



Safety Recommendation A-95-51

“Revise 14 CFR Part 91, 135, and 121 to require that all occupants be restrained during takeoff, landing, and turbulent conditions, and that all infants and small children be restrained in a manner appropriate to their size.”



NTSB Recommendation History

- Safety Recommendations A-79-63 and A-83-1
 - Permit use of CRS on aircraft.
- Safety Recommendation A-90-78
 - Require use of CRS on aircraft. Research conducted on the performance of CRS on aircraft.
- Safety Recommendation A-90-79
 - Determine if seat belts adequate for small children.
- Safety Rec A-95-51 (closed Safety Rec A-90-78)
 - Again asked FAA to require use of CRS on aircraft.



Safety Recommendation A-95-51 Classification history

- May 1995 – recommendation issued
- FAA proposed education campaign
 - › Raised diversion to auto concerns
- October 1995 – “Open–Unacceptable Response”
 - › NTSB said analysis drew the wrong conclusions



Safety Recommendation A-95-51 Classification history

- February 1998 – FAA issued ANPRM
- NTSB classification
 - › November 1998 – “Open–Acceptable Response”
 - › June 1999 – “Open–Acceptable Response”
 - › July 2000 – “Open–Acceptable Response”
 - › April 2001 – “Open–Acceptable Response”



Most Wanted List

- November 2003
 - › Staff proposed to classify it “Closed–Unacceptable Action”
 - › Staff proposed to remove it from the Most Wanted List
- Board briefings
- New staff recommendation



Staff recommendation

- “Open—Unacceptable Response”
 - › Education alone has not worked in the past
 - › Education campaign does not reach all
- Remove from the Most Wanted List



NTSB **MOST WANTED**

Transportation Safety Improvements

The Safety Consequences of Historic Examples of Diversion From Air to Road Travel



Method

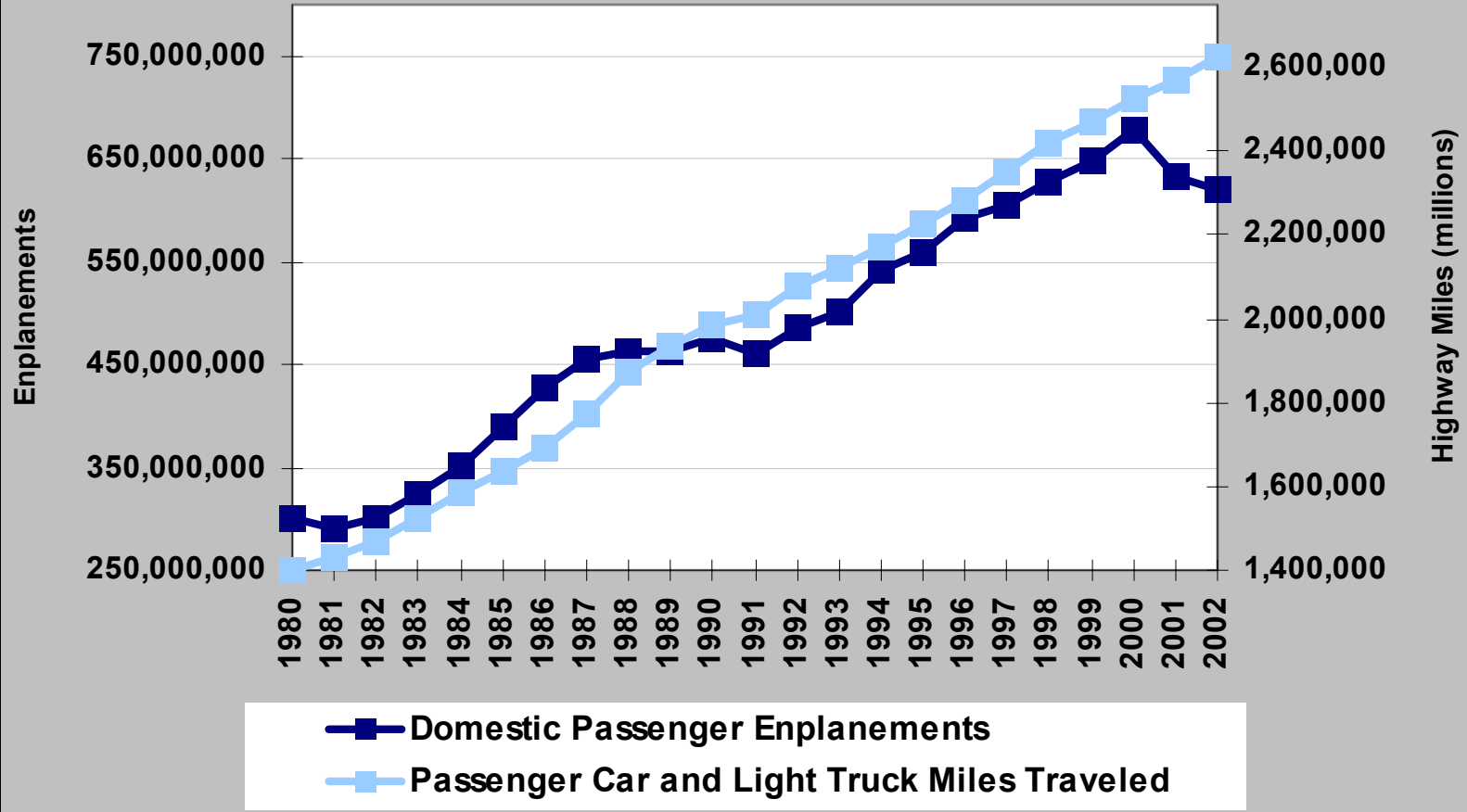
- Annual domestic airline passenger enplanements were compared with annual road vehicle miles traveled and accident fatalities for 1980 through 2002.
- Highway fatality data was filtered to passenger car and light truck occupants.



