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CHILD SAFETY RESTRAINTS: A CONTROVERSY OVER SAFE INFANT AIR TRAVEL

BONITA C. BARKSDALE

I. INTRODUCTION

I frantically tried to hold my baby. She was screaming bloody murder. I was sobbing. "Don't cry, Mom" my son was saying as we crouched over in a crash position. Then there was a terrible jolt, the sound of crunching metal—the plane was flipping over. My baby was pulled out of my arms. I thought the floor had given way or that she had gone out of a hole or a window. I didn't even have time to react, or tighten my grip. She was gone.¹

WITH THE TRAGIC deaths and injuries of several young children in the Sioux City, Iowa, United Airlines Flight 232 crash and the Long Island, New York Avianca Airlines Flight 52 crash,² the issue of child safety seats on aircraft began receiving increased attention.³ Studies of these and other airline crashes indicate that

¹ Michaelson, *My Baby Really Didn't Have a Chance . . . It Has To Be a Miracle*, REDBOOK, Nov. 1989, at 130. On July 19, 1989, United Flight 232 crashed in Sioux City, Iowa. One hundred eleven people died including one infant. NTSB, SAFETY RECOMMENDATION, May 30, 1990, at 1.

² NTSB, *supra* note 1, at 5.

³ See, e.g., AIR TRANSPORT ASSOCIATION OF AMERICA, PETITION—INFANT/CHILD RESTRAINTS, February 22, 1990 [hereinafter ATA Petition] (Air Transport Association (ATA), an organization which includes the nation's commercial airlines, petitioned the Federal Aviation Association (FAA) to require child safety restraints aboard aircraft for children under the age of two); *Airline Infant Safety Seats Required*, AV. WEEK & SPACE TECH., Feb. 5, 1990, at 17; Younger, *Straight Answers About Safety Seats and Airlines*, AAA WORLD, Nov.-Dec. 1990, at 10-12 (safety experts advocate child safety restraints aboard aircraft as a means for increasing child safety).

three out of every five infants who have died during air disasters might have lived had they been wearing mechanical safety restraints.⁴ Basically, "infant passengers experience excess mortality in survivable air crashes."⁵

This comment discusses the tragedy that can occur when children are not properly restrained on aircrafts. The comment first examines the magnitude of the problem and its historical perspective.⁶ Next, this paper addresses the legislation pertinent to mandatory child restraint systems, namely, Senate Bill 1913, passed on August 2, 1990, and House Resolution 4025, which was not voted upon during the one hundred and first Congress, but will be reintroduced during the next Congressional session.⁷ The comment then explores the arguments supporting the passage of the House Resolution and the sub-

⁴ Address by Timothy P. Forte, NTSB spokesman, *Journal of Air Law and Commerce* 25th Annual SMU Air Law Symposium (February 22, 1991) [hereinafter Forte] (transcript and videotape available from the offices of the Journal of Air Law and Commerce, Southern Methodist University); Snyder, *The Status of Infant/Child Restraint Protection in Aircraft Crash Impacts*, Flight Safety Foundation's International Aircraft Occupant Safety Conference and Workshop 79 (Oct. 31, 1988)(available from the FAA). See also *infra* note 35 and accompanying text.

⁵ Fife, Rosner, & McKibben, *Relative Mortality of Unbelted Infant Passengers and Belted Non-Infant Passengers in Air Accidents with Survivors*, 71 AM. J. PUB. HEALTH 1242, 1242-46 (1981)[hereinafter Fife].

⁶ See *infra* notes 11-72 and accompanying text.

⁷ See *infra* notes 73-91 and accompanying text. S. 1913, 101st Cong., 2d Sess., 136 CONG. REC. S12014-15 (daily ed. Aug. 2, 1990)(sponsored by Sen. Christopher Bond, R. Missouri). See *infra* note 77 and accompanying text. H.R. 4025, 101st Cong., 2d Sess., 136 CONG. REC. H389 (daily ed. Feb. 20, 1990)(sponsored by Rep. Jim Lightfoot, R. Iowa). See *infra* note 73 and accompanying text.

The Senate bill enjoys an interesting history, having originated as an amendment to the Air Travel Rights For Blind Individuals Act, S. 341, 101st Cong., 1st Sess., 136 CONG. REC. S7450-57 (daily ed. June 6, 1990). The child restraint amendment was later severed and promulgated as separate legislation. *Child Restraint Amendment Wins OK*, AIR SAFETY WEEK, June 11, 1990, at 3. The House Resolution has not yet been considered by the full House. However, the Subcommittee on Aviation of the House Committee on Public Works and Transportation held a hearing on July 12, 1990 to consider the bill. *Child Restraint Systems on Aircraft: Hearings on H.R. 4025 Before the Subcomm. on Aviation of the House Comm. on Public Works and Transportation*, 101st Cong., 2d Sess. 1-433 (1990)[hereinafter *Child Restraint Hearings*]; see also 136 CONG. REC. D863 (daily ed. July 12, 1990). The House Resolution is expected to be reintroduced into Congress during the 102d Congress. *NTSB Probe Raises Anew the Question of Child Safety Restraints*, AIR SAFETY WEEK, Nov. 19, 1990, at 3.

sequent law requiring child safety restraints on aircraft.⁸ Finally, while the paper considers opposing viewpoints,⁹ it ultimately recommends mandating child safety restraints on all aircraft.¹⁰

II. PRESENTATION OF THE PROBLEM

A. *The Status Quo*

Each day approximately sixteen thousand commercial airline flights arrive and depart from United States airports.¹¹ An average of five to ten thousand infants and toddlers travel daily on these flights.¹² Four million children under the age of two fly on United States domestic flights each year.¹³ During these flights, every item on board is securely fastened, preventing anything from moving about the aircraft and causing passenger injury or endangering equipment—every item, that is, except those travelers who are under the age of two.¹⁴ As James Kolstad, Chairman of the National Transportation Safety Board (NTSB) comments, “all objects must be secured during take off and landing, including coffee pots and luggage. And yet . . . our precious children are not.”¹⁵

⁸ See *infra* notes 92-236 and accompanying text.

⁹ See *infra* notes 237-337 and accompanying text. The approved Senate Bill and the proposed House Resolution are identical except for an amendment to the Senate Bill added at the time of its passage. See S. 1913, *supra* note 7; H.R. 4025, *supra* note 7. This amendment indicates that United States carriers on international flights should not have to require child restraints unless there is a standard requirement established by the International Civil Aviation Organization. S. 1913, *supra* note 7, § 2; see also *Four Aviation Bills Recommended for Senate Approval*, AVIATION DAILY, Aug. 1, 1990, at 205. Since the House Resolution remains unpassed, this comment will emphasize the arguments concerning its passage. Presumably, these arguments also apply to Senate Bill 1913.

¹⁰ See *infra* Conclusion.

¹¹ McKenzie & Lee, *Ending the Free Airplane Rides of Infants: A Myopic Method of Saving Lives*, CATO INST., Aug. 30, 1990, at 2.

¹² *Id.*; see also ATA petition, *supra* note 3, at 5.

¹³ Younger, *supra* note 3, at 11.

¹⁴ *Child Restraint Hearings*, *supra* note 7, at 83 (statement of Walter S. Coleman, Vice President, Operations Air Transport Association of America (OATA)).

¹⁵ Waters, *How do Planes Differ from Buses?*, NEWSWEEK, June 4, 1990, at 70. Nora Marshall made a similar statement, “the FAA doesn’t allow anything in the cabin to be unrestrained except kids under two.” *Safety Recommendation Urges FAA*

Under present law, children under two do not have to use any type of safety device while travelling. Instead, they may be held on a parent's lap.¹⁶

A considerable body of evidence indicates that child safety restraints should be mandatory aboard all aircraft. Both medical professionals and safety experts contend that infants and young children travelling without proper restraint face definite hazards.¹⁷ Tests have shown that holding a child in one's arms offers the child virtually no protection during a crash or severe turbulence.¹⁸ These

to Mandate Use of Infant Restraints; Seek Safer Seats for Older Children, AIR SAFETY WEEK, May 29, 1990, at 1 [hereinafter *Safety Recommendation Urges*]. Walter S. Coleman observes that the crash at Sioux City was unique because the crew had time to anticipate and prepare for it. The cabin crew, in compliance with FAA regulations, stored or restrained every loose item on the plane. That is, every loose item except for three infants and one small child—ages eleven months to twenty six months. One of these infants was killed; the other children suffered injury. *Child Restraint Hearings*, *supra* note 7, at 83-84 (statement of Walter S. Coleman, Vice President, OATA).

¹⁶ 16 14 C.F.R. § 121.311(a)(1-2), (b) (1990). This rule indicates:

(a) No person may operate an airplane unless there are available during the takeoff, en route flight, and landing,

(1) an approved seat or berth for each person on the airplane *who has reached his second birthday*; and

(2) an approved safety belt for separate use by each person on board the airplane *who has reached his second birthday*, except that two persons occupying a berth may share one approved safety belt and two persons occupying a multiple lounge or divan seat may share one approved safety belt during en route flight only.

(b) During the takeoff and landing of an airplane, each person on board shall occupy an approved seat or berth with a separate safety belt properly secured about him. *However, a person who has not reached his second birthday may be held by an adult who is occupying a seat or berth. A safety belt provided for the occupant of a seat may not be used during takeoff and landing by more than one person who has reached his second birthday.*

Id. (emphasis added).

See also 14 C.F.R. § 91.14 (3). This regulation provides in pertinent part "[A] person who has not reached his second birthday may be held by an adult who is occupying a seat or berth" *Id.* See generally Younger, *supra* note 3, at 11 (article examines current aviation laws concerning child safety restraints).

¹⁷ Henretig, M.D., *Children's Safety in Aircraft*, SAFE RIDE NEWS, Fall 1989, at 2; Fife, *supra* note 5, at 1245; NTSB, *supra* note 1, at 4-7; *Child Restraint Hearings*, *supra* note 7, at 19 (statement of Rep. Jim Lightfoot).

¹⁸ FAA-CIVIL AEROMEDICAL INSTITUTE (CAMI), *Preliminary Report, SUMMARY OF INFANT RESTRAINT DEVICES IMPACT TEST SERIES*, (June 1989) [hereinafter *FAA-CAMI Report*]; Fife, *supra* note 5, at 1245. The results of an FAA sponsored

tests conclude that infant occupation of aircraft presently constitutes an extreme safety risk.¹⁹ Not only are young children at risk, unrestrained children also jeopardize the safety of others on board the aircraft.²⁰ Ironically, despite opposing mandatory child restraint systems on aircraft,²¹ the Federal Aviation Administration (FAA) calls child restraint systems the best safety option for travelling children.²² In fact, the FAA has published a brochure advocating that parents "buckle up" their infants during air travel.²³

The NTSB, the organization charged with investigating and determining the cause of aviation accidents,²⁴ has addressed this problem. The Board recommends that the FAA pass rulings to ensure the safety of all of its passen-

study, which examined all U.S. airline accidents since 1978, determined that safety seats would have saved children from death and severe injury. Younger, *supra* note 3, at 11; see also Snyder, *supra* note 4, at 89-90. Snyder reports on a University of Michigan study which measured the ability of adults to protect lap-held children during automobile crashes. The researchers concluded that children under two years of age who travel on airplanes are also exposed to undue risks of injury by the requirement that they be transported on adults laps. *Id.* at 90.

Bob Gibbons of Northwest Airlines indicates that severe turbulence constitutes a hazard more real to the average traveler than a crash. Birnbaum, *New Qualms about the DC-10: The Case for Safer Seats*, TIME, Aug. 7, 1989, at 20. See *infra* notes 59-61 and accompanying text. On May 28, 1985, an Eastern Airlines Airbus 300 flew through a thunderstorm, encountering severe turbulence. An eight month old baby flew out of his mother's arms, landing on the floor ten feet away. Snyder, *supra* note 4, at 80. A similar incident occurred on January 4, 1972 when a 747 encountered turbulence and a lap held six month old infant was thrown into an overhead compartment and suffered facial and cranial injuries. NTSB, *supra* note 1, at 2.

¹⁹ ATA petition, *supra* note 3, at 5.

²⁰ NTSB, *supra* note 1, at 6.

²¹ See *infra* notes 237-337 and accompanying text.

²² NTSB, *supra* note 1, at 4. "I would like to reemphasize that parents who travel on aircraft with small children should use an approved safety seat for their children." *Child Restraint Hearings*, *supra* note 7, at 62, 64 (statement of Anthony J. Broderick, Associate Administrator for Regulation and Certification, FAA).

²³ FEDERAL AVIATION ADMINISTRATION—U.S. DEPARTMENT OF TRANSPORTATION, CHILD/INFANT SAFETY SEATS RECOMMENDED FOR USE IN AIRCRAFT (available from the FAA) [hereinafter FAA brochure].

²⁴ *National Transportation Safety Board Reauthorization: Hearings Before the Subcomm. on Aviation of the House Comm. on Public Works and Transportation*, 101st Cong., 2d Sess. v (1990).

gers, young and old.²⁵ In the alternative, the Safety Board suggests a legislative solution designed to better protect children under the age of two who travel by air.²⁶

B. *A Historical Perspective*

Permissive language excluding infants under the age of two from mandatory safety regulations which require seat belt use aboard aircraft first appeared in the 1953 Civil Air Regulations.²⁷ At the time of the passage of the 1953 regulations, child safety restraints were not available. Studies showed that an infant who could not hold his head upright or whose body had not matured enough to fit the contours of a seat with a seatbelt could not properly use an adult seat and safety restraint.²⁸ Therefore, these young children were initially excluded from safety restraint requirements.²⁹ Further, because commercial air travel was a fairly new phenomenon in the 1950's, children rarely traveled on aircraft and were not a focus of either safety regulations or legislation.³⁰ However, as technology and research techniques have become more sophisticated, not only has child protection during flight become feasible, it has become a necessity.³¹

Since the 1960's, the FAA and other experts have conducted research aimed at improving child safety aboard

²⁵ NTSB, *supra* note 1, at 3, 7; *see also* Weinhouse, *Keeping Kids Safer on Planes*, REDBOOK, Nov. 1989, at 132.

²⁶ NTSB, *supra* note 1, at 1. Senator Christopher Bond contends that legislation must be promulgated, noting that without rulemaking authority, the NTSB recommendation is merely a recommendation. *Child Restraint Hearings*, *supra* note 7, at 6, 7 (1990)(statement of Sen. Christopher Bond); *see also id.* at 83 (statement of Walter S. Coleman, Vice President, OATA).

²⁷ *Child Restraint Hearings*, *supra* note 7, at 84 (statement of Walter S. Coleman, Vice President, OATA).

²⁸ Fife, *supra* note 5, at 1245; *Child Restraint Hearings*, *supra* note 7, at v.

²⁹ *Child Restraint Hearings*, *supra* note 7, at 84 (statement of Walter S. Coleman, Vice-President, OATA).

³⁰ Snyder, *supra* note 4, at 85.

