

U.C.L.A. Law Review

Monopolizing Trade: Airline Ticket Change Policies and the Thwarted Secondary Market

Stefan Caris Love

ABSTRACT

Suppose you have a domestic economy-class airline ticket that you can no longer use. In the 1980s and early '90s, there was a secondary market in domestic airline tickets, carried out openly in newspaper classifieds. Though many tickets were nominally nontransferable, back then, the airlines didn't check every passenger's name. Problem solved. But now, American, Delta, and United will charge you a \$200 fee to change the ticket. And the airlines have the Transportation Security Administration to help them enforce nontransferability.

There are three possible responses to this problem, each with different advantages and disadvantages. The first response is antitrust litigation. Many passengers are uninformed about change fees or irrationally optimistic about the likelihood of changing their tickets. On a route where an airline holds a monopoly share, a change fee operates as a hidden surcharge, exploiting these passengers' irrationality and allowing the monopolist to maintain an artificially low advertised fare. This practice unfairly represses competition.

The second response is federal legislation. The case of airline tickets is analogous to that of event tickets. Both experience fluctuating demand and are worthless after a certain date. But event tickets are extensively traded on online secondary markets, and numerous states have even passed laws to protect and develop this trade. These laws serve as a model for a federal law that could restore the airline ticket secondary market.

The third response is federal regulation. Regulations already require airlines to include taxes and fees in advertised fares and disclose charges for baggage and other add-ons. These could readily be extended to require disclosure of change fees at the point of sale.

AUTHOR

J.D., UCLA School of Law, expected 2019; Ph.D. (Music Theory), Eastman School of Music, 2011; B.A. (Music), Brown University, 2006. Thanks to Professor Mark Grady for sparking an interest in antitrust law, and to Professor Eileen Scallen, colleagues in the Academic Legal Writing seminar, and the editors and staff of the *UCLA Law Review* for their efforts to improve this work.



TABLE OF CONTENTS

INTRODUCTION.....	578
I. AIRLINE TICKET CHANGE POLICIES.....	582
A. Security.....	584
B. Price Discrimination and Overbooking	587
II. TICKET-CHANGE POLICIES AS MONOPOLIZATION	589
A. Monopoly Power	590
B. Anticompetitive Means.....	594
1. Ticket-Change Policies' Effect on Price Discrimination	594
2. Ticket-Change Policies as Procompetitive.....	599
3. Ticket-Change Policies as Anticompetitive	601
4. The Real-World Case for Monopolization.....	605
C. Standing and Remedies	610
III. THE SECONDARY MARKET IN EVENT TICKETS	611
A. Laws Governing the Event-Ticket Secondary Market	612
B. Pricing in the Event-Ticket Secondary Market.....	615
IV. A SECONDARY MARKET IN AIRLINE TICKETS	617
A. A Federal Law Allowing Airline Ticket Transfer	618
B. An Online Secondary Marketplace for Airline Tickets	620
C. Pricing, Change Fees, and Customer Freedom	622
D. A Fallback Option: Mandatory Disclosure of Fees.....	625
CONCLUSION	626
APPENDIX: STATE LAWS GOVERNING TICKET RESALE	628

INTRODUCTION

Suppose you buy a ticket to a Dodgers game. You live in New York, so you also buy a nonrefundable airline ticket to Los Angeles. Then your plans change and you can't make it. Fortunately, it will be easy to sell your baseball ticket: On StubHub or another website, prospective buyers can even see the view from your seat.¹ You can study the market for such tickets and price yours accordingly, adjusting the price as needed to make the sale.

But disposing of your airline ticket won't be so easy. You can't return it. If you want to shift your fare to a different flight, you're probably facing a \$200 change fee.² Of course, there are people who would buy your ticket at the right price. But there is no secondary market for airline tickets, so that transaction can never take place.

The situation was different in the 1980s and early '90s. You could put your airline ticket up for sale in a classified ad in your local newspaper. There was an established secondary market.³ Airline tickets were nontransferable back then, just like today, but airlines couldn't check every passenger's name, so a bargain-hunter could buy someone else's ticket and take a chance on getting past the gate agent, the only passenger identity check in those days.

If a secondary market could take hold in the cumbersome medium of the newspaper, then such a market has extraordinary potential today: Imagine an online secondary market in domestic airline tickets.⁴ But airlines' no-transfer

-
1. See any baseball-ticket listing on STUBHUB, <http://www.stubhub.com>.
 2. American, Delta, and United all charge at least \$200 to change a domestic economy-class booking. See *Change Your Flight*, DELTA, http://www.delta.com/content/www/en_US/traveling-with-us/ticket-changes-refunds/ticket-changes.html; *Optional Service Fees: Ticketing and Other Fees*, AM. AIRLINES, <http://www.aa.com/i18n/customer-service/support/optional-service-fees.jsp#ticketing> [<http://perma.cc/77HS-36T4>]; *United Airlines Fees and Policies*, AIRFARE WATCHDOG, <https://web.archive.org/web/20171014083416/http://www.airfarewatchdog.com/airlines/united-airlines/fees-policies.html> [<http://perma.cc/LV3F-B34S>]. None of their tickets are transferable. See Telephone Interview with Jovian Lobrigas, Customer Serv. Rep., United Airlines (Oct. 26, 2017); Telephone Interview with Jonathan Smith, Customer Serv. Rep., Am. Airlines (Oct. 26, 2017); *Ticket Rules and Restrictions*, DELTA, http://www.delta.com/content/www/en_US/traveling-with-us/planning-a-trip/booking-information/fare-classes-and-tickets/ticket-rules-restrictions.html. The only airline with a substantial share of the domestic market that does not charge a change fee is Southwest. *No Change Fees*, SOUTHWEST, <http://www.southwest.com/html/air/nochangefee.html> [<http://perma.cc/2XF5-4F76>].
 3. See James T. Yenckel, *Ticket Trade-Offs in the Classifieds*, WASH. POST, Sept. 2, 1990; 'Gray Market' in Airline Tickets, CHI. TRIB. (Sept. 6, 1987), <http://www.chicagotribune.com/news/ct-xpm-1987-09-06-8703080858-story.html> [<http://perma.cc/3AFY-VKSG>].
 4. The legal and regulatory thicket around international travel keeps my focus domestic.

rules and change fees thwart such a market. This Comment explores two responses to the airlines' policies: litigation and legislation.

First, Part I discusses the airline policies themselves. Since the 9/11 attacks, Transportation Security Administration (TSA) agents have doubled as enforcers of no-transfer rules. The legacy airlines (American, Delta, United, and their acquisitions), low on cash and opportunistic, have ratcheted up their change fees, from \$75 to \$100 to \$150 to \$200, sometimes announcing increases within days of one another.⁵ The fees themselves provide direct revenue—in 2017, the legacies earned \$2.42 billion in change fees.⁶ They also provide indirect revenue by deterring ticket changes, because some customers who have already bought tickets would swap them for different tickets if they found a cheaper fare.⁷ But change fees deter them from doing so. These deterred customers don't pay the change fee, but they do end up paying a higher fare than they otherwise might have.

Part II explains how litigation could challenge these policies as a form of monopolization, prohibited under § 2 of the Sherman Act.⁸ A company "monopolizes" a market when two elements are satisfied: The company has monopoly power in the market, typically understood as a market share of 70 percent or greater;⁹ and the company maintains that share through anticompetitive means, that is, means other than offering a superior product or lower prices.¹⁰

With respect to the first element, monopoly power, none of the legacy airlines dominates the entire U.S. market, but some airlines dominate particular routes. For example, in 2016, Delta held 77 percent of the market for direct

5. See Liz Fedor, *NWA Slashes 2,500 Jobs, Pumps Up Ticket, Bag Fees*, STAR TRIB. (Minneapolis), July 10, 2008, at 1A (describing Northwest's 2008 fee increase to \$150); Nancy Fonti, *Delta Joins Rivals, Increases Fee Fliers Must Pay to Change Their Travel Plans*, ATLANTA J.-CONST., Jan. 30, 2001, at D3 (describing synchronized price increases); Meg Marco, *United Airlines Raises Ticket Change Fee to \$150*, CONSUMERIST (Apr. 21, 2008, 6:38 PM), <http://consumerist.com/2008/04/21/united-airlines-raises-ticket-change-fee-to-150> [<http://perma.cc/8HUU-9T8J>]; Scott Mayerowitz, *Airline Mergers Lead to Higher Fees*, CHARLESTON DAILY MAIL (Charleston), Aug. 15, 2013, at P2C ("Like lemmings, American, Delta Air Lines [sic] and US Airways all matched [United's fee of \$200] within two weeks."). Other airlines have not followed this pattern.

6. See *Reservation Cancellation/Change Fees by Airline 2017*, BUREAU TRANSP. STATS., <http://www.bts.gov/content/reservation-cancellationchange-fees-airline-2017> [<http://perma.cc/2YFC-MM2C>].

7. By comparison, Southwest Airlines charges no change fee, and its customers do sometimes rebook the same flight at a cheaper fare if the price drops. See Email from Chris Mainz, Spokesperson, Southwest Airlines, to author (Dec. 1, 2017) (on file with the UCLA Law Review).

8. 15 U.S.C. § 2 (2018).

9. See *infra* note 58 and accompanying text.

10. See *Eastman Kodak Co. v. Image Tech. Servs., Inc.*, 504 U.S. 451, 480–81 (1992).

flights between Atlanta and Boston, and it has held a similar share since 2007 or before.¹¹

With respect to the second element, anticompetitive means, the airlines' policies exploit customers' psychological biases. The change fees provide revenue—2 percent of legacy airlines' total in 2017¹²—and allow a legacy airline to charge fares below those of competitors who don't impose comparable fees. These lower fares lead customers to opt for the legacy airline, maintaining its market share. But customers tend to underestimate both the likelihood and the cost of a change in their plans. Some unlucky customers are hit with the \$200 fee, and so their fare may have suddenly doubled or worse. And the cycle continues. The legacy airline's lower posted fare is not a genuine low price but a manipulation of buyers' optimism.

The airlines have a strong counterargument: Change fees might be seen instead as a legitimate way for an airline to differentiate its tickets. Customers might be seen as rational actors choosing to bear the cost of a ticket change in exchange for a lower initial fare. Moreover, even if litigation were successful and the airlines had to pay damages or more prominently disclose their change fees, they could still resist making tickets transferable: A genuine secondary market would remain a fantasy.

In light of these challenges, Parts III and IV present a more radical solution: a federal statute prohibiting restrictions on airline ticket resale. First, Part III examines the analogous case of event tickets. Like airline tickets, event tickets experience fluctuating demand and are worthless after a certain date. Unlike airline tickets, event tickets are extensively traded on online secondary markets.

In response, primary event-ticket vendors have tried to impose nontransfer provisions.¹³ But because the event-ticket secondary market has become widely

11. See *TranStats: T-100 Domestic Segment (U.S. Carriers)*, BUREAU TRANSP. STATS., http://www.transtats.bts.gov/DL_SelectFields.asp?Table_ID=259 [<http://perma.cc/32M5-7KHW>]. These market shares are measured in terms of total passengers flying on the route. The site doesn't offer segment market shares. Instead, to determine market share, I downloaded a table of the raw data for a given year and sorted the data by origin, destination, and airline. Then I totaled the passengers for each route and totaled each airline's share.

12. See *Operating Revenue*, BUREAU TRANSP. STATS., http://www.transtats.bts.gov/Data_Elements_Financial.aspx?Data=7 [<http://perma.cc/4SRZ-GQPE>] (showing total revenue); *Reservation Cancellation/Change Fees by Airline 2017*, *supra* note 6 (showing revenue from change fees). The data for cancellation and change fees aggregate domestic and international revenues; disaggregated data are not available for these datapoints.

13. See Albert A. Foer, Opinion, *Who Owns My Ticket?*, N.Y. TIMES (Jan. 19, 2012), <http://www.nytimes.com/2012/01/20/opinion/who-owns-my-ticket.html> (describing "paperless tickets" that prevent transfer).

accepted, these efforts trigger a backlash from the public and state legislatures.¹⁴ For instance, Colorado now prohibits “as against public policy” all restrictions on event-ticket resale;¹⁵ Illinois, Missouri, New York, and Virginia have similar laws.¹⁶

Drawing on this analogy, Part IV proposes a federal law prohibiting restrictions on ticket transfer and explores this law’s probable consequences. If properly promoted, this law would draw cheers from the public, easing its passage through Congress. Nor would security pose an obstacle to ticket transfer. Secure Flight, the computerized security check of all passengers’ names, takes only four seconds to check a name against government watch lists.¹⁷ It is already possible to buy a ticket for a same-day flight, and same-day passengers are checked as thoroughly as anyone.¹⁸ Passengers flying on transferred tickets could be checked just as easily.

The law on its own would allow ticket transfer, but it would not create the secondary market; instead, this would fall to private enterprise. Fortunately, the characteristic problem of the secondary market for event tickets, that is, price gouging for high-profile events (the Super Bowl and the like),¹⁹ has no parallel for flights. The example of event tickets demonstrates that the economic consequences of an airline-ticket secondary market would be beneficial to consumers on the whole.²⁰ It is up to legislators to make it happen. Alternatively, new regulations could mandate disclosure of change fees, which would mitigate the problem.

14. See Audrey White, *Bill Would Limit Non-Transferable Sports, Concert Tickets*, TEX. TRIB. (Apr. 2, 2013, 6:00 AM), <http://www.texastribune.org/2013/04/02/consumer-group-pushes-ticket-resale-law> [<http://perma.cc/5ZPW-292X>].

15. See COLO. REV. STAT. § 6-1-718(3)(a) (2017).

16. See 815 ILL. COMP. STAT. 414/1(b), /1.5(c), (e) (2016 & Supp. 2017) (forbidding restrictions on ticket resale in established internet marketplaces); MO. REV. STAT. § 67.306 (2016) (forbidding all restrictions on resale); N.Y. ARTS & CULT. AFF. LAW § 25.30(1) (McKinney 2017) (forbidding restrictions on resale of individual tickets from a season, and requiring “paperless tickets,” a common method of preventing transfer, to be transferable); VA. CODE ANN. § 15.2-969 (2018) (forbidding restrictions on internet resale; VA. CODE ANN. § 59.1-466.6 (Supp. 2018) (forbidding restrictions on internet resale and discrimination against attendees who purchased such resold tickets).

17. Secure Flight Program, 73 Fed. Reg. 64,018, 64,044 (Oct. 28, 2008); see also Allyson Bird, *Security Changes Coming to Airports*, POST & COURIER (Charleston), Aug. 11, 2009, at 14.

18. See *id.* (“Last-minute purchases from an airport ticket counter should require no additional time outside of that four-second computer scan, [the Transportation Security Administration spokesperson] said.”).

19. See Brent Schrottenboer, *NFL Keeps Grip on Super Bowl Tickets, Except for Owners*, USA TODAY (Jan. 29, 2015, 9:28 PM), <http://www.usatoday.com/story/sports/nfl/2015/01/29/super-bowl-tickets-nfl-owners-scalping-rules/22558673> [<http://perma.cc/3RJJ-VKHS>] (describing the distorted resale market for Super Bowl tickets).

20. See, e.g., Andrew Sweeting, *Dynamic Pricing Behavior in Perishable Goods Markets: Evidence From Secondary Markets for Major League Baseball Tickets*, 120 J. POL. ECON. 1133 (2012).

I. AIRLINE TICKET CHANGE POLICIES

Nowadays, the three legacy airlines, American, Delta, and United, all impose a \$200 change fee for economy-class tickets, and none of their tickets is transferable.²¹ Although ticket change fees began in or before the 1970s,²² the first newsworthy coordinated increase occurred in 1992, when Delta, Northwest, and America West all announced increases from \$25 to \$50 to be effective on the very same date and awaited the parallel reply from American and United.²³

Nine years later, in January 2001, fees were in the news again when American, Delta, United, and Continental all increased their fees to \$90 or \$100.²⁴ The following year, all the major airlines shortened the time limit for passengers to apply fares from changed tickets.²⁵ By then, the pattern of public announcements followed by “settling on a common policy” had become an acknowledged “common practice in the industry.”²⁶

There have been two more major increases since then: an increase to \$150 which took place across 2008–2009²⁷ and a nearly synchronized increase to

21. See *supra* note 2. In one absurd case, a man bought round-the-world airline tickets for his then-girlfriend, but they broke up; to get around the no-transfer rule and make some use of the tickets, he tried to give them to anyone “with the same name as his ex-girlfriend.” Jacque Wilson, *Man Offers Free Trip to Anyone With His Ex-Girlfriend’s Name*, CNN (Nov. 4, 2014), <http://edition.cnn.com/travel/article/free-world-trip-elizabeth-gallagher/index.html> [<http://perma.cc/6SS8-QC7D>].

22. Gary Stoller, *Ticket-Change Fees Irk Business Fliers ‘To No End’*, USA TODAY, Jan. 25, 2005, at 6B.

23. Julie Schmit, *Airlines to Increase Ticket-Change Fee*, USA TODAY, Aug. 10, 1992, at 1A.

24. See Fonti, *supra* note 5; Martha Irvine, *2 Airlines Raise Fees for Ticket Changes*, PHILA. INQUIRER, Jan. 25, 2001, at C01.

25. See Susan Stellin, *Stricter Rules on ‘Nonrefundables’*, N.Y. TIMES: PRACTICAL TRAVELER (Oct. 20, 2002), <http://www.nytimes.com/2002/10/20/travel/practical-traveler-stricter-rules-on-nonrefundables.html>.

