The JetBlue Effect:

An Empirical Analysis of Entry on Business-Class Airfares*

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March 2025

Abstract

We examine how competition impacts price dispersion through the lens of business-class airfares following the entry of a new competitor. In 2014, JetBlue launched a new business-class service offering on U.S. transcontinental flights called Mint. We find that incumbent legacy airlines lowered the distribution of business-class fares (10th percentile, average, and 90th percentile) in the initial quarter of entry. These fare reductions were transitory as we find no significant fare changes in subsequent quarters. We suspect that inelastic business travelers may have played a role in why business-class fare reductions were temporary.

JEL classifications: L93, L11

Keywords: Price Dispersion, Entry, Premium Cabins, Airline Competition

^{*}We would like to thank Austin Drukker, Myongjin Kim, Alexander Luttmann, as well as participants at the Southern Economic Association Annual Meeting.

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1 Introduction

"The premium cabins on the plane have an outsized amount of revenue impact as compared to the main cabin ... over 60 percent of our revenues are coming from a non-main cabin component." -Ed Bastian, CEO of Delta Air Lines¹

Given that the razor thin profit margins of U.S. airlines were only 2.7% (in the first half of 2024) and just 0.4% over the 23-year period (2001-2023),² premium cabins (i.e. business-class and first-class seats) are an avenue to enhance profitability. Recently airlines have placed a greater emphasis on premium tickets as evidenced by the growing share of revenue from premium seats. For example, Delta Airlines indicates that "premium ticket revenue has been growing faster than main-cabin ticket revenue and is projected to exceed it by 2027."³ In the third quarter of 2024, premium cabin revenue increased at all three legacy airlines: American Airlines (8%), Delta Airlines (4%), and United Airlines (5%).⁴ Premium cabins now occupy a greater share of the aircraft than in prior years. For example, Delta has increased the average space dedicated to premium seats in aircraft from 10% in the 2000s to its current level of 30%.⁵

Low profit margins for airlines were expected by Alfred Kahn, the former chairman of the U.S. Civil Aeronautics Board, who famously referred to airlines as "marginal cost with wings" (Kahn, 1988). Research studies support Kahn's prophecy since Morrison (2001) and Goolsbee and Syverson (2008) show that both actual entry and the threat of entry by Southwest Airlines reduce fares. Gayle and Wu (2013) find that the relationship between the airlines matters since incumbents raise prices if they have an alliance partnership with the potential entrant. Brueckner et al. (2013) find that low-cost carrier competition, rather than legacy competition, significantly lowers average fares. Mergers which eliminate a potential competitor on the route (Kwoka and

¹https://freakonomics.com/podcast/is-your-plane-ticket-too-expensive-or-too-cheap/

²https://www.airlines.org/dataset/state-of-us-aviation/

³https://finance.yahoo.com/news/delta-forecasts-strongest-profit-100-113556969.html

⁴https://www.businessinsider.nl/airlines-are-making-a-miraculous-recovery-by-doubling-down-on-premium-seats/

⁵https://www.wsj.com/business/airlines/the-airline-industrys-biggest-winners-are-betting-youll-pay-to-fly-in-style-733a2031

Shumilkina, 2010) or an actual competitor (Kim and Park, 2024) result in higher prices. On the other hand, low-cost carrier mergers that create a potential competitor on the route have lower prices (He and Rupp, 2025). While the above list of airline research is by no means exhaustive, the common research theme across these studies is how a change in the route competition impacts domestic coach fares.

Airline research has also examined the role of competition on price dispersion. For example, Borenstein and Rose (1994) use cross-sectional data of coach fares and find that increased competition leads to more price dispersion. On the other hand, Gerardi and Shapiro (2009) use panel data of coach fares and find the opposite result, suggesting that increased competition actually reduces price dispersion. Additionally, Tan (2016) finds increased competition due to entry by a low-cost carrier also decreases price dispersion. More recently, Kim et al. (2023) find that competition and price dispersion are positively correlated for one-way tickets yet are negatively correlated for round-trip tickets.

The purpose of our study is to examine how competition impacts price dispersion through the lens of business-class airfares following the entry of a new competitor. Specifically, we consider the case of JetBlue Airways which began offering a premium cabin on transcontinental flights called Mint in 2014 that directly competes with legacy carriers' premium seat offerings. This paper examines the impact on price dispersion among business-class fares surrounding JetBlue's entry on U.S. transcontinental flights. We find a small decrease in price by the legacy incumbents in the first quarter that JetBlue enters a market. Beyond JetBlue's entry quarter, we find no significant price reductions by the incumbent. While JetBlue is rolling out a new product offering, a confounding factor in our analysis is the general trend by legacy airlines to lower premium fares on transcontinental flights in order to sell more premium cabin seats (rather than provide complimentary upgrades). These prevailing headwinds make it harder for us to detect lower prices surrounding JetBlue's Mint offering. To our knowledge, this is the first study to examine price dispersion within the premium fare category. We believe that this topic is especially relevant given the growing share of airline revenue that comes from premium seating.