³¹ *Child Restraint Hearings*, *supra* note 7, at 84 (statement of Walter S. Coleman, Vice President, OATA); telephone interview with Christy Cohen, Assistant to Rep. Jim Lightfoot (October 15, 1990)[hereinafter Cohen].

aircraft.³² Despite the fact that this research, including some done by the FAA, indicates that child safety seats offer improved protection for children travelling on airplanes, no requirements mandating child restraints have been passed.³³ Under present law, children still travel unrestrained, held only by a human force—their parent's arms.³⁴

C. *The Current Problem*

The tragedy of allowing children to travel by air without proper safety devices manifests itself dramatically. During the past two decades there have been numerous airplane accidents in which unrestrained children have been severely injured or have died. In fact, the FAA has identified eight incidents involving commercial airlines that have occurred during the past fifteen years in which the proper use of child safety mechanisms might have reduced infant casualties.³⁵ Two 1989 accidents, the crash of United Airlines Flight 232 and the crash of Avianca Airlines Flight 52, demonstrate the danger infants and children face when travelling by air without proper safety devices.³⁶

On July 19, 1989, United Flight 232 crashed during an attempted landing in Sioux City, Iowa.³⁷ In preparation for the crash landing, the flight crew followed standard FAA crash procedures.³⁸ Accordingly, flight attendants instructed parents travelling with children under the age of two to place their children on the floor, cushioning them with pillows and bracing them between an adult's

³² *Child Restraint Hearings*, *supra* note 7, at v; NTSB, *supra* note 1, at 6.

³³ *Child Restraint Hearings*, *supra* note 7, at 20 (statement of Rep. Jim Lightfoot); NTSB, *supra* note 1, at 6; see 14 C.F.R. §§ 91.14, 121.311, *supra* note 16.

³⁴ *Child Restraint Hearings*, *supra* note 7, at 37 (statement of Susan M. Coughlin, Vice Chairman, NTSB).

³⁵ Miscellaneous Operational Amendments, 55 Fed. Reg. 7415 (1990)[hereinafter 55 Fed. Reg. discussion].

³⁶ *Child Restraint Hearings*, *supra* note 7, at 19 (statement of Rep. Jim Lightfoot) *id.* at 37-38 (statement of Susan M. Coughlin, Vice Chairman, NTSB).

³⁷ NTSB, *supra* note 1, at 1.

³⁸ *Id.* at 2.

feet.³⁹ Three infants and one toddler were travelling on board the craft.⁴⁰ One mother aboard the flight recalled that on impact her son flew off of the floor and into the air, striking his head on the cabin wall several times before she could grab him.⁴¹ This boy suffered severe head injuries.⁴² Another child died when he slipped from between his mother's feet and was thrown down the aisle.⁴³ In fact, every infant and toddler on board the plane suffered injury in the crash.⁴⁴ By contrast, some adults aboard the aircraft, all of whom were restrained, escaped uninjured.⁴⁵

On January 25, 1990, Avianca Airlines Flight 52 crashed in Cove Neck, New York.⁴⁶ Among the passengers were seven children under the age of two.⁴⁷ Again, in compliance with FAA regulations, parents were instructed to place small children on the floor. Tragically, six of these infants received serious, life-threatening, and in some cases, permanent injuries; the seventh was killed.⁴⁸ These airline crashes are only two examples of the great difficulty present in protecting unrestrained children during a crash situation. Obviously, the standard FAA safety procedures offered little protection to these infants.

Other tragic crashes have occurred in which unprotected children have perished or been seriously injured.⁴⁹ In one crash, NTSB investigators were able to identify the particular manner in which one of two infant deaths occurred. On November 15, 1987, a Continental Airlines

³⁹ *Child Restraint Hearings*, *supra* note 7, at 79 (statement of Jan Brown, flight attendant, United Air Lines Flight 232).

⁴⁰ NTSB, *supra* note 1, at 1-2.

⁴¹ *Child Restraint Hearings*, *supra* note 7, at 388 (statement of Lori Michaelson).

⁴² *Id.*

⁴³ *Id.*

⁴⁴ NTSB, *supra* note 1, at 2.

⁴⁵ *Id.* at 1.

⁴⁶ *Id.* at 5.

⁴⁷ *Id.*

⁴⁸ *Id.* at 5; Forte, *supra* note 4.

⁴⁹ *Child Restraint Hearings*, *supra* note 7, at 49, 267-70.

DC-9 crashed on takeoff from Stapleton International Airport in Denver, Colorado.⁵⁰ Five unrestrained children were on board.⁵¹ Two of these children died, and two suffered severe injuries.⁵² NTSB investigators determined that one infant was thrown into the plane's bulkhead, receiving fatal blunt impact injuries, skull fractures, and thorax injuries.⁵³

Many researchers cite one particular air crash as the most tragic example of the need for child safety restraints on board aircraft. On April 4, 1975, *Operation Babylift* left Saigon, Vietnam, carrying two hundred forty-seven orphans to new homes in the United States.⁵⁴ While enroute the plane crashed; ninety-eight infants and children were killed.⁵⁵ Unfortunately, little is known about the circumstances on board this aircraft because of the Vietnam War.⁵⁶ However, since safety restraints are neither mandatory nor commonly used, it is assumed that none of the children below the age of two were restrained by appropriate safety mechanisms.⁵⁷ In another tragic crash, in 1978, three unrestrained children under the age of two suffered fatal injuries when a United Airlines flight crashed in Portland, Oregon.⁵⁸

Fatalities and injuries to unrestrained infants aboard aircraft do not occur solely during crash situations. Bob Gibbons of Northwest Airlines indicates that severe turbulence constitutes a hazard more real to the typical air traveler than a crash.⁵⁹ In fact, during turbulence on a

⁵⁰ NTSB, *supra* note 1, at 4.

⁵¹ Snyder, *supra* note 4, at 80.

⁵² *Id.*

⁵³ *Id.*

⁵⁴ *Id.* at 79.

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ NTSB, *supra* note 1, at 3; NTSB, SAFETY INFORMATION (July 12, 1990) reprinted in *Child Restraint Hearings*, *supra* note 7, at 299, 304 [hereinafter NTSB SAFETY INFORMATION]. This tragedy marked the first time the NTSB stressed to the FAA the need for child restraint systems on aircraft. *Child Restraint Hearings*, *supra* note 7, at 44 (statement of Susan M. Coughlin, Vice Chairman, NTSB).

⁵⁹ Birnbaum, *supra* note 18, at 20; see also *Child Restraint Hearings*, Public Works

National Airlines 1972 flight, a lap-held, unrestrained infant flew out of his holder's arms, struck his head on an overhead compartment and suffered fatal head injuries.⁶⁰ A similar incident occurred more recently on July 13, 1986, when an Eastern Airlines flight encountered *expected* turbulence during landing. During this turbulence, a seven month old, unrestrained infant flew upward, fell on the armrest of the seat in front of his mother's seat and suffered facial injuries.⁶¹

Numerous other cases involving unrestrained infant fatalities on aircraft exist.⁶² In some instances, the circumstances have made it difficult to speculate about the causes of death and the possibility that the children might have survived had they been restrained.⁶³ However, the accidents discussed clearly demonstrate that restrained adults frequently survive crashes in which unrestrained infants die.⁶⁴

Perhaps the best analysis of increased risks associated with unrestrained infant air travel is a 1981 Harvard Medical School epidemiology study of 1976-1979 U.S. aircraft accidents in which there were both survivors and fatalities.⁶⁵ This study determined that infant restraints could

and Transportation, (statement of Susan Bianchi-Sand, President, Association of Flight Attendants) (Ms. Bianchi-Sand reviews numerous incidents of turbulence injury to unrestrained children).

⁶⁰ NTSB, *supra* note 1, at 3.

⁶¹ *Id.* at 4. In another case, an unrestrained seven week old infant sustained serious head injuries when the American Airlines plane on which it was travelling encountered expected turbulence. No adults were injured on this flight. *Id.* at 5.

⁶² Fife, *supra* note 5, at 1243-44; NTSB, *supra* note 1, at 1-7; *see supra* note 49 and accompanying text.

⁶³ Snyder, *supra* note 4, at 80.

⁶⁴ *See generally* NTSB, *supra* note 1. In many cases, the NTSB has established that child safety restraints would have saved a child's life. Forte, *supra* note 4. The NTSB knows of no aircraft fatalities involving a child wearing a safety restraint. NTSB SAFETY INFORMATION, *supra* note 58, at 301.

⁶⁵ Fife, *supra* note 5, at 1243-44.

US air carriers were involved in 21 fatal accidents during the period 1976-1979. Passengers died in 14 of these accidents. The remainder involved the deaths of aircraft crew or of people outside the airplane. Three of the 14 accidents with passenger deaths had no survivors, and these three accidents accounted for 389 deaths. The remaining 11 accidents had deaths and survivors among the passen-

have prevented three of the five infant passenger deaths that occurred in the crashes studied, and concluded that unrestrained infants undergo excessive mortality rates in crashes in which adults survive.⁶⁶

That more effective child restraint mechanisms are necessary aboard aircraft is suggested by the deaths and injuries which occurred in the accidents discussed, the test results noted, and the testimony showing the impossibility of holding onto an infant during either a crash or severe turbulence.⁶⁷ Medical literature, the FAA, and the NTSB all indicate that air travel for unrestrained, young children

gers and accounted for 493 deaths. Four of these eleven aircraft had children on board.

Id. at 1243. Crashes were excluded from the survey if there were no survivors or no infants aboard or if deceleration was not a factor. Five international crashes were also studied. The following table shows the crashes included in the study.
Id.

Place	Year	Passengers	Died	Survived
Portland, OR	1976	infants	3	0
		noninfants	3	4
Portland, OR	1976	infants	0	3
		noninfants	2	165
Ketchikan, AL	1976	infants	0	2
		noninfants	1	40
St. Thomas, VI	1976	infants	2	1
		noninfants	24	45
Finland	1963	infants	2	0
		noninfants	17	2
New Zealand	1954	infants	2	1
		noninfants	1	22

The following crashes were excluded from the analysis

St. Thomas, VI	1976	infants	0	0
		noninfants	9	0
Canada	1978	infants	1	0
		noninfants	34	0
Canada	1978	infants	0	0
		noninfants	3	6
Los Angeles	1978	infants	0	2
		noninfants	2	182
Denmark	1971	infants	1	0
		noninfants	22	2
Greece	1972	infants	1	0
		noninfants	36	16

Id. at 1243-1244.

⁶⁶ *Id.* at 1245.

⁶⁷ See *supra* notes 18-20, 35-66 and accompanying text.

is dangerous. Specifically, there is a "definite hazard inherent in air travel by infants and young children without proper restraint."⁶⁸ Indeed, "[a] small child sitting unrestrained on a plane becomes a little missile when the aircraft hits severe turbulence [or crashes]."⁶⁹ According to the NTSB, this "missile" is not only at an increased risk of injury or death, he or she is a danger to other passengers.⁷⁰ For example, the infant killed in the Sioux City Crash weighed thirty five-pounds. NTSB suggests that an unrestrained child weighing this much "represents a major contradiction in the FAA regulations that require all other 'items of mass' such as carry on baggage to be stowed for take-off and landing."⁷¹ FAA administrator James B. Busey admits that "forces generated by a crash can exceed the parents ability to restrain a child safely, and additionally, that in encounters with severe air turbulence, high forces pose a potential danger to unrestrained infants."⁷²

III. PROPOSED LEGISLATION

Both the House and the Senate have introduced legislation seeking to mandate safety restraints for children travelling on aircraft. On February 20, 1990, Representative Jim Lightfoot introduced a bill mandating that child safety restraints be required on all United States commercial aircraft.⁷³ Acknowledging the realities of both the United Airlines Flight 232 crash in Sioux City and the Avi-

⁶⁸ Henretig, *supra* note 17, at 20; see also *Child Restraint Hearings*, *supra* note 7, at 125 (statement of Anthony J. Broderick, Associate Director for Regulation and Certification, FAA). Broderick remarked, "the use of a child safety seat can increase the likelihood of [a] child surviving a crash. . . . The FAA believes that child safety seats should be used." *Id.*

⁶⁹ Birnbaum, *supra* note 18, at 20 (quoting Bob Gibbons of Northwest Airlines).

⁷⁰ NTSB, *supra* note 1, at 6.

⁷¹ *Id.*

⁷² *Voluntary Child-Restraint Regulation Is Part of FAA's Proposed Rulemaking*, AIR SAFETY WEEK, Mar. 5, 1990, at 4, 4-5 [hereinafter *Voluntary Child-Restraint Regulation*].

⁷³ H.R. 4025, *supra* note 7. This bill reads:

Section 1. CHILD RESTRAINT SYSTEMS ON COMMERCIAL AIRCRAFT

(a) In General—Section 601 of the Federal Aviation Act of 1958

anca Airlines Flight 52 crash in Cove Neck, New York, as well as the concerns of the NTSB, Lightfoot stressed that virtually all experts agree that infants and small children should be restrained during air travel, especially during turbulence, landing and take-off.⁷⁴ The Congressman emphasized that evidence supporting this view has been available for at least fifteen years.⁷⁵ Lightfoot introduced House Resolution 4025 to the Public Works and Transportation Subcommittee of the House Aviation Committee:

It has long been recognized that adults should be restrained during turbulence, landing and take-off. Yet children under age two are not required to be restrained. There is no excuse for requiring coffee pots and corpses to be restrained while leaving children under age two to fly around the cabin—that's sheer lunacy. This issue has been studied for years—now is the time to act. We can't afford to wait. It's time to get our heads out of the clouds.⁷⁶

Senator Christopher Bond introduced legislation in the Senate, Senate Bill 1913, which is identical to House Resolution 4025.⁷⁷ Senate Bill 1913 has an interesting history. Senator Bond originally introduced this bill in

(49 U.S.C. App. 1421) is amended by adding at the end the following new subsection:

“(g)CHILD RESTRAINT SYSTEMS.—Not later than 90 days after the date of the enactment of this subsection, the Secretary shall issue regulations requiring the use of child safety restraint systems approved by the Secretary on aircraft providing air transportation of passengers. Such regulations shall establish age or weight limits for children who are to use systems.”

Id.

⁷⁴ *Child Restraint Hearings*, *supra* note 7, at 19-20 (statement of Rep. Jim Lightfoot).

⁷⁵ *Id.*

⁷⁶ *Id.* at 19.

⁷⁷ *Child Restraint Hearings*, *supra* note 7, at 6 (statement of Sen. Christopher Bond). Senate Bill 1913 reads exactly as House Resolution 4025, but it adds the following amendment:

(b) CONFORMING AMENDMENT.—The table of contents contained in the first section of such Act is amended by inserting at the end of the matter relating to section 601 the following new item: “(g) Child Restraint Systems”

November 1989 as an amendment to Senate Bill 341, the Air Travel Rights for Blind Individual's Act.⁷⁸ For unclear reasons, the Senate removed Senate Bill 341 from its calendar of pending business on June 12, 1990.⁷⁹ Consequently, the Senate also removed the Bond amendment from consideration.⁸⁰ However, Senator Bond later reintroduced the child safety restraint legislation as Senate Bill 1913.⁸¹ The Bill passed the Senate on August 2, 1990.⁸²

Support for this legislation is widespread and emanates from many groups, including the NTSB, the Air Transport Association (ATA), the Flight Attendants Association, the Airlines Passenger Association, parents, safety experts, medical groups, and the commercial airlines.⁸³ The Flight Attendants Association expresses a sentiment which exemplifies the position of these organizations.

