

# Ross DataThon

## JetBlue Delay Case

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# Delay Cost Huge in US



“Continental lose \$6 million per month in delays, overturn the tide by diverting 3 million to incentivize employees”

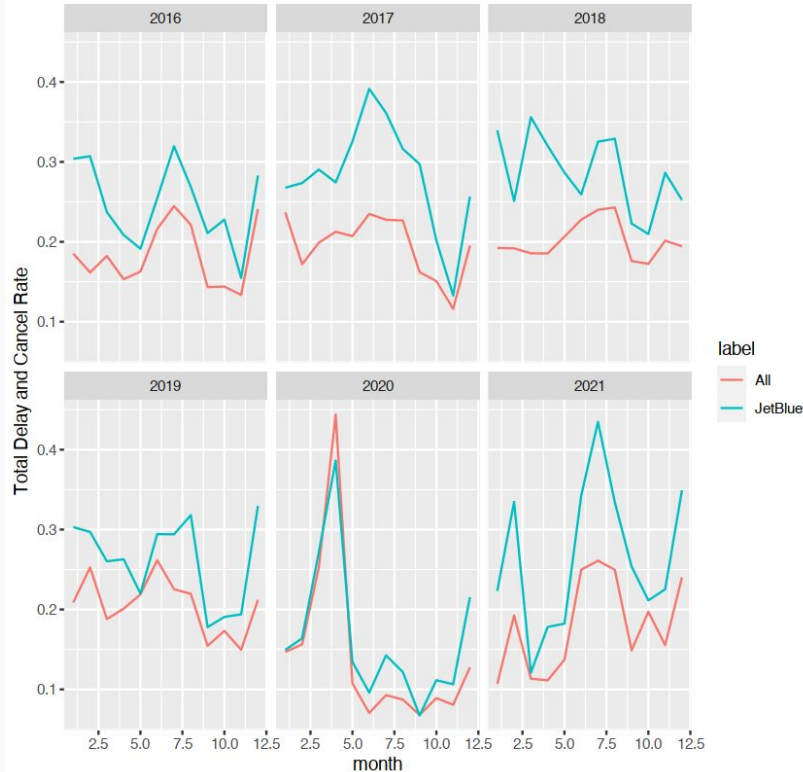
— Gordon Bethune CEO of Continental Airlines



Source: CNBC

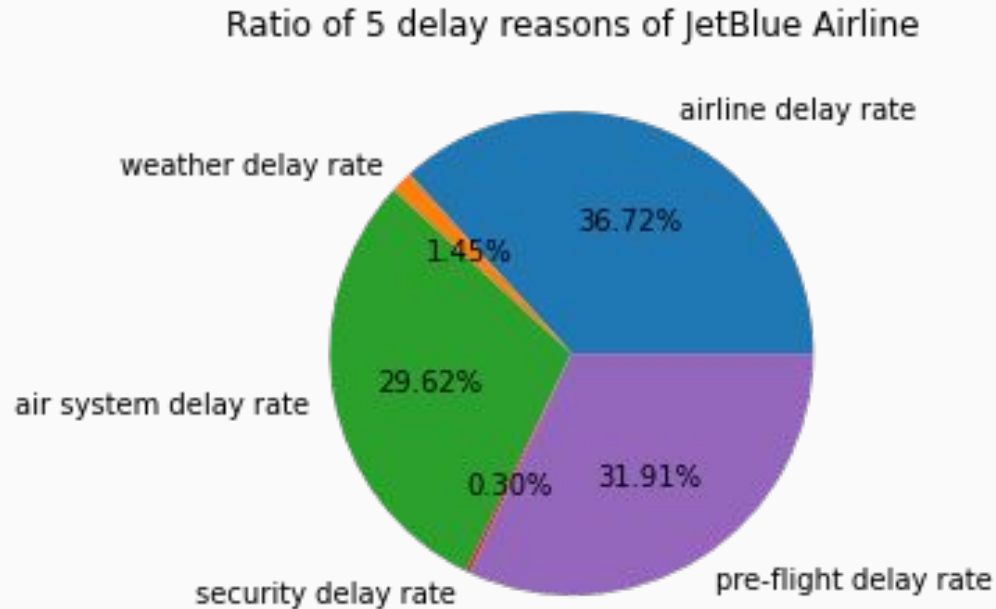
# JetBlue Delay performance

Total Delay and cancel Rate in 12 Months (JetBlue v.s. All)