26. *Id.*

27. United announced its increase in April 2008, see Marco, *supra* note 5, while Northwest announced in July, see Fedor, *supra* note 5; John Welbes, *NWA Rolls Out New Fees, Job Cuts*, PIONEER PRESS (St. Paul, Minn.), July 10, 2008, at A1. By August, all the major airlines had reached \$150 except Delta, which held at \$100. See Gary Stoller, *Airlines’ Rising Fees Confuse and Anger Their Passengers*, USA TODAY, Aug. 12, 2008, at 3B, <http://abcnews.go.com/Business/story?id=5561426&page=1> [<http://perma.cc/R6V6-YCJU>]. By June of 2009, Delta had merged with Northwest and joined the \$150 club. See Gary Stoller, *Airline Fees*, USA TODAY, June 22, 2009, at 3B. The economic tumult of this period, including high fuel prices, may have contributed to these uncharacteristically misaligned increases. See Fedor, *supra* note 5 (describing 2008’s “record oil prices”); Mayerowitz, *supra* note 5 (explaining how, in 2008, “the price of fuel spiked 46 percent and the Great Recession sharply curtailed [air] travel”).

\$200 confined to a single two-week period in 2013.²⁸ Now the three remaining legacy airlines all charge the same \$200 fee, and a future increase in this fee by one of them will likely be matched by the others.²⁹

The airlines justify change fees as a means of making up revenue that might otherwise be lost from unsold seats: “Each time a reservation is changed, the ability to sell the seat is diminished,” says one airline.³⁰ Opponents argue that the fees are a way to increase prices without raising published fares.³¹ Both sides have a point; I explore this debate further in Subpart II.B.

28. See Mayerowitz, *supra* note 5; Kelly Yamanouchi, *Delta Hikes Change Fee to Match Rivals*, ATLANTA J.-CONST., May 3, 2013, at A11.

29. The apparent coordination of the change-fee increases might suggest that the airlines could be sued for “price fixing” under § 1 of the Sherman Act. A price-fixing claim requires a “contract, combination . . . , or conspiracy . . . in restraint of trade” 15 U.S.C. § 1 (2018). In the classic such claim, ostensible competitors secretly agree to charge the same price. Airline fees are a component of price. Cf. *In re Delta/Airtran Baggage Fee Antitrust Litig.*, 733 F. Supp. 2d 1348, 1366 (N.D. Ga. 2010) (treating airlines’ baggage fees as a component of price). Therefore, if airlines have agreed about change fees, they have committed price-fixing.

The difficulty of the price-fixing claim would be pleading an agreement on purely circumstantial evidence. There are many alternative explanations for the airlines’ parallel behavior. For instance, when one of the airlines announces an upcoming increase, the others could independently take advantage of the cover this announcement provides to raise their own fees accordingly. This would be perfectly legal. The price-fixing claim may be worth pursuing—indeed, a similar claim is being litigated right now. See Matt Stevens, *Southwest Airlines Settles Suit but Denies Colluding to Keep Ticket Prices High*, N.Y. TIMES (Jan. 6, 2018) <http://www.nytimes.com/2018/01/06/business/southwest-airlines-lawsuit-prices.html>, and similar issues arise regularly; see also Roger D. Blair, James Mak & Carl Bonham, *Collusive Duopoly: The Economic Effects of the Aloha and Hawaiian Airlines’ Agreement to Reduce Capacity*, 74 ANTITRUST L.J. 409 (2007) (describing a temporary government-sanctioned price-fix in Hawaii after 9/11); Amalia R. Miller, *Did the Airline Tariff Publishing Case Reduce Collusion?*, 53 J.L. & ECON. 569 (2010) (examining the consequences of a successful 1992 price-fixing case against the airlines); AM. ANTITRUST INST., AIRLINE ROUNDTABLE: BROADENING THE LENS ON AIRLINE COMPETITION (2017) [<http://perma.cc/V7RC-9HXS>] (convening a panel “on Allegations of Collusion on Capacity and Fees” among the airlines). But the issues it raises are too familiar within antitrust law to bother exploring in detail. But see *In re Text Messaging Antitrust Litig.*, 782 F.3d 867, 874–79 (7th Cir. 2015) (holding there was no “agreement” under § 1 in similar circumstances); accord *White v. R.M. Packer Co.*, 635 F.3d 571, 580–86 (1st Cir. 2011).

30. Fonti, *supra* note 5 (quoting a Delta spokesperson). Another spokesperson justifies matching competitors’ increases to change fees as a way to “remain competitive.” Yamanouchi, *supra* note 28. This sounds implausible—how does raising prices help an airline compete?—but higher change fees allow an airline to charge lower initial fares, which does promote competition, albeit of an underhanded kind. For more, see *infra* note 79 and accompanying text.

31. See Bonnie Pfister, *Airline Fees Not Going Anywhere*, PITTSBURGH TRIB.-REV., Oct. 30, 2008.

Unlike change fees, however, the airlines' justifications for rules barring ticket transfer are vacuous. An industry spokesperson offers three.³² First, knowing passengers' identities in advance helps airlines "provide quality service," perhaps by offering personalized preflight communication. But suppose that ticket transfers were allowed. As long as transferees' identities were reported to the airlines, transferees could receive "quality service" as easily as original purchasers. Second, the policy helps airlines "manage... seat inventory." But unlike ticket changes, ticket transfers don't affect seat inventory at all: The same seat remains filled no matter how many times it might be transferred from one passenger to another. The third justification, and the most plausible, is security. But this, too, falls apart under examination.

A. Security

Every airline passenger's name is checked against government watch lists through a program called Secure Flight.³³ Secure Flight begins when passengers report their name, birthdate, and gender to the airline, and the airline forwards that information to the TSA.³⁴ The TSA checks passenger information against

32. See Christopher Elliott, *Why That Ticket Is Yours and Yours Alone*, USA TODAY, Dec. 23, 2013, at 6B.

33. Secure Flight originated in the "Intelligence Reform and Terrorism Prevention Act of 2004," Pub. L. No. 108-458, § 4012, 118 Stat. 3638, 3714-19 (2004) (codified as amended in 49 U.S.C. § 44903(j)(2)(C) (2018)). The program ultimately stems from a recommendation in the 9/11 Commission Report that passenger screening come under federal government control. See NAT'L COMM'N ON TERRORIST ATTACKS UPON THE U.S., THE 9/11 COMMISSION REPORT 392-93 (2004), <http://www.gpo.gov/fdsys/pkg/GPO-911REPORT/pdf/GPO-911REPORT.pdf> [<http://perma.cc/U5BH-BU7V>] (recommending that the passenger name "screening function should be performed by the TSA" instead of the decentralized predecessor system, that "it should utilize the larger set of watchlists maintained by the federal government," and that "[a]ir carriers should be required to supply the information needed to test and implement this new system"); see also Secure Flight Program, 73 Fed. Reg. 64,018, 64,019 (Oct. 28, 2008) (referring to the Commission's recommendation). It was fully in place by the end of 2010. Privacy Act of 1974: System of Records; Secure Flight Records, 77 Fed. Reg. 69,491, 69,492 (Nov. 19, 2012); Jane Engle, *Airports: Are We Any Safer?*, L.A. TIMES (June 12, 2011), <http://articles.latimes.com/2011/jun/12/travel/la-tr-airlinesafety-20110612> [<http://perma.cc/H5G5-DFWL>].

34. See Secure Flight Program, 73 Fed. Reg. at 64,021. Passenger birthdate and gender help the TSA reduce false positives of passengers with common names, a frequent problem with the previous system. See *id.* at 64,034 (explaining that passenger gender helps resolve nominative ambiguity); Eric Lipton, *U.S. Takes Over Airline Passenger Checks*, N.Y. TIMES (Nov. 30, 2010), <http://www.nytimes.com/2010/12/01/us/01tsa.html> ("Officials hope... [birthdate and gender] will reduce the number of false matches..."); see also OFFICE OF INSPECTOR GEN., DEP'T OF HOMELAND SEC., ROLE OF THE NO FLY AND SELECTEE LISTS IN SECURING COMMERCIAL AVIATION 4 (2009), http://www.oig.dhs.gov/assets/Mgmt/OIGr_09-64_Jul09.pdf [<http://perma.cc/F6QQ-CB2R>] (explaining how, under Secure

the FBI's "No Fly List" (people prohibited from flying because they pose a "credible" threat of terrorism)³⁵ and "Selectee List" (people who, for undisclosed reasons, "are to receive additional physical screening prior to boarding an aircraft"),³⁶ along with a list of individuals whom the Centers for Disease Control have identified as public-health risks.³⁷

Checking each passenger's information against these lists takes only about four seconds.³⁸ But because of the sheer volume of passenger data to be processed, airlines transmit passenger information to the TSA three days before scheduled departure, or, if not available at that time, then as soon as available.³⁹ The airlines transmit passengers' itineraries alongside their identifying information, so that the TSA can check passengers in rough order of departure time.⁴⁰ This system also allows passengers to buy tickets for flights departing on the day of purchase: According to a TSA spokesperson, "[l]ast-minute purchases from an airport ticket counter should require no additional time outside of that four-second computer scan."⁴¹ In other words, Secure Flight does not delay ticket purchases in any substantive way.

Based on the results of the check, the TSA reports one of three results to the airline: for passengers on no list, issue an unrestricted boarding pass; for possible Selectees, issue a boarding pass signaling the need for in-person screening; for possible no-fly passengers, issue no boarding pass.⁴² If a passenger in the third category still wishes to fly, the airline can check the passenger's identification at

Flight's predecessor, airlines compared only passengers' names against the lists); Matthew L. Wald, *Privacy Issues Slow Updated Airline Security*, N.Y. TIMES, Apr. 11, 2004, at TR3 (describing the old system's frequent false positives). Airlines also request, but do not require, passengers' "Redress Numbers" and "Known Traveler Numbers," unique identifiers which further help the TSA avoid false positives. See Secure Flight Program, 73 Fed. Reg. at 64,032.

35. See FBI, TERRORIST SCREENING CENTER—FAQS 2 (2017), <http://www.fbi.gov/file-repository/terrorist-screening-center-frequently-asked-questions.pdf/view> [http://perma.cc/V69F-NJT6].

36. See OFFICE OF INSPECTOR GEN., *supra* note 34, at 3.

37. Privacy Act of 1974, 77 Fed. Reg. at 69,492 (naming the lists used by Secure Flight). When circumstances warrant, Secure Flight can also check passenger data against fuller terrorist watch lists. See *id.*

38. See Secure Flight Program, 73 Fed. Reg. at 64,044 ("TSA has established a standard response of not more than four seconds for the system to process a boarding pass printing result . . .").

39. See *id.* at 64,022 (explaining the timing requirement); *id.* at 64,024 (explaining the electronic transmission "portal"); *id.* at 64,036 (explaining the seventy-two-hour requirement as necessary given the "volume of data involved . . . and the time required to coordinate an operational response when necessary").

40. See *id.* at 64,021 ("This [itinerary] information will allow TSA to effectively prioritize watch list matching efforts . . .").

41. See Bird, *supra* note 17.

42. Secure Flight Program, 73 Fed. Reg. at 64,019–20.

the airport and attempt to clear the passenger there.⁴³ “[A]bout 99 percent of passengers” receive an unrestricted boarding pass.⁴⁴

All passengers, even unrestricted passengers, present their boarding passes and IDs to a TSA officer at the airport. But this identification check does not involve Secure Flight directly.⁴⁵ Instead, the TSA officer is trying to “decide whether the person holding the boarding pass is the same as the person it was issued to,” using the name, the photo ID, and the officer’s “discretion.”⁴⁶ Discretion plays a significant role at this stage: Boarding passes don’t encode the birthdates or genders that were used by Secure Flight,⁴⁷ and boarding passes “sometimes truncate or otherwise mangle names.”⁴⁸ Because this check doesn’t involve Secure Flight but only an issued boarding pass and a passenger’s ID, it wouldn’t be implicated by allowing transfer of a ticket before a boarding pass was issued.

Regardless of the airlines’ argument, there is nothing about the Secure Flight system that prevents ticket transfers. As long as transfers were reported to the TSA, the TSA could run a Secure Flight check on the transferee in four seconds. The number of transferees would likely be trivial compared to the

43. *Id.*

44. Lipton, *supra* note 34.

45. See Secure Flight Program, 73 Fed. Reg. at 64,045 (noting that ID presentation when checking bags or passing through the security checkpoint “serves a different purpose” than the ID check that airlines perform on possible No-Fly passengers).

46. See Joe Sharkey, *The Rules on Names Could Bend a Little*, N.Y. TIMES (Nov. 9, 2009), <http://www.nytimes.com/2009/11/10/business/10road.html>; see also Maria Zilberman, *Airlines to Soon Require Full Names When Buying Tickets*, DAILY REC. (Baltimore), July 13, 2009 (“Security officers have discretion in matching the individual to the boarding pass, [a TSA spokesperson] said.”).

47. Cf. Catharine Hamm, *Your Boarding Pass Does Contain Information About You, But Whether It Can Be Used for Evil Is Another Question*, L.A. TIMES (Dec. 18, 2017, 7:00 AM), <http://www.latimes.com/travel/la-tr-spot-boarding-pass-20171217-story.html> [<http://perma.cc/ZRK8-DY29>]; Brian Krebs, *What’s in a Boarding Pass Barcode? A Lot*, KREBS ON SECURITY (Oct. 6, 2015, 2:57 PM), <http://krebsonsecurity.com/2015/10/whats-in-a-boarding-pass-barcode-a-lot> [<http://perma.cc/P2RZ-FLQH>]; Tim Stenovec, *Posting Photos of Your Boarding Pass Online Is a Terrible Idea*, BUS. INSIDER (Oct. 7, 2015, 2:51 PM), <http://www.businessinsider.com/barcodes-on-boarding-passes-2015-10?op=1> [<http://perma.cc/MP66-X4UW>].

48. Sharkey, *supra* note 46. Airlines’ own policies regarding name discrepancies can be far stricter than the TSA’s, for sadly obvious reasons. See Christopher Elliott, *Name’s Not the Same? Not to Worry. Maybe.*, WASH. POST, Jan. 9, 2011, at F2, <http://www.washingtonpost.com/wp-dyn/content/article/2011/01/06/AR2011010605658.html> [<http://perma.cc/5U9T-5VYX>] (“The only way to be 100 percent sure” that a discrepancy won’t cause a problem, airlines “frequently say, is to buy a new ticket with the correct name. In some cases, they’ll offer to change the name for a fee.”).

2.2 million passengers the TSA already screens each day.⁴⁹ If fears remained that allowing transfer would cause administrative difficulties, transfers could be cut off seventy-two hours before departure.

Passengers' names are also used by the airlines to compile passenger manifests, which they keep for various administrative purposes. For international flights, airlines must transmit manifests to authorities;⁵⁰ domestic manifests are released only in case of disaster or criminal investigation.⁵¹ Airlines update passenger manifests right up until takeoff to account for no-shows, standby passengers, and other last-minute changes.⁵² This means that ticket transfers would not much disrupt airlines' manifests; indeed, transfers should be easier to process than last-minute changes, since unlike a no-show or standby passenger, the transferee's information would be communicated electronically to the airline in advance. Thus, the need to keep manifests also poses no practical obstacle to ticket transfers.

B. Price Discrimination and Overbooking

Security doesn't justify the airlines' no-transfer policies. Instead, there is another explanation for these policies, although the airlines avoid mentioning it: The policies help enforce airlines' practices of price discrimination and overbooking by deterring changes to tickets.

Price discrimination is the practice of charging a fluctuating price for the same good.⁵³ For an airline, the relevant good is a specific seat on a specific flight.

49. See *Safeguarding Privacy and Civil Liberties While Keeping Our Skies Safe: Hearing Before the Subcomm. on Transp. Sec. of the Comm. on Homeland Sec.*, 113th Cong. 1 (2014) (statement of Steve Sadler, Assistant Adm'r for Office of Intelligence & Analysis, Transp. Sec. Admin., U.S. Dep't of Homeland Sec.), <https://www.govinfo.gov/content/pkg/CHRG-113hhrg93366/pdf/CHRG-113hhrg93366.pdf> [<https://perma.cc/Q76U-YXZP>]; see also Secure Flight Program, 73 Fed. Reg. at 64,035 ("TSA has accounted for the additional transmission volume associated with changes in passenger travel information, . . . and changes caused by irregular operations or passenger re-accommodation.").

50. 49 U.S.C. § 44909 (2018) (requiring airlines to transmit manifests in advance of international arrivals and following any foreign "aviation disaster"); 14 C.F.R. § 243.3 (2018) (implementing § 44909 and noting that flights "covered" by the regulation are not flights "in which both the point of departure and point of arrival are in the United States").

51. See 49 U.S.C. § 41113 (2018) (requiring airlines to submit plans for notifying passengers' families in case of accident, and referring to a "preliminary passenger manifest"); Lenny Savino, *Hunt for Suspects Widens*, PHILA. INQUIRER, Sept. 14, 2001, at A1 (describing the FBI's requests for airline passenger manifests in the course of investigating the 9/11 attacks); see also Sara Kehaulani Goo & Robert O'Harrow, Jr., *TSA Readies Revised Aviation Screening*, WASH. POST, Aug. 26, 2004, at A12 ("Each carrier has a different system for . . . maintaining complete passenger manifests internally.").

52. See Goo & O'Harrow, *supra* note 51.

53. See also *infra* Subpart II.B.

The price of a seat fluctuates a great deal over time, reflecting elaborate calculations aimed at maximizing profits. In the simplest example, airlines generally charge less to people who buy their tickets earlier, a technique called “Lo-Hi” pricing.⁵⁴ One former airline executive has described the resulting “dynamic pricing” as “the single most important technical development in transportation management since . . . the era of airline deregulation in 1979.”⁵⁵ Airlines also overbook their flights, that is, sell more tickets than they have seats available, on the assumption that some passengers won’t show up.⁵⁶ Like price discrimination, overbooking is a profitable strategy; but it carries the risk of having to issue expensive travel vouchers if there are excess passengers.⁵⁷

Transfers of tickets from one customer directly to another would counteract both policies. Suppose Customer A no longer wants a particular ticket and is willing to sell it at a discount to Customer B shortly before the departure date. The airline would prefer to sell to Customer B directly at a high

54. See Carlos F. Alves & Cristina Barbot, *Price Discrimination Strategies of Low-Cost Carriers*, 43 J. TRANSPORT ECON. & POL’Y 345, 349 (2009) (examining the Lo-Hi ticket-pricing strategy and concluding that it maximizes profits if “consumers have different probabilities of flying”). I discuss Lo-Hi pricing further *infra* Subpart IV.B; see also *infra* text accompanying notes 71–73.