The FAA has gone to the trouble of regulating carry on bags. They ought to do at least the same for infants. . . . An infant held on the floor is not likely to stay in place during a crash. . . . in some circumstances [a safety seat] can make the difference between life and death.⁸⁴

The most active support for the legislation comes from the NTSB and the ATA. These two organizations have formally recommended that the FAA promulgate air craft

SECTION 2.—INTERNATIONAL STANDARD.

It is the sense of the Congress that the United States representative to the International Civil Aviation Organization should seek an international standard to require that passengers on a civil aviation aircraft be restrained on takeoff and landing and when directed by the captain of such aircraft.

S. 1913, *supra* note 7, § 1(b), 2.

⁷⁸ The Air Travel Rights For Blind Individual's Act, *supra* note 7.

⁷⁹ *Child Restraint Hearings*, *supra* note 7, at 9 (statement of Sen. Christopher Bond); Parrish, *Blind Rights Bill Off Senate Calendar*, AIR SAFETY WEEK, June 18, 1990, at 3.

⁸⁰ *Child Restraint Hearings*, *supra* note 7, at 9-10 (statement of Sen. Christopher Bond).

⁸¹ S. 1913, *supra* note 7.

⁸² 136 CONG. REC. S12,015 (daily ed. Aug. 2, 1990).

⁸³ *Child Restraint Hearings*, *supra* note 7, at 20-21 (statement of Rep. Jim Lightfoot).

⁸⁴ Weinhouse, *supra* note 25, at 132.

regulations requiring children to be restrained in safety devices during air travel.⁸⁵ In doing so, these two groups note that abundant evidence demonstrates the need for child restraint systems.⁸⁶ The FAA has responded to this evidence by approving restraints which comply with motor vehicle safety standards for use on aircraft and by allowing their use in flight.⁸⁷ However, there is still no FAA requirement that children traveling by air *must* be restrained in safety seats.⁸⁸ In the absence of FAA action, the NTSB and the FAA support a congressional legislative solution.⁸⁹ House Resolution 4025 and Senate Bill 1913 seek to provide this solution.⁹⁰

The only opposition to House Resolution 4025 and Senate Bill 1913 comes from the FAA.⁹¹ The FAA offers several reasons why it believes this proposed legislation is ill-founded. In the next two sections, this comment will examine the positions of those who support and those who oppose the child safety restraint legislation.

IV. SUPPORT FOR CHILD SAFETY RESTRAINTS

A. *Safety Issues*

1. *An Attempt at a Safe Alternative*

The NTSB recently expressed concern that the FAA has not adequately addressed infant traveller protection since

⁸⁵ NTSB, *supra* note 1, at 7; ATA petition, *supra* note 3, at 5.

⁸⁶ *Child Restraint Hearings*, *supra* note 7, at 2 (statement of Rep. Jim Lightfoot). "Virtually all experts agree that small children should be better restrained during air travel." *Id.* at 1.

⁸⁷ FAA, TECHNICAL STANDARD ORDER C-100, CHILD RESTRAINT SYSTEMS (1982) [hereinafter 1982 TSO C-100]; see also Federal Motor Vehicle Safety Standard, 49 C.F.R. § 571.213 (1990) [hereinafter FMVSS 213] (FMVSS 213 was amended on August 30, 1984 to certify child safety seats as suitable for both car and air travel use); FAA, TECHNICAL STANDARD ORDER C-100a, CHILD RESTRAINT SYSTEMS (1985) [hereinafter 1985 TSO C-100a]; *Child Restraint Hearings*, *supra* note 7, at 20 (statement of Rep. Jim Lightfoot).

⁸⁸ *Child Restraint Hearings*, *supra* note 7, at v.

⁸⁹ NTSB Probe Raises Anew the Question of Child Safety Restraints, *supra* note 7, at 2-3. It is likely that FAA action will not take place. "[W]e do not have a very responsive FAA." 136 CONG. REC. S57,456 (daily ed. June 6, 1990).

⁹⁰ H.R. 4025, *supra* note 7; S. 1913, *supra* note 7.

⁹¹ *Child Restraint Hearings*, *supra* note 7, at 21 (statement of Rep. Jim Lightfoot).

1978, although child safety aboard aircrafts has long been a problem facing the aviation industry.⁹² Following a 1978 United Airlines crash involving infant fatalities, the NTSB recommended that the FAA expedite both research and rulemaking in an effort to make air travel as safe as possible for young children and infants.⁹³ In response, the FAA issued a 1982 ruling *permitting* the use of some automobile restraint devices on airplanes,⁹⁴ and when pressed by the NTSB, extended this permit in a 1985 ruling to all child/infant seats acceptable under the Federal Motor Vehicle Safety Standards Number 213.⁹⁵ This 1985 ruling did not require infant seats nor did it require that all commercial airlines accept the usage of the child safety restraints.⁹⁶ Since the 1985 ruling, more than four air incidents involving injury or death to an unrestrained infant have occurred.⁹⁷ The Air Transportation Association of America (ATA) and the NTSB have responded to the FAA's rulings.

The ATA, on behalf of its member airlines and in accordance with H.R. 4025, petitioned the FAA on February 22, 1990 "to initiate rulemaking to amend certain portions of [Federal Aviation Rule] FAR 121.311 pertaining to the restraint of persons who have not reached their second birthday."⁹⁸ The FAA responded to the ATA's petition by expressing concern over the safety of infants

⁹² NTSB, *supra* note 1, at 3.

⁹³ *Id.*; see also *supra* note 58 and accompanying text.

⁹⁴ 1982 TSO C-100, *supra* note 87; NTSB, *supra* note 1, at 3.

⁹⁵ 1985 TSO C-100a, *supra* note 87; NTSB, *supra* note 1, at 3. The NTSB has termed this response untimely. *Id.*

⁹⁶ 1985 TSO C-100a, *supra* note 87.

⁹⁷ NTSB, *supra* note 1, at 3-4. These accidents include the 1987 Continental Airlines crash at Stapleton International Airport in Denver, Colorado, in which one infant died; the 1990 Avianca Airlines crash at Cove Neck, New York, in which one child died and six were severely injured; the 1989 Sioux City, Iowa, crash in which one infant died and others were severely injured; and the turbulence problems experienced in January 1990 by an American flight near Puerto Rico in which one infant suffered serious injuries. Other crashes and turbulence problems have occurred since the 1985 FAA action. See *supra* notes 37-72 and accompanying text.

⁹⁸ ATA petition, *supra* note 3, at 1. The ATA suggests the following replacement for 14 C.F.R. § 121.311:

travelling on air planes and strongly advocating parental use of child restraints.⁹⁹ In fact, in testimony at an October 30, 1989 NTSB public hearing, an FAA official stated "infants are best protected in an FAA approved infant/child restraint system that [is] properly installed in a seat."¹⁰⁰ Despite this statement and other expressed concerns, the FAA initiated a March 1, 1990 rule which did not require or even encourage use of child safety seats aboard aircraft. This ruling prohibited air carriers from denying use of approved restraints to those seeking to use them.¹⁰¹ The FAA's March 1 proposal did not satisfy the ATA; therefore, the ATA vigorously supports and actively

SEATS, SAFETY BELTS, AND SHOULDER HARNESSSES.

(a) No person may operate an airplane unless there are available during the takeoff, en route flight, and landing,

(1) An approved seat or berth for each person on board the airplane; and

(2) An approved safety belt for separate use by each person on board the airplane, . . .

(b) During the takeoff and landing of an airplane, each person on board shall occupy an approved seat or berth with a separate safety belt properly secured about him.

Id. at 2.

⁹⁹ 55 Fed. Reg. discussion, *supra* note 35, at 7415.

¹⁰⁰ NTSB, *supra* note 1, at 4.

¹⁰¹ Miscellaneous Operational Amendments, 55 Fed. Reg. 7415 (1990)(to be codified at 14 C.F.R. § 91.107)(proposed March 1, 1990)[hereinafter 55 Fed. Reg. proposed rule]. Practically, this proposal is no different from the 1958 TSO, C-100a. See *supra* note 87. Child restraint systems are still optional. 55 Fed. Reg. discussion, *supra* note 35, at 7416. The FAA's latest proposal purports to clarify the option parents have of bringing a child restraint for their child on board an aircraft. The proposed rule, 14 C.F.R. § 91.107 reads in pertinent part:

[a] Unless otherwise authorized by the Administrator—

(3) Except as provided in this paragraph, each person on board a U.S. registered aircraft . . . must occupy an approved seat or berth with a safety belt and, if installed shoulder harness, properly secured about him during movement on the surface, takeoff, and landing. However, notwithstanding the preceding requirements of this paragraph, a person may:

(i) Be held by an adult who is occupying a seat or berth if that person has not reached his second birthday;

(ii) . . .

(iii) Notwithstanding any other requirement of this chapter, occupy an approved child restraint system furnished by the operator or one of the persons described in paragraph (a)(3)(iii)(A) of this section provided that:

(A) The person is accompanied by a parent, guardian or per-

advocates Representative Lightfoot's legislation.¹⁰²

The March 1, 1990, FAA ruling did not please the NTSB either. The Safety Board announced that voluntary use of child safety seats was not an appropriate means of ensuring infant safety aboard aircraft.¹⁰³ On May 30, 1990, the NTSB officially recommended to the FAA that child safety restraint systems be mandated for all infant/children travelers.¹⁰⁴

son (attendant) designated by the child's parent or guardian to attend to the safety of the child during the flight;

(B) The approved child restraint system, depending upon its date of manufacture, bears either one or two labels as follows:

(1) Seats manufactured between January 1, 1981 and February 25, 1985, must bear the label: "This child restraint system conforms to all applicable Federal motor vehicle safety standards."

(2) Vest- and harness-style child restraint systems manufactured before February 26, 1985, are not approved. Seats manufactured on or after February 26, 1985 must bear two labels:

i. "This child restraint system conforms to all applicable Federal motor vehicle safety standards"; and

ii. "THIS RESTRAINT IS CERTIFIED FOR USE IN MOTOR VEHICLES AND AIRCRAFT"; and

(C) The operator complies with the following requirements:

(1) The restraint system must be properly secured to an approved seat or berth;

(2) The person must be properly secured in the restraint system and must not exceed the specified weight limit for the restraint system; and

(3) The restraint system bears the appropriate label(s).

[b] The operator may refuse to permit use of a restraint system that has an obvious defect and, in the operator's judgment, may not function properly.

55 Fed Reg. proposed rule, at 7423.

¹⁰² ATA Petition, *supra* note 3, at 3. See also *Child Restraint Hearings*, *supra* note 7, at 19 (statement of Rep. Jim Lightfoot).

¹⁰³ NTSB, *supra* note 1, at 4.

¹⁰⁴ *Id.* at 7. The recommendation is:

Revise 14 CFR 91, 121, and 135 to require that all occupants be restrained during takeoff, landing, and turbulent conditions, and that all infants and small children below the weight of 40 pounds and under the height of 40 inches be restrained in an approved child restraint system appropriate to their height and weight.

Conduct research to determine the adequacy of aircraft seatbelts to restrain children too large to use child safety seats and to develop some suitable means of providing adequate restraint for such children.

Id. The FAA has not responded to this recommendation with a ruling for

2. *Dissatisfaction with the FAA's 1990 Ruling*

The supporters of mandatory child safety seats cite numerous reasons for their displeasure with the FAA's March 1, 1990 rule proposal which leaves the use of child restraint systems aboard aircraft to the parent's discretion. First, the groups stress the documented risk to children who travel unrestrained on aircraft.

Although parents on current airline flights are instructed to hold the infant under two years of age on their lap, from an occupant protection viewpoint clasping the child in the mother's or father's arms offers virtually no protection at all in the impact deceleration of a crash, or even in severe turbulence inflight.¹⁰⁵

Ironically, overwhelming indications of this risk come from the FAA itself. In 1989, the Civil Aeromedical Institute (CAMI) undertook a research and development program for the FAA, evaluating the performance of approved infant/child restraint systems under a series of dynamic test conditions. The tests involved the use of two dummies, one representing a six month old child and the other a two year old child. The dummies were placed in child restraints and attached to aircraft seats. The test results clearly indicate that the restrained infant and child could survive severe forces, including those exerted during turbulence and airline crashes.¹⁰⁶ The test further shows that the typical airline seatbelt adequately protects children over age two, but is grossly inappropriate for children two and under.¹⁰⁷ Moreover, a Harvard University study concluded that unrestrained infant passengers experience a higher risk of injury and death than do re-

mandatory child restraint systems aboard aircraft. *Child Restraint Hearings*, *supra* note 7, at 12 (statement of Sen. Christopher Bond).

¹⁰⁵ *Child Restraint Hearings*, *supra* note 7, at 1 (statement of Rep. Jim Lightfoot); see also Snyder, *supra* note 4, at 90, 95; see *supra* notes 18-20 and accompanying text.

¹⁰⁶ FAA-CAMI REPORT, *supra* note 18, at 1; see also ATA petition, *supra* note 3, at attachments B and C.

¹⁰⁷ *Id.* at 3.

strained adults.¹⁰⁸ The study suggests that the excess risk to unrestrained passengers is related to a lack of mechanical restraint systems.¹⁰⁹

Second, the groups supporting child safety restraints aboard aircraft indicate that an unrestrained child faces two serious hazards during an aircraft crash or severe turbulence. First, the child faces the danger of striking the aircraft interior on impact.¹¹⁰ Second, the lack of child restraint systems could cause the death of both the unrestrained child and his parent if the child is lost aboard a downed aircraft during a crash.¹¹¹ During impending crashes, parents are instructed to place their children on the floor and brace them with their feet.¹¹² If a child survives the impact of a crash, there is a strong possibility that he will not stay at the feet of his parent but will instead slide or "fly" to another part of the plane.¹¹³ The loss of the child may hinder a parent from promptly evacuating himself or his child from the aircraft. As parents search for their lost infants, the death rate aboard a downed airplane can increase dramatically.¹¹⁴

Not surprisingly, numerous professional groups staunchly advocate mandatory child safety restraints aboard aircraft. For example, the American Academy of Pediatricians' (AAP) Committee on Accident and Poison Prevention has expressed concern over the lack of child restraints used on aircraft.¹¹⁵ The Committee reviewed the available medical literature on the subject of the safety

¹⁰⁸ Fife, *supra* note 5, at 1245.

¹⁰⁹ *Id.* at abstract.

¹¹⁰ *Child Restraint Hearings*, *supra* note 7, at 80 (statement of Susan Bianchi-Sand, President, Association of Flight Attendants).

¹¹¹ *Id.* at 81.

¹¹² See *supra* note 39 and accompanying text.

¹¹³ *Child Restraints*, *supra* note 7, at 81 (statement of Susan Bianchi-Sand); *Sioux City Crash Puts Heat on FAA*, SAFE RIDE NEWS, Fall 1989, at 2. This hazard was demonstrated in the Sioux City Crash when a child slid from between his mother's legs and perished in the crash's fire. *Child Restraint Hearings*, *supra* note 7, at 79 (statement of Jan Brown, Flight Attendant, United Air Lines Flight 232).

