



**BEFORE THE ADMINISTRATOR  
FEDERAL AVIATION ADMINISTRATION**

**Michael Huerta  
Administrator  
Federal Aviation Administration  
800 Independence Ave., SW  
Washington, DC 20591**

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**PETITION FOR RULEMAKING:  
LIMITATION OF SEAT SIZE REDUCTIONS**

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**SUBMITTED BY:  
FLYERSRIGHTS.ORG**

**August 26, 2015**

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Pursuant to § 553(e) of the Administrative Procedure Act<sup>1</sup> and 49 U.S.C. § 106, FlyersRights.org and the undersigned hereby petition the Federal Aviation Administration (“FAA”) to create a regulation mandating minimum seat width and seat pitch for commercial airlines. A corollary of the right to petition in § 553(e) is the right to receive reasons if the petition is denied. The Supreme Court recently reaffirmed limited judicial review for the denial of a rulemaking petition and for the adequacy of the reasons given.<sup>2</sup> Until these standards are

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<sup>1</sup> 5 U.S.C. § 553(e).

<sup>2</sup> See *Massachusetts v. E.P.A.*, 549 U.S. 497 (2007).

established, we request a moratorium on seat size reductions in commercial aircraft. Additionally, under 14 C.F.R. 11.91, the FAA must provide notice concerning its decision on this petition, regardless of the outcome.

## **I. Background & Petition Summary**

FlyersRights.org is the largest nonprofit airline passenger organization with over 50,000 members and supporters nationwide. It was the principal advocate of the 2009 Three Hour Rule ending tarmac confinements, for truth in scheduling regulations by the Department of Transportation, and for the 2012 inclusion of airline passenger rights provisions in the 2012 FAA Modernization and Reform Act. It publishes a weekly online newsletter, operates a toll free hotline for airline passengers, and advocates for their rights and interests.<sup>3</sup> FlyersRights was founded by Kate Hanni in 2007 after she, along with thousands of others, was stranded on the tarmac for over 9 hours. Paul Hudson has been president of Flyersrights.org since 2013, a member of the FAA Aviation Rulemaking Advisory Committee representing the Aviation Consumer Action Project and the Public Citizen since 1993, and a national advocate for air safety and security for over 25 years.

In 1958, Congress enacted the Federal Aviation Act creating the Federal Aviation Administration and continuing the Civil Aeronautics Board while redefining their responsibilities.<sup>4</sup> Congress fully deregulated the domestic airline industry through the Airline Deregulation Act of 1978 (“ADA”).<sup>5</sup> The ADA impacted the airline industry by deregulating ticket fares, flight schedules, and routes. Additionally, the ADA preempted state laws that would economically impact airlines. FAA’s role also shifted with the deregulation of airlines from regulating airlines to regulating safety, including Air Traffic Control. As air travel has expanded, the Transportation Security Administration was created to carry the role of controlling security. These two agencies, along with the Department of Transportation (DOT) ensure safe, secure, and efficient air travel.

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<sup>3</sup> See [www.flyersrights.org](http://www.flyersrights.org).

<sup>4</sup> Federal Aviation Act, Pub. L. 85-726, 72 Stat. 731 (1958) (codified in scattered titles of the U.S.C.).

<sup>5</sup> Airline Deregulation Act of 1978, Pub. L. No. 95-504, 92 Stat. 1705 (1978) (codified in scattered titles of the U.S.C.).

Since the enactment of the ADA, FAA has passed regulations regarding various aspects of commercial flight in order to maintain safety and efficiency. Included in these regulations are a variety of regulations for seats in aircraft, including regulations on safety belts,<sup>6</sup> headrests,<sup>7</sup> fire retardation,<sup>8</sup> and the maximum number of seats abreast in an airliner.<sup>9</sup> Additionally, seats are also required to support a weight of at least 175 pounds.<sup>10</sup> So far, the only limitation placed on airlines by FAA regarding seat space is limiting the number of seats in an aircraft based on the number and size of emergency exits.<sup>11</sup> Though airlines would not enjoy this regulation, in 2013, Airbus called for an industry standard minimum seat width of 18 inches, which Boeing vehemently argued against.<sup>12</sup>

Because of limited regulations on seats, airlines have decreased seat pitch and seat width in order to fit more passengers on each plane. In some instances, galleys have been removed as well.<sup>13</sup> This decrease in seat size, coupled with the safety, health, and comfort of passengers, is the reason for this rulemaking petition. FlyersRights.org petitions FAA to

1) Exercise its discretionary rulemaking authority under 49 U.S.C. § 106, to impose within 180 days reasonable regulations setting maintenance standards and limiting the extent of seat size changes in order to ensure consumer safety, health, and comfort.

