenger's ticket and the length of his or her delay. If the airline can arrange alternative transportation that is scheduled to arrive at the passenger's destination within 2 hours of the planned arrival time of the oversold flight (4 hours on international flights), the compensation equals 100 percent of the passenger's one-way fare to his or her next stopover or final destination, with a \$200 maximum. If the airline cannot meet the 2 (or 4) hour deadline, the compensation rate doubles to 200 percent of the passenger's one-way fare, with a \$400 maximum. This compensation is in addition to the value of the passenger's ticket, which the passenger can use for alternative transportation or have refunded if not used.

The CAB offered no explanation for how it selected the particular compensation amounts listed above, although it appears that the amounts were intended both (1) to compensate bumped passengers for their inconvenience and expenses associated with delayed or missed trips, and (2) to motivate the air carriers to set reasonable overbooking rates without imposing excessive economic burdens on them. From this standpoint, the use of the ticket fare as the basis for compensation can be understood as both (1) a proxy for the costs incurred by passengers in the event of a disruption to their travel plans, and (2) a

penalty to air carriers tied to a standardized unit of cost to the air carrier (i.e., foregoing a fare).

In terms of the fare serving as a proxy for delay and other expenses incurred by the bumped passenger, it could be assumed that the value of the trip to the passenger is to some extent reflected in the amount the passenger was willing to pay for air transportation; that is, if the trip had relatively low value, the passenger would not be willing to pay as much for a ticket as he or she would pay for a higher value trip. The match of ticket price to the value of lost passenger time and other expenses associated with the delay is, of course, clearly imperfect. First, a passenger's selection of fare is driven by several factors besides the value of the trip, including his or her available budget, the degree of price competition among carriers, the costs of other trip components (e.g., hotel rooms), the availability of flight amenities, and other factors. Second, even if the airline fare paid is to some degree correlated with the value of a trip, it would rarely be equal to it, since trip costs typically involve other cost components such as hotel costs, and because normally the value of the trip to the passenger is greater than the total costs paid for the trip.

The compensation limits in Part 250 of \$200 and \$400 were originally intended by the CAB to protect the air carriers from excessive costs associated with compensation amounts for high-fare tickets. Excessive costs might discourage air carriers from using reasonable overbooking practices. The compensation limits are not intended to indicate the maximum expected losses incurred by passengers who are bumped, and in fact suppress compensation to some bumped passengers. A passenger for whom the compensation is inadequate, with or without the compensation limits, retains the right under Part 250 to take private legal action to receive appropriate compensation, but the transaction costs involved in such legal action are likely to discourage all but the most egregiously injured passengers.

Due to significant price inflation in the U.S. economy during the almost 30 years since the compensation limits were last adjusted, however, the dollar limits on compensation may be undermining the purpose of the Part 250 rule to strike a fair balance between allowing cost-saving overbooking and avoiding imposing excessive costs to passengers. As noted above, the ratio of IVDB to VDB cases has increased substantially since 1998, suggesting that the 30-year-old caps on IVDB compensation are now encouraging carriers to resort to IVDB more frequently. The average one-way fare (all domestic and international flights) was \$232 in the 2nd Quarter of 2007, above the \$200 compensation limit that pertains to the 2-hour deadline. A passenger flying at or above the average fare will not receive the full value of his or her fare as compensation if the delay is within the 2-hour deadline. Similarly, the air carriers are sheltered from the disincentive of full fare compensation costs if these passengers are bumped. In 2006 and 2007, as noted above, involuntary denied boardings have increased significantly.

Adjustment of the compensation limits for inflation should reflect the dual purposes of the Part 250 procedure. With regard to Part 250's purpose of compensating bumped passengers for inconvenience, an appropriate index to adjust the compensation limits

upwards would be the Consumer Price Index for All Urban Consumers (CPI-U), in that the costs experienced by passengers due to being bumped (e.g., lost vacation time, lost non-refundable hotel reservations) are subject to general inflation that is measured by the CPI-U. It is important to note that the CPI-U adjustment would apply only to the compensation limits—ticket prices would continue to serve as the proxy value of the bumped passenger's time and expenses. Use of the CPI-U as proposed in Option 1 of the Advance Notice of Proposed Rulemaking would have led to compensation limits of \$624 and \$1,248 rather than the existing \$200 and \$400.

With regard to Part 250's second purpose of encouraging air carriers to resolve oversold flights through voluntary passenger settlements, use of ticket price as a standardized penalty to air carriers for a bumped passenger would suggest adjustment of the compensation limits by a price index reflecting the change in air fares over time. This approach was proposed in Option 2 of the ANPRM, which would have increased the limits to \$290 and \$580, based on the historic increase in nominal passenger yield since 1978.

Option 3 proposed a simple doubling of the existing compensation limits to \$400 and \$800. This approach represented a hybrid of the CPI-U and fare price index adjustments proposed in options 1 and 2, respectively. Given the dual nature of the ticket price as a basis for denied boarding compensation, Option 3 would appear to offer an acceptable compromise compensation limit adjustment.