¹¹⁴ See *Child Restraint Hearings*, *supra* note 7, at 79 (statement of Susan Bianchi-Sand, President, Association of Flight Attendants). *Id.* at 81.

¹¹⁵ Henretig, *supra* note 17, at 1.

of children under the age of two on aircraft and interviewed numerous safety experts.¹¹⁶ The Committee concluded that the relative risk of infant mortality during an airline crash far exceeds the similar risk to an adult, attributing this difference to the lack of adequate infant/child safety mechanisms.¹¹⁷ As a result, the Committee and the American Academy of Pediatrics actively support legislation mandating child safety restraints on aircraft.¹¹⁸ The Aviation Consumer Action Project, a non-profit consumer organization which spends one hundred per cent of its efforts on aviation issues, also supports mandating child restraints on aircraft.¹¹⁹ After surveying an enormous amount of material, this group concluded that unrestrained infants face extreme danger during air travel.¹²⁰ Numerous other groups also support the legislative proposal mandating child safety restraints.¹²¹

Proponents of mandatory child restraint systems further contend that the FAA ignores benefits which child restraints will provide in addition to saving lives.¹²² For example, they argue that legislation mandating child safety restraint systems will eliminate current airline confusion concerning when and how to protect a child aboard an aircraft and prevent airlines from refusing to allow parents to use child restraint systems aboard a flight.¹²³

Confusion arises among parents preparing for a crash as to the best method of protecting their children. For example, in the Sioux City crash, flight attendants encouraged parents to place their children on their laps,

¹¹⁶ *Id.*

¹¹⁷ *Id.* "The [American Academy of Pediatrics] Committee [on Accident and Poison Prevention] believes that all infants and young children should be restrained during air travel in a child safety seat. . . ." *Id.*

¹¹⁸ *Id.* In fact, the committee now advises AAP members to tell their air traveling patients to fly only with children properly restrained. *Id.*

¹¹⁹ *Child Restraint Hearings, supra* note 7, at 85 (statement of Christopher J. Witkowski, Executive Director, Aviation Consumer and Action Project).

¹²⁰ *Id.* at 85-87.

¹²¹ *Id.* at 20-21 (statement of Rep. Jim Lightfoot).

¹²² *See, e.g., id.* at vi.

¹²³ *Id.* at 7 (statement of Sen. Christopher Bond).

while the captain instructed the parents to place their children on the floor.¹²⁴ In addition, there is confusion among parents as to what age child constitutes an infant. Parents of toddlers over the age of two who have adequate restraints in a typical seat with a seatbelt may interpret an instruction to place infants on the floor as a requirement seeking to ensure the safety of all young children.¹²⁵ Frequently, parents who mistakenly remove their children from either a child restraint or a seat to place them in their lap or on the floor will expose the child to increased danger.¹²⁶

The safety seats themselves inspire further confusion. Both air carrier personnel and parents are uncertain which safety seats are approved for airline travel.¹²⁷ Few parents are aware of FAA publications describing child safety restraint systems acceptable for air travel. Due to this lack of knowledge and the confusion it generates, many parents opt to hold their children instead of placing them in a safety seat.¹²⁸

Similarly, some misinformed air carrier personnel advise parents not to use a child restraint system, and others refuse to allow their use.¹²⁹ As a result, parents might be able to use their restraint on one leg of a trip, but not on another.¹³⁰ Often there is no place to store the forbidden restraint system.¹³¹ Moreover, airline personnel are frequently unaware that placing a child in a restraint system is safer than holding the child. One mother recalls being allowed to leave her child in its safety seat during the

¹²⁴ Michaelson, *supra* note 1, at 131.

¹²⁵ NTSB, *supra* note 1, at 5.

¹²⁶ *Id.* at 5-6. An incident during the Sioux City crash is illustrative. In that crash, a parent placed a three year old child on the floor rather than leaving her in her safety belt. The child subsequently died from her injuries.

¹²⁷ *Id.* The FAA has certified FMVSS No. 213 approved child restraints as acceptable for aircraft travel. See *supra* note 87 and accompanying text.

¹²⁸ NTSB, *supra* note 1, at 6.

¹²⁹ Michaelson, *supra* note 1, at 131; *Child Restraint Hearings*, *supra* note 7, at 11 (statement of Sen. Christopher Bond).

¹³⁰ Younger, *supra* note 3, at 11-12.

¹³¹ *Child Restraint Hearings*, *supra* note 7, at 6 (statement of Sen. Christopher Bond).

flight, but having to hold the child during takeoff, landing, or when the fasten seatbelt light was lit.¹³² Ironically, these are the most crucial times for the child to be in the restraint system.¹³³

In an effort to eradicate the obvious confusion over child safety restraints, the airline industry supports the passage of legislation requiring child restraint systems on aircraft. The industry lists numerous other reasons for offering this support, the foremost of which is safety. As Robert J. Aaronson, president of ATA, stated, "[i]mproving safety for all passengers is a constant industry goal and the regulation . . . [proposed] will make flying safer for the estimated 5,000 to 10,000 infants who travel in the laps of adults on commercial flights each day."¹³⁴

3. *The Automotive Industry's Experience with Child Safety Restraints*

The need for automobile restraint devices for children began to receive attention in the late 1950's.¹³⁵ By 1960, the Society of Automotive Engineers (SAE) had formed the Children's Restraint Committee to consider the desirability of designing and implementing the use of child/infant restraint systems.¹³⁶ By the early 1970's, studies by the SAE and the National Highway Traffic Safety Admin-

¹³² Michaelson, *supra* note 1, at 179; *see also* Snyder, *supra* note 4, at 83.

¹³³ Fife, *supra* note 5, at 1245-46.

¹³⁴ ATA Petition, *supra* note 3, at press release.

¹³⁵ Snyder, *supra* note 4, at 82; *Child Restraint Hearings*, *supra* note 7, at v.

¹³⁶ Snyder, *supra* note 4, at 82. At about the same time, the Air Transport Cabin Safety Provisions Committee of the Society of Automotive Engineers identified the need for child restraint systems on board aircraft. This Committee's recognition of a child safety problem aboard aircraft was not as widely accepted as the similar conclusion reached by the Children's Restraint Committee regarding automobiles. *Id.* In February, 1990, the ATA sponsored a Child Restraint Conference. Among those attending were the ATA airlines, representatives from the FAA Flight Standards, FAA-CAMI representatives, National Highway Traffic Safety Administration representatives, NTSB representatives, the American Academy of Pediatrics, Aerospace Industries Association, Association of Flight Attendants, manufacturers of child safety seats and university researchers. The conference attendees decided to form a subcommittee under the auspices of a committee of the Society of Automotive Engineers Aerospace. This new subcommittee was assigned the task of modifying the infant/child safety mechanisms

istration (NHTSA) revealed that approximately one thousand children under the age of five were killed annually during car accidents.¹³⁷ Ten thousand additional children were severely injured in automobile accidents.¹³⁸ NHTSA determined that most of these deaths and injuries could be prevented if children were restrained so as to not "fly" about the vehicle at impact.¹³⁹ In fact, mortality statistics revealed that properly restrained children were better protected from death and serious injury than were unrestrained children.¹⁴⁰ While seatbelts were mandatory in all cars manufactured after 1972,¹⁴¹ "[t]he size and fragility of infants and small children makes their use of safety belts impractical. . . ."¹⁴² Grim statistics indicated that the only appropriate way to protect a child travelling in an automobile was to strap him into an approved child safety restraint seat.¹⁴³ As a result of these determinations, the NHTSA began actively encouraging child restraint usage in all motor vehicles.¹⁴⁴ In 1971, the NHTSA established standard Number 213 governing the manufacture, testing, and usage of child restraint systems.¹⁴⁵ By 1980, this standard was altered to reflect very stringent testing regulations and usage standards for all motor vehicle child restraints.¹⁴⁶ Today, Federal Motor Vehicle Safety Standard (FMVSS) 213 specifies requirements for child restraint systems in both motor vehicles and aircraft.¹⁴⁷ "The purpose of this standard is to reduce the number of children

designed for automobiles, to be more useful in an aircraft. *Child Restraint Hearings*, *supra* note 7, at 4 (statement of Walter S. Coleman, Vice President, OATA).

¹³⁷ 43 Fed. Reg. 21,471 (1978).

¹³⁸ *Id.* at 21,471.

¹³⁹ *Id.*

¹⁴⁰ Fife, *supra* note 5, at 1242.

¹⁴¹ 49 C.F.R. § 571.208(4.1) (1989).

¹⁴² 43 Fed. Reg., *supra* note 137, at 21,471.

¹⁴³ *Child Restraint Hearings*, *supra* note 7, at 4 (statement of Walter S. Coleman, President, OATA).

¹⁴⁴ 43 Fed. Reg., *supra* note 137, at 21,471.

¹⁴⁵ Snyder, *supra* note 4, at 87.

¹⁴⁶ Federal Motor Vehicle Safety Standards; Child Restraint Systems, 45 Fed. Reg. 29,045-48 (1980).

¹⁴⁷ FMVSS 213, *supra* note 87.

killed or injured in motor vehicle crashes and in aircraft."¹⁴⁸ Restraints passing the tests and standards of Standard 213 represent the safest alternative for an infant travelling by either car or plane.¹⁴⁹

One of the highest priorities of NHTSA is to increase the number of young children occupying motor vehicles who are routinely placed in protective child restraint systems.¹⁵⁰ Largely through the efforts of the NHTSA, all fifty states and the District of Columbia presently require and enforce the use of child safety restraints for children travelling in cars who are under certain age or weight/height standards.¹⁵¹

The Air Transport Cabin Safety Provisions Committee of the Society of Automotive Engineers contends that children travelling in aircraft need just as much, if not more, protection than children travelling in cars.¹⁵² Each piece of literature discussing the issue of child safety restraints aboard aircraft discusses the success of child safety restraints in automobiles.¹⁵³ The analogy seems readily apparent. Indeed, as Robert J. Aaronson, president of the Air Transport Association of America remarked, "[c]hild safety seats and seat belt use are required in automobiles in all fifty states. If we buckle our children up at 50 miles per hour, why not at 550 miles per hour?"¹⁵⁴

¹⁴⁸ *Id.* § S2.

¹⁴⁹ Snyder, *supra* note 4, at 87.

¹⁵⁰ Federal Motor Vehicle Safety Standards; Child Restraint Systems, 53 Fed. Reg. 24,394-97 (1988).

¹⁵¹ *Id.* at 24,395.

¹⁵² Snyder, *supra* note 4, at 82.

¹⁵³ This includes materials put out by the FAA and appearing in the FAA's rule proposal discussion on child safety restraints. See 55 Fed. Reg. discussion, *supra* note 35, at 7415. See generally, *Child Restraint Hearings*, *supra* note 7 (hearing accumulates a great deal of material pertaining to child restraint systems aboard aircraft; there are many references to the fact that all fifty states require child restraint systems in automobiles).

¹⁵⁴ ATA Petition, *supra* note 3, at 1.

B. *The Equal Protection Argument*

1. *The Fourteenth Amendment*

The fourteenth amendment to the United States Constitution mandates that no state shall deny equal protection of the law to any person.¹⁵⁵ Generally, this "equal protection guarantee . . . governs all governmental actions which classify individuals for different benefits or burdens under the law."¹⁵⁶ While the fourteenth amendment contains other provisions, its equal protection clause represents the most important protection of individual rights in the Constitution.¹⁵⁷

The fourteenth amendment is one of three post civil war amendments to the Constitution originally designed to secure equal treatment for the newly free slaves.¹⁵⁸ In *Strauder v. West Virginia*, the Supreme Court described discrimination against the newly freed slaves as "habitual," declaring the black race in need of "protection against unfriendly action in the States where they are resident."¹⁵⁹ The equal protection clause became vital to ensuring that laws were the same for all people, specifically the newly

¹⁵⁵ U.S. CONST. amend. XIV, § 1. The fourteenth amendment to the United States Constitution provides in pertinent part:

Section 1. All persons born or naturalized in the United States and subject to the jurisdiction thereof, are citizens of the United States and of the State where in they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any state deprive any person of life, liberty or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.

Section 5. The Congress shall have power to enforce, by appropriate legislation, the provisions of this article.

Id. §§ 1, 5.

¹⁵⁶ J. NOWAK, R. ROTUNDA & J. YOUNG, CONSTITUTIONAL LAW 523-24 (1986)[hereinafter NOWAK].

¹⁵⁷ *Id.* at 524.

¹⁵⁸ *Strauder v. West Virginia*, 100 U.S. 303 (1880). The Supreme Court described this amendment as "one of a series of constitutional provisions having a common purpose; namely securing to a race recently emancipated, a race that through many generations had been held in slavery, all the civil rights that the superior race enjoy." *Id.* at 306.

¹⁵⁹ *Id.*

emancipated black.¹⁶⁰ Until the middle of the twentieth century, courts interpreted this clause very narrowly, following the precedent of *Strauder* and offering equal protection only in cases of racial discrimination.¹⁶¹ The equal protection clause took on new importance with Supreme Court cases decided while Earl Warren was Chief Justice.¹⁶² During the 1960's, the Warren Court began to apply the equal protection clause to situations unrelated to race.¹⁶³ The Court concluded that the clause prohibits states from enacting legislation classifying persons in a manner which creates an invidious discrimination against a particular class.¹⁶⁴ Simply put, the fourteenth amendment guarantees that government classification of individuals will not be based on impermissible criteria or arbitrarily burden individuals.¹⁶⁵

2. *Equal Protection as Applied to Federal Legislation*

The fourteenth amendment on its face does not apply to the federal government, but rather only to state and local governments.¹⁶⁶ The Constitution does not contain an equal protection clause governing federal activities and legislation.¹⁶⁷ This apparent anomaly first received atten-

¹⁶⁰ *Id.* at 309. *Strauder* specifically refers to equal protection for the newly emancipated black race, stating "the law in the States shall be the same for the black as for the white; that all persons, whether colored or white, shall stand equal before the laws of the States. . . ." *Id.* at 307; see also G. STONE, L. SEIDMAN & C. SUNSTEIN, CONSTITUTIONAL LAW 448 (1986)[hereinafter STONE].

¹⁶¹ Gunther, *In Search of Evolving Doctrine on a Changing Court: A Model for a Newer Equal Protection*, 86 HARV. L. REV. 1, 8 (1972). "At the beginning of the 1960's, judicial intervention under the banner of equal protection was virtually unknown outside racial discrimination cases." *Id.* Even prior to the 1930's, the Court endorsed segregated facilities and other overt cases of a lack of equal protection with the separate but equal doctrine. This was invalidated in 1954 with the court's decision in *Brown v. Board of Education*, 347 U.S. 483 (1954). NOWAK, *supra* note 156, at 555.

¹⁶² Gunther, *supra* note 161, at 8.

¹⁶³ STONE, *supra* note 160, at 495; Gunther, *supra* note 161, at 8; see *Harper v. Virginia Board of Elections*, 383 U.S. 663, 669 (1966)("notions of what constitutes equal treatment for purposes of the equal protection clause do change").

¹⁶⁴ *Levy v. Louisiana*, 391 U.S. 68, 71 (1968).

¹⁶⁵ NOWAK, *supra* note 156, at 525.