2) Issue an order within the next 45 days placing a moratorium on any further reductions in seat size, width, pitch, padding, and aisle width until a final rule is issued.

3) Appoint an advisory committee or task force to assist and advise the FAA in proposing seat and passenger space rules and standards, with such committee having broad representation of the various interests involved and expertise needed, to include this petitioner and representatives from other airline passenger advocacy organizations, the Occupational Health

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<sup>6</sup> 14 C.F.R. 27.785

<sup>7</sup> *Id.*

<sup>8</sup> 14 C.F.R. 25, App. F.

<sup>9</sup> 14 C.F.R. 25.817.

<sup>10</sup> 14 C.F.R. 27.785.

<sup>11</sup> 14 C.F.R. 25.807.

<sup>12</sup> Stephen J. Dubner, *Fighting over the Width of Airline Seats*, Freakonomics, November 4, 2013, available at <http://freakonomics.com/2013/11/04/fighting-over-the-width-of-airline-seats/>.

<sup>13</sup> Keith L. Alexander, *American Airlines to Remove its Rear Galleys*, Washington Post, February 9, 2006, available at <http://www.washingtonpost.com/wp-dyn/content/article/2006/02/08/AR2006020802366.html>.

and Safety Administration, the Center for Disease Control, and including at least one physician, ergonomic engineer, senior citizen, disabled air traveler, overweight person, disabled person, and at least six American air travelers representing a cross section of air travelers by age, height, weight, and gender.

## **II. Seat Space in Commercial Airlines**

As the number of commercial air passengers has increased, airlines have been putting more seats on their aircraft, reducing the average seat pitch from 35 inches to 31 inches.<sup>14</sup> Some airlines have reduced seat pitch to as low as 28 inches.<sup>15</sup> This reduction in seat pitch has decreased the amount of leg room in the economy cabins of most, if not all, airlines. However, another factor to consider is the width of the seats. The average width of an airline seat ranges from 17 to 18 inches.<sup>16</sup> This is problematic for the consumer because the average shoulder width of men is the same width.<sup>17</sup> This means about half of male passengers are larger than the width of a coach seat.

Airline seats have been designed for people who are between 5'9" and 5'10", and of average build.<sup>18</sup> Many Americans do not fit into this category. Height is not the only factor that results in too little leg room and an uncomfortable flight. Many people have disproportionately long legs, which can cause uncomfortable seating positions. Likewise, passengers may have knee or hip problems, limiting their mobility and ability to change positions frequently in order to stay comfortable and healthy. The CDC has provided data showing Americans have been getting taller and heavier since the 1960's.<sup>19</sup> The average weight of women today is what the average weight of men was in 1960.<sup>20</sup>

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<sup>14</sup> Daisy Carrington, *Feeling Cramped? How to battle the shrinking airline seat*, CNN, November 11, 2013, available at <http://www.cnn.com/2013/11/07/travel/feeling-cramped-battle-airline-seat/>.

<sup>15</sup> Seat Guru, available at [http://www.seatguru.com/airlines/Spirit\\_Airlines/Spirit\\_Airlines\\_Airbus\\_A319\\_B.php](http://www.seatguru.com/airlines/Spirit_Airlines/Spirit_Airlines_Airbus_A319_B.php).

<sup>16</sup> Carrington, November 11, 2013.

<sup>17</sup> See Appendix 1 for a helpful chart detailing seat size trends and body size trends.

<sup>18</sup> See CDC, available at <http://www.cdc.gov/nchs/fastats/body-measurements.htm>; see also Richard Kelley, "Saddle Sore" – An Old Condition That Afflicts Air Travelers Too, Outrigger, July 14, 2012, available at <http://saturdaybriefing.outrigger.com/featured-post/saddle-sore-an-old-condition-that-afflicts-air-travelers-too/>.

<sup>19</sup> *Americans Getting Taller, Bigger, Fatter, Says CDC*, About News, available at <http://usgovinfo.about.com/od/healthcare/a/tallbutfat.htm>.