55. Sweeting, *supra* note 20, at 1133–34 (footnote omitted) (quoting Robert Crandall, former Chief Executive Officer of American Airlines).

56. See J. Coughlan, *Airline Overbooking in the Multi-Class Case*, 50 J. OPERATIONAL RES. SOC’Y 1098, 1098 (1999).

57. Southwest Airlines provides an interesting counterexample. Southwest ended its practice of overbooking in 2017. See *Southwest Airlines (LUV) Q1 2017 Results—Earnings Call Transcript*, SEEKING ALPHA (Apr. 27, 2017, 9:27 PM), <http://seekingalpha.com/article/4066484-southwest-airlines-luv-q1-2017-results-earnings-call-transcript?part=single> [<https://perma.cc/MB5J-Z9M2>]. Unlike the legacy airlines, Southwest allows no-fee ticket changes, so its overbooking was bound to be less effective than the legacies’ overbooking anyway. Overbooking can generate revenue in two ways: first, simply by selling more tickets per flight; second, by charging fees to no-shows who try to change their flight, a revenue source Southwest has forgone. In an earnings call, Southwest’s CEO described overbooking’s relatively small role in the company’s operations before it ended the practice: “We don’t overbook much at all already. My recollection is that . . . on a 143-seat airplane, we might overbook by 1”; its CFO admitted that ending the practice would lead to a loss of some revenue but also that there would be “cost savings . . . that will offset the revenue benefit. So the net impact is really not that meaningful.” *Id.* If even Southwest stood to lose revenue from ending overbooking, the legacy airlines, whose change fees make overbooking far more profitable, would likely stand to lose a great deal more.

Overbooking strategy is a bewilderingly complex topic in its own right, and it comes up in a variety of contexts outside of air travel. See, e.g., Richard E. Chatwin, *Continuous-Time Airline Overbooking With Time-Dependent Fares and Refunds*, 33 TRANSP. SCI. 182 (1999); Coughlan, *supra* note 56; Itir Karaesmen & Garrett van Ryzin, *Overbooking With Substitutable Inventory Classes*, 52 OPERATIONS RES. 83 (2004); John Kros et al., *Overbooking Increases Patient Access at East Carolina University’s Student Health Services Clinic*, 39 INTERFACES 271 (2009).

price, following the Lo-Hi pattern. But Customer A will undercut that price. With enough Customer As in the market, the airline might have to lower its prices across the board to compete with its own customers. Or suppose that on the night before departure, Customer A's plans change, so Customer A gives the ticket to Customer B. The airline would prefer Customer A not to show up, so that it can get away with overbooking the flight without distributing any travel vouchers. But the substitute Customer B ruins that plan.

The effectiveness of price discrimination and overbooking depends on the reliability of airlines' assumptions about pricing and no-shows. The fewer changes there are to tickets, the more reliable these assumptions become. Conversely, if customers changed and transferred their tickets up until takeoff, no-shows would become far rarer and less predictable, and customers could bargain around airlines' initial price discrimination. Thus, airlines' rules against transfer work together with change fees to achieve a single purpose: deterrence of changes to tickets.

II. TICKET-CHANGE POLICIES AS MONOPOLIZATION

A monopolization claim has two elements: (1) "the possession of monopoly power in the relevant market," often indicated by a market share of 70 percent or more;⁵⁸ and (2) "the willful acquisition or maintenance of that power" through means other than "a superior product, business acumen, or historic accident,"⁵⁹ that is, through means that do not benefit consumers and are therefore "anticompetitive."⁶⁰ Litigation tends to focus on this second element because of its theoretical and factual complexity, which varies by industry.⁶¹

58. See PHILLIP E. AREEDA & HERBERT HOVENKAMP, *FUNDAMENTALS OF ANTITRUST LAW* § 8.01a (4th ed. 2014) (monopoly power may be presumed if a firm's "share of a well-defined market protected by sufficient entry barriers has exceeded 70 or 75% for the five years preceding the complaint"); see also *Eastman Kodak Co. v. Image Tech. Servs., Inc.*, 504 U.S. 451, 481 (1992) ("[O]ver two-thirds of the market is a monopoly." (citing *Am. Tobacco Co. v. United States*, 328 U.S. 781, 797 (1946))).

59. *Eastman Kodak*, 504 U.S. at 481 (citation omitted).

60. AREEDA & HOVENKAMP, *supra* note 58, at § 6.04[A] (defining monopolistic conduct to involve means that "either (a) do not benefit consumers at all, or (b) are unnecessary for the particular consumer benefits claimed for them, or (c) produce harms disproportionate to any resulting benefits").

61. For instance, in 2001, Microsoft monopolized the market for operating systems by exploiting the "complex" connections between operating systems and internet browsers, see *United States v. Microsoft Corp.*, 253 F.3d 34, 60 (D.C. Cir. 2001), while in 2003, 3M, maker of Scotch tape, monopolized the clear-tape market through rebates and exclusivity deals with retailers, see *LePage's, Inc. v. 3M*, 324 F.3d 141 (3d Cir. 2003).

A. Monopoly Power

Though no airline has monopoly power over the whole domestic market, several airlines have monopoly power over flights between specific pairs of airports. Flights at a given service level between a particular pair of cities constitute a “market” that is sufficiently closed for monopolization to be effective.⁶² For illustrative purposes, I focus here on one such route: Atlanta (ATL) to Boston (BOS), dominated by Delta Airlines.

shows the market shares of airlines on ATL–BOS from 2007 to 2016.⁶³ Delta has enjoyed market share of greater than 70 percent since 2007 or before. As discussed in Subpart I.A, in 2008 and in 2013, Delta increased its change fee. Yet it suffered no apparent loss of share as a result of these increases.⁶⁴

62. *Cf.* *Spirit Airlines, Inc. v. Nw. Airlines, Inc.*, 431 F.3d 917, 932–35 (6th Cir. 2005) (concluding that price-sensitive passengers flying between Detroit and Boston and Detroit and Philadelphia could constitute markets for antitrust purposes).

63. For the source of the data in Figure 1 and Figure 2, see *supra* note 11. Figure 1 and Figure 2 measure market share in terms of total passengers on the route.

64. Delta hung on to its high-70s share through Southwest’s takeover of AirTran in 2014–2015. Southwest has yet to reach AirTran’s previous high of 30 percent and may never do so. In two other markets, not detailed here, Southwest’s performance on AirTran’s old routes has matched that in ATL–BOS. In the ATL–TPA (Tampa) market, AirTran peaked in the mid-30s but Southwest has plateaued since 2015 in the low 20s; in the ATL–LAX (Los Angeles) market, AirTran peaked around 20 percent but Southwest has plateaued since 2014 around 13 percent.

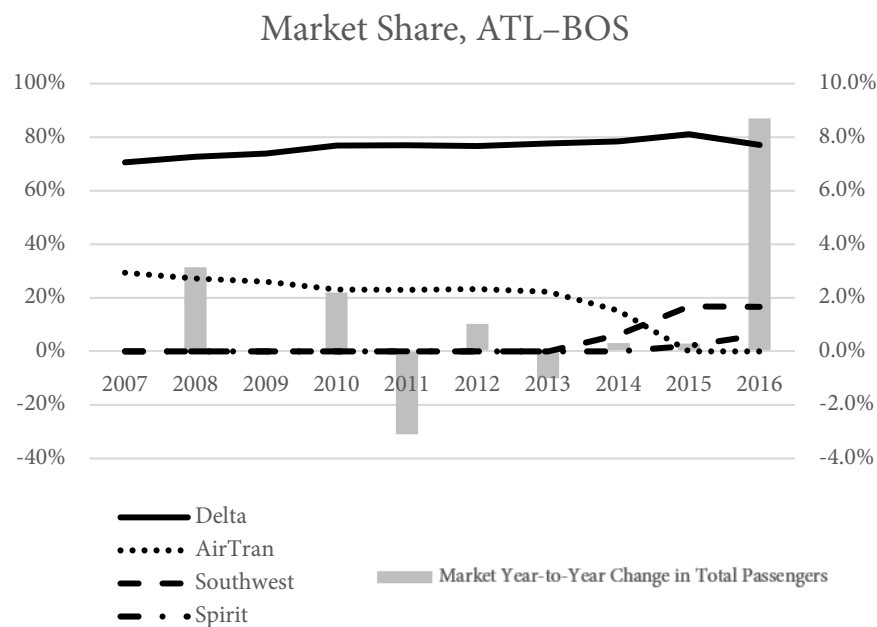


FIGURE 1: Market share of flights between Atlanta (ATL) and Boston (BOS), 2007–2016. The horizontal lines show changing market shares; the vertical bars along the bottom show the percentage change in the number of total passengers on the route compared to the previous year, which provides context. Parameters are shown as percentages measured on the left and right axes. For example, in 2008, Delta’s share was about 72 percent, and business on the ATL–BOS route as a whole grew by about 3 percent.

Delta’s slight decline from 2015 to 2016 may owe in part to the entrance of Spirit. But before hailing Spirit as a white knight riding in to slay the monopolist, consider another route by way of comparison: Dallas–Fort Worth to Tampa, shown in Figure 2. Here, Spirit entered three years earlier than in ATL–BOS, in 2012. Yet it has reached a plateau around 10 percent. We might similarly expect Spirit to reach a 10 percent plateau on ATL–BOS.

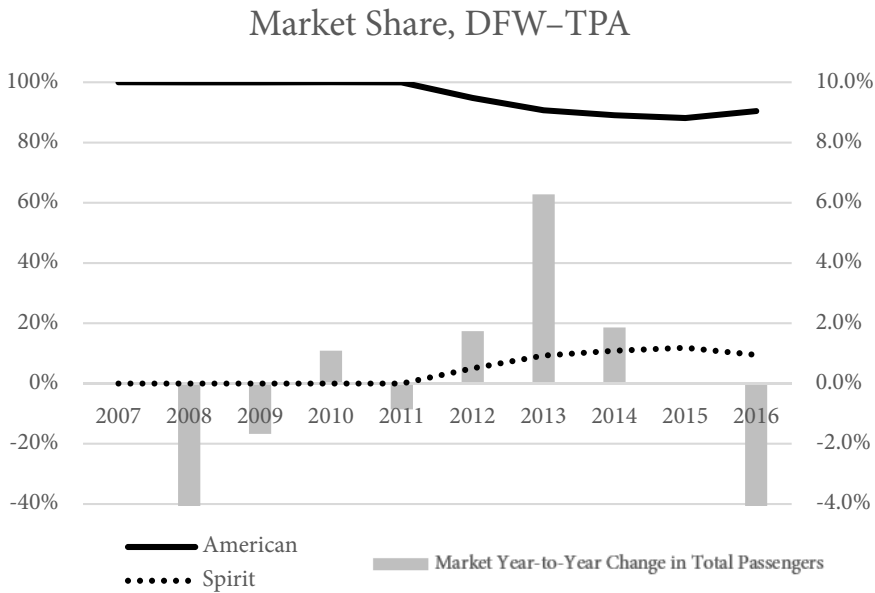


FIGURE 2: Market share of flights between Dallas-Fort Worth (DFW) and Tampa (TPA), 2007–2016. The horizontal lines show changing market shares; the vertical bars along the bottom show the percentage change in the number of total passengers on the route compared to the previous year.

Compare market share on these individual routes with the domestic market as a whole, shown in Figure 3.⁶⁵ At the national level, both Spirit and Southwest have steadily gained share. In comparison, the legacy airlines have looked static or worse. The large gains in 2010 for Delta, 2012 for United, and 2015–16 for American reflect various mergers and acquisitions.⁶⁶ In other words, the airlines’ performance at the national level does not match their performance on the routes shown in Figure 1 and Figure 2.

65. Individual airline data in Figure 3 is derived from *Carrier Snapshots*, BUREAU TRANSP. STATS., <http://transtats.bts.gov/carriers.asp> [<http://perma.cc/3HTK-4UKV>]. Data for the entire domestic market derive from *Operating Revenue*, *supra* note 12. Market share in Figure 3 is in terms of total “revenue passenger miles”; one revenue passenger mile is one mile traveled by one paying passenger, so this unit incorporates both how many paying passengers an airline carried and how far it carried them. See *Glossary*, BUREAU TRANSP. STATS., <http://transtats.bts.gov/Glossary.asp?index=R> [<http://perma.cc/5U43-NPPZ>].

66. The airline industry has extensively consolidated between 2008 and the present. Here are some important mergers and acquisitions, in chronological order: In 2008, Southwest acquired assets of bankrupt AirTran. See Dan Reed & Charisse Jones, *Low-Fare King Expands Its Empire With AirTran*, USA TODAY, Sept. 28, 2010, at 1B. In 2008–2009, Delta and Northwest merged. Suzanne Ziegler, *The Merged Delta-Northwest: Smooth Flight*, STAR TRIB. (Minneapolis), Oct. 11, 2009, at 1D. In 2010–2012, United and Continental merged.

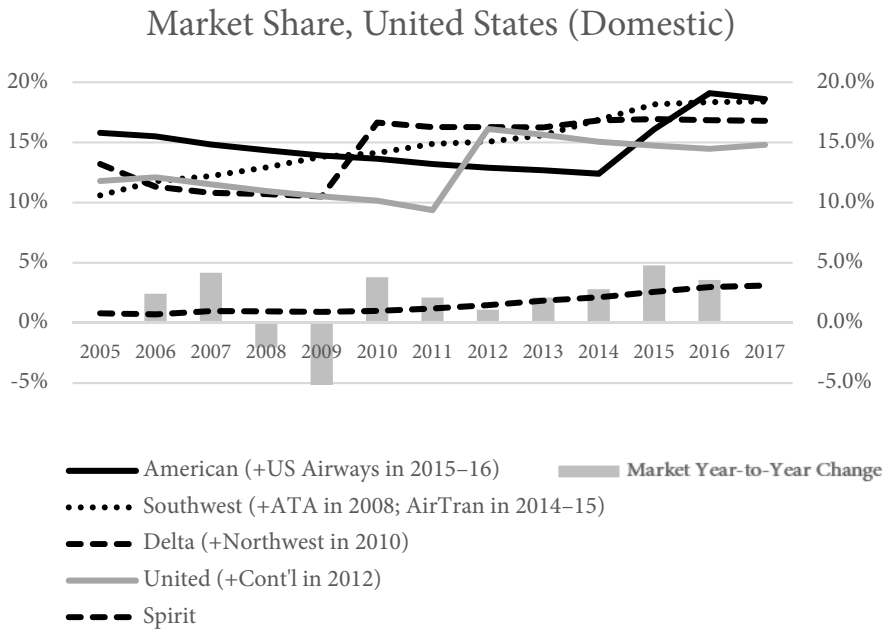


FIGURE 3: Domestic U.S. market share, 2005–2017 for years ending in June. The horizontal lines show changing market shares; the vertical bars along the bottom show the percentage change in the number of total passengers compared to the previous year.

There may be a benign explanation for Spirit’s and Southwest’s apparent plateaus on the monopoly routes versus their growth nationally. Perhaps these airlines’ market appeal is intrinsically limited by their brands or pricing, or perhaps they lack access to other factors crucial to growing on these routes, such as takeoff and landing slots.⁶⁷ Southwest “ha[s] a dominant market share in the

Andrew Clark, *United We Stand, But That Means Continental Must Finally Fall*, *TIMES* (London), Mar. 3, 2012, at 55. In 2011–2014, Southwest and AirTran merged. Kelly Yamanouchi, *Atlanta Fares Up as Airlines Merge*, *ATLANTA J.-CONST.*, Aug. 24, 2014, at D1. And in 2013–2015, American and US Airways merged. Linda Loyd, *Airlines Merge Mileage Program*, *PHILA. INQUIRER*, Mar. 25, 2015, at A15. For all of these consolidations, there was a delay before the consequences showed up in the market shares depicted in Figure 3.

67. At congested airports, where the demand for takeoff and landing slots exceeds the supply, slots are allocated in a highly regulated process, but airlines also make side deals to buy or trade for rights. Most relevant here, the process tends to favor incumbents. See generally Justin Bachman, *Post-Mergers, Airlines Busy Trading Airport Slots*, *SEATTLE TIMES* (June 16, 2015, 5:34 PM), <http://www.seattletimes.com/business/post-mergers-airlines-busy-trading-airport-slots>; *Airport Heist: The Rules on Allocating Take-Off and Landing Slots Favour Incumbents*, *ECONOMIST* (Nov. 16, 2017), <http://www.economist.com/news/business/>

majority of the markets” that it serves;⁶⁸ in other markets, in which a legacy airline dominates, Southwest may be satisfied with a mere toehold. Or perhaps Delta and American’s ticket-change policies are a form of monopolization, enabling them to maintain their dominant market shares for reasons other than the healthy form of competition promoted by antitrust law.

B. Anticompetitive Means

The legacy airlines control their tickets through a combination of three distinct policies: price discrimination, or varying the price of a good depending on the buyer;⁶⁹ nontransferability; and ticket-change fees. Though none of these policies is anticompetitive on its own, they can become so in combination.

1. Ticket-Change Policies’ Effect on Price Discrimination

Despite its alarming name, price discrimination can be beneficial. Price discrimination often relies on the assumption that some customers are more price-sensitive than others. Consider, for example, movie theaters offering discounted tickets to seniors. Naturally, the theater would prefer to sell all tickets at the same high price. But if this price would be too high for many seniors, the theater might make more money overall by charging a reduced senior price to attract more senior customers.⁷⁰ Of course, the lower price also means some lost revenue from those seniors who would have been willing to pay full price; the proper pricing scheme depends on seniors’ characteristics in aggregate. The important point here is that the theater’s self-interested price discrimination can increase output: more seniors seeing more movies.