¹⁶⁶ *Id.* at 524.

¹⁶⁷ *Id.* The omission of such a parallel clause has been termed anomalous. The

tion in the 1950's when the Supreme Court began using the equal protection clause in realms outside of racial discrimination.¹⁶⁸ "The Supreme Court found a way to remedy the [Constitutions's] textual omission, concluding that the fifth amendment's due process clause prohibited arbitrary discrimination by the federal government."¹⁶⁹ Basically, the Supreme Court handles equal protection claims against the federal government just as it handles equal protection claims against state governments.¹⁷⁰ The fifth amendment prohibits arbitrary discrimination by the federal government in the same manner that the fourteenth amendment prohibits discrimination by the states.¹⁷¹ Therefore, when examining federal legislation for equal protection violations, the fourteenth amendment equal protection clause arguments, cases, and

framers intended the fourteenth amendment to prevent racial discrimination. However, it seems unlikely that the Congress itself would deem it necessary that it be bound by an equal protection clause. Karst, *The Fifth Amendment's Guarantee of Equal Protection*, 55 N.C.L. REV. 541, 541-4 (1977).

¹⁶⁸ Karst, *supra* note 167, at 542.

¹⁶⁹ *Id.* The fifth amendment of the United States Constitution reads as follows: "No person shall . . . be deprived of life, liberty, or property without due process of law. . . ." U.S. CONST. amend. V. The Supreme Court in *Bolling v. Sharpe* recognized "discrimination may be so unjustifiable as to be violative of due process." 347 U.S. 497, 499 (1954). *Bolling* involved racial discrimination, declaring the segregation of the District of Columbia's public schools unconstitutional. This concept was extended to areas far beyond the initial application to racial discrimination in the same manner as the extension of the fourteenth amendment's equal protection clause. Karst, *supra* note 167, at 542; *see also* Weinberger v. Wiensenfeld, 420 U.S. 636 (1975) (fifth amendment equal protection claim applicable in a gender discrimination case involving a federal statute); Mathews v. Lucas, 427 U.S. 495 (1976) (Court examines treatment of the illegitimate by the Social Security Act using the fifth amendment equal protection analysis).

¹⁷⁰ Weinberger, 420 U.S. at 638 n.2 (1975). The fifth amendment's due process clause prohibits the federal government from engaging in discrimination that is "so unjustifiable as to be violative of due process." Schlesinger v. Ballard, 419 U.S. 498, 500 n.3 (1975) (citing *Bolling*, 347 U.S. at 497, 499). The Court's approach to fifth amendment equal protection has been precisely the same as its approach to equal protection under the fourteenth amendment. Weinberger, 420 U.S. at 638 n.2 (1975).

¹⁷¹ Karst, *supra* note 167, at 545. Fifth amendment equal protection is justified by both text and history. *Id.* at 547. *See generally* Karst, *supra* note 167 (discussion of the historical overlaps of due process and equal protection and how they allow the fifth and fourteenth amendments to be similarly interpreted).

precedents control.¹⁷²

3. *Levels of Review*

In guaranteeing that similarly situated people are treated alike and those in different circumstances are not treated as if they were the same, equal protection examines whether legislative classifications are properly drawn.¹⁷³ Classifications cannot be drawn in a manner inconsistent with the fourteenth amendment.¹⁷⁴ Discriminatory classifications may be upheld as constitutional only if they relate to a proper governmental purpose with a sufficient, clear state justification.¹⁷⁵ In determining the propriety of federal or state legislative classifications, the courts carefully examine each classification and the purported state justification.¹⁷⁶ A classification which meets the equal protection guarantee serves a legitimate government purpose and does not overly burden the identified class.¹⁷⁷ The Supreme Court employs three tiers of re-

¹⁷² Karst, *supra* note 167, at 554. "In case after case, fifth amendment equal protection problems are discussed on the assumption that fourteenth amendment precedents are controlling." *Id.*; see *Johnson v. Robison*, 415 U.S. 361 (1977). In *Robison*, the Court noted "if a classification would be invalid under the [e]qual [p]rotection [c]lause of the fourteenth amendment, it is also inconsistent with the due process requirement of the fifth amendment." *Id.* at 364 n.4; see also *Washington v. Davis*, 426 U.S. 229 (1976)(Court reviewed fourteenth amendment in reviewing this fifth amendment case involving racial discrimination); *Frontiero v. Richardson*, 411 U.S. 677 (1973)(sex discrimination case concerning the validity of a federal statute in which the controlling precedent was a fourteenth amendment equal protection decision); *Jimenez v. Weinberger*, 417 U.S. 628 (1974)(case involving discrimination against the illegitimate under a federal statute in which the court utilized fourteenth amendment equal protection authority). See generally Karst, *supra* note 167, at 556 n.84.

¹⁷³ NOWAK, *supra* note 156, at 525.

¹⁷⁴ *Id.* "A classification does not violate the guarantee when it distinguishes persons as 'dissimilar' upon some permissible basis in order to advance the legitimate interests of society." *Id.* The essential question is "whether this statutory differentiation . . . is justified by the promotion of recognized state objectives." *Trimble v. Gordon*, 430 U.S. 762, 774 (1977).

¹⁷⁵ *Harper v. Virginia*, 383 U.S. at 663, 665 (1966).

¹⁷⁶ *Id.* at 670. The Court states in *Harper*, "[w]e have long been mindful that where fundamental rights and liberties are asserted under the equal protection clause, classifications which might invade or restrain them must be closely scrutinized and carefully confined." *Id.*

¹⁷⁷ NOWAK, *supra* note 156, at 529. The essential question is a dual one: does

view in deciding which classifications are justified.¹⁷⁸

The first type of review afforded to equal protection questions is strict scrutiny.¹⁷⁹ The Supreme Court applies strict scrutiny when "statutory classifications approach sensitive and fundamental personal rights"¹⁸⁰ Traditionally, strict scrutiny has been utilized only in cases involving race and national origin.¹⁸¹ Over the past few years, examination by strict scrutiny has been expanded to other categories in which legislation limits fundamental constitutional rights, classifies people with regard to their ability to exercise a fundamental right, or bases the classification upon a "suspect trait."¹⁸² In cases in which the court uses strict scrutiny, the offending statute is upheld only if it is necessary to promote a compelling or overriding government interest.¹⁸³ These statutes are stricken in all but the most extraordinary circumstances.¹⁸⁴

The second level of scrutiny which courts use in equal protection cases is not formally labeled.¹⁸⁵ In recent years, the Supreme Court has suggested a level of equal

the classification serve a legitimate purpose while not overly burdening the class? *Mathews v. Lucas*, 427 U.S. 495, 504 (1976).

¹⁷⁸ STONE, *supra* note 160, at 496.

¹⁷⁹ NOWAK, *supra* note 156, at 530.

¹⁸⁰ *Trimble*, 430 U.S. at 767.

¹⁸¹ *Mathews*, 427 U.S. at 504.

¹⁸² NOWAK, *supra* note 156, at 531. A suspect trait is one "which itself seems to contravene established constitutional principles. . . ." *Id.* A suspect classification includes one based on race, national origin or alienage. *Id.* Some of the requirements for rendering a trait suspect are 1) the trait is not within the control of the individual; and 2) the trait does not relate to the individual's ability to contribute to or participate in society. *Mathews*, 427 U.S. at 505.

¹⁸³ NOWAK, *supra* note 156, at 530; *see, e.g., Korematsu v. United States*, 323 U.S. 214 (1944) (Supreme Court ruled that laws excluding those of Japanese ancestry from certain areas of the United States were constitutional within the war powers of the executive, because of the compelling need to protect United States interests during the war with Japan); *McLaughlin v. Florida*, 379 U.S. 184 (1964) (Court invalidated a law forbidding cohabitation between a black and white, noting that there was no compelling state interest in punishing the promiscuity of one group and not punishing other groups for similar behavior).

¹⁸⁴ Brest, *In Defense of the Anti-discrimination Principle*, 90 HARV. L. REV. 1 (1976); *see, e.g., Korematsu*, 323 U.S. at 214 (discriminatory statute justified in wartime).

¹⁸⁵ *See generally Craig v. Boren*, 429 U.S. 190 (1976) (case applies a standard above that of rational basis but below strict scrutiny in determining that a statute forbidding the sale of 3.2% beer to males under twenty and to females below age

protection review which utilizes neither strict scrutiny nor the rational basis¹⁸⁶ standards.¹⁸⁷ This level of scrutiny eliminates the presumption of constitutionality which appears in the rational basis standard, but requires that legislation be substantially related to an important governmental objective.¹⁸⁸

Finally, courts apply a rational relationship or rational basis test to some equal protection issues.¹⁸⁹ The Court does not subject cases reviewed under this standard to any significant examination.¹⁹⁰ Using this standard of review, the court will determine if it is possible that the classification has any rational relationship to an end specified by the government that is not prohibited by the Constitution.¹⁹¹ Specifically, the Court has held, "[a]lthough no precise formula has been developed, . . . [t]he constitutional safeguard is offended only if the classification rests on grounds wholly irrelevant to the achievement of the state's objective."¹⁹² While it is possible to render a statute invalid using the rational basis standard, rational basis review upholds many statutes.¹⁹³

4. *Equal Protection and Child Restraint Systems*

The Federal Aviation Regulations regarding safety seat regulations involve a clear statutory classification. The regulations statutorily include the class of adults and chil-

eighteen was unconstitutional on equal protection grounds because of gender discrimination).

¹⁸⁶ See *infra* notes 188-192 and accompanying text.

¹⁸⁷ NOWAK, *supra* note 156, at 531; see also *Alabama State Federation of Teachers v. James*, 656 F.2d 193, 195 (5th Cir. 1981)(court described the traditional two tier approach involving the standards for strict scrutiny and rational basis as somewhat unsettled because of recent Supreme Court usage of a middle tier approach in decisions involving discrimination because of gender or illegitimacy).

¹⁸⁸ *Craig*, 429 U.S. at 197.

¹⁸⁹ NOWAK, *supra* note 156, at 532.

¹⁹⁰ *Id.* at 530.

¹⁹¹ *Id.*

¹⁹² *McGowan v. Maryland*, 366 U.S. 420, 425 (1960). "A statutory discrimination will not be set aside if any state of facts reasonably may be conceived to justify it." *Id.* at 426.

¹⁹³ STONE, *supra* note 160, at 496.

dren over the age of two, but exclude the class of infants and children under the age of two.¹⁹⁴ In the aviation safety restraint regulations, the federal government denies passengers under the age of two the protection afforded the class of passengers over the age of two years of age—the requirement of wearing seat belts. Consequently, the statute is underinclusive;¹⁹⁵ it excludes a group in need of the benefit and burden of its requirements. Essentially, “equal protection is not provided to all aircraft passengers.”¹⁹⁶

Equal protection principles are applicable to this underinclusive federal regulation.¹⁹⁷ In accordance with the Supreme Court ruling that minors are “persons” within the definition of person under the fourteenth amendment,¹⁹⁸ children under the age of two are entitled to equal protection of all United States laws. Two approaches can be used to apply equal protection theory to the regulations precluding children from equal protection on aircraft.

First, the Court might determine that the regulation deserves strict scrutiny review.¹⁹⁹ As stated, strict scrutiny applies to statutory classifications which infringe on fundamental personal rights.²⁰⁰ Denying adequate safety requirements for young children denies them the right most fundamental of all—the right to life. The Supreme Court labels a right as fundamental by making “a judicial deter-

¹⁹⁴ 14 C.F.R. § 121.311, *supra* note 16, §§ (a)-(b); *id.* § 91.14, *supra* note 16 §§ 2-3. Susan Coughlin, Vice Chairman of the NTSB, stated “unrestrained infants and small children are not being offered the same level of protection as other occupants, and objects . . . on an airplane. . . .” *Child Restraint Hearings, supra* note 7, at 38.

¹⁹⁵ An underinclusive classification “includes a small number of persons who fit the purpose of the statute but excludes some who are similarly situated.” Nowak, *supra* note 156, at 527.

¹⁹⁶ Snyder, *supra* note 4, at 94.

¹⁹⁷ See *supra* notes 166-172 and accompanying text.

¹⁹⁸ *Carey v. Population Serv. Int'l*, 431 U.S. 678 (1977). “Minors, as well as adults, are protected by the Constitution and possess constitutional rights.” *Id.* at 692.

¹⁹⁹ See *supra* notes 179-184 and accompanying text.

²⁰⁰ See *supra* notes 180, 182 and accompanying text.

mination that the text or structure of the Constitution evidences the existence of a value" that should be closely guarded.²⁰¹ It is obvious that life is a fundamental personal right which is worthy of being closely guarded, and the fourteenth amendment enforces this by forbidding "any state [to] deprive any person of *life*, liberty, or property, without due process of law"²⁰² Further support for the notion that life is a fundamental right comes from the Declaration of Independence. This great document refers to "all men being created equal, possessing inherent, inalienable rights, that among these are life, liberty, and the pursuit of happiness."²⁰³ The founding fathers presumed that protection should be afforded to each individual's life, stating "every citizen shall hold his *life*, liberty, property, and immunities, under the protection of the general rules which govern society."²⁰⁴ Clearly, the protection of human life constitutes a fundamental right²⁰⁵ and, thus, any law infringing on the right to life or putting the right to life in danger must be examined under the strict scrutiny standard.

Federal Aviation Regulations 121.311 and 91.14²⁰⁶ put the life of a child in danger by not requiring adequate safety restraints. This violates equal protection because a class of people is excluded from a fundamental protection mandated upon a larger class. In order to be constitu-

²⁰¹ NOWAK, *supra* note 156, at 532 n.21.

²⁰² U.S. CONST. amend. XIV, § 1 (emphasis added); U.S. CONST. amend. V.

²⁰³ Declaration of Independence, prologue (U.S. 1776).

²⁰⁴ Karst, *supra* note 167, at 548 (quoting Daniel Webster) (emphasis added).

²⁰⁵ The Supreme Court has labeled many rights and privileges as fundamental. The Court has termed the right to vote a "fundamental matter in a free and democratic society." *Harper*, 383 U.S. at 667. Also, the Supreme Court has labeled the right to procreate as fundamental, calling marriage and procreation fundamental to the very existence and survival of the race. *Skinner v. Oklahoma*, 316 U.S. at 541. Further, marriage has been held to be a fundamental right in itself. *Loving v. Virginia*, 388 U.S. 1, 12 (1967). In each of these cases, legislation denying these rights was overturned using the strict scrutiny standard of review. *Harper*, 383 U.S. at 670; *Skinner*, 316 U.S. at 541; *Loving*, 388 U.S. at 11. Surely, since voting, marriage, and childbearing are deemed fundamental, the right to life is fundamental as well.

²⁰⁶ See *supra* note 16 and accompanying text.

tional, this law must support a compelling state interest.²⁰⁷ However, it does not appear that there is such an interest inherent in this law. The history of the law does not indicate any governmental reason for excluding children from its application.²⁰⁸ Instead, the law states that its purpose is to save lives.²⁰⁹ The law's denial of safety requirements to infants is obviously arbitrary.²¹⁰ There is no scientific research supporting the 1953 decision to exclude those aged two and under from seat belt regulations.²¹¹ There is no government interest explaining why "infants and small children [were not] afforded equal or greater protection from death and injury during crash impacts and turbulence as afforded other persons on board commercial and general aviation aircraft."²¹² Clearly, the absence of any government interest for an arbitrary, discriminatory, and dangerous rule precludes a finding of a compelling state interest. Federal Aviation Rules 121.331 and 91.14 are unconstitutional in that they deny equal protection of the laws to children by threatening their fundamental right to life.