<sup>20</sup> *Id.*

Airlines have routinely responded to this dilemma by saying the passenger can just pay for an upgraded seat. While airlines regard this as a viable option, the reality of the situation is very different. Petitioners believe 90% of passengers should be able to fit safely and comfortably in an economy seat, without any special accommodations. Similarly, for the very tall, forcing them to purchase an upgraded seat with more legroom can be seen as a form of discrimination. Though it has been stated that passengers are willing to sacrifice seat pitch for a lower price, this does nothing to mitigate the health, safety, and comfort concerns of passengers.

The other 10% of passengers representing over 70 million passengers annually, also need to be accommodated. These include passengers over 74 inches in height (about 5% of men), over 250 pounds (about 10%) according to US Census data for 2007-2008. This could take the form of special rows with larger seats and more pitch. It is ironic that while airlines and other providers of public accommodations are required by law to provide reasonable accommodations for passengers with physical, medical or even emotional disabilities or conditions, an increasingly larger percentage of healthy, nondisabled passengers are not provided with adequate accommodations.

### **III. Health Implications of Reduced Seat Space**

Being in a cramped space for any period of time can cause stiffness and soreness in joints and muscles. Sitting in economy class of an airplane while on a commercial flight is no exception. Apart from jet lag, altitude sickness, and an increased risk to catching contagious illnesses, flying can cause potentially life threatening blood clots from lack of movement and cramped spaces.<sup>21</sup>

Deep vein thrombosis (“DVT”), also known as “economy-class syndrome,” occurs when leg clots develop in deep veins.<sup>22</sup> This happens when one’s legs are not moving and the muscles are not contracting.<sup>23</sup> Medical professionals suggest moving about the cabin or performing

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<sup>21</sup> *In Flight Problems*, The Travel Doctor, available at <http://www.traveldoctor.co.uk/flights.htm>.

<sup>22</sup> Tanya Mohn, *Flying and Blood Clots: A Deadly Risk*, The New York Times, November 6, 2007, available at [http://www.nytimes.com/2007/11/06/health/06clot.html?\\_r=0](http://www.nytimes.com/2007/11/06/health/06clot.html?_r=0).

<sup>23</sup> *Deep Vein Thrombosis Health Center*, WebMD, available at <http://www.webmd.com/dvt/>.

different leg exercises while seated.<sup>24</sup> The issue with this suggestion is many people do not have the room to move in their seat or get up to move about the cabin. Reducing the seat space even more would only expand the issue and cause greater health, safety, and comfort concerns.

Additionally, the tightness of the seats prevents the passengers from easily getting out of their seats in order to go to the restroom or move enough in order to keep blood flow circulating and muscles contracting in order to prevent DVT, soreness, stiffness, or other joint and muscle problems associated with remaining seated for hours.

#### **IV. Safety Implications of Seat Space Reduction**

Airlines are required by the FAA to test their emergency evacuation plans. These tests have realistic scenarios; from baggage thrown throughout the cabin and infant dummies that need to be carried, to exits being randomly blocked and reduced lighting.<sup>25</sup> If the test is failed, it can be retaken without any record of why the test was initially failed.<sup>26</sup> These tests have not been run in aircraft with seat pitches under 31 inches, even though aircraft are operating with seat pitches as low as 28 inches.<sup>27</sup> Cynthia Corbertt, a human factors researcher with the FAA, has stated that the FAA has not considered testing the emergency evacuation plans with other seat pitches.<sup>28</sup> These tests also have volunteers to fill the aircraft with the maximum envisioned number of passengers, but aircraft can legally carry more passengers than the maximum envisioned number.<sup>29</sup> For example a Boeing 777-300 generally seats 458 passengers, but can legally carry up to 550 passengers.<sup>30</sup> Therefore, these emergency evacuation tests do not fully test for the true practicality of an in-flight emergency.

Additionally, these FAA required emergency evacuation tests do not factor in human panic, such as older passengers, passengers with children, or passengers with disabilities who

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<sup>24</sup> Linda Bren, *Travel: Avoid Deep Vein Thrombosis*, MedicineNet, available at <http://www.medicinenet.com/script/main/art.asp?articlekey=40582>.

<sup>25</sup> U.S. Department of Transportation, Seventh Meeting of the Advisory Committee for Aviation Consumer Protection, April 14, 2015.

<sup>26</sup> *Id.*

<sup>27</sup> *Id.*

<sup>28</sup> Associated Press, *Safety risks of shrinking airline seats questioned*, LA Times, April 14, 2015, available at <http://www.latimes.com/business/la-fi-airline-seat-risks-20150414-story.html>.