NTSB MOST WANTED

Transportation Safety Improvements

Passenger Car and Light Truck Vehicle Miles Traveled and Aircraft Passenger Enplanements, 1980-2002





Enplanements vs. Road Miles

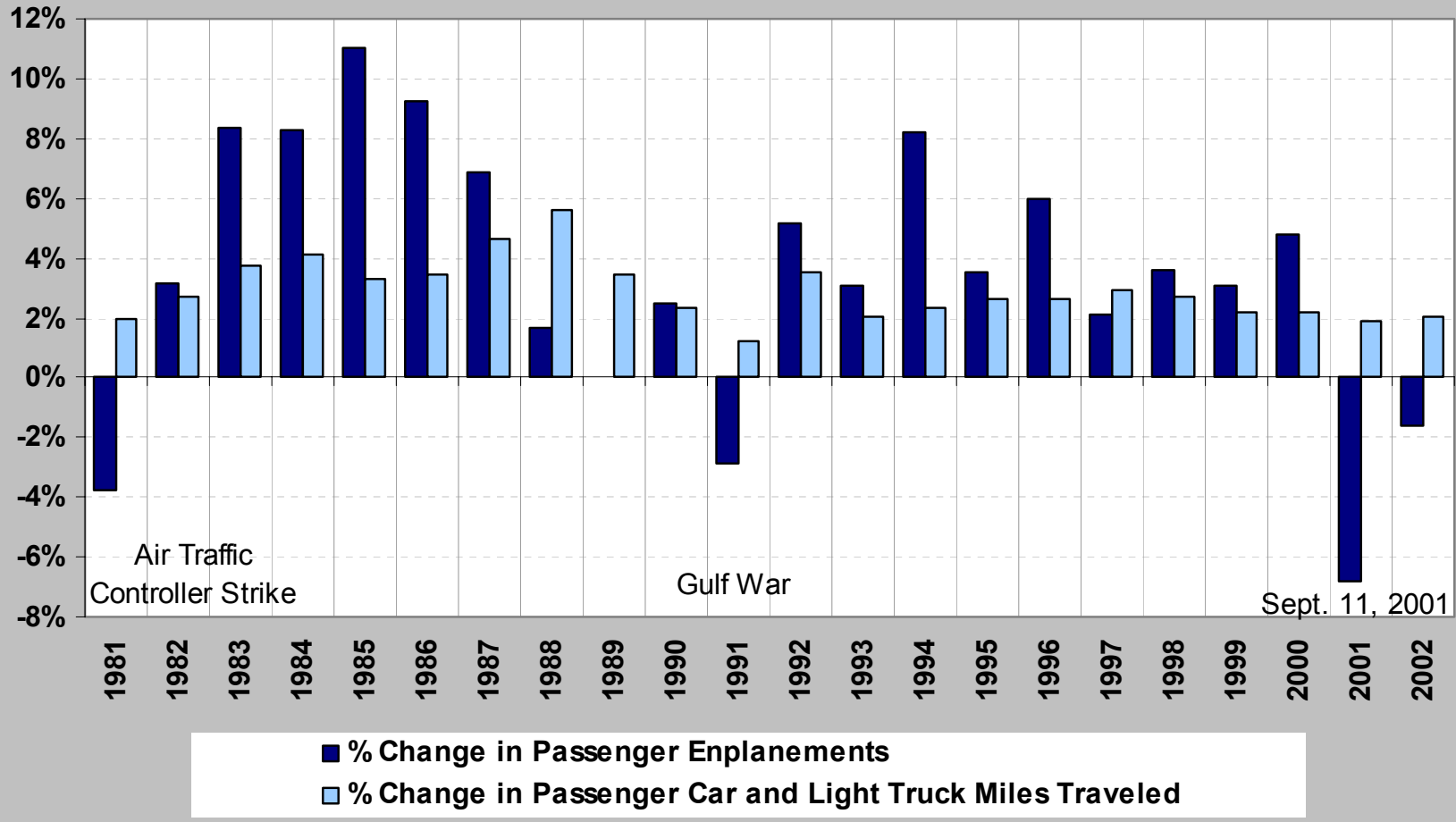
- Steady increase in vehicle miles traveled annually between 1980 and 2002.
- Passenger enplanements have increased overall, but saw annual declines in 1981, 1991, and 2001-2002.