Airlines’ price discrimination operates similarly. For instance, airlines generally charge less to people who buy their tickets earlier, the aforementioned Lo-Hi pricing.⁷¹ In general, people who buy tickets earlier are more price-sensitive

21731440-70-year-old-system-need-shake-up-rules-allocating-take-and-landing-slots [http://perma.cc/T3BJ-CW49]; INT’L AIR TRANSP. ASS’N, WORLDWIDE SLOT GUIDELINES (2018), <http://www.iata.org/policy/slots/Documents/WSG%208.1%20-%20final.pdf> [http://perma.cc/AGA6-G2DX]; *Slot Administration*, FAA, http://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/systemops/slot_administration [http://perma.cc/47TC-4SK8] (last updated June 15, 2018, 3:01 PM).

68. Email from Chris Mainz, *supra* note 7.

69. For more on airline price discrimination, see *supra* Subpart I.B.

70. *Cf. In re Brand Name Prescription Drugs Antitrust Litig.*, 186 F.3d 781, 783–84 (7th Cir. 1999) (explaining drug manufacturers’ price discrimination in sales to hospitals versus pharmacies).

71. See *supra* note 54 and accompanying text.

than people who buy tickets later.⁷² If early buyers are more price-sensitive, Lo-Hi pricing increases overall revenue from them. And the airlines would rather have the early buyers' business at a lower price than not have it at all. So, depending on the details, Lo-Hi pricing could increase ticket output, more passengers taking more flights, as in the movie ticket example above. And under some set of assumptions, airlines' more elaborate "dynamic pricing" could do likewise.⁷³

Whatever its effect on the market, price discrimination does not actually require airlines to impose change fees and prohibit transfer. By way of counterexample, tickets to events are transferable, but they are priced in a discriminatory way;⁷⁴ Southwest charges no change fee, but still engages in price discrimination, despite the risk that its own customers might "rebook at [a] lower fare" posted after a higher initial fare.⁷⁵ No-transfer rules and change fees, however, do make price discrimination much more effective by locking customers into their initial ticket purchases—more effective, that is, as a way of maximizing airline profits, but not necessarily as a way of increasing consumer welfare.

To better understand the effect of these policies, imagine a world without either policy, in which airline tickets are freely changed and transferred. During a given period, some customers buy tickets directly from the airlines. Between this period and the time when these customers are actually scheduled to fly, some of them decide they would like to change their tickets, because either there is an unexpected timing problem or they find a cheaper ticket of equivalent convenience. These are "potential changers."

Every potential changer falls into one of three categories: resellers, rebookers, and the resigned remainder. The resellers sell their tickets on the secondary market. The resellers represent a straightforward loss for the airlines: Many of the secondary-market buyers would have been willing to buy on the primary market as well. These buyers' gain is balanced by the airlines' loss. But there are also secondary-market buyers who would have decided against buying

72. Early buyers' greater price-sensitivity can be explained in a variety of ways, all of which may be true to some extent. Some early buyers have likely chosen to suffer the inconvenience of advance planning to allow more time to find a good price; compared to those booking last-minute, early buyers can redesign their travel plans relatively easily if, say, one weekend offers cheaper flights than another; early buyers are less likely to be business travelers (whose tickets are paid for by their employers).

73. See *supra* note 55 and accompanying text.

74. See Pascal Courty, *Ticket Pricing Under Demand Uncertainty*, 46 J.L. & ECON. 627, 646 (2003) (referring to event-ticket price discrimination based on ticket "quality"—for example, closeness to stage—or through "targeted coupons to a local market").

75. Email from Chris Mainz, *supra* note 7.

at all if they could buy only at primary-market prices. These buyers' gain from the secondary market is nobody's loss.

The rebookers, the second category of potential changers, decide to return their tickets directly to their airlines and rebook. For the airlines, these rebookings have two opposing effects. On the one hand, the airline may be able to resell the returned seat—and possibly for a higher price, since the departure date is now nearer than it was when the customer first booked. On the other hand, if the airline never resells this seat, the original revenue is lost. For simplicity, this model assumes that these effects cancel each other out and therefore that the rebookers' net effect is neutral.⁷⁶

Finally, since rebooking and reselling both impose some inconvenience, there is a resigned remainder, the third category of potential changers, who are dissatisfied with their tickets but decide not to bother changing them. This group also includes those who considered rebooking but didn't like the other available flights, and those who attempted but failed to resell their ticket on the secondary market. With no change fees and free transfer, however, the resigned remainder will be small.

No-transfer rules and change fees alter the picture. Resellers are erased by the no-transfer rules, along with the loss that they impose on the airlines. They become rebookers. And customers who would have bought from the resellers on the secondary market must now buy directly from the airlines. They pay a higher price than they would have. Their loss is the airlines' gain.

Rebookers, meanwhile, are split by the change fee into two types. The first type decides to go through with the ticket change in spite of the fee. They do this because their travel plans are inflexible, or because they're price insensitive (they would have been willing to pay more up front), or both. They end paying a straight surcharge—and the airline may still be able to resell their original ticket for more than before. From the airlines' perspective, these people's changes are an unexpected bonus on a ticket the airline was happy to sell at a lower price.

The second type of rebooker decides not to rebook in the face of the fee. This includes the rebookers who would have changed their ticket after their original purchase because they found a lower price. The fee deters these potential rebookers because their travel plans are flexible, or because they're price-sensitive, or both. They join the resigned remainder.

76. This assumption is debatable; the model does not hinge on it. I also ignore the direct cost to the airline of rebooking a passenger, which is likely trivial for online bookings.

Some of airlines' gains from change fees is captured by the airlines' literal revenue therefrom. Figure 4 shows this revenue since 2009.⁷⁷ Change fees' share of revenue has remained steady or increased even as total revenues have also increased.

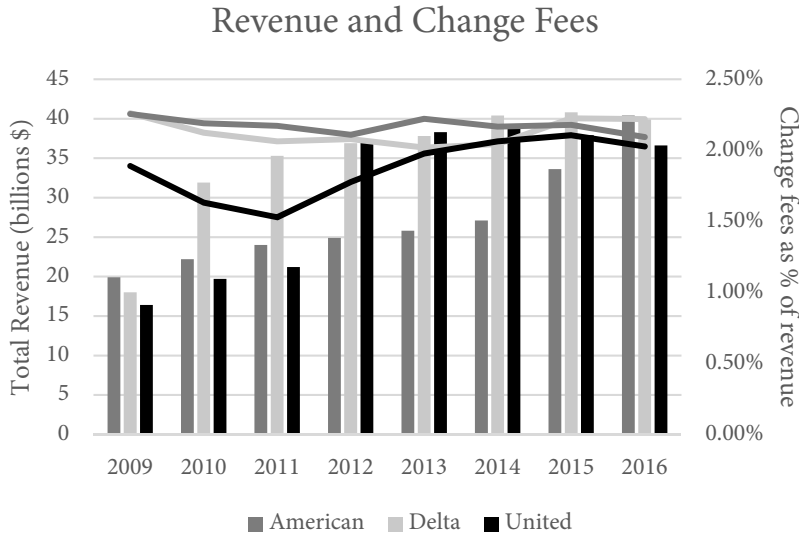


FIGURE 4: Legacy airlines' revenue from ticket-change fees, 2009–2016. The vertical bars show airlines' operating revenue, measured on the left axis in billions of dollars; for instance, in 2009, American earned about \$20 billion total. The horizontal lines show airlines' revenue from change fees as a percentage of operating revenue; for instance, in 2009, American earned about 2.25 percent of its revenue from change fees, or \$450 million.⁷⁸

77. In Figure 4, airlines' change-fee revenue comes from *Reservation Cancellation/Change Fees by Airline*, *supra* note 6. Airlines' individual total revenue comes from the total revenue column of *Operating Revenue*, *supra* note 12. These data aggregate both domestic and international revenue; unfortunately, disaggregated data are unavailable, but these data give a rough idea of fees' direct role in airlines' revenue.

78. The share of revenue derived from change fees allows ballpark estimation of the share of tickets that are actually changed. An airline earns about 95 percent of its operating revenue from fares, 3 percent from change fees, and 2 percent from baggage fees. See *Baggage Fees by Airline*, BUREAU TRANSP. STATS., <http://www.bts.gov/baggage-fees> [<http://perma.cc/LNS5-VKVP>] (last updated June 19, 2018); *Reservation/Cancellation Fees by Airline*, *supra* note 6. But how many change fees is that, compared to the number of tickets sold?

To answer this question, compare the price of a ticket to the price of a change. In the third quarter of 2017, the average domestic airline ticket costs \$336. *Average Domestic Air Fares*, BUREAU TRANSP. STATS., <http://www.transtats.bts.gov/AIRFARES> [<http://perma.cc/E6EC-XV3T>] (select any airports to display a chart that lists the domestic average by year and quarter). Data on international flights are harder to find, but \$800 is a sensible estimate average fare. Cf. Steve Wartenberg, *International, Domestic Flight Prices Rising Across*

But Figure 4 tells only part of the story. The change fees generate revenue in a second way, by deterring some customers from switching to cheaper tickets. Some of the customers who buy their tickets early would have been willing to pay more; others pay at or near their maximum price. The airlines would like to charge the first group more, but they can't distinguish them from the second group. But when an early buyer contemplates a ticket change, the change fee reveals the buyer's identity: Customers willing to pay the fee belong to the first group, and the airline has succeeded at charging them more via the fee; customers unwilling to pay the fee belong to the second group, and the airline rests assured that they paid near their maximum, and they were prevented from swapping their original ticket for a cheaper option that they found later. The change fee has thus boosted revenue in two ways: the direct payment by customers of the first type, shown in Figure 4; and the prevention of revenue loss from customers of the second type, who would have switched from their original tickets to cheaper tickets that they found later.

This insight adds nuance to Figure 4. For instance, at first, it appears that the 2013 fee increase to \$200 did not alter change fees' contribution to revenue: The higher fee was counterbalanced by a lower number of customers willing to pay it, and the direct contribution of change fees to revenue remained flat, at around 2.2–2.3 percent. But Figure 4 does not show revenue attributable to the change fees' deterring customers from switching to cheaper tickets. Logically, some customers were deterred from switching to a cheaper ticket by a \$200 fee who wouldn't have been deterred by a \$150 fee. As a result, in the aggregate, an airline relying on the greater deterrent effect can charge higher initial fares, knowing that fewer customers will switch to a cheaper fare later. Customers deterred by a change fee don't show up on Figure 4 because they never actually pay the fee. But the higher initial fares that they pay do contribute to revenue, which ultimately also traces to the change fees.

Airline Industry, COLUMBUS DISPATCH (July 4, 2014, 12:01 AM), <http://www.dispatch.com/content/stories/business/2014/07/04/whats-your-price-for-flight-quite-a-bit-higher.html> [<http://perma.cc/4VB6-QJZZ>] (reporting in 2014 that domestic flights averaged about \$400, international, \$1000). More tickets are issued for domestic travel than for international, so the average fare for all tickets—domestic and international—is probably about \$400–500. The key inference is that each \$200 change fee is equivalent to about half a ticket. So, returning to the revenue percentages above: Assume the airline sells ninety-five tickets to earn the requisite 95 percent of its operating revenue. To earn 2 percent more of its revenue from change fees, the airline needs four customers to change their tickets (each change is worth half of a ticket, so four changes equals two tickets). In other words, of ninety-five tickets originally sold, four are changed, or about 4 percent. Allowing for the roughness of this calculation, it is likely safe to conclude that 2–6 percent of tickets are changed.

2. Ticket-Change Policies as Procompetitive

Though price discrimination is profitable, and made more so by airlines' ticket-change policies, these policies are not inherently anticompetitive in a way that establishes a monopolization claim. Two different stories could be told about these policies: a procompetitive story, wherein the policies serve customers and therefore don't sustain a monopolization claim; and an anticompetitive story, wherein the policies exploit customers to maintain a dominant market share and therefore do sustain a monopolization claim. The procompetitive story is told in simplistic form by the airlines themselves: The policies allow lower up-front fares. If an airline aims at some fixed total revenue, then the more of that revenue it earns from change fees, the less revenue it needs to earn from up-front fares, so these can be lower.⁷⁹

A fuller version of the procompetitive story begins with two hypothetical airlines, Flexible Air and Legacy Air. Their costs are the same and they aim at the same level of profit. Legacy's fares are lower than Flexible's. Legacy makes up for its lesser fare revenue by charging a change fee; Flexible has no change fees.

Suppose that Flexible and Legacy compete for a single group of customers. All customers are rational and well-informed about change fees, and they choose an airline primarily based on price.⁸⁰ By personality, some customers are risk-tolerant while others are risk-averse. Whenever a customer buys a ticket in advance, there is a risk of a travel change and a cost associated with this risk. Legacy's change fee passes this risk on to the customer. Flexible, by allowing free changes, bears this risk itself. Risk-tolerant customers buy from Legacy, happy to bear the risk in exchange for a lower fare, while risk-averse customers buy from Flexible, happy to pay a higher fare in exchange for the security of fee-free ticket changes. All customers enjoy the choice of an airline that suits their personality.

More realistically, suppose that Flexible's and Legacy's customers vary not in their risk-tolerance but in their probability of needing to change their tickets in the future. Being rational and well-informed, these customers accurately assess their own probability of needing to change their ticket. For these customers, a ticket has an expected price that includes both the up-front fare and

79. That change-fee revenue enables lower fares provides the most sympathetic explanation for the otherwise inexplicable comment of an airline spokesperson that matching competitors' fee increases lets an airline "remain competitive." See sources *supra* note 30 and accompanying text. If one airline raises its change fee, it may be able to lower its fares, so another airline hoping to match the lower fares may need to raise its change fee to compete.

80. I examine the assumption of rational, well-informed customers *infra* Subpart II.B.3.

the expected price of a change to the ticket. Note that the expected price is measured from the moment of prospective purchase; it is not what a customer actually ends up paying by the end of the customer's dealings with the airline, which depends on the happenstance of whether a ticket change is needed in some specific case.

Examples clarify the concept of expected price. Suppose Customer A is considering a ticket offered by Legacy. Legacy's fare is \$400; the change fee is \$200; the customer has a 2 percent chance of needing to change their ticket in the future.⁸¹ The ticket's expected price for Customer A is as follows:

$$\text{Expected price for A: } \$400 + (\$200 * 2\%) = \$404.$$

Customer B has a 5 percent chance of needing a ticket change:

$$\text{Expected price for B: } \$400 + (\$200 * 5\%) = \$410.$$

Finally, Customer C has a 10 percent chance of needing a ticket change:

$$\text{Expected price for C: } \$400 + (\$200 * 10\%) = \$420.$$

Suppose Flexible offers a competing ticket on the same route for \$410. Flexible has no change fee, so the expected price of its tickets is always the same as the fare. Each customer compares the expected prices of the two tickets and buys accordingly: Customer A buys from Legacy ($\$405 < \410); Customer C buys from Flexible ($\$420 > \410); and Customer B is indifferent on the basis of expected price, and will decide based on service level, timing, or some other variable.

Before the departure date, some of the A's and B's who bought from Legacy will end up needing to change their tickets, despite the odds against it. Their change fees subsidize the lower fare enjoyed by the other A's and B's. But even the unlucky A's and B's did not actually make a mistake in buying from Legacy: If they take this trip a hundred times, on average, the A's do better, and the B's do no worse, by buying from Legacy rather than Flexible. Every customer has made a rational choice about which ticket to buy: The A's have benefited from Legacy's policy, the C's have benefited from Flexible's policy, and the B's have chosen based on service or brand, correctly reckoning that the expected price of both tickets is the same.

This market can be thought of as proceeding through a series of rounds; in each round, each airline deploys a particular pricing strategy and then observes the results to decide its strategy for the next round. In the first round, it is possible that one airline will earn more than the other; for instance, if there are

81. For a derivation of customers' probability of changing, see sources *supra* note 78 and accompanying text.

many more A's than C's, Legacy will win.⁸² Since the airlines' costs are the same (by assumption), however, the loser in the first round can adjust prices to compete more effectively in the second round. The important point, for this model and for the real world, is that if customers vary in their expectation of changing their tickets, and they correctly calculate their expected prices, then there is room in the market for both strategies to be profitable in the long run.⁸³

This version of the procompetitive story, in which customers vary in their expected probability of changing their tickets, also accommodates the earlier version, in which customers varied in their tolerance of risk. Risk-tolerant customers can be reconceived as systematically understating their likelihood of needing to change their tickets, while risk-averse customers can be reconceived as systematically overstating the same. To the extent that customers' views of risk are understood as genuine preferences rather than irrational biases, the airlines' different strategies serve customers' diverse wants in an economically healthful way.

3. Ticket-Change Policies as Anticompetitive

The procompetitive story makes two assumptions about airlines' customers. First, the customers know about Legacy's and Flexible's different change policies, and this knowledge informs their decisions. Second, the customers accurately estimate their probability of needing to change their tickets—or, to the extent that they estimate this probability inaccurately, this inaccuracy reflects a genuine personal preference (tolerance of risk), the kind of preference that can serve as a legitimate basis for airlines' ticket-change policies.

These assumptions derive from the neoclassical economics that underlies traditional antitrust law.⁸⁴ On this view, consumers are both rational and well-

82. Each customer ends up paying, on average, that customer's expected price: the customer correctly estimates their likelihood of a change. So the B's are worth the same to both airlines. And even if there are slightly more A's than C's—even if Legacy has slightly more customers than Flexible—their profits could be equal, because Legacy earns less from each A than Flexible earns from each C.

83. The long-run profitability of the strategies will depend on the precise distribution of customers' preferences; but most conceivable distributions would allow both airlines to earn some profit, albeit not always equal. Only extremely imbalanced distributions would force both airlines into pursuing the same strategy. For instance, if nearly all customers were of type C, Legacy's strategy might not be viable.