We have decided to adopt Option 3. If the worst case is assumed—that compensation to all bumped passengers would double from \$400 (the current maximum) to \$800 (the new maximum), the added cost to cover this higher compensation would be approximately \$0.04 per passenger (e.g., 10,000 passengers each paying \$0.04 more per one-way ticket to generate an additional \$400 to compensate the one among them (based on 2006 data) who would be bumped). The monetary cost for this option, as well as the others, would result in a corresponding dollar-for-dollar monetary benefit for members of the public who are bumped from their confirmed flights and for businesses that employ them.

In actual application, air carriers might absorb some or all of the maximum \$0.04 per passenger expense associated with Option 3 rather than passing it on to passengers. Even if air carriers fully passed on the expense to passengers, it is not expected that an additional \$0.04 cent charge on a \$200 ticket would make a material difference in ticket demand or air carrier net revenues from ticket sales. Moreover, the \$0.04 charge is an upper limit. Because the current average one-way fare (domestic and international as of the 2nd quarter 2007) is approximately \$232, and the average domestic one-way fare is \$175, many bumped passengers paying fares below the average fare will not receive additional compensation above the old \$200 and \$400 limits even though the compensation limits are being doubled. Also, the \$0.04 cost is based on all involuntarily bumped passengers being paid the maximum additional \$400 allowed by the higher cap, but passengers who are rerouted to their destination within 2 hours (4 hours for an international itinerary) would be entitled at most to an additional \$200 because they are subject to the \$200 limit that is being increased to \$400. And the rule does not require

any compensation at all to passengers who are rerouted to their destination within one hour.

The actual additional costs to air carriers associated with Option 3 cannot be calculated with precision due to the proprietary nature of air carrier yield management systems and the means by which these systems would adjust to incorporate the higher compensation limits. If we assume that air carriers absorb the full costs of compensation and do not pass them along in fare increases, we can calculate a range for the cost impact. The upper end of this range of costs is estimated by multiplying the total number of domestic and international revenue passenger enplanements (736.5 million in 2006) by the average cost of \$0.04 per revenue passenger to pay the higher compensation to the approximately 1 in 10,000 passengers who are involuntarily bumped. This calculation yields a cost estimate of \$29.5 million per year in additional costs at the national level. This high-end calculation assumes that air carriers would, on average, pay \$400 in additional compensation to each bumped passenger over the levels that they formerly paid. As such, it is an upper boundary of potential additional costs.

A more realistic estimate of additional costs can be achieved based on actual average one-way fares. The average fare for a one-way trip (domestic and international) as of the 2nd quarter of 2007 was \$232 per passenger. If \$232 is assumed to be the one-way fare paid by the average involuntarily bumped passenger, the maximum compensation payable to the bumped passenger under this final rule would be \$464 (twice the fare), not the \$800 cap per passenger; therefore the average increase in the amount of compensation to a bumped passenger would be \$64 (i.e., the \$464 compensation allowed by the this rule minus the \$400 compensation cap that would have applied from the previous rule). The average \$64 in increased compensation to the involuntarily bumped passengers would translate into an increase in average air carrier cost per enplaned revenue passenger of approximately \$0.0064 (\$64 divided by 10,000 passengers to cover the added compensation to the one passenger among them who is involuntarily bumped), meaning that total industry costs would be \$4.7 million extra per year (736.5 million passengers per year x \$.0064). Even this amount is likely to be a high estimate of actual costs to the industry, as it does not take into consideration the use by the air carriers of transportation vouchers to compensate bumped passengers (a voucher usually has a lower costs to the air carriers than an equivalent cash compensation) or the likelihood that not all involuntarily bumped passengers would be delayed by more than 2 hours (4 hours for an international itinerary). The \$4.7 million estimate also does not anticipate the effect of the higher compensation expenses on reduced bumping rates. It is assumed in this analysis that air carriers would reduce bumping rates if the net cost to them of doing so is less than the cost of simply paying higher compensation (e.g., \$4.7 million per year) at existing bumping rates.

Given the more realistic estimate of \$4.7 million per year in new air carrier costs, it should be noted that doubling of the compensation caps (to \$400 and \$800) by this rule does not double the compensation level of \$6.8 million per year paid under the previous rule. This less-than-proportional increase in overall compensation payments to involuntarily bumped passengers is attributable to the fact that full compensation cost of

a doubled average one-way air fare will often fall below the maximums set by the new higher caps—a situation that is less common under the lower caps.

The distribution of the costs of the rule would be expected to fall more heavily on international flights, because average one-way fares (\$521 as of the 2nd quarter 2007) on international trips are higher. Also, some domestic flight segments in high-fare markets may experience greater compensation costs. Air carriers that currently have high denied boarding rates will pay proportionately more than carriers with lower bumping rates. Actual carrier cost experience will depend on industry traffic conditions, competitive forces, prevailing fare levels, and inflation, as well as the profit maximizing features of their proprietary yield management programs.

