(2) The likely operator response to the reserve pilot requirements (i.e., the likelihood of operators choosing between canceling flights and adding pilots),

(3) The cost to operators and passengers of flight cancellations and of adding pilots, and

(4) The potential safety benefits from reduced fatigue.

Part 121 Air Carriers

The FAA estimated the economic impact of each provision of this proposed rule. Some of the provisions by themselves were estimated to entail substantial compliance costs, whereas others have the potential for affording substantial cost savings to operators.

The proposed rule is estimated to impose discounted costs of $842.03 million on part 121 operators over the next 15 years, but these costs are expected to be offset by the cost savings. The total potential discounted cost savings from increased productivity were estimated at $1.72 billion over this period. The net discounted compliance cost savings of the proposed rule would therefore amount to $877.90 million over this period. The cost savings would result if operators take advantage of opportunities afforded by the proposal to more efficiently schedule their existing workforce, which could enable them to reduce their plans for hiring new pilots by 3,348 pilots over the next 15 years.

Costs

The FAA determined that the primary cost of implementing the reserve pilot scheduling and duty time regulations would consist of the cost of reassigning some scheduled airline pilots or hiring new pilots to assure adequate coverage of flights that would otherwise have to be canceled or delayed. Other provisions of the proposal, however, may allow operators to use on-line pilots more intensively; therefore, the need for additional reserve pilots is likely to be satisfied by reassigning on-line pilots that would become available because of enhanced productivity. In addition, a relatively small number of flights might be canceled.

These cost estimates were based on the least cost combination of reserve pilot scheduling options for each operator based on the nature of its flight operations, such as the amount of advance notification provided reserve pilots and duty period durations. The FAA estimates that the part 121 scheduled operators would have to hire an additional 500 pilots, representing a 1% increase in their current pilot staffing level, thereby increasing their recurring annual salary costs by $41.29 million. In addition, the FAA estimated that the flight cancellations resulting from decreased flexibility in scheduling reserve pilots would impose societal costs (the value of delayed passenger time) amounting to $8.12 million per year. The total potential cost of the reserve pilot regulation was therefore estimated at $49.40 million annually after the first year the proposed rule were in effect for part 121 scheduled carriers. In the first year, this annual cost would be increased by $9.26 million to $58.66 million to capture initial training costs.

The FAA determined that the reserve pilot regulation would also impose substantial costs on part 121 unscheduled or ''supplemental'' air carriers. The economic impact on these air carriers is expected to be greater than for the scheduled part 121 carriers because of the less predictable nature of their operations, which doesn't allow them to give as much advance notification of flight assignments to their reserve pilots. The FAA estimated that approximately 330 additional pilots, representing about 4% of their present pilot staffing level, would need to be hired by these air carriers at a recurring annual cost of $24.02 million.

The FAA determined that the proposed restriction on ''ferry'' flights would have very little, if any, impact on scheduled part 121 operators. These proposed restrictions, however, could have a substantial economic impact on part 121 unscheduled operators, which are more likely than the scheduled operators to conduct these operations because of the greater distance between crew bases and destination points of their revenue flights. The FAA estimated that these operators would have to hire an additional 235 pilots (3% increase in current pilot staff) to avoid major disruptions in their flight schedules, entailing recurring annual costs amounting to $17.04 million.

The total recurring annual potential compliance costs (reserve pilot and ''ferry flight'' restrictions) for unscheduled or supplemental operators were therefore estimated at $41.06 million. The first year initial training costs for these unscheduled air carriers were estimated to add $10.10 million to annual costs in the first year.

In summary, the total first year annual compliance costs for all part 121 air carriers of the reserve pilot regulation and restriction on ferry flights were estimated at $110.28 million. Societal costs resulting from canceled flights were estimated to comprise $8.12 million of this total. These costs were estimated based on the time that passengers on canceled flight would be delayed, which the analysis assumes would be two hours. Total discounted costs were estimated at $842.46 million over the period from 1996–2010.

Cost Savings

The FAA expects that these costs would be more than offset by cost savings afforded the scheduled part 121 operators by the opportunity to more effectively utilize their flight crewmembers. The potential cost savings for the unscheduled part 121 air carriers, however, are not expected to be of a sufficient magnitude to outweigh the proportionally higher potential costs that were estimated for this sector of the industry. Under the proposal, both scheduled and unscheduled air carriers could increase the maximum permitted flight times within individual duty periods from 8 to 10 hours for 2-pilot crews.

The potential productivity gains from this provision should enable scheduled part 121 air carriers to maintain their current schedules with fewer pilots and transfer some pilots from active or nonreserve to reserve status. The decrease in the anticipated need for pilots among the scheduled air carriers is expected to substantially outweigh any potential increased need for pilots among the unscheduled air carriers. In other words, the overall need for pilots in future years should decrease because the positive economic effects resulting from increased productivity are expected to outweigh the negative economic impacts of the need for more reserve pilots.

Data collected by the FAA indicate that domestic air carriers do not fly their crewmembers close to the maximum permitted current limit of 100 hours per month. The average monthly flying time for the scheduled air carriers is 60 hours. The part 121 unscheduled operators tended to fly their crewmembers from 40–60 hours per month. In fact, most unionized air carriers are prevented by labor contracts from flying their crewmembers more than 75–80 hours per month.

If this proposed rule is adopted as an amendment, most air carriers would likely attempt to take advantage of the opportunity to utilize their crewmembers more effectively. The increase from 8 to 10 hours in the maximum permitted flight hours 2-pilot crews could fly within individual duty periods should provide an incentive for air carriers to increase the daily flight hours and hence monthly flight hours of their crews and decrease the amount of duty time which is not flight time. The FAA determined that air carriers would