NTSB MOST WANTED

Transportation Safety Improvements

Year-over-year Changes in Passenger Enplanements and Passenger Car and Light Truck Miles Traveled, 1981-2002

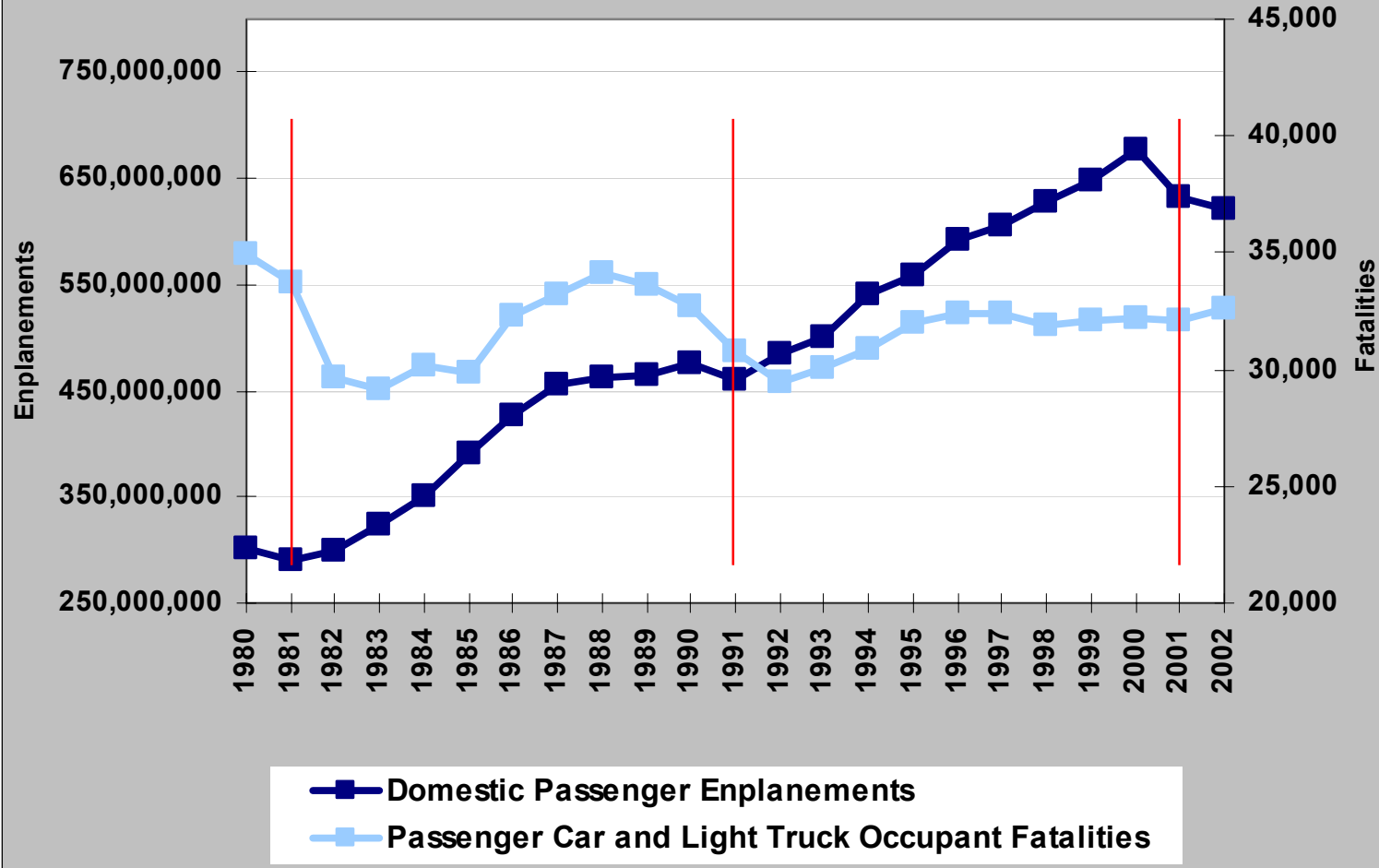




NTSB MOST WANTED

Transportation Safety Improvements

Passenger Car and Light Truck Fatalities and Aircraft Passenger Enplanements, 1980-2002



“... a program to increase the public’s awareness of, and support for, action to adopt safety steps that can help prevent accidents and save lives.”



Enplanements vs. Road Fatalities

- During the 1981 drop in air travel there was a 3.5% decrease in road fatalities.
- During 1991 there was a 5.9% decrease in road fatalities and 2.9% decrease in injuries.