84. See Amanda P. Reeves & Maurice E. Stucke, *Behavioral Antitrust*, 86 IND. L.J. 1527, 1528, 1545–60 (2011) (concluding that “antitrust’s economic theories, whether derived from the Chicago, post-Chicago, or Harvard Schools, continue to assume rational self-interested market participants operate in the market with perfect willpower,” and detailing the rise and dominance of this view (footnotes omitted)).

informed: “[A]ll human behavior can be viewed as involving participants who [1] maximize their utility [2] from a stable set of preferences and [3] accumulate an optimal amount of information and other inputs in a variety of markets.”⁸⁵

The first assumption, of customers’ perfect knowledge, doesn’t hold up in practice. None of the legacy airlines mentions its change fee at any point during an online ticket purchase. Compounding the problem, many customers search for airline tickets on Kayak.com or another online aggregator, on which tickets from all airlines are displayed side-by-side. This presents tickets as an interchangeable commodity for which the fare is the only figure that matters. Therefore, at the time of purchase, some customers are unaware of the change fees or their amount; if they learn about the fees, it is later, when they try to change their ticket.⁸⁶

The second assumption, that customers accurately estimate their probability of needing to change their tickets, is undercut by psychological research demonstrating “important ‘bounds’ on human behavior.”⁸⁷ For example, people tend to be irrationally optimistic about future events. They “believe that negative events are less likely to happen to them than to others,” especially when the negative event appears partly within their power to avoid.⁸⁸ This instance of “bounded rationality,” this departure of real people’s actions from those of the perfectly rational creatures of traditional antitrust, “will come into play whenever actors are valuing outcomes,” such as buying an airline ticket.⁸⁹

85. GARY S. BECKER, *THE ECONOMIC APPROACH TO HUMAN BEHAVIOR* 14 (1976).

86. The obscurity of the change fees makes them exploitative in a way that airlines’ widely reviled baggage fees are not; indeed, federal law requires baggage fees to be disclosed. *See infra* notes 180–182 and accompanying text. Two other differences also make change fees worse than baggage fees: change fees’ greater magnitude (\$200 versus \$30–40 per bag, *see, e.g., Baggage and Travel Fees*, DELTA.COM, https://www.delta.com/content/www/en_US/traveling-with-us/baggage/before-your-trip/checked.html) and customers’ relative inflexibility with respect to travel plans as a whole versus the decision whether to check a bag.

87. Christine Jolls, Cass R. Sunstein & Richard Thaler, *A Behavioral Approach to Law and Economics*, 50 STAN. L. REV. 1471, 1476 (1998); *see also* Reeves & Stucke, *supra* note 84, at 1532–38.

88. Neil D. Weinstein, *Unrealistic Optimism About Future Life Events*, 39 J. PERSONALITY & SOC. PSYCHOL. 806, 807, 811–12, 814 (1980); *see also* Marta P. Coelho, *Unrealistic Optimism: Still a Neglected Trait*, 25 J. BUS. & PSYCHOL. 397, 398 (2010) (gathering sources for the proposition that “optimistic biases are robust and widespread”); Max Huffman, *Marrying Neo-Chicago With Behavioral Antitrust*, 78 ANTITRUST L.J. 105, 130 (2012) (“Tendencies toward over-optimism have . . . been empirically demonstrated.” (footnote omitted)).

89. *See* Jolls, Sunstein & Thaler, *supra* note 87, at 1480. Reconciling psychological biases with economic theory has given rise to behavioral economics. For a discussion on emerging behavior economics *see* Huffman, *supra* note 88, at 115–20. In turn, behavioral economics has given rise to behavioral law and economics, *see, e.g.,* Jolls, Sunstein & Thaler, *supra* note 87, followed by behavioral antitrust, *see, e.g.,* Reeves & Stucke, *supra* note 84; Avishalom Tor & William J. Rinner, *Behavioral Antitrust: A New Approach to the Rule of Reason After*

The combination of low up-front fares and high change fees exploits this irrational optimism. Customers focus on the fare: the short-term, fixed component of the ticket price. They discount or ignore the change fee: At the moment of purchase, they optimistically underestimate their likelihood of wanting to change their ticket.⁹⁰ The low-fare, high-fee ticket appears cheaper than it would without the bias.

Even assuming that change fees exploit customers’ imperfect information and irrational optimism, the question remains whether this exploitation could be anticompetitive in the way required for a monopolization claim. The story of Legacy and Flexible suggests that it could. Again, assume the airlines’ costs are the same, Flexible’s fare is \$410, Legacy’s fare is \$400, and Legacy charges a \$200 change fee. Customers of type A, B, and C still vary in their probability of needing to change their tickets—but now, owing to their imperfect information and irrational optimism, they discount the expected cost of changing their ticket by 50 percent.⁹¹ Table 1 shows the result.

TABLE 1: Customers’ expected prices of tickets from Legacy and Flexible. For Legacy, customers perceive a discounted expected price because of their irrationalities.

	Customer A (2% prob. of change)	Customer B (5% prob. of change)	Customer C (10% prob. of change)
Legacy Air: True exp. price	$\$400 + (\$200 \times 2\%)$ = \$404	$\$400 + (\$200 \times 5\%)$ = \$410	$\$400 + (\$200 \times 10\%)$ = \$420
Legacy Air: Disc. exp. price	$\$400 + 0.5(\$200 \times 2\%)$ = \$402	$\$400 + 0.5(\$200 \times 5\%)$ = \$405	$\$400 + 0.5(\$200 \times 10\%)$ = \$410
Flexible Air: Exp. price	$\$410 + (\$0 \times 2\%)$ = \$410	$\$410 + (\$0 \times 5\%)$ = \$410	$\$410 + (\$0 \times 10\%)$ = \$410

Leegin, 2011 U. ILL. L. REV. 805 (applying behavioral antitrust principles to the specific situation of manufacturers imposing minimum prices on their retailers). “Behavioral Antitrust may be the strongest application of behavioral law and economics,” both because antitrust law is especially reliant on economic theory and because antitrust law seeks not “to regulate . . . markets directly” but to “maintain free markets by correcting for failures” of competition. Huffman, *supra* note 88, at 122.

90. Cf. Oren Bar-Gill, *Seduction By Plastic*, 98 NW. U. L. REV. 1373, 1407 (2004) (describing how credit-card penalty fees “are largely invisible to consumers” because of consumers’ systematic “underestimation” of the likelihood of incurring them); Jolls, Sunstein & Thaler, *supra* note 87, at 1542 (“[T]hese problems are not ones of [consumers’] insufficient information per se; they are ones of insufficient ability to process accurately the information one possesses insofar as that information bears on one’s own risks.”).

91. The discount rate of 50 percent is a placeholder so that this example can use actual numbers instead of variables; the example would play out similarly with any of a range of plausible discount rates.

When the customers were rational, they compared only the airlines' true expected prices. The A's chose Legacy, the C's chose Flexible, and the B's, indifferent on the basis of price, were split between the airlines on the basis of service and other variables. The irrational customers in Table 1 compare Flexible's fare with the artificially discounted expected price from Legacy. The A's still choose Legacy, and this is still the better choice for them, on average. The B's, however, are no longer indifferent about price: They opt for Legacy because of its new expected price. And now the C's are in the position formerly occupied by the B's: Indifferent on the basis of the expected price, they decide between Flexible and Legacy on other grounds.

The B's who switched from Flexible to Legacy have miscalculated. On average, they will pay the same to either airline, and they should have chosen based only on other features. The mistake of the C's who switched to Legacy was even worse. They end up paying \$10 more on average than the C's who stayed with Flexible. In other words, these customers would better satisfy their preferences if they choose Flexible. But they do not know this at the time of purchase.

As a result, Legacy does much better than it did with rational customers. It now gets the business of all the B's, no longer just a portion, and even some of the C's. It also gets a \$200 change fee from the B's and C's who change their tickets. In the next round, Flexible might try lowering its fare to compete. But in response, Legacy can use the additional revenue from the first round as a war chest to lower its own fare, keeping its customers from the first round. It could also increase its change fee.

In the long run, customers' irrationality poses a serious obstacle to Flexible. Flexible could lower its fares—but it needs to compete with Legacy's irrationally discounted expected price, not with Legacy's true expected price. When customers were rational, Flexible and Legacy's pricing strategies could both be profitable; the prices and fees would eventually settle on a long-run equilibrium. Here, customers' irrationality has one of two effects: Either the long-run equilibrium will be less profitable for Flexible than before; or Flexible's strategy will be altogether unviable, and it will need to adopt Legacy's strategy or fold.

And even if Flexible decides to adopt Legacy's strategy, the airlines will be competing on an uneven field. It would be unrealistic to assume that customers are randomly shuffled in each round of the market; instead, over time, they grow accustomed to buying from one airline or the other.⁹² They may join a frequent

92. It is true that some of Legacy's customers in each round will have to pay change fees that they were hoping to avoid. But this will not cause them to switch to Flexible for two reasons.

flyer program or take out a credit card of their preferred airline. This means that many of Legacy's customers will remain with Legacy even if Flexible imitates its strategy. Meanwhile, many of Flexible's own customers probably preferred Flexible's original pricing strategy—Flexible likely touted its lack of fees as a selling point, and it can no longer do so.⁹³ So Flexible's switch to a change-fee strategy may cause some of its customers to consider Legacy instead. Flexible will struggle to gain market share.

This outcome is indeed competitive, in the sense that Legacy and Flexible are engaged in heated competition. But Legacy has directed competition toward exploiting customers' irrationality. Therefore, in the sense required for the second element of a monopolization claim, Legacy's strategy is anticompetitive: It harms consumers.⁹⁴

4. The Real-World Case for Monopolization

The hypothetical example of Legacy and Flexible translates to the real-world example of ATL–BOS (

Figure 1, *supra*), with a few modifications. "Legacy" is now Delta and "Flexible" is now Southwest.⁹⁵ Subpart I.A established Delta's monopoly power in the ATL–BOS market, the first element of monopolization. Unlike Flexible in our story, Southwest's national brand means that practically speaking, it cannot change its pricing strategy to match Delta's. According to a Southwest spokesperson, the resulting fare differential can be "misleading for the customer" who

First, some of them will have realized at the time of purchase that the change fee was a possibility; they will be disappointed when they need to pay it, but they will not think that Legacy's policy was unfair. Second, for all customers, their irrational optimism will return in the next round.

93. Compare Southwest Airlines, whose lack of change fees figure prominently in its marketing. According to a Southwest spokesperson, its "[b]rand is a very big competitive advantage . . . worth more than the revenue we would gain if [we] charged for checking bags or change fees." Email from Chris Mainz, *supra* note 7.

94. See *supra* note 60 and accompanying text.

95. Spirit, the minnow in the ATL–BOS market with only 6 percent share (and an even smaller national share, see Figure 3, *supra*), follows a pricing strategy distinct from both Delta and Southwest: low advertised fares, but numerous add-on fees, including even for carry-on luggage. Spirit also charges a change fee of \$90–100. See *Options and Extras*, SPIRIT, <http://www.spirit.com/OptionalServices.aspx> [<http://perma.cc/26BR-6JWD>]. This change fee, however, is only half that of the legacy airlines' fee; and Spirit's small scale and distinctive à-la-carte pricing make the interaction of its strategy with the others too complex to consider here.

focuses on the initial fare instead of other factors, making it difficult for Southwest to “compete on base fare alone” and leading Southwest to emphasize its “friendly” no-fee ticket change policy instead.⁹⁶

Delta holds onto the ATL–BOS market, in part, because of its anticompetitive exploitation of customers’ irrational optimism. Customers’ insensitivity to the change fee, perhaps owing to their irrational optimism, comes across most clearly when analyzing their 2008 and 2013 change-fee increases in Figure 2 and Figure 3. Delta’s market share was utterly unaffected by the 2008 and 2013 change-fee increases.

This argument leaves out many details.⁹⁷ But it is not necessary to tackle those here. Instead, to survive a motion to dismiss in hypothetical litigation, the argument must be at least “plausible on its face,” that is, demonstrate something more than the “sheer possibility” of monopolization.⁹⁸ The plaintiff would then be entitled to discovery, which would fill in the details left out of the present argument.

This would not be the first antitrust claim to rest on customers’ irrationality. In *Eastman Kodak Co. v. Image Technical Services, Inc.*,⁹⁹ the Supreme Court allowed a similar claim to go forward against Kodak, denying Kodak’s motion for summary judgment. Kodak sold commercial photocopiers and microfilm equipment; it also offered parts and service for these machines.¹⁰⁰ Numerous independent service organizations (ISOs) also sold Kodak parts and serviced Kodak machines.¹⁰¹ After a few years of coexistence with the ISOs, however, Kodak implemented various policies that made it more difficult for them to provide parts or service.¹⁰² Customers now had to buy parts and service from Kodak “even though they preferred ISO service,” which was often cheaper

96. Email from Chris Mainz, *supra* note 7.

97. For instance, the argument makes no account of the airlines’ cost structures, or the process by which airlines acquire takeoff and landing slots, *see supra* note 67, or the details of customers’ preferences, or whether indirect flights between Atlanta and Boston might act as substitutes for the direct flights shown in

Figure 1 (that is, the degree to which direct flights alone are a self-contained market), or how an airline’s national scale might enable it to shift revenue from a less competitive route to a more competitive route and thereby lower the fare in the latter (that is, subsidize competition on a competitive route with profits earned on an uncompetitive route).

98. *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009) (citing *Bell Atlantic Corp. v. Twombly*, 550 U.S. 544, 556, 570 (2007)) (establishing the requirements for a civil pleading to defeat a defendant’s motion to dismiss).

99. 504 U.S. 451 (1992).

100. *Id.* at 456–57.

101. *Id.* at 455, 457.

102. *See id.* at 458.

and “of higher quality” than Kodak’s.¹⁰³ The ISOs claimed that Kodak’s policies monopolized the service market.¹⁰⁴

Kodak argued that competition in the up-front equipment market imposed a natural limit on its behavior in the post-sale service market. If the quality of Kodak’s service became bad enough, or the prices too high, “potential customers would simply stop buying Kodak equipment” in the first place and buy from a rival manufacturer instead.¹⁰⁵ On this theory, competition in the equipment market “prevents [Kodak’s] exploitation” of the service market.¹⁰⁶

The Court rejected this theory for two reasons. First, for the service market to affect equipment sales, customers would need to “inform themselves of the total cost of the ‘package’—equipment, service, and parts—at the time of purchase,” which many customers would probably not do.¹⁰⁷ Second, many current owners of Kodak machines would “tolerate some level of service-price increases before changing equipment brands,” owing to the hassle of switching.¹⁰⁸ These “significant information and switching costs” damaged the

103. See *id.* at 457–58.

104. The ISOs asserted two different theories of antitrust liability: monopolization of the market for service under 15 U.S.C. § 2 and unlawful “tying” of service to parts under § 1. See *id.* at 459. “Tying” depends on four elements: (1) There are two different products; (2) “the customer takes the second (‘tied’) product from the defendant, not because he prefers it but only because he must take it in order to obtain a desired (‘tying’) product, either at all or on favorable terms”; (3) the defendant “possesses substantial economic power over the tying product”; and (4) there is an “[a]nticompetitive effect or threshold potential for injuring competition.” AREEDA & HOVENKAMP, *supra* note 58, at § 17.03 (footnotes omitted). According to the ISOs, Kodak controlled the market for parts and tied this power to the market for service, forcing customers to buy both parts and service from Kodak, though they would rather buy parts from Kodak and service from the ISOs. See *Eastman Kodak*, 504 U.S. at 461–63. The ISOs advanced their tying claim under § 1, but tying can also support monopolization claims under § 2 “when the seller is an actual monopolist of the tying product” AREEDA & HOVENKAMP, *supra* note 58, at § 17.01[E]. In the case considered here, the legacy airlines’ policies could be described as a sort of tie. The tying product, the product that customers originally seek, is the first ticket, purchased from a legacy airline. The tied product, the product that customers are forced to buy from the same seller, is an *option*: an option to use the fare paid for the first ticket toward a different flight for an additional \$200. The intricacy of this theory, however, relegates it to a footnote; the tying theory is not necessary to establish a viable monopolization claim, since this claim is flexible enough to stand on the more straightforward theory advanced in the main text of Subpart II.B.

105. *Eastman Kodak*, 504 U.S. at 470 (quoting Petitioner’s Brief on the Merits at 12, *Eastman Kodak Co. v. Image Tech. Servs., Inc.*, 504 U.S. 451 (1992) (No. 90-1029), 1991 WL 530837).

106. *Id.* at 469.

107. *Id.* at 473–75.

108. *Id.* at 476.

link between service and equipment, giving Kodak free rein to exploit the service market, despite competition in the equipment market.¹⁰⁹

The Court explained *Kodak* in terms of information: “Information problems can be so great that they can affect the competition in entire markets.”¹¹⁰ But customers’ irrationality also justifies the *Kodak* result. Even assuming that customers knew the cost of Kodak’s service, customers’ various biases weakened “the impact of that knowledge on the [equipment] purchase decision,” including the familiar “optimism bias,” which led customers not to take full account of service costs when buying equipment.¹¹¹

The airlines’ case matches Kodak’s. Kodak’s customers didn’t properly account for the later cost of service when buying their equipment, leaving Kodak free to charge excessive service prices; here, the airlines’ customers didn’t properly account for the later cost of a change when buying their original ticket, leaving the airlines free to charge an excessive change fee. Furthermore, just as many of Kodak’s existing customers tolerated higher service prices rather than buy new equipment, here, many of the airlines’ existing customers tolerate high change fees because they underestimate the likelihood of having to pay them, and because they have joined the airlines’ frequent-flyer or credit-card programs. Overall, both Kodak’s and the airlines’ policies harm competition because “[r]esources flow to consumers’ ostensible, rather than actual, preferences,” and so consumers’ actual interests are badly served.¹¹²

Perhaps this theory of liability casts too wide a net.¹¹³ Customers might be so irrational, so blind to their true interests, that merchants cannot help

109. *Id.* at 473. For a critical analysis of *Kodak*, see AREEDA & HOVENKAMP, *supra* note 58, at § 17.08[F].

110. Robert H. Lande, *Chicago Takes It on the Chin: Imperfect Information Could Play a Crucial Role in the Post-Kodak World*, 62 ANTITRUST L.J. 193, 198 (1993).