<sup>29</sup> Ashley Nunes, *Opinion: Why Less Legroom May Mean Less Safe*, Aviation Week, January 7, 2015, available at <http://aviationweek.com/commercial-aviation/opinion-why-less-legroom-may-mean-less-safe>.

<sup>30</sup> *Id.*

may need more time to evacuate.<sup>31</sup> A decreased amount of space between seats would likely increase this panic, and cause delays in evacuations during an emergency, when time is of the essence. Charlie Leocha, from Travelers United, put it best when he said, “[i]n a world where animals have more rights to space and food than humans, it is time that the DOT and FAA take a stand for humane treatment of passengers.”<sup>32</sup>

Though there are requirements on how many seats can be on an airplane based on the number of emergency exits, this does not necessarily mean every emergency evacuation will be successful. This is shown by the necessity of allowing emergency procedure tests to be retaken. Increasing the seat pitch and seat width will allow easier access to the aisles, more room for passengers who may be injured, and more room to move towards emergency exits. In order to maintain profitability, airlines have added emergency exits so they can still be within FAA regulations and squeeze more seats into the cabin of the aircraft.<sup>33</sup>

## **V. Passenger Comfort**

Passenger comfort is generally not a concern for airlines because airlines believe passengers can either upgrade or would rather sacrifice comfort for a lower price. However, the consumer should not have to choose between paying less for a flight and having sufficient legroom or enough room to move about the cabin in order to prevent potential health risks.

Because of how little space there is, many taller passengers are forced to purchase expensive, upgraded seats in order to be comfortable, or else simply sit in extreme discomfort for the duration of the flight. Additionally, many older passengers do not have ease of mobility, and being crammed into the economy class of an airplane can cause them severe health problems.

Another comfort issue that arises is the proximity of neighboring passengers. For example, even if someone has enough legroom, the seat pitch has been reduced to the point that if the passenger sitting directly in front of him or her reclines his or her chair, there is little to no space to move. This issue is uncomfortable not only for the passenger behind the reclined seat,

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<sup>31</sup> Associated Press, April 14, 2015.

<sup>32</sup> *Id.*

<sup>33</sup> Victoria Bryan, *Airline seat squeeze raises health and safety concerns*, Reuters, April 16, 2015, available at <http://www.reuters.com/article/2015/04/16/us-airlines-seats-idUSKBN0N723A20150416>.

but also for the other passengers who need to move from the seats to the aisles. The tight space leads to people falling, grabbing the headrest of the closest seat, and disrupting other passengers.

A lack of space has led to the invention of the knee defender device,<sup>34</sup> designed to prevent seats from reclining in order to protect the passenger's limited knee and leg room in airlines. There has been backlash from both airlines and passengers concerning this device, created to provide comfort for one passenger but can cause discomfort for another. Because of passenger complaints regarding the knee defender, most major airlines banned its use shortly after its introduction.<sup>35</sup>

Additionally, there are many Americans who are of a weight that they either must use seatbelt extensions in order to safely fly, or are forced to purchase a second seat.<sup>36</sup> The FAA does not regulate when an additional seat needs to be purchased, so airlines have created their own policies. Travelers often have difficulty finding these policies, so websites have compiled lists of major airline policies regarding purchasing a second seat.<sup>37</sup> Even if a passenger is not required to purchase a second ticket due to their size, they can still cause discomfort to their neighbors. If seat width was increased, there would be fewer issues concerning overweight passengers and whether a second ticket needs to be purchased. Canada ruled forcing overweight passengers to purchase a second ticket was discriminatory, and thus illegal on domestic flights.<sup>38</sup>

Planes are also increasingly crowded, which has led to ever higher load factors as planes today fly at over 86 percent capacity.<sup>39</sup> Flights were 69 percent full on average in 2003 and 56 percent full in 1991.<sup>40</sup> Between 2007 and 2013, U.S. airlines eliminated about 1.2 million

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<sup>34</sup> Gadget Duck, available at <http://www.kneedefender.com/>.

<sup>35</sup> Lisa Miller, *Airlines Ban the Knee Defender, Because That's Clearly Their Largest Concern*, The Huffington Post, August 28, 2014, available at [http://www.huffingtonpost.com/2014/08/28/knee-defender-ban\\_n\\_5723136.html](http://www.huffingtonpost.com/2014/08/28/knee-defender-ban_n_5723136.html).