In the unlikely event that the Court does not label the protection of a child's life as a fundamental right, Federal Aviation Rules 121.311 and 91.14 will not receive review using a strict scrutiny standard.²¹³ However, the classification inherent in Federal Aviation Rules 121.311 and 91.114 will still receive scrutiny using the rational basis

²⁰⁷ See *supra* note 183 and accompanying text. In other cases, justifications such as administrative ease, convenience, reducing intrafamily conflict, and traffic safety have been rejected as justifications for classifications. *Craig*, 429 U.S. at 198.

²⁰⁸ NTSB, *supra* note 1, at 4; *Safety Recommendation Urges*, *supra* note 15, at 1.

²⁰⁹ Cohen, *supra* note 30.

²¹⁰ Cohen, *supra* note 30. In fact, the law was a random, discretionary choice in which the age of two was simply drawn "from the sky." *Id.* A classification must not be arbitrary. *Reed v. Reed*, 404 U.S. 71, 76 (1971). See generally *Child Restraint Hearings*, *supra* note 14, at 84 (statement of Walter S. Coleman, Vice President, OATA).

²¹¹ *Child Restraint Hearings*, *supra* note 14, at 84 (statement of Walter S. Coleman).

²¹² NTSB, *supra* note 1, at 6-7.

²¹³ NOWAK, *supra* note 156, at 537.

standard.²¹⁴ Federal Aviation Rule 121.311 and 91.114 contain an age discrimination factor in that children under the age of two are denied the protection that the law offers those of other ages. Age discrimination has been subject of meaningful Supreme Court review.²¹⁵ In order for a federal classification which results in age discrimination to be labeled constitutional, the rule must be rationally and reasonably related to a legitimate state goal.²¹⁶ The Supreme Court does not seem willing to strike down legislation using this standard of review "as long as it is conceivable that the classification might promote a legitimate governmental interest."²¹⁷ As stated previously, there is no government interest served by Federal Aviation Rule 121.311 and 91.114's denial of mandated safety precautions to children under two.²¹⁸ Even using the rational basis review, Federal Aviation Rules 121.311 and 91.114 are likely to be deemed unconstitutional.

5. *Equal Protection and Handicapped Travellers*

Recently Congress has enacted legislation to provide equal protection aboard aircrafts to another class of passengers: disabled travelers. The Air Carrier Access Act of 1986²¹⁹ includes a variety of requirements to "ensure that handicapped persons receive adequate air transportation

²¹⁴ See *supra* notes 189-193 and accompanying text. "The Court employs the traditional rational basis test when the classification to be tested does not involve a fundamental right, and does not employ the characteristics of race, national origin, citizenship, sex, or legitimacy of birth to define the benefited or burdened class." NOWAK, *supra* note 156, at 537.

²¹⁵ See *Carey*, 431 U.S. at 691-96 (Supreme Court invalidates a law prohibiting the sale of contraceptives to persons under the age of sixteen on the ground that it discriminates against minors).

²¹⁶ *Oreskes, Judge Voids State's Age Limit for Police*, N. Y. Times, Oct. 31, 1984, at B3, col. 4 (citing Judge T. Curtin, D.C. of Buffalo); see also, *Izquierdo v. Mercado*, 894 F.2d 467 (1990)(court examined an aged-based demotion in terms of its rational relationship to a legitimate goal—the government need only show a rational basis for applying age related criteria).

²¹⁷ NOWAK, *supra* note 156, at 537.

²¹⁸ See *supra* notes 206-212 and accompanying text.

²¹⁹ Air Carrier Access Act, 14 C.F.R. § 382 (1990).

service, without unjust discrimination based on handicap, and to implement section 504 of the Rehabilitation Act of 1973, which is designed to eliminate discrimination on the basis of handicap in any program or activity receiving Federal financial assistance."²²⁰

Prior to the passage of this law, disabled individuals challenged instances in which they were discriminated against because of their handicap and not afforded the same access to aircraft and the same safety precautions offered to other passengers.²²¹

In 1976, the Supreme Court decided a case, *United States Department of Transportation v. Paralyzed Veterans of America (PVA)*,²²² which led to the passage of the Air Carrier Access Act.²²³ In *PVA*, the Supreme Court refused to hold that certain Civil Aeronautics Board regulations which violated section 504 of The Rehabilitation Act²²⁴ of 1973 were discriminatory.²²⁵ The Supreme Court held that section 504's prohibition against discriminating against the handicapped applied only to organizations receiving *direct* federal financial assistance.²²⁶ The Paralyzed Veterans of America contended that the aviation industry received such assistance through federally funded airports and federal air traffic control systems.²²⁷ However, the Supreme

²²⁰ *Id.* at § 382.1.

²²¹ See *Hingson v. Pacific Southwest Airlines*, 743 F.2d 1408 (9th Cir. 1984)(court held that handicapped passengers who are discriminated against by air carriers may recover damages); *Angel v. Pan American World Airways*, 519 F. Supp. 1173 (D.C. Cir. 1981)(court noted a handicapped traveler was discriminated against by being denied access to an air carrier). These cases involved the criteria of Section 504 of the Rehabilitation Act of 1973 [hereinafter Act 504], an act which provides special protection for the disabled from discrimination by a program receiving federal money. S. REP. NO. 400, 99th Cong., 2d Sess. 2 (1986). The decisions examined aspects similar to those in the child safety equal protection issue, for example reasonableness, arbitrariness, and safety. Since the Air Carrier Access Act purports to give effect to Act 504, these cases offer some authority.

²²² 477 U.S. 597 (1986).

²²³ S. Rep. No. 400, *supra* note 221, at 1.

²²⁴ See *supra* note 221 and accompanying text.

²²⁵ *PVA*, 477 U.S. at 603.

²²⁶ *Id.* at 605.

²²⁷ *Id.* at 597, 606-7, 611.

Court did not label this assistance direct federal financial assistance.²²⁸ This case effectively, "free[d] large air carriers from the discrimination prohibitions of the Rehabilitation Act²²⁹ of 1973."²³⁰ The practical effect of *PVA* was to authorize unequal, discriminatory treatment of handicapped travelers by the air carriers.²³¹ The Air Carrier Access Act of 1986 mitigated the harm that the unequal protection authorized in *PVA* caused by prohibiting discrimination "in the provision of air transportation against an otherwise qualified handicapped individual by reason of such handicap."²³² Basically, the handicapped are now assured the same access to aircraft and safety while aboard aircraft which are available to other travelers.

Like the disabled, small children deserve the same rights aboard aircraft as are afforded to other air travelers. These rights include the safety precautions mandated to others travelling by air. As stated during a summary by Senator Bond on the floor of the Senate:

[c]urrent policy gives airlines the discretion to allow or prohibit the use of child safety seats for children under the age of two. As a result, most toddlers and infants travel in a parent's lap. And when they do, they face a much higher risk of injury or death because the force of a crash or even severe turbulence completely overwhelms the parent's ability to restrain him. Why do we require restraints for an infant's family—his parents and brothers and sisters—but not for him? Why are airlines required to tie down and secure every single item in the cabin before takeoff—luggage, liquor, food, and coffee pots—but not babies? I

²²⁸ *Id.* at 609, 612.

²²⁹ See *supra* note 221 and accompanying text.

²³⁰ S. REP. NO. 400, *supra* note 221, at 2.

²³¹ *Id.*

²³² 14 C.F.R. § 382 *supra* note 219, § 382.1(1).

Otherwise qualified individual is intended to . . . [mean] one who tenders payment for air transportation; whose carriage will not violate FAA regulations; and who is willing and able to comply with reasonable, safety requests of airline personnel or, if not, is accompanied by a responsible adult passenger who can ensure compliance with the requests.

S. REP. NO. 100, *supra* note 221, at 4.

find it outrageous that this helpless group of travelers is denied the same protection as adults and inanimate objects.²³³

Today's technology provides parents with excellent infant and child safety seats, making it possible to provide every child, regardless of age with the "same level of protection which is provided to adults" while flying on an aircraft.²³⁴ The proposed Congressional legislation seeks to eliminate parental discretion with regard to restraining their young children by making restraints mandatory for young children.²³⁵ In this manner, the aviation industry will comply with the Constitution by providing equal protection from death and severe injury to all air travelers. Indeed, "[i]f infant seats are not required, we will continue to treat our children as second class citizens."²³⁶

V. THE OPPOSITION TO CHILD SAFETY RESTRAINTS

A. *The Argument Concerning Cost Effectiveness*

The major opponent to a law mandating the use of child restraint systems aboard commercial aircraft is the FAA.²³⁷ The FAA cites several reasons why requiring children to be restrained aboard aircraft is not a good idea. The proponents of mandatory child restraint systems counter each of these arguments.

The focus of the FAA's objection involves the economic cost allegedly inherent in the proposed mandate.²³⁸ The FAA's "preliminary analysis of the potential costs of a mandatory rule indicates a significant economic cost."²³⁹

²³³ 136 CONG. REC. S12,014 (daily ed. Aug. 2, 1990).

²³⁴ ATA Petition, *supra* note 3, at 2.

²³⁵ *Id.* at 3.

²³⁶ *Child Restraint Hearings*, *supra* note 7, at 15 (statement of Sen. Christopher Bond).

²³⁷ *Id.* at 21 (statement of Rep. Jim Lightfoot).

²³⁸ *Id.*

²³⁹ 55 Fed. Reg. discussion, *supra* note 35, at 7416. The FAA estimates the annual cost of a child restraint requirement to be over two hundred million dollars. *Child Restraint Hearings*, *supra* note 7, at 67 (statement of Anthony J. Broderick, Associate Administrator for Regulation and Certification, FAA); *NTSB Probe Raises Anew the Question of Child Safety Restraints*, *supra* note 7, at 2.

There are several aspects to this economic cost.

First, the FAA believes that the rule requires the families with children under the age of two years to pay for the cost of a seat while under present law, these children ride for free on the laps of their parents.²⁴⁰ Estimates of the increased cost per family per trip range from \$62.50 by the FAA²⁴¹ to \$185.00 by other economists.²⁴² In response to this argument the proponents of child restraint systems make several points. First, any cost analysis estimations by the FAA are speculative; it is extremely difficult to predict if or how much the airlines will charge for children under two to occupy a restraint seat on board a plane.²⁴³ An ATA official expected an array of different fares to be offered, "I can't imagine they won't take a close look at what effect charging for those seats might have on family travel. You don't want to price yourself

²⁴⁰ 55 Fed. Reg. discussion *supra* note 35, at 7416.

²⁴¹ *Id.* The FAA estimate reads as follows:

The FAA estimates that the average price for a U.S. scheduled domestic flight is \$103.78 (in 1989 dollars) and a U.S. scheduled foreign flight is \$281.82. The weighted average for these two is \$118.30 per flight. The FAA assumes that half of the average price would be charged for children under 2, which is the same as the policy followed by some airlines for children between 2 and 5 years of age. Half of the \$118.30 per flight is \$59.15 per flight, and this would be the most significant additional cost for children 2 and under because of a mandatory child restraint rule.

Id. The FAA includes in this cost basis a three dollar fee for the use of a child restraint seat, noting that the major automobile rental companies charge an average of three dollars a day for the use of a child restraint. 55 Fed. Reg. discussion, *supra* note 35, at 7416. The FAA estimates the total family fare to equal two full fares and one half fare. Using the average 1989 fares, this will cost \$295.75. Adding three dollars a day for a mandatory child restraint, the price per family will increase by \$62.15, with the total family price jumping to \$357.90, a twenty one percent price increase. *Id.*

²⁴² Waters, *supra* note 15, at 70. Waters discusses a cost analysis similar to that in note 241, but involving the use of larger numbers. See also, *Child Restraint Hearings*, *supra* note 7, at 66 (statement of Anthony J. Broderick, Associate Administrator for Regulation and Certification, FAA).

²⁴³ *Child Restraint Hearings*, *supra* note 7, at 17, 21 (statement of Rep. Jim Lightfoot). Lightfoot argues that House Resolution 4025 is "intentionally worded in the least intrusive manner possible for a mandatory rule. . . ." It does not address the question of charges for the child under the age of two. *Id.* at 22.

out of that."²⁴⁴ The proposed legislation does not address what amount airlines should charge for a seat occupied by an infant.²⁴⁵ However, it is in the airlines' best interest to keep family flying affordable.²⁴⁶ The airlines might institute family fare plans or establish a scale of different fares for the same aircraft.²⁴⁷ Even FAA administrator James B. Busey admits "airline marketing strategies would probably play a role here."²⁴⁸

Second, the FAA contends that mandating child restraint systems will require the airlines to purchase the restraint systems at a considerable cost to the airline industry.²⁴⁹ In this regard, the FAA considered the costs

²⁴⁴ *NTSB Recommends FAA Require Child Safety Seats on Aircraft*, AV. WEEK AND SPACE TECH., May 28, 1990, at 117.

²⁴⁵ *Child Restraint Hearings*, *supra* note 7, at 22 (statement of Rep. Jim Lightfoot).

²⁴⁶ *NTSB Recommends FAA Require Child Safety Seats on Aircraft*, *supra* note 244, at 117. The airlines have a history of offering incentive programs and fares so that families can fly together. There is no evidence to suggest this will not continue in the event that child restraint seats become mandatory. *Child Restraint Hearings*, *supra* note 7, at 88, 94 (statement of Walter S. Coleman, Vice President, OATA). Presumably, the airlines will make available special option packages, including family rates, the half price option presently offered to infants age two to three, and even a continued free policy. *Id.* at 7 (statement of Sen. Christopher Bond). At present, many U.S. airlines will permit children under the age of two to fly using child safety seats in an unoccupied seat free of charge. *Id.* This may continue. *Id.* However, a simple continuation of this policy will not be appropriate for solving the overall child restraint problem. Often flights are full to their capacity and parents do not have the option of waiting for the next flight. So, they risk their child's life by not restraining him. *Mortality among Infant Passengers on Airlines*, 72 AM. J. PUB. HEALTH 497 (1982). When child safety restraints become mandatory on aircraft, the airlines will seek to keep families flying through innovative pricing. *Child Restraint Hearings*, *supra* note 7, at 59 (statement of Susan M. Coughlin, Vice Chairman, NTSB).

It is interesting to examine the argument that legislation is unnecessary today because air travel has become much safer in recent years and few children fly as proposed by those who oppose mandatory child restraints aboard aircraft in light of their corresponding argument that airlines will lose money if restraints are required. See *infra* notes 276-296 and accompanying text. If so few children fly that this problem is obsolete, why will the airlines not let the children continue to ride for free with their child restraints? It is entirely possible, that the airlines will make this pricing choice. *Child Restraint Hearings*, *supra* note 7, at 7 (statement of Sen. Christopher Bond). The proponents of mandatory child restraints contend that the problem is far from obsolete, but the apparent contradiction inherent in arguments espoused by the legislation's opponents is interesting nonetheless.