111. Huffman, *supra* note 88, at 139–41.

112. *Id.* at 133.

113. Critics of behavioral antitrust argue that it is too interventionist and unpredictable. See generally *id.* at 122–25 (summarizing critical views of behavioral antitrust). If antitrust law aims to understand consumer behavior accurately, however, then disregarding established psychological phenomena like irrational optimism would be willful ignorance. Cf. *id.* at 125 (“If the argument is that reality makes economics unworkable, the conclusion might be that it is economics that should go, not reality.”); Jolls, Sunstein & Thaler, *supra* note 87, at 1488 (“[T]o the extent that conventional economics achieves [theoretical] parsimony, it often does so at the expense of any real predictive power.”). I further note that perhaps the strongest critique of behavioral antitrust to date focused on the behavior not of consumers, as here, but of firms (for instance, whether systematic biases affect firms’ decision to enter a market). See Joshua D. Wright & Judd E. Stone II, *Misbehavioral Economics: The Case Against Behavioral Antitrust*, 33 CARDOZO L. REV. 1517, 1523–27 (2012). This critique even acknowledged the applicability of “behavioral insights” to consumers, conceding that “[c]onventional antitrust analysis already incorporates actual consumer behavior—rational

“exploiting” them in one way or another, and it hardly seems fair to hold the merchants liable for what they cannot control. In the present case, for instance, change fees would exploit consumers’ irrational optimism regardless of whether the airlines intended them to do so.

To address this fear, the theory can be circumscribed in two ways. First, courts should require that the allegedly exploitative policy actually affected the market, for instance by altering customer behavior.¹¹⁴ This would entail close analysis of sales data. Details bearing on both of these elements would come into play at the discovery and summary judgment stage.

Second, courts should require “general intent on the part of the merchant seller” to exploit customers’ irrationality.¹¹⁵ For example, an airline might be found to have studied customers’ beliefs about flight changes relative to data on actual changes or examined whether customers were aware of change fees at the time of purchase. Or perhaps communications within an airline advocated for change-fee increases on the basis that customers ignored them. Uncovering this evidence would require some digging; but as a practical matter, the airlines almost certainly know about customers’ irrational optimism. After all, the “dominant characteristic” of consumer markets is the “disparity in sophistication” between the merchants, “educated in the products and services they sell,” and the consumers, who are “relatively naïve individual end user[s].”¹¹⁶ And competition itself will motivate airlines to consider exploiting any bias, lest a competitor exploit it first or more effectively.¹¹⁷ The requirement of evidence showing or implying the defendant’s intent to exploit ensures fair enforcement.

or otherwise—into existing analysis . . .” *Id.* at 1523. Since this Comment attributes systematic irrationality only to consumers, not to airlines, it sidesteps this critique.

114. See Huffman, *supra* note 88, at 143 (noting that “a market effect requirement is nearly ubiquitous in antitrust”).

115. *Id.* at 143.

116. *Id.* at 131–32; see also Bar-Gill, *supra* note 90, at 1373 (describing credit card contracts as between “a highly sophisticated corporation” and “an individual, prone to the behavioral flaws that make us human”).

117. See Bar-Gill, *supra* note 90, at 1373 (“[C]ompetitive forces compel sellers to take advantage of consumers’ weaknesses.”); Huffman, *supra* note 88, at 132–33. If the airlines are deliberately exploiting the optimistic bias, then they are in good company: It is also exploited by the pricing structure of credit cards and cell phones, among other things. Credit cards charge low initial interest rates and few per-transaction fees; later on, interest rates sharply increase, and there are penalty fees for exceeding the credit limit. See Bar-Gill, *supra* note 90, at 1391–93. Naively optimistic consumers focus on “short-term, non-contingent” components of the price but “underestimate their future borrowing,” ultimately paying more interest and more penalty fees than they expected. Bar-Gill, *supra* note 90, at 1401–02. Cell phone plans are priced in similar fashion. See *id.* at 1429–30.

More importantly, the challenge of tailored enforcement must not be allowed to discredit the theory altogether. Among legal scholars, “[t]here is . . . broad agreement that the purpose of antitrust is to protect consumers.”¹¹⁸ If a merchant exploits customer irrationality and harms competition as a result, the merchant falls afoul of antitrust law. It is important to develop tests that protect merchants from over-enforcement—but it is no less important to protect consumers from monopolization in the first place.

C. Standing and Remedies

A monopolization claim against a legacy airline could be brought privately by any “participants in the defendants’ market,” including both competitors and customers.¹¹⁹ For instance, in the ATL–BOS market, a claim against Delta could be brought by Southwest or Spirit as competitors, or by a class of consumers who bought tickets from Delta and had to pay the fee. The U.S. federal government also has standing to sue if it has bought from a monopolist.¹²⁰ Here, the government (as embodied in its thousands of agents) has almost certainly purchased tickets from a legacy airline on a monopoly route.

A competitor or customers would be entitled to treble damages for harm that demonstrably resulted from the airlines’ policies.¹²¹ For a competitor, such harm would be the loss of potential business; for customers, it would be the change fee itself, possibly along with the lost opportunity to buy the ticket of a foreclosed competitor. These damages are difficult to prove, but economic consultants make it their business to do so.¹²²

118. Huffman, *supra* note 88, at 108–09 (footnote omitted).

119. *In re Aluminum Warehousing Antitrust Litig.*, 833 F.3d 151, 158 (2d Cir. 2016).

120. See 15 U.S.C. § 15(a) (2018); *Hawaii v. Standard Oil Co. of Cal.*, 405 U.S. 251, 265 (1972) (“[T]he United States [is] authorized to recover . . . only for those injuries suffered in its capacity as a consumer of goods and services.”).

121. 15 U.S.C. § 15(a) (2018); see also *Bell Atlantic Corp. v. AT&T Corp.*, 339 F.3d 294, 302 (5th Cir. 2003) (requiring that a civil antitrust plaintiff “must not only make out a violation of the antitrust laws, but also (1) establish that it was the defendant’s conduct that actually caused injury to his business or property, and (2) provide ‘some indication of the amount of damage’” (quoting *Alabama v. Blue Bird Body Co.*, 573 F.2d 309, 317 (5th Cir. 1978)) (footnote omitted)).

122. See, e.g., *ZF Meritor, LLC v. Eaton Corp.*, 696 F.3d 254, 299 (3d Cir. 2012) (“Expert testimony is necessary to establish damages in an antitrust case.”); *Antitrust and Competition*, NERA ECON. CONSULTING, <http://www.nera.com/practice-areas/antitrust-and-competition.html> [http://perma.cc/Q93F-XYRW] (“NERA’s experts . . . have extensive experience estimating damages in antitrust matters . . .”).

Antitrust remedies aim above all to “restore competition,”¹²³ and courts have leeway to craft injunctive relief to that end.¹²⁴ Here, injunctive relief could take many forms: at one extreme, a ban on change fees; at the other, a requirement that airlines prominently display the fees when customers buy tickets.¹²⁵ The airlines might even voluntarily adopt similar measures in order to avoid future litigation.

But the potential scope of injunctive relief points to the main problem with litigation as a response to the airlines’ policies: Litigation is not going to lead to a secondary market in airline tickets. The monopolization claim itself is based on manipulation via change fees, not no-transfer rules. Even a broad injunction would not make tickets transferable; thus, no secondary market.

Separately, the Federal Trade Commission (FTC) can bring an administrative proceeding against a monopolist which culminates, if successful, in a cease-and-desist order; the FTC can also seek an injunction in federal court.¹²⁶ However, like a private civil action, any injunction won by the FTC would almost certainly affect only the amount or disclosure of change fees. It would not lead to making tickets transferable, and the secondary market would remain unrealized. Reduction or disclosure of change fees would be a good outcome, but it would not increase customer freedom in the way that a secondary market would.

III. THE SECONDARY MARKET IN EVENT TICKETS

In addition to litigation, there could also be a more direct response to airlines’ ticket-change policies: a federal law requiring airlines to loosen these restrictions. Before we dismiss this as a fantasy, we ought to consider the example of event tickets (sporting events, concerts, etc.) and examine the laws governing their resale and transfer. These laws are far more liberal today than ever before, in spite of a backlash from ticket vendors. A law liberalizing airline tickets would not be a dangerous novelty; instead, it could follow these laws’ example.

123. *United States v. E. I. du Pont de Nemours & Co.*, 366 U.S. 316, 326 (1961).

124. *See Zenith Radio Corp. v. Hazeltine Research, Inc.*, 395 U.S. 100, 132–33 (1969) (upholding the district court’s broad injunction in an antitrust case because “[w]hen the purpose to restrain trade appears from a clear violation of law, it is not necessary that all of the untraveled roads to that end be left open and that only the worn one be closed” (quoting *Int’l Salt Co. v. United States*, 332 U.S. 392, 400 (1947))) (cited with approval in *California v. Am. Stores Co.*, 495 U.S. 271, 283–84 (1990)).

125. Of course, prominently disclosing fees might be ineffective in the face of customers’ irrational optimism. For more on mandatory disclosure of fees, see *infra* Subpart IV.D.

126. WILLIAM C. HOLMES & MELISSA H. MANGIARACINA, *ANTITRUST LAW HANDBOOK* § 7:2, at 791–94 (2017–18 ed.).

Like airline tickets, event tickets are “perishable”: utterly worthless after a set date and time. Unlike airline tickets, event tickets are usually transferable and have been so for a long time, because event promoters lack the resources to enforce nontransfer policies (as did the airlines, until the TSA came along).¹²⁷ This has led to a robust secondary market with its own legal regime and pricing behavior.

A. Laws Governing the Event-Ticket Secondary Market¹²⁸

Altogether, event-ticket resale is expressly or impliedly allowed in forty-three states. Twenty-two states have no laws governing ticket resale, implicitly allowing it.¹²⁹ The Appendix places the other twenty-eight states into four categories based on their ticket resale laws. Seven states forbid or severely restrict resale of tickets at greater than the face price. Twelve states generally allow resale at greater than face price; four states liberalize internet resale in particular by waiving for internet resale the restrictions that are imposed on other resale; and five states go further, actively protecting customers’ right to resell tickets by forbidding restrictions on resale. Figure 5 color-codes a U.S. map with each of these five categories.¹³⁰

127. See Pascal Courty, *Some Economics of Ticket Resale*, 17 J. ECON. PERSP. 85, 89 (2003). Some event promoters have begun using “paperless tickets,” which are more effective at preventing transfer, but which have caused a backlash. See Foer, *supra* note 13. I examine event promoters’ belated attempts to imitate airlines’ no-transfer policies *infra* Subpart III.A.

128. State laws governing event ticket resale are catalogued *infra* Appendix.

129. Though these states have no other restrictions, five of them restrict the use of software to get around ticket website security measures. See MINN. STAT. § 609.806 (2016); OR. REV. STAT. § 646A.115 (2017); TENN. CODE ANN. § 39-17-1104 (2017); VT. STAT. ANN. tit. 9, § 4190 (2017); WASH. REV. CODE § 19.345.020 (2016). Two others devolve regulation of ticket resale to local governments. See OHIO REV. CODE ANN. § 505.95, § 715.48 (West 2018); WIS. STAT. § 66.0410 (2016).

130. State laws governing ticket resale are also surveyed, though with different conclusions, in LAURA D. NEMETH, SQUIRE PATTON BOGGS, SECONDARY TICKET MARKETPLACE: GUIDE TO US TICKET RESALE REGULATIONS (2017), http://www.squirepattonboggs.com/~media/files/insights/publications/2017/07/secondary-ticket-marketplace/2017_us_ticket_resale_law_guide.pdf. The state laws are summarized *infra* Appendix.

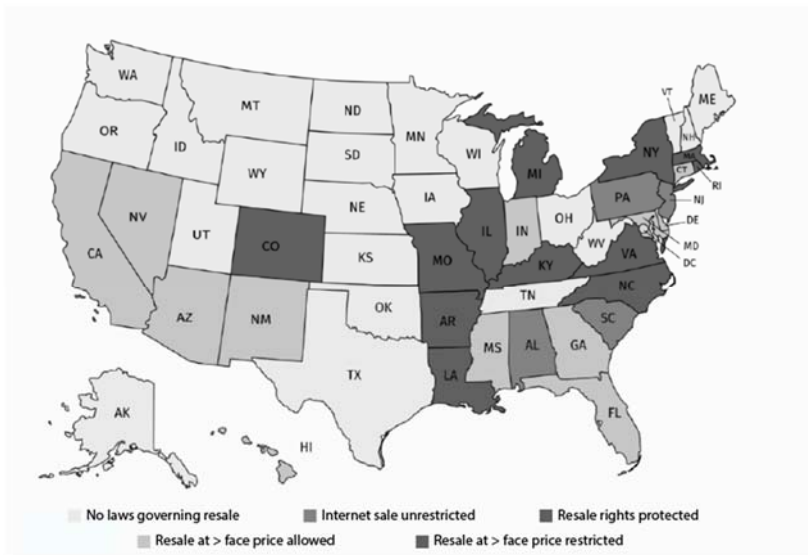


FIGURE 5: Map of state laws governing event-ticket resale.¹³¹

The current approach to ticket resale came about in a flurry of legislation in the early 2000s. In most of the states with a liberal current law, the law replaced a more restrictive previous law. These new laws affirmed the public's gradual embrace of online ticket marketplaces since their introduction in the early years of this century.¹³²

The florescence of online marketplaces, however, did more than encourage legislatures to liberalize resale laws—it also prompted primary-market vendors to strike back. Starting in 2008, vendors began issuing “paperless tickets,” which require the ticket's original purchaser to present an ID or credit card to enter the venue.¹³³ According to the vendors, the technology is designed to counteract

131. Map created at *United States*, MAPCHART.NET, <http://mapchart.net/usa.html> [<http://perma.cc/SG4Z-VNKJ>].

132. See Heather Collura, *Move On to Deregulate Ticket Resale*, USA TODAY, July 5, 2007, at 12C (describing the emerging trend of liberalized ticket law); Tom Di Nome, *BASICS: Hot Tickets, Hawked Legitimately Online*, N.Y. TIMES (July 3, 2003), <http://www.nytimes.com/2003/07/03/technology/basics-hot-tickets-hawked-legitimately-online.html>; Mike Jensen, *New Ball Game in Ticket-Sales Arena*, PHILA. INQUIRER, June 28, 2008, at A1 (describing the emergence and acceptance of StubHub); Ben Sisario, *Report Exposes Widespread Abuses in Ticketing Industry in New York*, N.Y. TIMES (Jan. 27, 2016), <http://www.nytimes.com/2016/01/28/business/media/report-exposes-widespread-abuses-in-ticketing-industry-in-new-york.html> (“Longstanding restrictions on ticket scalping in New York State were mostly lifted in 2007 as online sales became increasingly popular with consumers.”).

133. See Doug Pullen, *Waits Concert Is First for Ticketmaster's Paperless Tickets*, LAS CRUCES SUN-NEWS, May 15, 2008 (“Ticketmaster rolls out a new ‘paperless ticket’ technology today . . .”);

price gouging, “purchasing of tickets by automated software bots[,] and the use of counterfeit, stolen or lost tickets.”¹³⁴ But the technology also effectively shuts down secondary-market sales on third-party marketplaces like StubHub: Because paperless tickets are issued under the original buyer’s name, transfer requires issuing a new ticket, which third-party marketplaces cannot do. With the third-party marketplaces out of the way, the primary vendors soon developed their own online resale marketplaces, earning substantial fees in the process.¹³⁵

Paperless tickets were the vendors’ backlash against online marketplaces, but they prompted a backlash of their own. Consumers complained that paperless tickets and control over ticket resale were vendors’ “veiled attempt . . . to get more money from concertgoers.”¹³⁶ The FTC investigated similar complaints against TicketsNow, Ticketmaster’s resale platform, and Ticketmaster ultimately agreed to reimburse consumers \$16.5 million.¹³⁷ And it was after paperless tickets emerged that Illinois, Virginia, and New York passed their laws banning restrictions on ticket resale, including restriction via paperless ticket.¹³⁸ Nor has this backlash died down; as recently as 2017,

Grant Robertson, *The Wrinkle in Ticketmaster’s Paperless Plan*, GLOBE & MAIL (Toronto), May 5, 2009, at B3 (describing Ticketmaster’s “experimenting” with paperless tickets at events in the US and Canada).

134. Foer, *supra* note 13; see also Paul Farhi, *Is Paperless Admission Just the Ticket?*, WASH. POST, July 5, 2010, at A1 (stating that vendors “tout paperless tickets as a way to eliminate worries about lost, stolen or counterfeit tickets, and to banish long will-call lines”).
135. See *id.* (describing a fee of “typically about 20 percent” on marketplaces operated by Ticketmaster and Veritix, primary market vendors).
136. Gillian Shaw, *Almost Half of Concert-Goers Want TicketsNow Shut Down, Poll Finds*, VANCOUVER SUN, Apr. 3, 2009, at C5; see also Farhi, *supra* note 134 (outlining the debate over paperless tickets).
137. Peggy McGlone, *Bruce Springsteen Fans Settle Ticketmaster Lawsuit for \$16.5M*, NJ.COM (Oct. 21, 2011, 5:42 PM), http://www.nj.com/news/index.ssf/2011/10/bruce_springsteen_fans_settle.html [<http://perma.cc/6M5E-WRWZ>].
138. New York passed its law in 2010, almost immediately after paperless tickets were introduced; Illinois’s law took effect in 2015; and Virginia’s, in 2017. See *infra* Appendix. The New York Senate’s statement in support of New York’s law cited paperless tickets, boasting, “This legislation would also provide new consumer protections on the primary market, by prohibiting venue operators and their agents from employing paperless ticketing systems that do not allow consumers to transfer their tickets independent of the operator or operator’s agent” See S.B. 8340-A, ch. 151, 2010 Leg., Reg. Sess. (N.Y. 2010). Paperless tickets also led other states to contemplate similar laws, though they failed to pass. See Amanda Falcone, *Concert Promoters Oppose Bill*, HARTFORD COURANT, Apr. 12, 2010, at A1; Foer, *supra* note 13 (“Similar legislation has been introduced in Minnesota, Massachusetts, Connecticut, North Carolina, Florida and New Jersey.”); Audrey White, *Bill Would Limit Non-Transferable Sports, Concert Tickets*, TEX. TRIB. (Apr. 2, 2013, 6:00 AM), <http://www.texastribune.org/2013/04/02/consumer-group-pushes-ticket-resale-law> [<http://perma.cc/5ZPW-292X>].