2 Related Literature

Airlines have long explored the optimal configuration of their aircraft as both United Airlines and American Airlines removed seats out of coach class to offer more legroom in 2000. Lee and Luengo-Prado (2004) find that United's "Premium Economy" program (i.e., increased legroom) was able to generate a fare premium, while American's "More Room Throughout Coach" was not. The ability to sell premium coach seats depends on the availability of economy-class seats as Mumbower et al. (2015) show that consumers are more likely to purchase premium coach seats when there are no regular coach window or aisle seats that can be reserved for free.

In the premium economy class, Kuo and Jou (2017) find that economy-class travelers are willing to pay more for longer haul flights. Similarly, Jeon and Lee (2020) document higher willingness to pay on long-haul travel to upgrade from economy class to premium economy class. Hugon-Duprat and O'Connell (2015) suggest in long-haul markets that the premium economy class provides airlines with the highest marginal returns among the four-cabin configuration, suggesting that "premium economy class cabins could very well become an embedded and sustainable product in the landscape of long-haul travel in the near future."

Meanwhile, other papers have examined the revenue management practice of offering a businessclass seat for a small surcharge (Li et al., 2022; Rauhaus et al., 2024). Less well understood is the purchase decision of premium seating in business and first-class. In comparison, our study examines the effect of increased competition on price dispersion for business-class fares. Previous work that focuses on price dispersion (Borenstein and Rose, 1994; Gerardi and Shapiro, 2009; Tan 2016; Kim et al., 2023) have all relied on coach fares. Our study focuses on business-class fares instead of first-class fares because most travelers do not purchasing first-class seats and instead count on frequent flyer rewards or upgrades to obtain a first-class seat. For example, in 2009, just 12% of Delta's first-class travelers paid the first-class fare. In comparison, after Delta lowered the price of premium tickets in 2024, 75% of Delta's first-class travelers now buy first-class tickets.⁶

⁶https://www.wsj.com/business/airlines/the-airline-industrys-biggest-winners-are-betting-youll-pay-to-fly-instyle-733a2031

3 Data

The main dataset used in our empirical analysis is the Airline Origin and Destination Survey (DB1B), which is published quarterly by the Bureau of Transportation Statistics. The raw data contains a 10% sample of all airline tickets from carriers flying domestic routes within the United States. Each observation provides information on the origin and destination of the flight, the ticketing carrier, the fare class, the one-way market fare, the number of passengers paying a particular market fare, and the nonstop distance between endpoints.

Entry Date
2014:Q3
2014:Q4
2016:Q2
2016:Q4
2017:Q1
2017:Q1
2017:Q4
2017:Q4
2017:Q4
2017:Q4
2018:Q1
2018:Q1
2018:Q3
2020:Q3
2020:Q3
2020:Q4

Table 1: Entry and Expansion of JetBlue's Mint Cabin

The identification and timing of JetBlue's entry with their Mint cabin are based on news releases announced on JetBlue's Newsroom website,⁷ which is summarized in Table 1. We start our sample period in the third quarter of 2012, which is two years before JetBlue introduced their Mint cabin on the route servicing John F. Kennedy International Airport (JFK) and Los Angeles International Airport (LAX), and end our sample period in the fourth quarter of 2021, one year after the last instance of JetBlue's expansion of Mint. Moreover, JetBlue strategically allocates aircraft with

⁷https://news.jetblue.com/overview/default.aspx

their Mint cabin on transcontinental routes so we focus on observations in the DB1B associated with flights within the contiguous United States that spans a nonstop distance of over 2,000 miles.