The chief benefit of raising the limits of compensation under Option 3 (and Options 1, 2, and 4) is that it better compensates bumped passengers for the costs that they incur from the overbooking process. In the case of the selected Option 3, this compensation matches the additional payments to bumped passengers by the air carriers (e.g., the \$4.7 million per year). As such, the benefits represent a transfer of resources from the air carriers and/or other passengers. The higher compensation requirement will also induce some air carriers (particularly those with high bumping rates) to reduce or not increase their current overbooking rates. The scale of this latter impact is difficult to project because it is highly dependent on the air carriers' revenue maximizing strategies and market conditions. The Department will continue to monitor future denied boarding rates to ascertain potential impacts of the higher compensation levels.

From the broader standpoint of the economy at large, overbooking provides flexibility, efficiency, and cost savings to the air transportation industry and the great majority of air passengers who are not bumped, but cannot provide optimal efficiency if the costs borne by some participants are not reimbursed. Economists generally hold that markets function more efficiently when the full costs of production of a good or service are incorporated into the price of the good or service.

Option 4 of the ANPRM would have eliminated compensation limits altogether, so that the compensation would be based on the full ticket price. This option would offer the highest compensation to air passengers of the five options presented in the ANPRM, but eliminates a safeguard to air carriers. Our data on denied boarding compensation do not indicate how many passengers receiving compensation for IVDB had their compensation limited by the cap, so we do not know in how many cases airlines were protected by this cap. We do know that the relatively low average levels of IVDB compensation (compared with average fare levels) suggest that relatively few passengers have their compensation limited by the cap, so that raising the cap is unlikely to impose a substantial burden on the airlines. Doubling the cap as proposed by Option 3 would appear to allow the great majority of air travelers to be compensated based on their full airfare without being limited by the cap, so the practical difference between Option 3 and Option 4 might be slight.

Option 5 proposed no change to existing compensation limits. This option would serve neither to alter recent upward trends in involuntary denied boarding nor adequately compensate many passengers for the costs incurred by them when boarding is denied.

In summary, for the reasons described above, we have opted to implement Option 3, which doubles the compensation limits that applied under the previous regulation. Option 3 improves the potential compensation to bumped passengers and should be sufficient to cover the costs that most of these passengers incur from the overbooking process (assuming that such costs are correlated to the fare each passenger is willing to pay for air transportation). At the same time, Option 3 would not expose air carriers to excessive costs that might discourage them from overbooking and thereby limit the overall benefits of flexibility, efficiency, and cost savings that overbooking enables for passengers and the industry alike.

The higher compensation to bumped passengers is not an economic cost to the economy, but rather a transfer payment from the beneficiaries of the overbooking process (air carriers and passengers who are not bumped) to compensate the costs of the bumped passengers. As noted above, this transfer payment could take the form of an additional charge to all passengers of less than \$0.04 per one-way ticket. Economists generally hold that markets function more efficiently when the full costs of production of a good or service (in this case the costs experienced by bumped passengers) are incorporated into the price of the good or service. Given that the higher transfer payments under this rule to bumped passengers are not, strictly speaking, economic costs, but will improve market efficiency through prices that more fully reflect bumped passenger costs, we conclude that the net benefits of this regulation are positive.

Elimination of the Small-Aircraft Exclusion. The original 1962 Oversales rule applied to all aircraft sizes. In 1981 the CAB exempted operations with aircraft seating 60 or fewer passengers due to proportionately greater financial and operating burdens on these carriers, both in regard to lower revenues and competition with non-certificated commuter carriers operating similar equipment and on similar routes. As explained in the Regulatory Flexibility section below, however, the conditions under which greater financial and operating burdens once existed no longer apply widely. Consequently, the benefits for passengers that justify the application of the Oversales requirements to flights using aircraft seating more than 60 passengers would also apply to aircraft seating 30 through 60 passengers.

As a result of comments submitted in response to the NPRM, however, a limited exemption to the Oversales requirements will be allowed for operators of aircraft seating 30 through 60 passengers. The Regional Airline Association noted in its comments of January 22, 2008, “[B]ecause regional airlines continue to serve smaller airports with shorter runways and less sophisticated operations, they are more subject to load limitations, particularly under adverse weather conditions, and would be forced to pay penalties even when required to rope off seats for safety reasons.” In response to this concern, the Oversales requirements will not apply when a passenger is denied boarding on an aircraft seating 30 through 60 passengers due to a need to reduce the number of

passengers for safety purposes (e.g., weight/balance, maximum takeoff weight). This exemption greatly reduces the financial burden of the oversales rule on operators of small aircraft. The overall economic impact of this limited exemption in terms of passenger costs and carrier cost savings is uncertain due to a lack of industry data on the denied boarding practices of small-aircraft operators. However, the need to support safe aircraft operations and not disproportionately burden this critical sector of the air travel industry is deemed to constitute adequate justification for this limited exemption.

Application of the Denied Boarding Compensation Rule. The proposals to provide illustrative guidance in the Oversales rule concerning permissible boarding priority criteria and to require notice to volunteers have the benefit of keeping the passenger better informed about denied boarding practices and options, which itself may help in avoiding or resolving oversales problems. These practices would impose negligible costs on air carriers. The proposal to eliminate Form 251 reporting requirements for airlines that do not file on-time performance under Part 234 would actually reduce costs to many air carriers while not infringing on data currently used to monitor performance under Part 250.