Maryland lawmakers “beg[an] hearings . . . on legislation that would prohibit companies from restricting the resale of tickets for entertainment and sporting events.”¹³⁹

In the meantime, automated ticket-buying bots, one of the vendors’ ostensible reasons for introducing paperless tickets, have been targeted more directly by federal legislation. As of December 2016, the Better Online Ticket Sales Act, or BOTS Act, has prohibited circumvention of vendors’ ticket purchasing rules as an unfair trade practice enforceable by the FTC.¹⁴⁰ Though such a law is necessarily an imperfect solution, it targets ticket-buying bots much more directly than do paperless tickets, and the FTC, unlike Ticketmaster, is unlikely to exploit its increased control over the ticket market.

As recently as 2003, the notion of event-ticket resale as a legitimate part of the economy was a novelty, with the New York Times reporting the recent “acceptance of a new, more legitimate term for scalping—‘selling on the secondary market’”¹⁴¹ Fifteen years later, event-ticket resale is here to stay. Paperless tickets and other resale restrictions are banned in five states comprising 16 percent of the U.S. population.¹⁴² Practically, this curbs their use in other states as well, since the large-scale vendors that have the resources to issue and enforce paperless tickets usually sell freely across state lines. The federal prohibition of ticket-buying bots reflects the current public mood: allow event-ticket resale, but regulate it.

B. Pricing in the Event-Ticket Secondary Market

Secondary markets tend to frustrate price discrimination in the primary market because secondary-market participants can bargain around primary

139. Michael Dresser, *Bill Opposed by Ticketmaster Aims to Make Event Tickets Freely Transferable in Maryland*, BALT. SUN (Mar. 2, 2017, 12:52 PM), <http://www.baltimoresun.com/news/maryland/politics/bs-md-ticket-bill-20170226-story.html> [http://perma.cc/BNT4-L76F].

140. See generally 15 U.S.C. § 45c (2018); see also Ben Sisario, *Congress Moves to Curb Ticket Scalping, Banning Bots Used Online*, N.Y. TIMES (Dec. 8, 2016), <http://www.nytimes.com/2016/12/08/business/media/ticket-scalping-bots-act.html> (reporting estimates that “bots have been used to buy 60 percent of the most desirable tickets to many shows”).

141. Di Nome, *supra* note 132.

142. Together, Colorado, Illinois, Missouri, New York, and Virginia had a population of about 53 million out of the total U.S. population of about 326 million in 2017. U.S. CENSUS BUREAU, POPULATION DIV., ANNUAL ESTIMATES OF THE RESIDENT POPULATION FOR THE UNITED STATES, REGIONS, STATES, AND PUERTO RICO: APRIL 1, 2010 TO JULY 1, 2017 (2017), <http://www2.census.gov/programs-surveys/popest/tables/2010-2017/state/totals/nst-est2017-01.xlsx>.

vendors' discrimination.¹⁴³ Perhaps because of this, price discrimination in the event-ticket primary market is comparatively unsophisticated.¹⁴⁴ Instead, the secondary market has developed its own distinctive pricing behavior: "a clear dynamic pattern . . . , with prices falling significantly as a[n event] approaches, especially in the final month before" the event.¹⁴⁵ This price decline accords with theoretical models of pricing behavior.¹⁴⁶

The reason for the price decline is not entirely clear. Perhaps, for the seller, an early sale at a low price would represent a forgone opportunity to get a higher price during the time remaining before the event, and this opportunity shrinks as the event date draws near.¹⁴⁷ Alternatively, a seller may not become certain that a ticket is of no value to them until only shortly before the event, and then seek a sale at any price. The price decline may also reflect early buyers' willingness to pay extra to avoid the risk of missing out on the event by waiting, versus late buyers' comparative lack of interest in the event.¹⁴⁸

Whatever lies behind the secondary market's pricing behavior, many, perhaps most of its transactions involve individual sellers and buyers, not ticket brokers.¹⁴⁹ This means that if there were no secondary market, potential sellers would be stuck holding tickets they no longer wanted, and potential buyers would be left either paying higher prices on the primary market or without tickets at all.

143. See Courty, *supra* note 127, at 92–94 (demonstrating that in a ticket market with two kinds of consumers, early lookers with a low maximum price and late lookers with a high maximum price, ticket brokers selling on the secondary market inevitably capture some of the profits by buying early and then reselling to the late lookers). Though ticket brokers have a bad reputation as gouging middlemen, in fact, they may create value. See Courty, *supra* note 127, at 96 ("[I]t is possible that the promoter ends up selling more tickets with the presence of brokers.").

144. See Sweeting, *supra* note 20, at 1169 (contrasting airline ticket pricing with event ticket pricing). Event-ticket price discrimination strategies include "scaling the house" (charging more for a closer seat), discounts for early buyers, seniors, and other categories, holding some tickets in reserve until close to show time, and deliberate underpricing to ensure sellout. See Pascal Courty, *An Economic Guide to Ticket Pricing in the Entertainment Industry*, 66 LOUVAIN ECON. REV. 167, 171–73 (2000).

145. Sweeting, *supra* note 20, at 1134. Sweeting's sample was over 178,000 listings for baseball tickets. *Id.* at 1135–36.

146. See Brian L. Goff & Robert D. Tollison, *Spatial Aspects of Ticket Scalping*, 32 MANAGERIAL & DECISION ECON. 135 (2011) (modeling ticket price against the seller's "distance from the stadium," with this variable acting analogously to time before the event, and predicting a rise then fall in price as one approaches the stadium, or the time of the event).

147. See Sweeting, *supra* note 20, at 1136–37 (discussing the "opportunity cost" to sellers of an early sale).

148. See Goff & Tollison, *supra* note 146, at 137.

149. Cf. Sweeting, *supra* note 20, at 1134, 1146–47 (concluding that, for baseball tickets on eBay in 2007, "88 percent of sellers tr[ie]d to sell only a single set of tickets with a particular face value to a particular game" and "89 percent of . . . buyers purchas[ed] no more than two listings during the entire . . . regular season").

Though these transactions between individuals are mutually beneficial, the event-ticket secondary market is also notorious for its relationship to uniquely popular events like the Super Bowl, high-profile concerts, and so on. For such events, professional ticket brokers and industry insiders sometimes grab primary-market tickets so quickly that there is a shortage of tickets in the primary market for ordinary buyers.¹⁵⁰ These tickets are resold at exorbitant prices.¹⁵¹ Despite these problems, however, the secondary market for event tickets remains generally popular.¹⁵²

IV. A SECONDARY MARKET IN AIRLINE TICKETS

There was a secondary market for airline tickets in the 1980s and early '90s. In this period, airlines began selling cheap nonrefundable tickets.¹⁵³ Regretful customers created a “gray market” in airline tickets . . . in newspaper classified sections and travel publications” to sell nonrefundable tickets that they could no longer use.¹⁵⁴ They were joined there by “ticket speculators who buy tickets in blocks with the idea of reselling at a profit.”¹⁵⁵

This “flourishing” market solved the exact problems described above: “Travelers who can’t use [their] nonrefundable tickets are delighted to be able to sell them rather than lose money, and buyers often can find bargains in the last-minute sales.”¹⁵⁶ Around sixty ads for tickets might appear in a typical Sunday paper. The market was so widely known that the Washington Post ran a column offering tips for buyers and sellers.¹⁵⁷

150. See Matt Gaetz, Letter to the Editor, *State Legislation Targeting Ticket Market Is Fan-Friendly*, TAMPA TRIB., Dec. 17, 2011, at 13 (describing presale of tickets to “VIPs, premium credit card holders,” and other insiders); Schrottenboer, *supra* note 19 (describing a “caste system of sellers and buyers” for Super Bowl tickets, many of which are set aside for “team owners and other league insiders”); see also Collura, *supra* note 132 (summarizing the debate surrounding the event-ticket secondary market).

151. See, e.g., Michael Paulson & Ben Sisario, ‘Hamilton’ and ‘Harry Potter’ Productions Try to Outwit Scalpers, N.Y. TIMES (Feb. 12, 2017), <http://www.nytimes.com/2017/02/12/theater/hamilton-harry-potter-scalping-broadway.html> (concerts and Broadway musicals); Schrottenboer, *supra* note 19 (the Super Bowl).

152. See Dresser, *supra* note 139 (referring to “the rights of ticket buyers to sell or give away their own property”); Sisario, *supra* note 140 (reporting that although consumers are troubled by computerized “bots” that “scoop up the best tickets and resell them at inflated prices[,] . . . ticket scalping has become a standard part of the entertainment economy, and services like StubHub are often welcomed by fans for their convenience”).

153. See ‘Gray Market’ in Airline Tickets, *supra* note 3.

154. *Id.*

155. *Id.*

156. Yenckel, *supra* note 3.

157. *Id.*; see also ‘Gray Market’ in Airline Tickets, *supra* note 3 (noting that the practice of placing classified ads for airline tickets “is widespread”).

Airlines did not check every passenger's identification, so "the possibility for discovery" of illicit ticket transfers was "slim."¹⁵⁸ Nor was there any law or federal regulation barring resale.¹⁵⁹ Instead, the secondary market vanished in the mid '90s, possibly because of security measures introduced in the wake of the high-profile explosions of Pan Am Flight 103 in 1988 and TWA Flight 800 in 1996.¹⁶⁰ These measures included computer-assisted screening of passengers against suspect profiles,¹⁶¹ which brought passengers' names and identities under greater scrutiny.

If a secondary market in airline tickets were to reappear today, it would take a very different form from its 1980s incarnation in newspaper classified sections. Drawing on the example of event tickets, the remainder of this Part speculates about the law that could open up this secondary market and the form that the market could take today.

A. A Federal Law Allowing Airline Ticket Transfer

The federal government could force the airlines to allow transfer and resale of their tickets. Regulation alone would likely not be able to achieve this. The government has generally exercised regulatory authority only over airline safety and security,¹⁶² and as a matter of contract law, courts have held nontransferability provisions to be enforceable in many contexts, including air travel.¹⁶³ But a federal law would supersede the common law of contracts.

158. Yenckel, *supra* note 3.

159. *Id.*; 'Gray Market' in *Airline Tickets*, *supra* note 3.

160. See Zeke Wigglesworth, *SFO Beefs Up Security Tracking System*, *CONTRA COSTA TIMES* (Walnut Creek), Feb. 18, 2001, at E1.

161. See Matthew L. Wald, *Objections Stall Test to Detect Prejudice in Airport Screenings*, *N.Y. TIMES* (Jan. 18, 2000), <http://www.nytimes.com/2000/01/18/us/objections-stall-test-to-detect-prejudice-in-airport-screenings.html>; see also Wigglesworth, *supra* note 160 (describing the FAA's "three main [security] tools" in this period, which included screening of carry-on baggage; ensuring that "no bags will be allowed on an international flight unless the passenger who checked them is also aboard;" and the Computer Assisted Passenger Prescreening System, or CAPPs). Pre-9/11, the airlines themselves performed CAPPs screening; the federal government took over following the 9/11 attacks. See sources *supra* note 33 and accompanying text.

162. Of the two federal bureaus regulating air travel, the Federal Aviation Administration ensures safety, see 49 U.S.C. § 106(g)(1) (2018), and the Transportation Security Administration, an office of the Department of Transportation, oversees security, including passenger screening, see 49 U.S.C. § 114 (2018) (creating the TSA); 49 U.S.C. §§ 44901–44946 (2018) (describing its duties and jurisdiction).

163. The leading case, still cited, is *Bitterman v. Louisville & Nashville Railroad Co.*, 207 U.S. 205, 221 (1907) (holding that a railroad's "lawful right to sell nontransferable tickets . . . at reduced rates we think is not open to controversy"); see, e.g., *TransWorld Airlines, Inc. v. Am. Coupon Exch., Inc.*, 913 F.2d 676, 686–88 (9th Cir. 1990) (citing a string of cases,

The law could follow the model of state laws prohibiting restrictions on event-ticket resale. It could also impose requirements on resale that are absent from state event-ticket law. It would thus read roughly as follows:

It shall be prohibited for any airline to restrict by any means the transfer or resale of an airline ticket if the transfer or resale is carried out in accordance with the requirements set forth elsewhere in this Act.¹⁶⁴

The law's other requirements would address security. The law would mandate that following any ticket transfer, the airline needs to issue a new boarding pass to the transferee in accordance with the usual procedures of Secure Flight. To reduce the logistical difficulties of boarding pass reissue, the law could impose a time limit on transfer, perhaps requiring that all transfers be initiated at least seventy-two hours before departure, according with TSA recommendations.¹⁶⁵ Further details of boarding pass reissue would be left to the airlines.

At this level of elaboration, involving the airlines but no third-party marketplace, the law would be straightforward to implement. The airlines already have online systems for changing one's ticket. The passenger logs in using a "record locator" or similar code and makes the desired changes. These changes already trigger Secure Flight to run a new check because they require a new boarding pass to be processed. This system could simply be adapted to allow changes to identification.

Processing transfers in this way, however, requires that a single party know the record locator and the transferor's and transferee's identification. Therefore, it would facilitate only a relatively small number of ticket transfers: among friends and relatives, and between strangers who solve on their own the problems of payment, privacy, and so on. This is a long way from a true marketplace along the lines of StubHub, which permits thousands of anonymous transactions. Fortunately, the law itself does not need to create a secondary marketplace; indeed, private enterprise can accomplish this far more effectively than the law ever could.

including *Bitterman*, for the proposition that railroad tickets, theater tickets, and airline tickets are contractual such that no-transfer restrictions on them are enforceable, and holding that no-transfer restrictions on frequent flier coupons are similarly enforceable).

164. This draft combines elements of New York's and Illinois's statutes in order both to broadly prohibit restrictions on resale and to require that resale occur in a statutorily prescribed fashion. For more on these statutes, see *infra* Appendix.

165. See *supra* note 39 and accompanying text.

B. An Online Secondary Marketplace for Airline Tickets

It is beyond the scope of this Comment to detail the form of an online secondary marketplace for airline tickets. Instead, I sketch one possible version of such a marketplace, addressing the issues of customer protection and security.

Customer protection in this marketplace raises three problems. First, the transferor wants to ensure they get paid regardless of any difficulties that the transferee may face down the line, such as getting flagged by Secure Flight, missing the flight, and so on. Second, the transferee wants to ensure that they are buying a real ticket, and that they take over all of the transferor's rights in the ticket: for instance, that the transferor cannot resell the same ticket again out from under the first transferee, and that the transferee can go on to resell the ticket if they want to. Third, both the transferor and transferee would likely prefer to remain anonymous.¹⁶⁶

To overcome these problems, a sale in a third-party marketplace could involve five steps:

1. **Original Ticket Purchase.** The airline issues a transfer code with each ticket, just as airlines today issue a record locator with each ticket. Unlike a record locator, however, the customer can change the transfer code. A party signing into the transfer system with the code can see the booking details, including the customer's identification, the flight, and the seat assignment.
2. **Posting the Ticket on the Marketplace.** To post a ticket on the marketplace, the customer inputs the flight and seat information and sets the price, and the customer provides the transfer code to the marketplace. Before the posting appears on the site, the marketplace uses the transfer code to verify the flight and seat information. The marketplace then changes the transfer code to a new code unknown to the original customer. This locks the customer out of the transfer system and prevents the customer from listing the same ticket more than once.
3. **Buying the Ticket on the Marketplace.** The secondary-market buyer provides information on payment and identification to the marketplace.
4. **Making the Transfer.** The marketplace verifies the buyer's payment information; if it's valid, the marketplace makes the transfer by signing into the transfer system, entering the buyer's

166. Other problems like credit card fraud, encrypted data transmission, and so on, have been solved many times over by other companies in other contexts.

identification, and providing the buyer with the new transfer code. The marketplace takes down the ticket listing and forwards payment to the seller, minus service fees. At this point, the buyer, armed with the new transfer code, has stepped into the shoes of the seller and owns a legitimate ticket. The seller has been paid but no longer has access to the ticket because the transfer code has changed. The marketplace has been paid a service fee to cover its costs. If the buyer holds on to the ticket, the airline will run a Secure Flight check in the ordinary way, and any resulting difficulties will not affect the seller. Alternatively, the buyer can resell the ticket again.

5. Removing the Ticket From the Marketplace. Alternatively, if no one buys the ticket, or if the original buyer decides not to sell the ticket, the marketplace simply returns the ticket to them by telling them the new transfer code and taking down the listing.

As described, this system requires the airlines to allow customers to change their transfer codes, a departure from the airlines' current use of fixed record locator codes.¹⁶⁷ To entice the airlines to do so, and perhaps to facilitate other forms of cooperation, the marketplace could pay a portion of each service fee to the implicated airline. Indeed, following the law's passage, airlines might reckon the emergence of a secondary marketplace to be inevitable and therefore decide to create a secondary marketplace themselves, either individually or collectively, to capture the profits.

This description of the marketplace leaves out a great deal, but it demonstrates at least the feasibility of the purchase and transfer system. In the face of the astounding progress in information technology over the past thirty years, the opposing argument that such a system would be too difficult to implement ought to carry little weight.

Turning to security, the centralized Secure Flight system could easily incorporate ticket transfers. Indeed, even in the current system, usually a passenger's name "can be modified at any time," with the new name transmitted to the airline and then to the TSA to run its screening and return a result.¹⁶⁸ When a ticket was transferred, Secure Flight would simply check the transferee's data, transferred by the airline, as though they were any other passenger. The volume of secondary sales wouldn't substantially increase the burden on a

167. There might also be a way to implement a similar system without any cooperation from the airlines; I leave this problem to the entrepreneurs.