We implement the following steps to clean the raw data. Since low-cost carriers like Southwest Airlines or Spirit Airlines do not offer a business-class cabin, we keep observations pertaining to the "Big 3" legacy carriers: American Airlines, Delta Air Lines, and United Airlines. Follow-ing Cristea (2011), we drop observations pertaining to one-way fares that are less than \$100 in order to get rid of frequent flyer observations or incorrectly coded tickets. As in Berry (1992), we keep observations for an airline if it services a unidirectional airport-pair with at least 900 passengers across all fare classes (combining coach, business, and first-classes) in a given year-quarter. Finally, we exploit the fare class variable in the DB1B by keeping observations pertaining to business-class cabins.⁸

Definition	Mean		
	(Std. Dev.)		
Airling i's 10th percentile sinfers for business class sphins on route i in time period t	592.16		
Altime i s tom percentile antale for business-class cabins on foute j in time period			
Notes Airling 22 success sinform for husing on solving on months this time marined t			
Ainine i s average antare for business-class cabin on route j in time period i	(477.56)		
Airling i'r 00th genergtile sinfere fan husinges glaes gehin an meute i'r tine genied t	1,108.14		
Airline i s 90th percentile airfare for business-class cabin on route j in time period i			
Airline <i>i</i> 's Gini coefficient for business-class cabin on route <i>j</i> in time period <i>t</i>			
Note: $loddGini = ln(\frac{Gini}{(1-Gini)})$	(0.0898)		
Business cabin-level HHI for route <i>j</i> in time period <i>t</i>	0.8890		
Note: <i>HHIroute</i> = 1 for monopoly	(0.1791)		
Number of routes	883		
Number of observations	14,021		
	DefinitionAirline <i>i</i> 's 10th percentile airfare for business-class cabins on route <i>j</i> in time period <i>t</i> Airline <i>i</i> 's average airfare for business-class cabin on route <i>j</i> in time period <i>t</i> Airline <i>i</i> 's 90th percentile airfare for business-class cabin on route <i>j</i> in time period <i>t</i> Airline <i>i</i> 's Gini coefficient for business-class cabin on route <i>j</i> in time period <i>t</i> Note: $loddGini = ln(\frac{Gini}{(1-Gini)})$ Business cabin-level HHI for route <i>j</i> in time period <i>t</i> Note: $HHIroute = 1$ for monopolyNumber of routesNumber of observations		

Table 2: Summary Statistics

We use four dependent variables in our analysis of the price distribution of business-class airfares. Not only do we study the average airfare for business-class cabins (*AvgPrice*), but we also study the tails of the price distribution, defining *P*10 and *P*90 as the 10th percentile airfare and 90th percentile airfare, respectively. Moreover, Borenstein and Rose (1994), Gerardi and Shapiro

⁸To be sure, we do not study first-class fares since most travelers flying first-class are either redeeming frequent flier rewards or upgrading from a lower cabin. According to a Wall Street Journal news article from 2024, "at Delta, paying customers accounted for 12% of its domestic first-class cabin 15 years ago." https://www.wsj.com/business/airlines/the-airline-industrys-biggest-winners-are-betting-youll-pay-to-fly-in-style-733a2031

(2009), Tan (2016), and Kim et al. (2023) all use the Gini coefficient (or the log-odds ratio of the Gini coefficient) as a more comprehensive measure for the price distribution. Similarly, we construct the Gini coefficient to measure fare inequality for a particular airline on a specific route in a given time period. The Gini coefficient is bounded between zero and one such that a Gini coefficient equal to zero indicates that all passengers pay the same airfare. A higher numerical value for the Gini coefficient is interpreted as an increase in price dispersion. We define the log-odds ratio of the Gini coefficient as $loddGini = ln(\frac{Gini}{(1-Gini)})$ in order to implement an unbounded dependent variable in our regression. Table 2 reports the summary statistics in our data sample.



Figure 1: Time Trend for Business-Class Cabin

Figure 1 illustrates the time series for the average price of tickets for business-class cabins for all airlines in a given year-quarter (solid line; left y-axis) along with the total number of passengers flying in business-class for all airlines in that time period (dashed line; right y-axis). While pricing appears to be quite cyclical throughout our sample period, there is a stark growth in the number of passengers starting in 2016 and 2017. This growth ceases with the onset of the COVID-19 pandemic in 2020. The purpose of our paper is to study the impact of JetBlue's entry of their Mint cabin on incumbents' price distribution for business-class cabins.

4 Empirical Analysis

Our two-way fixed effects regression specification is

$$y_{ij,t} = \alpha + \sum_{\tau=-4}^{4} \beta_{\tau} Entry_{j,t_0+\tau} + \beta_{10} ln HHIroute_{j,t} + \delta_{ij} + v_{i,t} + \varepsilon_{ij,t}$$

where y_{ijt} is the logged dependent variable for the price distribution $(lnP10_{ij,t}, lnAvgPrice_{ij,t}, lnP90_{ij,t})$, or $loddGini_{ij,t}$) for airline *i* servicing route *j* in time *t*. Our baseline time period for the $Entry_{j,t_0+\tau}$ dummy variables is the five to eight quarters prior to entry occurring as identified in Table 1. As such, the estimated coefficients of β_{τ} can be interpreted as the percentage price change relative to the baseline (or excluded) period, in which τ specifies the lags/forwards of when JetBlue started offering Mint cabin on route *j* at time t_0 . In other words, there are nine total *Entry* dummy variables that account for the four quarters prior to entry, the quarter of entry, and the four quarters following entry. We include fixed effects at the carrier-route level (δ_{ij}) and the carrier-year-quarter level ($v_{i,t}$). Finally, we cluster the standard errors by carrier-route and weight the regression results by using the airline's total number of business cabin passengers on that route across all time periods.