²⁴⁷ *Airline Infant Safety Seats Required*, *supra* note 3, at 17.

²⁴⁸ *Safety Recommendation Urges*, *supra* note 15, at 2.

²⁴⁹ 55 Fed. Reg. discussion, *supra* note 35, at 7416.

of putting two or three child restraints on each of 2,500 commercial aircraft, incurring a cost of approximately \$250,000 to \$375,000 per year.²⁵⁰ The proposed legislation does not purport to place this burden on the airline industry.²⁵¹ House Resolution 4025 leaves the manner in which the restraints are provided for each applicable passenger to the discretion of the airline.²⁵² The most logical solution appears to be that each parent will provide his or her own safety seat, utilizing the FMVSS approved seat used when travelling by automobile. Indeed, this is the intention of the FAA's proposed ruling which makes the use of safety seats optional.²⁵³ This solution costs the airlines nothing. Pet transportation aboard aircraft is analogous. Many airlines transport animals. Under most regulations, each pet owner must provide his or her own "approved" pet carrier. Most owners already own a carrier and may use it aboard the aircraft. This requirement has not prohibited airlines from allowing people to transport animals. Ironically, "an on board pet is safer in the protective confines of a required pet carrier than is an unrestrained child."²⁵⁴ The same regulatory framework which allows passengers to transport their animals safely can be successfully applied to child safety restraints. Parents who already own a FMVSS car seat can simply bring it on the plane. Because most parents already own an approved restraint, neither the airline nor the passengers will have to purchase a safety seat.²⁵⁵

²⁵⁰ FAA, COST RESTRAINT SYSTEMS ACCEPTABLE FOR USE IN AIRCRAFT MEMORANDUM (June 10, 1982).

²⁵¹ House Resolution 4025, *supra* note 7; S. 1913, *supra* note 7. The proposed legislation seeks to restrain children; it does not seek to have the airline acquire child restraints for aircraft seats. *Child Restraint Hearings*, *supra* note 7, at 89 (statement of Walter S. Coleman, Vice President, OATA).

²⁵² *Child Restraint Hearings*, *supra* note 7, at 22 (statement of Rep. Jim Lightfoot).

²⁵³ 55 Fed. Reg. discussion, *supra* note 35, at 7416-17. The FMVSS approved seats now read "approved for auto and air travel." See *supra* note 87 and accompanying text.

²⁵⁴ *Child Restraint Hearings*, *supra* note 7, at 78 (statement of Jan Brown, flight attendant, United Air Lines Flight 232).

²⁵⁵ *Child Restraint Hearings*, *supra* note 7, at 14 (statement of Sen. Christopher Bond).

Third, the FAA emphasizes the alleged huge revenue loss House Resolution 4025 will mean to the commercial airline industry. The FAA estimates that approximately four million children age two and under travel aboard U.S. airlines yearly.²⁵⁶ The FAA assumes that the average infant is accompanied by two adults and at least one sibling.²⁵⁷ With the introduction of the proposed legislation, the FAA estimates that the annual number of travelling children will be 3,310,000, a loss of 700,000 young travelers.²⁵⁸ This loss will result in a \$211,716,500 loss in ticket revenues from the family members who would ordinarily accompany the 700,000 children as paying passengers.²⁵⁹ In addition, the FAA argues that families who will not be able to afford to fly will experience a non-monetary loss if House Resolution 4024 becomes law.²⁶⁰ Again, these estimates are speculative.²⁶¹ Moreover, the proposed legislation appears to adequately address the alleged financial consequences to the airlines. The cost to the airlines should not be a factor precluding the passage of child restraint legislation, primarily because family programs and incentives will allow families to continue flying.²⁶² The support of the Air Transportation Association, an organization composed of commercial airlines, suggests that airlines generally support mandatory child restraints. Surely their support indicates that solutions to any alleged ticket price increases exist, and, thus, that loss to the industry is unlikely.²⁶³

²⁵⁶ 55 Fed. Reg. discussion, *supra* note 35, at 7416.

²⁵⁷ *Id.* This is a large generalization and probably an incorrect one on the part of the FAA. Documented statistics show that the nuclear family used by the FAA in its calculations is no longer the typical family type in the United States.

²⁵⁸ 55 Fed. Reg. discussion, *supra* note 35, at 7416.

²⁵⁹ *Id.*

²⁶⁰ *Id.*

²⁶¹ See *supra* note 243 and accompanying text.

²⁶² See *supra* notes 246-47 and accompanying text.

²⁶³ ATA Petition, *supra* note 3, at 3. In fact, some opponents of this legislation indicate that "the airline industry's support of the proposed regulation is understandable, although objectionable. If adopted, the new regulation would enable airlines to suppress important competitive forces and sell millions more seats each year." McKenzie & Lee, *supra* note 11, at 1. It is unlikely that the airlines will

In addition to the specific arguments already mentioned, proponents of House Resolution 4025 raise several general objections to the preceding arguments espoused by the FAA. The foremost issue is safety, not cost.²⁶⁴ The United States legal system has already measured the value of human life against cost saving measures. In *Grimshaw v. Ford Motor Co.*,²⁶⁵ the court held that the value of even one life far outweighed any efforts or cost it took to save that life.²⁶⁶ In *Grimshaw*, the producers of the Ford Pinto hatchback eliminated certain safety measures in order to produce an inexpensive car.²⁶⁷ These producers were fully aware of tests showing that the car's design was dangerous.²⁶⁸ However, relying on statistics showing low incidents of motor vehicle accidents and a supposedly slight chance of someone suffering a fatal accident, Ford decided to save money by sidestepping a safety precaution.²⁶⁹ In a resulting wrongful death case, the court found Ford liable for injuries incurred by passengers in a Pinto hatchback.²⁷⁰ The value of even one life was cited as more important than *any* economic benefits.²⁷¹ This theory applies equally to infants and small children travelling by air.²⁷² Even if only one infant is

enjoy this windfall since they are more likely to work out package deals enabling families to keep flying. See *supra* notes 246-47 and accompanying text. Still this is an interesting contradiction among the opposition to House Resolution 4025. Some opponents argue that the airlines will lose money, others argue the airlines will make money.

²⁶⁴ *Child Restraint Hearings*, *supra* note 7, at 21 (statement of Rep. Jim Lightfoot). "If cost is the major concern, I think we are placing a price tag on a small child's head and engaging in a game of Russian Roulette." *Id.* at 80 (statement of Susan Bianchi-Sand, President, Association of Flight Attendants).

²⁶⁵ 119 Cal. App. 3d 757, 174 Cal. Rptr. 348 (Ct. App. 1981).

²⁶⁶ *Id.*

²⁶⁷ 174 Cal. Rptr. at 360.

²⁶⁸ *Id.* at 360-61.

²⁶⁹ *Id.* at 361-62.

²⁷⁰ *Id.* at 358, 363.

²⁷¹ *Id.* at 368.

²⁷² Representative James Obestar, chairman of the Subcommittee on Aviation remarked,

We are trying to balance costs against benefits, but in this case, in [sic] one thing to balance costs/benefit of an FDA regulation, or a USDA regulation, or a 404 permit or a discharge permit under EPA,

saved through proper safety precautions, the cost and effort expended has been deemed worthwhile.²⁷³ As James L. Kolstad, NTSB Chairman stated, "I don't think that the economic cost for protecting an infant's life is too much to ask."²⁷⁴

It is unlikely that cost will inhibit the passage of legislation making child restraint systems mandatory aboard aircraft. However, should cost become a legitimate issue, saving a human life far outweighs any economic considerations involved.²⁷⁵

B. *The Argument of Obsolescence*

The opponents of mandatory child restraint systems on aircraft contend that the risk presented by air travel to unrestrained infants is not severe enough to warrant legislation. In support of this view, opponents make several arguments suggesting that the risk to unrestrained infants aboard aircraft is obsolete.²⁷⁶ For example, they observe that as a result of the efforts of the NTSB and other safety experts, air travel by commercial airlines grows safer each year,²⁷⁷ and that severe aircraft accidents involving loss of life are rare.²⁷⁸ James B. Busey, administrator for the

but in this area we are talking about a commodity that shouldn't even bear that term, it is human life. What price tag do we put on human life?

Child Restraint Hearings, *supra* note 7, at 39.

²⁷³ *Grimshaw*, 174 Cal. Rptr. at 348. "No cost is too high if it means protecting infants from injury and possible death." Bianchi-Sand statement, *supra* note 7, at 80 (statement of Susan Bianchi-Sand, President, Association of Flight Attendants).

²⁷⁴ *Safety Recommendations Urges*, *supra*, note 15, at 2.

²⁷⁵ *Child Restraint Hearings*, *supra* note 7, at 15 (statement of Sen. Christopher Bond). "The fact is, safety has a cost. However, I submit that the lack of safety carries the highest cost of all—loss of life." *Id.*

²⁷⁶ *Voluntary Child-Restraint Regulation*, *supra* note 72, at 4. FAA administrator James Busey sees only a slight statistical risk to unrestrained infants because there are a small number of babies travelling and because accidents are rare. *Id.*

²⁷⁷ *Child Restraint Hearings*, *supra* note 7, at 37 (statement of Susan M. Coughlin, Vice Chairman, NTSB).

²⁷⁸ *Id.* "The probability of survival following an air crash has improved in recent years." *Id.* ATA petition, *supra* note 3, at 5. The FAA contends that the use of child restraints should not be required aboard aircraft because accident and incident rates are so low that there is only a small risk of injury to unrestrained

FAA, contends that air travel constitutes "a small statistical risk to unrestrained infants. . . ." ²⁷⁹ In support of this contention, Mr. Busey indicates that commercial airline crashes are infrequent and that they involve few children.²⁸⁰ According to the projections of researchers evaluating the proposed effectiveness of child seats on crashes over the past few years, baby seats will save the lives of three children over a five year period.²⁸¹ These researchers do not address the issue of severe injury to unrestrained children. Calling this a small number of children being saved, opponents of House Resolution 4025 view the legislation as an unnecessary solution to an obsolete problem.²⁸² They suggest that saving such a small number of infants' lives is not worth the trouble of legislating and implementing a law.

An analogy to the argument that child safety on aircraft is an obsolete problem is present in the FAA regulation regarding oxygen.²⁸³ Rarely, if ever, is oxygen needed aboard flights.²⁸⁴ Yet, every commercial airline must have an oxygen system,²⁸⁵ must periodically check this system,²⁸⁶ and must provide instruction for its use on every flight.²⁸⁷ These rules are both time consuming and expensive for the airlines, and they address a problem which is surely as "obsolete" as the risk of an unrestrained child's death.²⁸⁸ Still, despite the rarity of its use, federal

infants. *Airline Passenger Groups Support Mandatory FAA Child-Restraint Rule*, AIR SAFETY WEEK, June 4, 1990, at 4 [hereinafter *Airline Passenger Groups*].

²⁷⁹ *Voluntary Child-Restraint Regulation*, *supra* note 72, at 4.

²⁸⁰ *Id.*

²⁸¹ Fife, *supra* note 5, at 1246; see also McKenzie & Lee, *supra* note 11, at 3.

²⁸² *Voluntary Child-Restraint Regulation*, *supra* note 72, at 4. The FAA urges that this statistic renders mandatory child restraint system obsolete. *Child Restraint Hearings*, *supra* note 7, at 77 (statement of Lori Michaelson). It is tragic that the FAA defines an acceptable level of risk as three dead children. *Id.*

²⁸³ 14 C.F.R. § 121.331 (1990).

²⁸⁴ *Child Restraint Hearings*, *supra* note 7, at 21 (statement of Rep. Jim Lightfoot).

²⁸⁵ 14 C.F.R. § 121.331a-d.

²⁸⁶ 14 C.F.R. § 121.337.

²⁸⁷ 14 C.F.R. §§ 121.571, 135.117.

²⁸⁸ *Voluntary Child-Restraint Regulations*, *supra* note 72, at 5; *Child Restraint Hearings*, *supra* note 7, at 21 (statement of Rep. Jim Lightfoot).

law requires oxygen on every flight. The proponents of mandatory child restraint systems aboard aircraft contend that child restraints should be similarly mandated.

Another analogy can be made between child and adult restraints. The Airline Passenger Association of North America President Richard E. Livingston notes that

[t]he FAA suggests that the use of child restraints should not be required aboard aircraft because of low exposure due to the safety of aviation; therefore, accident and incident rates are so low that there is only a small risk of injury to unrestrained infants. However, this same low accident rate applies equally to adults and surely the FAA would never consider removing seatbelts for adults.²⁸⁹

Taking the obsolescence argument literally, if few occurrences of an event rendered a safety precaution obsolete, many aviation regulations would be void.²⁹⁰ "If this line of argument was carried to its logical extreme, . . . we wouldn't require oxygen masks, flame retardant seats or safety lights on airplanes. In fact, we could allow the airlines to sell standing-room only tickets."²⁹¹ Child restraints aboard aircraft are no more an obsolete issue than other safety regulations. Accordingly, supporters of mandatory restraint systems for children insist that child restraints should be federally mandated aboard aircraft.

Commercial airlines have a responsibility to every one of their passengers, including infants under the age of two, to transport them safely.²⁹² The FAA must mandate safety procedures to insure that the commercial airlines can fulfill this duty.²⁹³ Infant/child safety restraint requirements are vital to protecting as many passengers as

²⁸⁹ *Airline Passenger Groups*, *supra* note 278, at 4.

²⁹⁰ *Child Restraint Hearings*, *supra* note 7, at 8 (statement of Sen. Christopher Bond).

²⁹¹ *Id.*

²⁹² *Child Restraint Hearings*, *supra* note 7, at 80 (statement of Jan Brown, flight attendant, United Air Lines Flight 232).

²⁹³ *Id.*

possible.²⁹⁴ Perhaps this is best stated by FAA Administrator James Busey

[A]lthough there is only a small statistical risk to unrestrained infants because their numbers are few and accidents are rare, forces generated by a crash can exceed a parent's ability to restrain a child safely, and, additionally, that in encounters with severe air turbulence, high forces pose a potential danger to unrestrained [air travelling] infants."²⁹⁵

The FAA itself admits that infants are best protected only when properly restrained.²⁹⁶ One infant saved is a victory to mandatory child restraint proponents. Any contention of obsolescence offers no reason to discard House Resolution 4025 and with it, mandatory child restraints aboard aircraft.

C. *Increased Auto Fatalities as a Result of Mandatory Child Restraints Aboard Aircraft*

Opponents of mandatory child restraint systems concede that passage of House Resolution 4025 may reduce aviation fatalities.²⁹⁷ However, they contend that automobile fatalities will increase in proportion to this reduction.²⁹⁸ Basically, this contention arises from four studies

²⁹⁴ *Safety Recommendations*, *supra* note 15, at 1-2; see also *Airline Passenger Groups*, *supra* note 278, at 4.

²⁹⁵ *Voluntary Child-Restraint Regulations*, *supra* note 71, at 4.

²⁹⁶ See FAA brochure, *supra* note 23; *Child Restraint Hearings*, *supra* note 7, at 64 (statement of Anthony J. Broderick, Associate Administrator, FAA); *supra* notes 22-23 and accompanying text.