168. See Elliott, *supra* note 48.

system that already screens 2.2 million passengers each day.¹⁶⁹ As with the airlines, a per-transaction fee from the marketplace to the TSA could defray the cost if necessary.

C. Pricing, Change Fees, and Customer Freedom

Three broader consequences of the secondary market bear discussion: pricing, the effect on change fees, and the counterargument that the removal of nontransferable tickets from the marketplace actually harms consumer freedom.

Pricing on the airline-ticket secondary market would develop its own characteristic patterns. For primary sales, airlines often employ Lo-Hi pricing, with prices rising as the departure date nears.¹⁷⁰ But in the secondary market for event tickets, prices tend to decline as the event nears.¹⁷¹ Which strategy would win out in an airline-ticket secondary marketplace?

Airlines' Lo-Hi pricing has two possible explanations. First, it may be that passenger demand becomes less elastic as the takeoff date nears: Someone searching for a flight the day before departure is probably quite eager to fly.¹⁷² But this would not explain airlines' behavior: If an airline still holds unsold seats on the day before departure, it might rather sell the seat at a low price than not sell it at all. This points to the second explanation for Lo-Hi pricing: Airlines keep prices high up until departure to maintain "a reputation for not cutting prices so that consumers do not delay buying tickets on future flights."¹⁷³

Neither of these explanations would motivate sellers in a secondary marketplace to adopt Lo-Hi pricing. There, most tickets would likely be offered by private individuals, who would be both increasingly eager to sell as departure nears and unconcerned with long-term reputation management. Therefore, pricing in the airline-ticket secondary marketplace would probably follow the pattern established by event tickets, with prices declining as departure approaches.

Nor is the airline-ticket secondary market likely to suffer from the broker price-gouging or ticket shortages that plague event tickets. First, ticket brokers only make money if they can outsmart the pricing of primary market vendors.

169. See *supra* note 49 and accompanying text.

170. See Alves & Barbot, *supra* note 54, at 349, and text accompanying notes 71–73, *supra*.

171. See Sweeting, *supra* note 20, at 1134.

172. Cf. *id.* at 1136 (referring to an assumption of "recent theoretical papers" on price discrimination that "demand in earlier periods [relative to the event] will tend to be more elastic"); *supra* note 72.

173. See Sweeting, *supra* note 20, at 1169 (footnote omitted).

As noted, primary-market pricing of event tickets is relatively simple; but primary-market pricing of airline tickets is extremely sophisticated. Airlines also have piles of data on customers' demand, flight capacity, and so on, that brokers lack. So a professional ticket broker, whose livelihood depends on outsmarting the airlines' own pricing strategies, would face dim prospects.¹⁷⁴

Second, there's no equivalent to the Super Bowl for flights. Aside from broad parameters like origin, destination, and flight date, economy-class airline tickets are practically a commodity.¹⁷⁵ Indeed, the ticket shortages for high-profile events are caused to some extent by the vendors' own preferential distribution of some tickets to VIPs.¹⁷⁶ There is no comparable economy of favors and prestige sustained by airline tickets.

For the airlines, once the mechanism for making transfers was in place, each individual transfer would impose no direct burden on the airline aside from the trivial cost of sending an additional set of identification information to Secure Flight. Instead, allowing transfers would affect the airlines in two ways. Transfers would limit the capacity for overbooking, as some of the customers who would have simply not shown up for their flights will now transfer their tickets to someone else, keeping the seat filled. Transfers would also reduce revenue from change fees, as some of the customers who would have changed their original tickets via the airline would now transfer or sell their original tickets and buy new tickets.

The airlines would argue that these effects will force them to raise primary-market prices to compensate. Allowing transfers, however, would also affect the airlines in a third way: The transferred tickets for sale on the secondary market would compete with the airlines' primary-market sales, as many customers will compare prices on both markets. This third effect will limit the airlines' ability to raise prices. In the long term, primary market prices may end up slightly

174. The prospects of the would-be airline ticket broker are further dimmed by the mechanics of airline-ticket purchase: unlike event tickets, it is simply not possible to buy blocks of airline tickets in a single transaction (as by a ticket-buying bot). For each passenger, the buyer must enter individualized data, select a seat, and accept or reject a number of upgrade options. This burden, multiplied by the number of seats purchased, would deter the mass purchases by brokers that crowd out regular buyers.

175. In economic terms, a specific direct flight offered by, say, Delta is a good substitute for a flight on the same day offered by, say, Southwest. This promotes competition and suggests that both airlines' tickets participate in the same market. But one Broadway show is a poor substitute for another, even on the very same night. It is true that some flights will be subject to higher demand and correspondingly higher prices; for instance, flights on the Wednesday afternoon before Thanksgiving are likely to be relatively expensive. But no flight approaches the one-of-a-kind cachet of, say, the Super Bowl, such that a broker could successfully charge a price many times greater than the primary market price.

176. See sources *supra* note 150.

higher than secondary market prices for the same ticket, because of lingering uncertainty surrounding secondary-market sales; but the secondary market will exert downward pressure on primary-market prices nonetheless. And for the customer, the most important outcome is the average ticket price across both markets: On the one hand, primary-market tickets might become more expensive than they are now, but on the other hand, secondary-market tickets might be cheaper, and customers on the whole might do better.

A related question concerns the fate of ticket change fees. If tickets could be transferred and sold on a secondary market, then there would be two kinds of customers who would nonetheless opt to change their tickets via the airline and incur a change fee: customers who, out of suspicion or ignorance, do not use the secondary market; and customers who try but fail to sell their tickets. The number of these customers depends on the growth of the secondary market, but in the long run, the number of customers changing their tickets with the airline would probably decline significantly.

This effect adds a further subtlety to the airlines' behavior. Regardless of what the airlines might say now, their best response to the secondary market might not be simply to increase prices. Instead, airlines might lower or eliminate change fees, encouraging customers to make ticket changes via the airlines rather than selling on the secondary market. Or airlines might even use the secondary marketplace themselves, secretly, to sell last-minute leftover seats at deep discounts, earning revenue without damaging their reputations for not cutting prices.

There is a final concern, however. What happens to those customers who wish to waive their right to transfer their tickets in exchange for a lower fare—customers who would gladly say to the airline, "I'll promise not to transfer my ticket if you charge me \$50 less for it"? This exchange holds potential value for the airlines, who can count on these customers for overbooking and change-fee purposes. More importantly, it holds potential value for these customers, who would prefer to have \$50 (or whatever amount) than their transfer rights. By making these exchanges illegal, the proposed law impinges on these customers' freedom to contract.

The status quo already, however, impinges on customers' freedom, namely, their freedom to contract with one another to transfer their tickets: The airlines do not offer transferable tickets at any price. The proposed law swaps one freedom for another. And the freedom forgone, to trade one's transfer rights back to the airlines, appears far smaller than the freedom gained, to trade tickets with one another.

Whatever the force of this concern, it has not been raised against the parallel state laws that require event tickets to be transferable, though these laws, too, strip away customers' right to agree not to transfer their tickets, and might plausibly raise primary-market prices. Instead, it is these laws' defenders, not their critics, who invoke rights: "[T]he rights of ticket buyers to sell or give away their own property."¹⁷⁷ Any difference in intuition about event tickets versus airline tickets probably arises from tradition: The public is used to event tickets being transferable, but not airline tickets. But at a theoretical level, the freedoms involved are no different.

D. A Fallback Option: Mandatory Disclosure of Fees

Politically, a law allowing ticket transfer has decent prospects. The airlines are not popular with the public;¹⁷⁸ ticket resale generally is. In 2016, a Congress similar in composition to the present Congress passed the BOTS Act, which endorsed event-ticket resale even while regulating it. And the FTC's current chairman, Joe Simons, promises "active antitrust enforcement," signaling that the Trump administration in general may be more willing to support laws like that proposed here, which promotes both the free market and consumer control.¹⁷⁹

Nevertheless, such a law faces many challenges: This issue is little discussed; the airlines would rally against it, claiming that it would raise prices and threaten security; and the passage of any legislation faces substantial political and procedural obstacles. Therefore, it is worth exploring a fallback option: a regulation mandating that airlines disclose change fees to customers when they buy their tickets.

Federal law allows the Secretary of Transportation to "investigate and decide whether an [airline] or ticket agent has been or is engaged in an unfair or deceptive practice" and to "order the [airline] or ticket agent to stop the practice or method."¹⁸⁰ In 2012, this law was used to implement regulations that require airlines to include all taxes and government fees in advertised fares and

177. Dresser, *supra* note 139.

178. See, e.g., Joe Sharkey, *There's Big Revenue in Those Little Fees*, N.Y. TIMES (Aug. 5, 2013), <http://www.nytimes.com/2013/08/06/business/for-airlines-theres-big-revenue-in-those-little-fees.html>; Stellan, *supra* note 25; Stoller, *Airlines' Rising Fees Confuse and Anger Their Passengers*, *supra* note 27.

179. Brent Kendall, *FTC's New Chief Pledges Vigorous Antitrust Enforcement*, WALL STREET J. (June 20, 2018, 7:04 PM), <http://www.wsj.com/articles/ftcs-new-chief-pledges-vigorous-antitrust-enforcement-1529535871>.

180. 49 U.S.C. § 41712(a) (2018).

to disclose charges for baggage and other add-ons.¹⁸¹ Challenged by the airlines, a similar previous regulation was held reasonable and constitutional by the D.C. Circuit Court.¹⁸²

Unfortunately, these regulations still allow airlines to hide change fees deep in their websites, with no link or warning displayed at the time of ticket purchase. But an additional regulation requiring disclosure of change fees could be passed under the same statutory authority. It could mandate that airlines warn potential customers about the amount of any change fee and the circumstances in which it will be charged.

In its justification, such a regulation would closely parallel existing disclosure requirements. Airlines' former practices of posting deflated fares and concealing add-on fees effectively withheld the full price of a ticket until customers had mentally committed to purchase. These practices were a form of "drip pricing," a marketing technique that "exploit[s] individuals' empirically demonstrated tendencies to make soft (psychological) commitments on the basis of . . . up-front prices before they learn of other expenses . . ." ¹⁸³ The 2012 regulations targeted these practices to mitigate this psychological tendency.

In analogous fashion, airlines' current practice of concealing change fees until the customer needs to make a change exploits customers' imperfect information about the fees and customers' irrational optimism about the need to make a change. The proposed regulation would mitigate the problem of imperfect information, at least. However, disclosure would do nothing to correct customers' irrational optimism. Unfortunately, this shortcoming lies beyond the plausible reach of regulation. The more radical legislative solution, forcing airlines to allow ticket transfer, would be preferable to regulation.

CONCLUSION

The secondary market for event tickets, made manifest on StubHub and similar websites, demonstrates the potential of a similar secondary market for airline tickets. The emergence of such a market requires that airline tickets be made transferable. Transferability would not jeopardize security; instead, the airlines make their tickets nontransferable because this supports price discrimination and overbooking. Price discrimination and overbooking are further bolstered by the legacy airlines' \$200 change fees.

181. 14 C.F.R. §§ 399.84–85 (2018).

182. *Spirit Airlines, Inc. v. U.S. Dep't of Transp.*, 687 F.3d 403 (D.C. Cir. 2012).

183. Huffman, *supra* note 88, at 119 (footnote omitted).

Nontransferability and high change fees harm customers by exploiting their imperfect information and irrational optimism. If an airline deploying these policies controls 70 percent or more of the market on a particular route, then the airline's behavior may thereby be anticompetitive in a way that sustains a claim of monopolization. However, even a successful monopolization claim would not likely result in airlines issuing transferable tickets.

If litigation cannot create a secondary marketplace, then the example of event tickets also illustrates the power of legislation to do so. Many states have liberalized their ticket resale laws in response to the rise of the online secondary market; some have gone so far as to forbid vendor restrictions on resale, effectively mandating ticket transferability. The federal government could pass a similar law for airline tickets and then count on private entrepreneurs and investors to create an online marketplace.

Undoubtedly, establishing a secondary marketplace would disturb the airline industry and upset a few customers. But the example of event tickets suggests that the consequences, though uncertain, would not be catastrophic; the nature of airline tickets would mitigate the main problems of the event-ticket secondary market. As the U.S. Supreme Court has noted, "The heart of our national economic policy long has been faith in the value of competition."¹⁸⁴ And at least some consequences of the secondary market are absolutely certain: salutary competition between the secondary and primary markets and greater freedom for airline-ticket customers.

184. Nat'l Soc'y of Prof'l Eng'rs v. United States, 435 U.S. 679, 695 (1978) (quoting *Standard Oil Co. v. Fed. Trade Comm'n*, 340 U.S. 231, 248 (1951)).

APPENDIX: STATE LAWS GOVERNING TICKET RESALE

TABLE 2: States banning or severely restricting resale at greater than the face price:

State	Law(s)
Arkansas	ARK. CODE ANN. § 5-63-201 (2016); <i>see also</i> ARK. CODE ANN. § 4-70-103 (2011)
Kentucky	KY. REV. STAT. ANN. § 518.070 (LexisNexis 2014)
Louisiana	LA. STAT. ANN. § 4:1 (2011)
Massachusetts	MASS. GEN. LAWS ch. 140, § 185(A), (D), (G) (2016)
Michigan	MICH. COMP. LAWS § 750.465 (1981)
North Carolina	N.C. GEN. STAT. §§ 14-344, 344.1 (2017)
Rhode Island	1 R.I. GEN. LAWS § 5-22-26 (2009)

TABLE 3: States allowing resale at greater than the face price in many circumstances:

State	Law(s)	Eff. Date	Restrictive Previous Law
Arizona	ARIZ. REV. STAT. ANN. § 13-3718 (2017) (allowing resale except within 200 feet of the venue)	1989	n/a
California	CAL. BUS. & PROF. CODE §§ 22502–505 (West 2017) (allowing resale off premises except of more than six tickets at once to a single event); CAL. PENAL CODE § 346 (West 2010) (allowing resale except when on grounds of venue and selling a ticket obtained for the purpose of resale)	1986 and 1994 (BUS. & PROF. CODE); 1972 (PENAL CODE)	n/a

Connecticut	CONN. GEN. STAT. § 53-289b, c (2017) (allowing resale except on day of event within 1500 feet of the venue)	2007 & 2010	Previous version of same law (banning unauthorized resale at markup)
Delaware	DEL. CODE ANN. tit. 11, § 918 (2015) (allowing resale except at specified locations and on day before or day of event)	1995	n/a
Florida	FLA. STAT. §§ 817.357, -36, -.361 (2017)	2006	Previous version of same law (banning resale at markup)
Georgia	GA. CODE ANN. §§ 43-4B-25, -28, -30 (2016) (allowing resale by the original buyer except within 2700 feet of large venue)	2001–2005	n/a
Hawaii	HAW. REV. STAT. §§ 440-17, 481B-15 (2017) (allowing resale at greater than face price except for boxing)	2007	n/a
Indiana	IND. CODE § 4-33-22-37 (2017) (allowing resale at greater than face price except for boxing and other combat sports)	2010	n/a
Maryland	MD. BUS. REG. §§ 4-302, -318 (LexisNexis 2015) (allowing resale at greater than face price except for boxing and martial arts)	1992	n/a
Mississippi	MISS. CODE ANN. § 97-23-97 (2014) (prohibiting resale at greater than face price only for state college sports or other event on state property)	1990	n/a

Nevada	NEV. STAT., tit. 52, ch. 598.3975, 598.3976, 598.3877, 598.3979, 598.398 (2017) (forbidding resellers from using trademarks, selling a ticket multiple times, or using buying “robots”)	2017	n/a
New Mexico	N.M. STAT. ANN. § 30-46-1 (2017) (preventing resale at greater than face price only for college athletics)	1989	n/a

TABLE 4: States expressly waiving restrictions for internet sale:

State	Law(s)	Eff. Date	Restrictive Previous Law
Alabama	ALA. CODE §§ 8-19E-2, -4; 40-12-167 (2017)	2009	n/a
New Jersey	N.J. STAT. ANN. § 56:8-33 (West 2012)	2008	Previous version of same law (imposing blanket 20% cap on resale markup)
Pennsylvania	4 PA. CONS. STAT. ANN. §§ 202, 211, 212.1, 215 (2017)	2010	Previous version of same law (imposing blanket 25% cap on resale markup)
South Carolina	S.C. CODE ANN. § 16-17-710 (2015)	2006	Previous version of same law (imposing blanket ban on resale at markup)

TABLE 5: States forbidding restrictions on resale:

State	Law(s)	Eff. Date	Restrictive Previous Law
Colorado	COLO. REV. STAT. §§ 6-1-718, -720 (2017) (prohibiting vendor restrictions and automated ticket-buying software)	2008 & 2009	n/a
Illinois	815 ILL. COMP. STAT. 414/1, /1.5, /4 (2017) (forbidding vendor restrictions)	2013 & 2015	Previous version of same law (banning resale by parties not registered as brokers)
Missouri	MO. REV. STAT. § 67.306 (2016) (prohibiting local-law restrictions)	2007	Mo. Ann. Stat. § 578.395 (banning unauthorized resale at markup)
New York	N.Y. ARTS & CULT. AFF. LAW § 25.30 (McKinney 2017) (prohibiting vendor restrictions)	2010	1991 N.Y. Sess. Laws Ch. 704 § 1 (McKinney) (passing previous version of N.Y. Arts & Cult. Aff. § 25.07, which banned resale at greater than a vendor-authorized premium) ¹⁸⁵
Virginia	VA. CODE ANN. §§ 15.2-969, 59.1-466.6 (2018) (prohibiting vendor restrictions)	2009	Previous version of same law (allowing localities to restrict resale and not limiting vendor resale restrictions)

185. See also Sisario, *supra* note 132 (“Longstanding restrictions on ticket scalping in New York State were mostly lifted in 2007 as online sales became increasingly popular with consumers.”).