<sup>36</sup> William Hignett and Ted Kyle, RPh, MBA, *To Buy or Not To Buy: An Extra Seat*, Obesity Action, available at <http://www.obesityaction.org/wp-content/uploads/airline-seats1.pdf>.

<sup>37</sup> CheapAir, *Airline Policies for Overweight Passengers Traveling This Summer*, January 20, 2015, available at <http://www.cheapair.com/blog/travel-tips/airline-policies-for-overweight-passengers-traveling-this-summer/>.

<sup>38</sup> *Id.*

<sup>39</sup> Lonnie Shekhtman, *Passengers find complaints to airlines can go nowhere fast*, Boston Globe, Jan. 25, 2015, available at <http://www.bostonglobe.com/business/2015/01/25/complaints-grow-but-airlines-still-allowed-get-away-with-poor-service/vuL0n2L6FPpe9b2veyXB2I/story.html>.

<sup>40</sup> Thomas Frank, *Airline profits soar yet no relief for passengers*, USA Today, Jan. 27, 2015, available at <http://www.usatoday.com/story/news/2015/01/27/airline-profits-soar-passengers-fuel/22395509/>.



flights.<sup>41</sup> This significant level of overcrowding leads to fights between passengers and often flight attendants. Overcrowded planes cause more than just fights and headaches; overweight passengers need to use seat belt extensions or purchase a second ticket, parents are unable to use car seats for their young children, and the tall are being charged extra just so their knees do not touch the seat in front of them.

Kathleen Robinette, researcher for the Air Force, said, “[o]ne of the most important things about a comfortable seat is the ability to move in it.”<sup>42</sup> Her research found that airline seats are on average five inches too narrow. However, that was using data from the 1960s; with the increase in the size of passengers since then, the width of airlines seats is far too narrow for true comfort to be achieved.<sup>43</sup> Airlines argue they listen to consumers because airlines provide low fares, but passengers still need to be provided with some base level of comfort.

## **VI. Moratorium Request**

Because of the safety, health, and comfort implications of allowing airlines to continue to reduce the amount of space in airline seats, FlyersRights.org requests that FAA place a moratorium on the reduction of seat size. This moratorium would go into effect immediately upon the granting of this petition and would last until the FAA establishes appropriate seat standards. FlyersRights.org also requests that the FAA Advisory Rulemaking Committee establish a working group on seat standards under the Occupant Safety Subcommittee. The working group’s findings and work will then be used to establish and refine appropriate seat standards.

## **VII. Conclusion**

FAA has the statutory authority to regulate safety onboard aircraft, including the number of seats. While FAA has regulated extensively in analogous areas it has yet to promulgate rules concerning seat pitch and seat width. The shrinkage of seats and passenger space by airlines to generate higher profits while the size of passengers has substantially increased has created an

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<sup>41</sup> *Id.*

<sup>42</sup> Thom Patterson, *Airline squeeze: It’s not you, ‘it’s the seat,’* CNN, June 1, 2012, available at <http://www.cnn.com/2012/05/30/travel/airline-seats/>

<sup>43</sup> *Id.*

intolerable crisis situation. It is threatening the health, safety and comfort of all passengers. The FAA needs to rectify this situation of unreasonably small seats by imposing a moratorium on the reduction of seat sizes and promulgating minimum seat and passenger space standards. Accordingly, for the reasons stated herein, the FAA should grant this petition forthwith.

Due to the continuing actions and threats by airlines to reduce passenger seat space even further in the next few months this petition is time sensitive. Accordingly it must be presumed that the FAA has effectively denied the petition if it is not acted upon in the next 45 days.

Respectfully submitted by:

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A handwritten signature in black ink, appearing to read "Paul Hudson".