- A decrease in road fatalities during 2001 followed by an increase during 2002 resulted in slightly greater than 1% increase overall in occupant fatalities between 2000 and 2002.
- Injuries decreased 8.7% between 2000 and 2002.



September 11, 2001 Diversion in Context

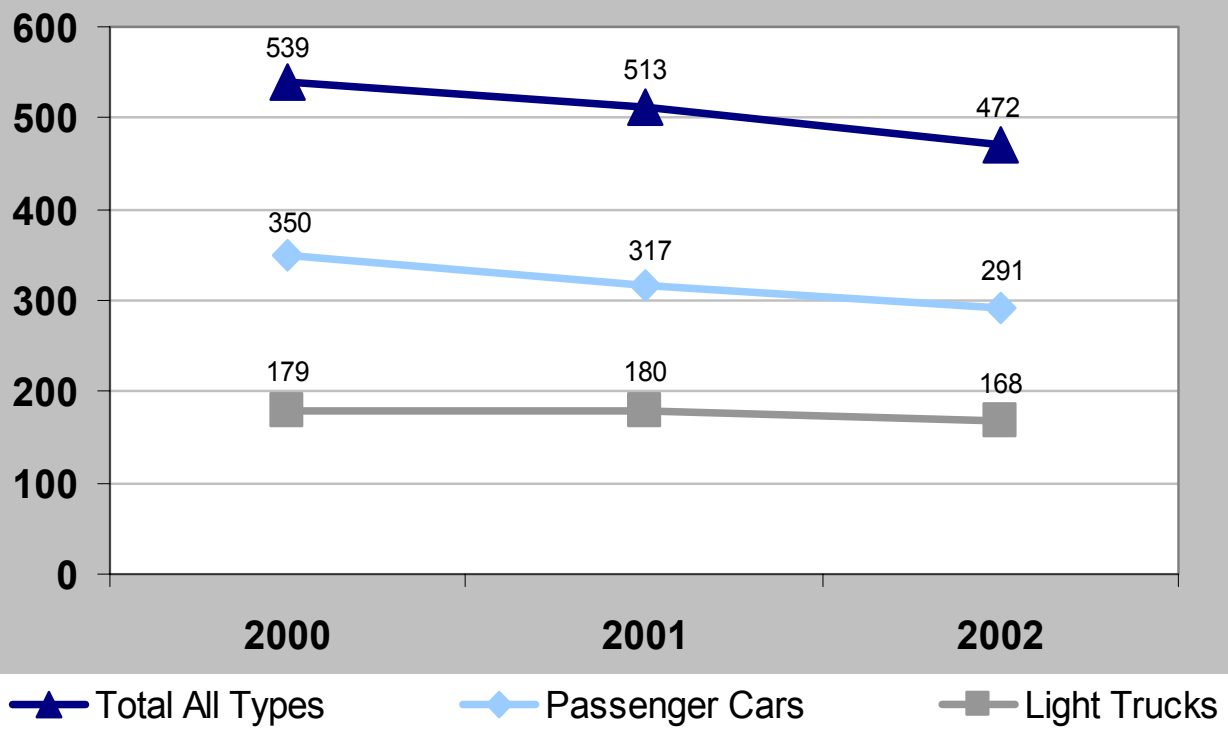
- Decrease of 56.4 million domestic passengers, or 8.3% from 2000 to 2002.
- Road vehicle miles increased by 4%, or approximately 100 billion miles from 2000 to 2002.
- Included all segments of the population.
- Increase includes all vehicles under all road and travel conditions, and is not specific to the population of interest.
 - › i.e., driver age, alcohol use, time of travel, restraint use