Table A1, which can be found in the Appendix of this paper, reports the regression results using the entire sample time period (2012:Q3 - 2021:Q4). Incumbent airlines respond to JetBlue's entry with Mint cabin by significantly lowering their 10th percentile airfare (Column (1)), average airfare (Column (2)), and 90th percentile airfare (Column (3)) in the actual quarter of entry compared to the excluded time period (five to eight quarters prior to entry). However, most of the other estimated coefficient for the *Entry* time dummies are statistically insignificant.

Contrasting with previous findings in the literature, the Gini coefficient (Column (4)) was unaffected by JetBlue's entry since there was overwhelming lack of statistical significance along the tails and the mean of the price distribution. In comparison, Borenstein and Rose (1994) find an increase in competition leads to greater price dispersion, whereas Gerardi and Shapiro (2009) document a negative and statistically significant relationship between competition and the Gini coefficient. Moreover, Tan (2016) finds that entry by low-cost carriers (including JetBlue) leads to a decrease in price dispersion.

The main distinction between our paper and existing work is that we focus on business-class fares. Unlike with coach fares, rival airlines would not necessarily respond to JetBlue's entry into a premium product space like business-class cabins. Given the inelastic demand of brand loyal passengers who travel in business-class cabins, it is unsurprising that incumbent airlines' coach fares would not be susceptible to entry.



Figure 2: Price Paths (All Time Periods)

In order to better illustrate the regression results in Appendix Table A1, we plot the estimated coefficients for the *Entry* time dummies in Figure 2. Each price path is represented with the percentage price change relative to the excluded period along the y-axis, whereas the x-axis depicts the lag/forward timing of JetBlue's entry with Quarter = 0 identifying when JetBlue started Mint

service using dates reported in Table 1. The solid blue line connects the estimated coefficients for each of the nine *Entry* time dummies in Appendix Table A1, while the dashed red lines illustrate the 95% confidence interval based on the clustered standard errors. Consistent with the regression results in Appendix Table A1, the price paths for 10th percentile airfares, average airfare, and 90th percentile airfares show a transient reduction in price during the quarter of actual entry by JetBlue. Since the incumbent's price distribution is effectively unresponsive to the introduction of JetBlue's Mint cabin, the Gini coefficient indicates no statistically significant change.

According to a *Wall Street Journal* news article, the "Big 3" legacy carriers did not respond to JetBlue's initial offering of Mint service.⁹ Rather, the reporter asserts that both American and Delta reduced their prices for business-class cabins once JetBlue gained traction in the market. In order to empirically test these claims, we segment our data into three subsamples: 1) the "initial wave" (2012:Q3 - 2015:Q4) of JetBlue's entry with Mint cabin on the JFK-LAX and JFK-SFO routes; 2) the "second wave" (2014:Q2 - 2019:Q3) captures the expansion of JetBlue's Mint entry between BOS-SFO in 2016:Q2 and JFK-SEA in 2018:Q3; and 3) the "COVID wave" (2018:Q3 - 2021:Q4) includes JetBlue's subsequent entry into EWR-LAX, EWR-SFO, and PBI-LAX during the COVID-19 pandemic. Each of these three subsamples includes observations starting eight quarters prior to the first instance of entry in that particular wave of entry and ending four quarters after the last instance of entry during that wave. We then re-run our regression specification for each of the three subsamples with the regression results for the initial wave, second wave, and COVID wave reported in Tables A2, A3, and A4, respectively.

Figure 3 illustrates the price paths based on the regression results reported in Appendix Table A2. In contrast to the stylized facts reported in the aforementioned *Wall Street Journal* news article, it does appear as though incumbent airlines responded to the initial offering of JetBlue's Mint cabin in 2014. This price reduction, however, is short-lived and the only quarter to see a statistically significant reduction in price occurred during the actual quarter of entry (*Entry*_{t0}). Since the left tail (proxied using the 10th percentile airfares) of the price distribution was lowered by more than

⁹https://www.wsj.com/articles/discount-business-class-thank-jetblue-1488990556

the average airfare, which decreased by more than the right tail (proxied using the 90th percentile airfare), the Gini coefficient initially increased following the actual quarter of entry. Nonetheless, price dispersion reverted to its original value by the end of the time period for the initial wave subsample time period.