²⁹⁷ *Child Restraint Hearings*, *supra* note 7, at 61 (statement of Anthony J. Broderick).

²⁹⁸ *Id.* at 62. The FAA bases this contention on four studies. These are:

1) McKenzie & Lee, *Ending the Free Ride of Children on Airplanes: A Myopic Method for Saving Infants' Lives*, [reprinted in *Child Restraint Hearings*, *supra* note 7, at 135];

2) McKenzie & Warner, *The Impact of Airline Deregulation on Highway Safety*, reprinted in *Child Restraint Hearings*, *supra* note 7, at 135;

3) Windle & Dresner, College of Business and Management, University of Maryland, *Mandatory Child Safety Seats in Air Transport: Do They Save Lives?* reprinted in *Child Restraint Hearings*, *supra* note 7, at 188;

4) Apogee Research, Inc., *An Impact Analysis of Requiring Child*

which suggest that the increase in fare prices for families with young children which might result from mandatory child restraints²⁹⁹ will cause these families to travel by car rather than by plane.³⁰⁰ These studies suggest that twenty per cent of the families which now travel by air will be forced to either not travel or to travel in a "statistically more dangerous way" by driving.³⁰¹ The research indicates that this alternative is problematic enough to negate any benefits obtained by requiring child safety seats on aircraft.³⁰² "Statistical analyses . . . indicate that the proposal [House Resolution 4025] could endanger more children than it would save if the increased cost of airline travel put more families back on the highways."³⁰³

This argument is based on the assumption that the passage of House Resolution 4025 will cause family airline fares to increase. Again, this is a very speculative assumption.³⁰⁴ In all likelihood, the airlines will devise different methods of charging families, since increased fares may otherwise lead to a decrease in business.³⁰⁵ However, should airline fares increase for families, this does not mean that highway deaths will increase.

In the McKenzie study, a project performed by the Cato Institute, the University of Mississippi, and Clemson Uni-

Safety Seats in Air Transportation reprinted in *Child Restraint Hearings*, *supra* note 7, at 210.

Id.

Three of these studies, the McKenzie and Lee study (the McKenzie study), the Windle and Dresner study (the Dresner study), and the Apogee study focus on the issue of mandatory child restraint systems. These will be examined more fully later. See *infra* notes 303-314 and accompanying text. The McKenzie and Warner study does not really address infant child restraints. *Child Restraint Hearings*, *supra* note 14, at 83 (statement of Walter S. Coleman Vice President, OATA).

²⁹⁹ See *supra* notes 240-248 and accompanying text.

³⁰⁰ *Child Restraint Hearings*, *supra* note 7, at 62 (statement of Anthony J. Broderick, Associate Administrator, FAA).

³⁰¹ Waters, *supra* note 15, at 70.

³⁰² *Child Restraint Hearings*, *supra* note 7, at 61-64 (statement of Anthony J. Broderick, Associate Administrator, FAA); McKenzie & Lee, *supra* note 11, at 3; see also Waters, *supra* note 15, at 70.

³⁰³ McKenzie & Lee, *supra* note 11, at executive summary.

³⁰⁴ See *supra* note 243 and accompanying text.

³⁰⁵ See *supra* notes 244-248 and accompanying text.

versity, researchers conducted a statistical and economic analysis, concluding that if families are not able to buy airline tickets for their entire family, they will return to travelling by automobile.³⁰⁶ According to the study, this return will impose a danger upon family members thirty times greater than the danger that an unrestrained infant faces in an airplane.³⁰⁷ More specifically, the increase could

translate into more than 1,600 additional automobile accidents each year, and the increase in accidents could result in more than 175 additional disabling injuries and just under five additional deaths each year. The additional automobile accidents could also add six million dollars to the country's total annual economic losses associated with automobile wrecks on top of the additional air fares that the FAA estimates families will have to pay.³⁰⁸

This entire hypothesis rests on the assumption that air and highway travel are interchangeable and, therefore, increases or decreases in fare prices alter the level of traffic on the nation's highways.³⁰⁹ Another study, performed by Apogee Research, Inc. for the FAA, suggests that this interchange does indeed occur and that the occurrence can be expected to increase serious injuries to family travelers by 4.8 percent in the first year and the number of deaths

³⁰⁶ McKenzie & Lee, *supra* note 11, at 2-3.

³⁰⁷ *Id.* at 4. The researchers admit that their calculations are rough. *Id.* at 5. Indeed, the study report offers little in the way of procedure and data presentation.

³⁰⁸ *Id.* at 4.

³⁰⁹ *Id.* The study contends that an increase in highway travel is dangerous because "highway accidents, injuries, and deaths are highly correlated with the amount of highway travel and congestion." *Id.* (citing McKenzie & Warner, *The Impact of Airline Deregulation on Highway Safety*, COMPETITIVE ENTERPRISE INST., Dec. 1987. *But see* McKenzie & Lee, *supra* note 11, at 4.

If the number of automobile trips by families goes up by a third of the estimated reductions in infant boardings and if the average length of the trips is four hundred miles one way (eight hundred miles round trip), automobile travel will increase by [only] one hundred eighty five million miles each year. That represents a very small percentage increase in automobile travel.

Id. Again, there is no proof that air fares will increase because of mandatory child restraint systems. *See supra* notes 243-247 and accompanying text.

among family travelers by 8.2 persons over a ten year period.³¹⁰ There are no estimates of how many of these travelers would be infants or children.³¹¹ However, the study contends that at least some infants who might have been safe on an airplane will die on the highways.³¹²

A third study, the Dresner study, supports the contentions of McKenzie and Apogee.³¹³ This study used existing travel statistics and fatality information in determining that mandatory child safety seats "will result in an increase in lives lost among the travelling public".³¹⁴ The report concluded that air travelers will indeed be diverted to auto travel because of an increase in airfares caused by mandatory child safety seats.³¹⁵ The Dresner study projects fatality numbers comparable to those of the Apogee study.³¹⁶ It concludes that there are no benefits flowing from mandatory child safety seats.³¹⁷

The supporters of mandatory child restraints aboard aircraft answer the allegations of these studies with several arguments. First, the supporters do not accept the assumption that mandatory safety seats equal increased fares for families with small children.³¹⁸ Basically, the supporters of this legislation contend that fares will not

³¹⁰ *Benefit and Costs of Child Safety Seat Implementation*, APOGEE RESEARCH PUBLISHED FOR THE FAA, May 1990, at iii [hereinafter APOGEE].

³¹¹ *Id.*

³¹² *Id.* at iv. More specifically the study indicates that mandatory child restraint systems would result in 9.3 non-infant fatalities over the first ten years of implementation, an increase of 8.2 deaths. Serious injuries to all family travelers during this ten year period would increase by over 2,300. *Id.*

The NTSB discovered some flaws in Apogee's assumptions inherent in the conclusions that they draw. *Child Restraint Hearings*, *supra* note 7, at 58. Further, the Board noted problems with Apogee's data base and analysis. *Id.* Essentially, the Board and others feel that Apogee, like others examining this issue, did not use solid data in making its assumptions and drawing its conclusions. *Id.* at 72.

³¹³ Windle & Dresner, *Mandatory Child Safety Seats in Air Transport: Do They Save Lives?* J. OF TRANSP. RES. F. (1990), reprinted in *Child Restraint Hearings*, *supra* note 7, at 188.

³¹⁴ *Child Restraint Hearings*, *supra* note 7, at 89.

³¹⁵ *Id.* at 129.

³¹⁶ *Id.* at 200.

³¹⁷ *Id.* at 208.

³¹⁸ See *supra* notes 244-248 and accompanying text.

drive families out of the skies and on to the highways.³¹⁹ Instead, they assert that families "will continue to choose to fly because airlines, rather than risk the loss of one or more adult fares or perhaps an entire family unit, will offer a fare arrangement acceptable even for families traveling with infants who previously would have flown free."³²⁰ The researchers themselves admit that if the fare increase does not occur, the correlated highway deaths will not occur.³²¹

Second, a study done by General Motors Research Laboratories suggests that air travel is not any more safe than car travel, negating the opposition's argument even if families were to drive instead of fly.³²² This study concludes that there are several reasons why automobiles are just as safe as aircraft for a travelling family.³²³ First, in studies comparing the death rate for air travel with the death rate for car travel, researchers arrive at the rates in incongruous ways, making them incomparable.³²⁴ The airline rate is established as passenger fatalities, per passenger mile, but the road travel rate is calculated using all fatalities, including those of pedestrians and bystanders, and is expressed in terms of fatalities per vehicle mile.³²⁵ Second, the automobile travel that competes with airline

³¹⁹ See *Child Restraint Hearings*, *supra* note 7, at 46.

³²⁰ *Id.* at 84 (statement of Walter S. Coleman, Vice President, OATA).

³²¹ APOGEE, *supra* note 310, at iv.

For example, if fares for infants were set at one half of the average coach fare, the change in fatalities of all family travellers would decline from the base forecast of 0.9 increase in the first year to a slightly lower 0.5 increase, or 11.6 net fatalities over the first ten years. Likewise, net travel costs for families would decline from \$252 million in the first year to \$153 million while the net change in airline revenues, while remaining positive, would drop from \$119 million to \$80 million.

Id. Presumably, if there were no substantial fare increase, there would be no air to auto interchange and thus, no increased highway fatalities.

³²² Evans, Frick, & Schwing, *Is it Safer to Fly or Drive:—A Problem in Risk Communication*, GENERAL MOTORS RESEARCH LABORATORIES—OPERATION SCIENCES DEPARTMENT, June 19, 1989, at abstract [hereinafter Evans].

³²³ *Id.*

³²⁴ *Id.*

³²⁵ *Id.*

travel often takes place on the rural interstate system, not on the average, dangerous, congested road.³²⁶ Finally, personal habits and traits, like vehicle characteristics, driver behavior, driver age, alcohol use, safety belt use, car mass, and roadway type, influence automobile travelers, but do not affect air travellers.³²⁷ This study concluded that car trips by many drivers involve lower fatality risks than those of airline flights.³²⁸ Specifically,

[Forty] year old, belted, alcohol-free drivers of cars 700 pounds heavier than average are slightly less likely to be killed in 600 miles of rural Interstate driving than in regularly scheduled airline trips of the same length. For 300 mile trips, the driving risk is about half that of flying.³²⁹

The study reveals that parents of young children, the people allegedly being forced onto the highways, are considered more at risk by flying than driving.³³⁰ This increased risk occurs because parents of young children come closest to the GM study's profile of the most careful driver. Also, these people are generally more responsible and conscientious than those of other ages and lifestations.³³¹

Third, proponents of mandatory child restraints aboard aircraft question the validity of the studies relied upon by the FAA.³³² Experts point to problems in the studies' data and analysis.³³³ Primarily, the proponents worry that the "FAA is vigorously defending highway safety based upon a bunch of assumptions on assumptions which no one re-

³²⁶ *Id.*

³²⁷ Evans, *supra* note 322, at 14-15.

³²⁸ *Id.* at 15.

³²⁹ *Id.*

³³⁰ *Id.* at 14-15. The proponents of mandatory child restraint systems on aircraft contend that the studies that the FAA relied upon failed to consider that parents travelling with young children have considerably lower accident risks than do other groups of drivers. *Child Restraint Hearings*, *supra* note 7, at 86 (statement of Christopher J. Witowski, Secexecutive Director, Aviation Consumer and Action Project). This oversight may render the FAA studies defective. *Id.* at 88.

³³¹ Cohen interview, *supra* note 30.

³³² *Child Restraint Hearings*, *supra* note 7, at 88 (statement of Christopher J. Witowski).

³³³ See *supra* note 312 and accompanying text.

ally can validate.”³³⁴ Finally, many transportation experts have a difficult time accepting the mixing of highway and aviation statistics.³³⁵ Susan Coughlin, vice chairman of the NTSB, contends,

I think we are confusing the issues when we start comparing aviation safety to highway safety. The FAA, the ones to whom we addressed this recommendation, are responsible for aviation safety. There is no one who is making the argument that we are not safer buckled in and restrained in those seats during the critical phases of flight.³³⁶

Ms. Coughlin suggests that the air to automobile interchange on which the FAA grounds its argument is not an appropriate diversion to assume.³³⁷

Basically, the proponents of mandatory child restraint systems stress that parents will not abandon air flight for travel by car because of House Resolution 4025. However, should parents choose to drive rather than fly, the General Motors Study indicates that they will not increase the risks of death or injury to themselves or their children by simply being on the highway.

VI. CONCLUSION

In today's transient society, thousands of children embark daily upon the most popular form of long distance travel, flying. The danger inherent in infants and small children travelling by air without proper safety restraint mechanisms remains uncontroverted. Scientific research and dramatic, real life tragedies demonstrate the danger children face when they fly unrestrained. The fact that children are allowed to travel by aircraft without standard safety devices contradicts basic safety principles.

Strong arguments support legislation mandating child restraint systems on all aircraft. Professional safety ex-

³³⁴ *Child Restraint Hearings*, *supra* note 7, at 73 (statement of Rep. Jim Lightfoot).

³³⁵ *Id.* at 39 (statement of Susan B. Coughlin, Vice Chairman, NTSB).

³³⁶ *Id.*

³³⁷ *Id.*

perts insist that mandatory child restraint systems are the only way to protect children from serious injury or death while travelling by air. In addition, the experience of the automotive industry demonstrates the need for child restraint systems on board aircraft. It seems obvious that if children need restraints while travelling on the ground at sixty miles per hour, they need restraints while travelling thirty thousand feet in the air at six hundred miles per hour. Finally, constitutional equal protection demands that young children travel in the same safe manner in which adults travel—restrained. Children deserve to enjoy the same level of safety that the rest of the air travelling population experiences. Child restraint systems are apparently an unavoidable necessity aboard all aircraft.

However, the FAA has some cogent arguments opposing such mandatory child restraint systems. The FAA contends that mandatory child restraint systems will result in insurmountable costs both to families and the air carrier industry. According to FAA studies, these higher costs will cause families to seek a less expensive, but less safe means of travel—the highways. After examining the FAA's arguments, it is apparent that they can be countered. It is not clear that mandatory child restraint systems will increase anyone's expenses or result in a loss of profits to any industry. Evidence suggests that families will not be forced to give up flying and turn to driving. Moreover, even if families were to do so, the General Motors study indicates that the projected increase in fatalities among such families would not come to pass, because highway driving for families with young children is no more dangerous than flying.

The FAA also suggests that the child restraint legislation is unnecessary and will result in extraordinary costs to the airlines. This suggestion is contradictory. If the legislation is not needed because few children fly, families will not need to buy tickets; airlines will not lose revenue which they never had.

The need for child restraint systems on all aircraft has

not been rendered obsolete. Without mandatory child restraint legislation, it appears that children will continue to suffer needless injuries and deaths in air incidents from which they might have emerged unscathed. Saving the life of just one infant makes the proposed legislation worthwhile. Those favoring this legislation indicate that mandatory child safety restraints can be implemented with little monetary cost. However, even if some monetary sacrifices are involved, the real issue is not cost but the lives of innocent, helpless children. Children deserve to be protected from life threatening forces that they can not control. Accordingly, child restraints must be mandatory on all aircraft.