NTSB MOST WANTED

Transportation Safety Improvements

Motor Vehicle Occupants Under 5 Years of Age Killed in Crashes, 2000-2002



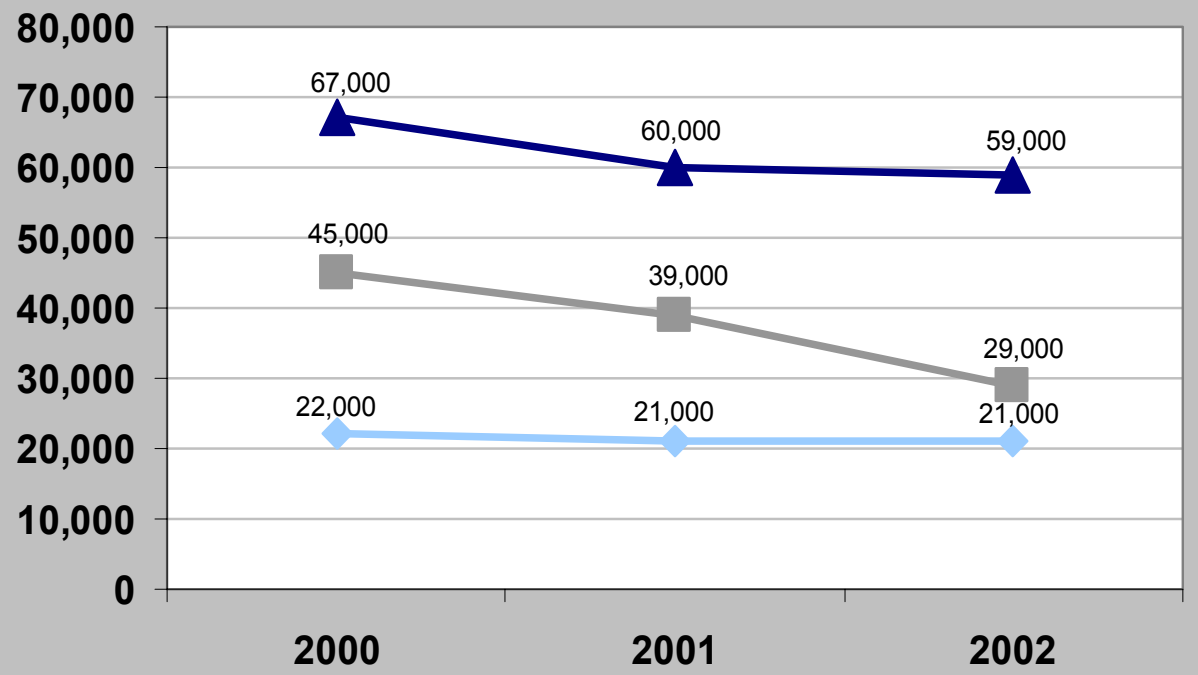
· Totals include crashes involving passenger cars, light trucks, large trucks, motorcycles, buses, and other/unknown vehicle types.
· Data available from the National Highway Traffic Safety Administration at <http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/TSFAnn/TSF2002Final.pdf>



NTSB MOST WANTED

Transportation Safety Improvements

Motor Vehicle Occupants Under 5 Years of Age Injured in Crashes, 2000-2002



▲ Total All Types ◆ Passenger Cars ■ Light Trucks

· Totals include crashes involving passenger cars, light trucks, large trucks, motorcycles, buses, and other/unknown vehicle types.