Figure 3: Price Paths (Initial Wave)

Figure 4 illustrates the price paths using the regression results for the second wave of JetBlue's entry with Mint cabin, which can be found in Appendix Table A3. Consistent with the *Wall Street Journal* article claims that both American and Delta lowered their airfares for business-class cabins once JetBlue expanded their Mint service, the price paths in Figure 4 show that incumbents lowered their airfares across the price distribution in the quarter of actual entry. As with Figure 3, the Gini coefficient is largely unaffected during this subsample time period since the price distribution merely shifted to the left rather than experience an increase or decrease in price dispersion.



(d) Gini Coefficient

Figure 4: Price Paths (Second Wave)

Figure 5 illustrates the price paths for the subsequent entry instances of JetBlue's Mint cabin starting in 2020 due to the COVID-19 pandemic. The regression results for this subsample can be found in Appendix Table A4. In contrast with our findings in Figures 3 and 4 using our two previous subsamples, the incumbents appear to have preemptively responded to JetBlue's entry with a lower average airfare and lower 90th percentile airfare the quarter prior to actual entry (Quarter = -1). Since the price reduction is stronger for the right tail compared to the average, the Gini coefficient is significantly lower in that quarter. In other words, price dispersion decreased as incumbent airlines responded to the imminent increase in competition from JetBlue. Interestingly, 90th percentile airfares and the Gini coefficient seem to decrease again two quarters after entry. As with the previous figures, however, the price distribution appears to revert by the end of the subsample with no statistically significant effect observed for the fourth quarter after entry.



(d) Gini Coefficient

Figure 5: Price Paths (COVID Wave)

In sum, our regression results suggest that incumbent airlines responded to entry by JetBlue, but typically only during the actual quarter of entry. This price reduction appears transitory as the price dispersion reverts to the baseline levels by the end of the sample period. A potential reason for this is that at the same time that JetBlue is introducing Mint, competing legacy airlines in these transcontinental routes were reducing premium ticket fares in order to sell more premium tickets rather than provide complimentary upgrades.¹⁰ This industry-wide shift in operations has made it challenging for us to disentangle lower business-class fares due to JetBlue's Mint offering. Nonetheless, our study provides some insight into an understudied product in the airline industry: premium class cabins.

¹⁰https://www.wsj.com/business/airlines/the-airline-industrys-biggest-winners-are-betting-youll-pay-to-fly-in-style-733a2031

5 Conclusion

The airline industry continues to evolve and search for ways to increase revenue and raise profit margins. Most recently, airlines seem to be focusing on revenue generation from premium seating. While this paper examines JetBlue's entry of a new business-class product Mint, other low-cost carriers in the United States are also adjusting their business models in order to capture some premium seat revenue. For example, Ted Christie, the CEO of Spirit Airlines, cites the need for Spirit to provide new enhanced travel options in the form of more premium cabin offerings.¹¹ Placing a greater emphasis on revenue growth from premium seating may help Spirit successfully emerge from their bankruptcy filing in November 2024. Moreover, Frontier Airlines recently announced that it will also begin offering first-class seating, in the first two rows of its aircraft, starting in late 2025.¹²

We find that in U.S. transcontinental markets, the introduction of a new low cost carrier businessclass product (Mint by JetBlue) lower the distribution of fares (10th percentile, average, and 90th percentile) by incumbent legacy airlines in the quarter of JetBlue's entry. However, we find no significant changes in the distribution of business-class fares in subsequent quarters. This suggests that the legacy carrier's response was transitory in nature. We note that business-class travelers are more price inelastic than their leisure counterparts, which may explain why we observed a limited price adjustment. Finally, a confounding factor in our analysis is that simultaneous to JetBlue's launch of Mint in 2014, incumbent legacy airlines pivoted in their approach to premium seating choosing to reduce business and first-class fares to encourage passengers to purchase these tickets rather than wait and hope for a ticket upgrade. These headwinds make it more difficult to detect price reductions due to JetBlue's Mint entry. Nonetheless, by examining business-class fares, this paper contributes to our understanding of premium tickets — an increasingly important and growing revenue segment for U.S. airlines.