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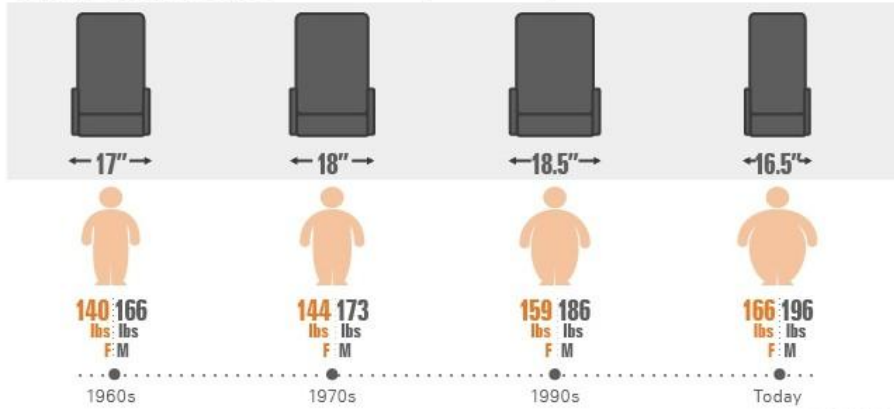
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## Appendix 1

### SIZE MATTERS

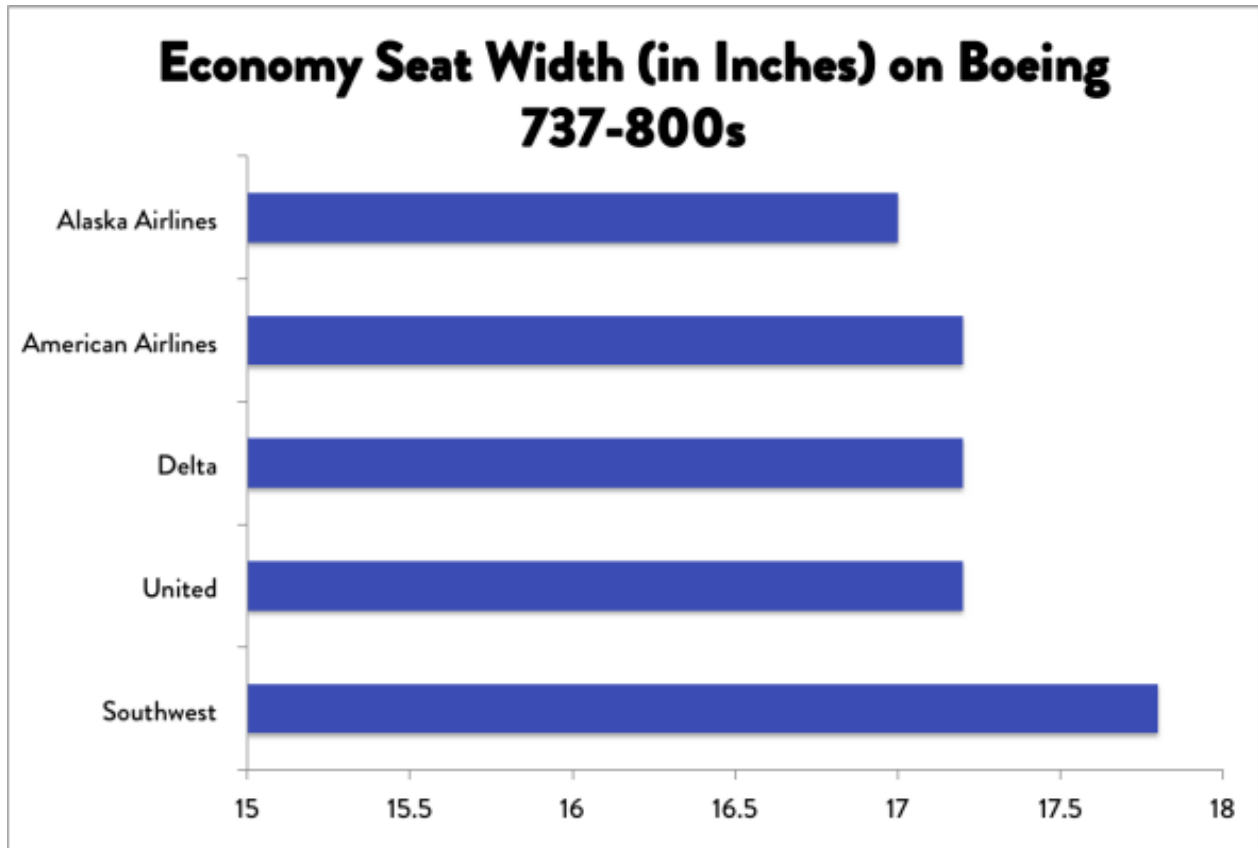
Airline seats are getting thinner while passengers are getting wider. The result? Airplanes can't help but feel overcrowded.



SOURCES: CDC, SeatGuru. | Inez Torre/CNN



## Appendix 2



### Appendix 3