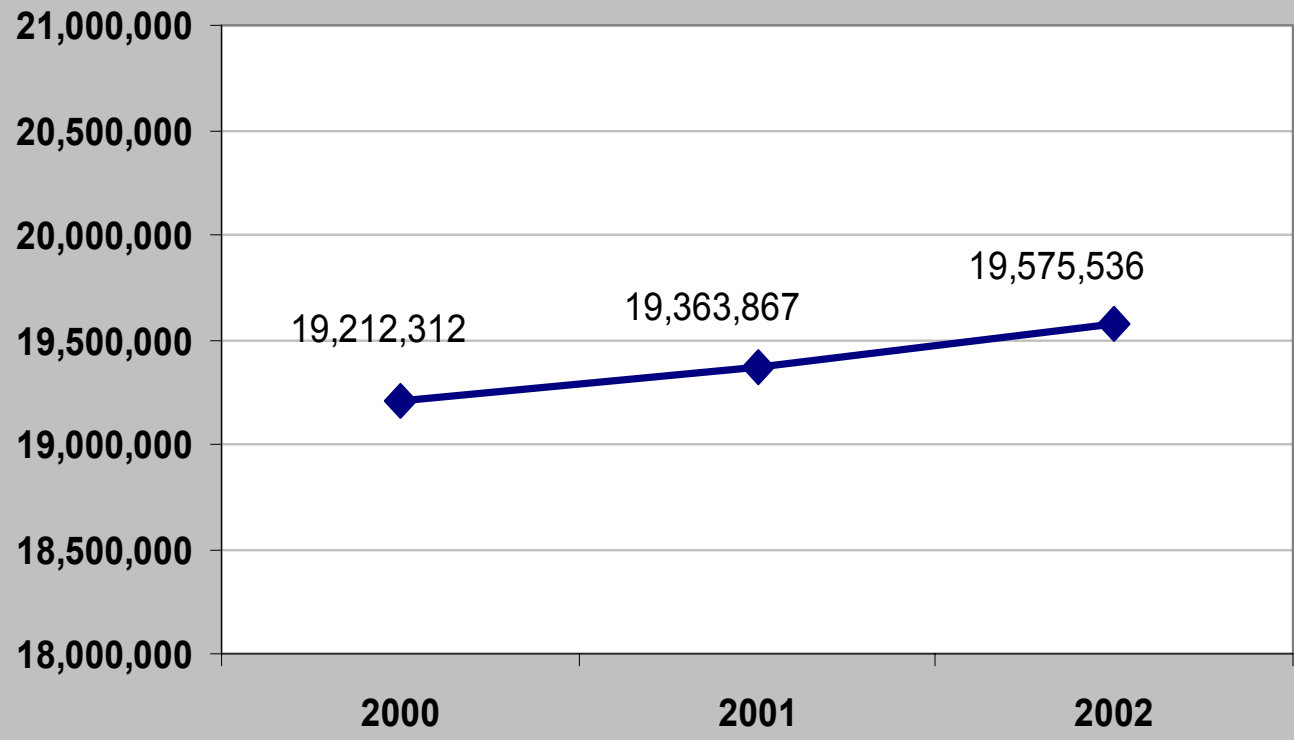
· Data available from the National Highway Traffic Safety Administration at <http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/TSFAnn/TSF2002Final.pdf>



NTSB MOST WANTED

Transportation Safety Improvements

U.S. Census Bureau Annual Estimates of Resident Population Under 5 Years of Age



Full data set available at <http://eire.census.gov/popest/data/national/tables/NC-EST2003-01.xls>



Children Under 5 Years Old

- Road fatalities to all vehicle occupants under 5 years old decreased 12.4% between 2000 and 2002.
- Injuries decreased 11.9% between 2000 and 2002.
- Estimated resident population of children under 5 years old increased 1.9% between 2000 and 2002.



Summary

- Even in extreme cases, the historic relationship between diversion from air travel and increased risk of fatality or injury in highway accidents is not clearly apparent.
- Accident risk is not evenly distributed among all drivers, vehicle types, and trip conditions.
- No evidence was found to suggest an increased risk for children under 5 years old.



Safety Recommendation

A-95-51

Required use of child restraints on aircraft