¹¹https://www.reuters.com/business/aerospace-defense/spirit-airlines-start-offering-premium-seating-2024-07-30/ ¹²https://www.reuters.com/business/aerospace-defense/us-budget-carrier-frontier-airlines-offer-first-class-styleseats-2024-12-03/

References

- Berry, Steven (1992). "Estimation of a Model of Entry in the Airline Industry," *Econometrica* 60(4), 889-917.
- Borenstein, Severin and Nancy Rose (1994). "Competition and Price Dispersion in the U.S. Airline Industry," *Journal of Political Economy* 102(4):653-83.
- Brueckner, Jan, Darin Lee, and Ethan Singer (2013). "Airline Competition and Domestic U.S. Airfares: A Comprehensive Reappraisal," *Economics of Transportation* 2(1), 1-17.
- Cristea, Anca (2011). "Buyer-Seller Relationships in International Trade: Evidence from U.S. States' Exports and Business-Class Travel," *Journal of International Economics* 84, 207-220.
- Gayle, Philip and Chi-Yin Wu (2013). "A Re-Examination of Incumbents' Response to the Threat of Entry: Evidence from the Airline Industry," *Economics of Transportation* 2(4), 119-130.
- Gerardi, Kristopher and Adam Shapiro (2009). "Does Competition Reduce Price Dispersion? New Evidence from the Airline Industry," *Journal of Political Economy* 117(1), 1-37.
- Goolsbee, Austan and Chad Syverson (2008). "How Do Incumbents Respond to the Threat of Entry? Evidence from the Major Airlines." *The Quarterly Journal of Economics* 123(4), 1611-1633.
- He, Qingxin and Nicholas Rupp (2025). "Run-Up to a Merger: Pre-Consolidation Pricing by Merging Airlines and Their Rivals." *Review of Industrial Organization*, forthcoming.
- Hugon-Duprat, Cindy and John O'Connell (2015). "The Rationale for Implementing a Premium Economy Class in the Long Haul Markets – Evidence from the Transatlantic Market," *Journal of Air Transport Management* 47, 11-19.
- Jeon, Mi-Sun and Jang-Ho Lee (2020). "Estimation of Willingness-to-Pay for Premium Economy Class by Type of Servie," *Journal of Air Transport Management* 84, 101788.
- Kahn, Alfred (1988). *The Economics of Regulation: Principles and Institutions*, Cambridge: MIT Press.
- Kim, Myongjin, Leilei Shen, and Qi Ge (2023). "Does Competition Increase or Decrease Price Dispersion? Insights from One-Way vs. Round-Trip Airfares," *Oxford Bulletin of Economics*

and Statistics 85(2), 435-455.

- Kim, Soo Jin and Yongjoon Park (2024). "Examining the Coordinated Effects of the AA/USAir Merger," working paper.
- Kuo, Chung-Wei and Rong-Chang Jou (2017). "Willingness to Pay for Airlines' Premium
 Economy Class: The Perspective of Passengers," *Journal of Air Transport Management* 59, 134-142.
- Kwoka, John and Evgenia Shumilkina (2010). "The Price Effect of Eliminating Potential Competition: Evidence from an Airline Merger," *The Journal of Industrial Economics* 58(4), 767-793.
- Lee, Darin and Maria Jose Luengo-Prado (2004). "Are Passengers Willing to Pay More for Additional Legroom?" *Journal of Air Transport Management* 10(6), 377-383.
- Li, Yihua, Ahmadreza Mahmoudzadeh, and Xiubin Bruce Wang (2022). "Airlines Seat Pricing with Seat Upgrading," *Multimodal Transportation* 1(4), 100054.
- Morrison, Steven (1996). "Airline Mergers: A Longer View," *Journal of Transport Economics and Policy* 30(3), 237-250.
- Mumbower, Stacey, Laurie Garrow, and Jeffrey Newman (2015). "Investigating Airline
 Customers' Premium Coach Seat Purchases and Implications for Optimal Pricing Strategies,"
 Transportation Research Part A: Policy and Practice 73, 53-69.
- Rauhaus, Davina, Jochen Gönsch, and Claudius Steinhardt (2024). "On the Value of Booking Data for Upsell Decision-Making in Revenue Management," *Flexible Services and Manufacturing Journal*.
- Tan, Kerry (2016). "Incumbent Response to Entry by Low-Cost Carriers in the U.S. Airline Industry," *Southern Economic Journal* 82(3), 874-892.

Appendix A Regression Tables Used for Figures

	(1)	(2)	(3)	(4)
	lnP10	<i>lnAvgPrice</i>	<i>lnP</i> 90	loddGini
Ender	0.3988***	0.2399***	0.2452**	0.1147
Lmy_{t_0-4}	(0.1148)	(0.0798)	(0.0990)	(0.1573)
Entry	0.2337**	0.1846^{*}	0.1479	0.0325
$Lm y_{t_0-3}$	(0.1158)	(0.0955)	(0.0911)	(0.0977)
Entry	0.1436	0.1619	0.1332	0.1479
Lmy_{t_0-2}	(0.1975)	(0.1109)	(0.1138)	(0.1700)
Entry	-0.2378	-0.1902	-0.0082	0.0249
Lmy_{t_0-1}	(0.2155)	(0.1589)	(0.1552)	(0.2050)
Entry	-0.5066**	-0.5966**	-0.5453*	0.0446
$Lmny_{t_0}$	(0.2202)	(0.2354)	(0.2937)	(0.2333)
Entro	-0.0716	-0.0873	-0.0873	-0.0193
$Lmry_{t_0+1}$	(0.1330)	(0.1224)	(0.1179)	(0.1274)
E ratury	-0.2633	-0.0951	0.0040	0.4032*
Lmy_{t_0+2}	(0.2347)	(0.1654)	(0.1753)	(0.2138)
$Entry_{t_0+3}$	-0.0486	0.1354***	0.2279***	0.3441
	(0.1893)	(0.0521)	(0.0675)	(0.2180)
$Entry_{t_0+4}$	0.1199**	-0.0075	0.0006	-0.0985
	(0.0473)	(0.0645)	(0.0758)	(0.1113)
lnHHIroute	0.1270	-0.0036	-0.0093	-0.0851
	(0.1729)	(0.1462)	(0.1695)	(0.1572)
N	13,334	13,334	13,334	11,070

Table A1: Incumbent Response to JetBlue's Entry with Mint Cabin (All Time Periods)

Note: *lnP10*, *lnAvgPrice*, *lnP90*, and *loddGini* are the dependent variables in Columns (1), (2), (3), and (4), respectively. Carrier-route fixed effects and carrier-year-quarter fixed effects suppressed. Standard errors are clustered by carrier-route and reported in parentheses. Statistical significance at the 10%, 5%, and 1% levels are indicated with *, **, and ***, respectively.

	(1)	(2)	(3)	(4)
	lnP10	<i>lnAvgPrice</i>	lnP90	loddGini
	0.1921	0.2282*	0.1944*	0.3292
$Emry_{t_0-4}$	(0.2210)	(0.1173)	(0.1070)	(0.2029)
	-0.0448	0.0488	0.0023	0.2266
$Entry_{t_0-3}$	(0.1232)	(0.0967)	(0.0517)	(0.1999)
Enter	-0.0017	0.2075	0.0545	0.3182
$Entry_{t_0-2}$	(0.2974)	(0.1944)	(0.1668)	(0.2827)
$Entry_{t_0-1}$	0.2115	-0.0452	0.1207	0.0478
	(0.5358)	(0.4297)	(0.4197)	(0.4308)
$Entry_{t_0}$	-1.0160***	-0.9627***	-0.8621**	0.3753*
	(0.2627)	(0.2992)	(0.4037)	(0.2202)
Eastern	-0.3669*	-0.2105	-0.1507	0.3427**
$Emry_{t_0+1}$	(0.1913)	(0.1460)	(0.1328)	(0.1625)
Entro	-0.5283*	-0.0680	0.0917	0.7314**
$Emry_{t_0+2}$	(0.3096)	(0.3642)	(0.3242)	(0.2940)
$Entry_{t_0+3}$	0.2488	0.1760	0.2102	0.1486
	(0.3016)	(0.2743)	(0.3448)	(0.4177)
$Entry_{t_0+4}$	-0.0747	-0.0896*	-0.1118	-0.0179
	(0.1022)	(0.0490)	(0.1165)	(0.2223)
lnHHIroute	0.1746	0.2239	0.0465	-0.0355
	(0.5084)	(0.4509)	(0.5030)	(0.8347)
N	889	889	889	344

Table A2: Incumbent Response to JetBlue's Entry with Mint Cabin (Initial Wave)

Note: *lnP10*, *lnAvgPrice*, *lnP90*, and *loddGini* are the dependent variables in Columns (1), (2), (3), and (4), respectively. Carrier-route fixed effects and carrier-year-quarter fixed effects suppressed. Standard errors are clustered by carrier-route and reported in parentheses. Statistical significance at the 10%, 5%, and 1% levels are indicated with *, **, and ***, respectively.

	(1)	(2)	(3)	(4)
	lnP10	<i>lnAvgPrice</i>	lnP90	loddGini
F 4	0.8491	0.3332	0.1970	-0.6296*
$Emry_{t_0-4}$	(0.6038)	(0.3702)	(0.3144)	(0.3794)
$Entry_{t_0-3}$	0.9076**	0.7096**	0.5563	-0.3590
	(0.4590)	(0.3608)	(0.3443)	(0.4823)
Eastern	0.0436	-0.1606	-0.2030	-0.1504
$Emry_{t_0-2}$	(0.2141)	(0.1862)	(0.1656)	(0.1391)
Entro	-0.3312	-0.3066*	-0.0708	0.1991
$Entry_{t_0-1}$	(0.2222)	(0.1719)	(0.1442)	(0.1873)
$Entry_{t_0}$	-0.6829***	-0.8689***	-0.8078**	-0.0154
	(0.2333)	(0.2427)	(0.3393)	(0.2895)
Entro	-0.1703	-0.1982	-0.2111	-0.0131
$Emry_{t_0+1}$	(0.1746)	(0.1638)	(0.1557)	(0.1007)
Entro	-0.4985*	-0.2862	-0.1013	0.3930*
$Entry_{t_0+2}$	(0.2696)	(0.1919)	(0.2195)	(0.2104)
$Entry_{t_0+3}$	-0.2942	-0.0825	0.0021	0.2534
	(0.2537)	(0.0833)	(0.0625)	(0.2879)
$Entry_{t_0+4}$	0.1362***	-0.0347	-0.0534	-0.3015**
	(0.0433)	(0.0546)	(0.0689)	(0.1233)
lnHHIroute	0.0518	0.0198	0.0410	0.0876
	(0.1442)	(0.1454)	(0.1718)	(0.2063)
N	8,193	8,193	8,193	6,923

Table A3: Incumbent Response to JetBlue's Entry with Mint Cabin (Second Wave)

Note: *lnP10*, *lnAvgPrice*, *lnP90*, and *loddGini* are the dependent variables in Columns (1), (2), (3), and (4), respectively. Carrier-route fixed effects and carrier-year-quarter fixed effects suppressed. Standard errors are clustered by carrier-route and reported in parentheses. Statistical significance at the 10%, 5%, and 1% levels are indicated with *, **, and ***, respectively.

	(1)	(2)	(3)	(4)
	lnP10	<i>lnAvgPrice</i>	lnP90	loddGini
Entra	-0.1392	0.1149	0.3761***	0.3739
$Emry_{t_0-4}$	(0.2866)	(0.1883)	(0.0991)	(0.2272)
Entro	0.3536***	0.2536***	0.2136***	-0.0552
$Emry_{t_0-3}$	(0.0460)	(0.0112)	(0.0565)	(0.0752)
Entro	0.3345***	0.1577***	0.2205***	0.0165
$Emry_{t_0-2}$	(0.0446)	(0.0462)	(0.0628)	(0.0350)
Enter	-0.5846	-0.6700***	-0.8507***	-1.5782***
$Lmry_{t_0-1}$	(0.3968)	(0.0738)	(0.1194)	(0.2512)
Enter	-0.0442	0.3599	0.4617*	-0.2394
$Em y_{t_0}$	(0.3554)	(0.2687)	(0.2517)	(0.6481)
Entry	0.3469**	-0.0179	-0.2422	-0.9519***
$Lmny_{t_0+1}$	(0.1470)	(0.1932)	(0.2042)	(0.2431)
$Entry_{t_0+2}$	0.3895***	-0.2425***	-0.6058***	-0.8545***
	(0.1117)	(0.0909)	(0.1292)	(0.1320)
$Entry_{t_0+3}$	0.1634***	-0.0257	-0.0643	-0.2816***
	(0.0481)	(0.0371)	(0.0582)	(0.1086)
$Entry_{t_0+4}$	-0.2634	-0.0945	0.0970	0.1733
	(0.2487)	(0.1732)	(0.0975)	(0.1503)
lnHHIroute	-0.3885***	-0.4995***	-0.5688***	-0.3257***
	(0.0705)	(0.0727)	(0.0728)	(0.0838)
N	8,170	8,170	8,170	7,185

Table A4: Incumbent Response to JetBlue's Entry with Mint Cabin (COVID Wave)

Note: *lnP10*, *lnAvgPrice*, *lnP90*, and *loddGini* are the dependent variables in Columns (1), (2), (3), and (4), respectively. Carrier-route fixed effects and carrier-year-quarter fixed effects suppressed. Standard errors are clustered by carrier-route and reported in parentheses. Statistical significance at the 10%, 5%, and 1% levels are indicated with *, **, and ***, respectively.