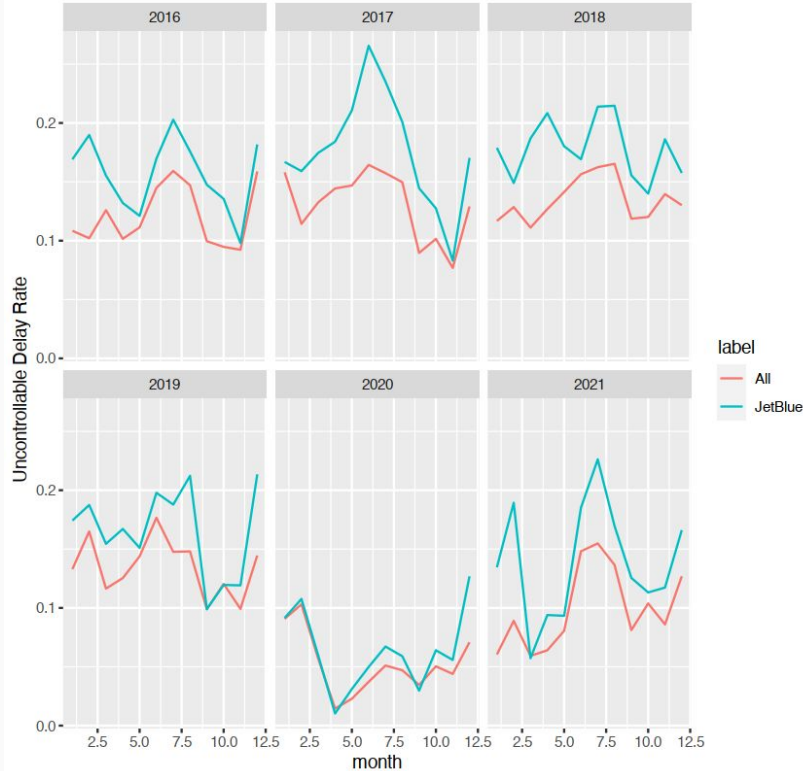
- On JetBlue
  - Throughout 6 years
  - JetBlue performs worse than the rest of the industry
  - It becomes better during COVID (sample is small during that time)
- On Industry
  - The industry will see
    - Drop in Feb and September
    - Spike from May to August (travel season)
    - Spike in Thanksgiving Holiday season
    - Spike can be attributed to weather and congestion

# Delay reason breakdown

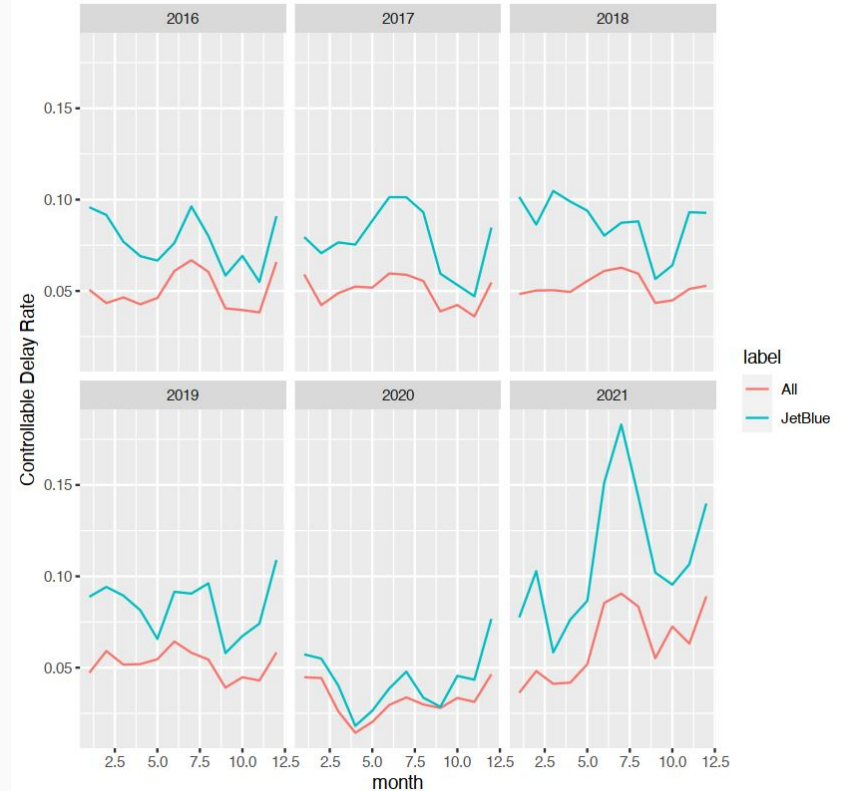


# Delay reason Breakdown

Uncontrollable Delay Rate in 12 Months (JetBlue v.s. All)



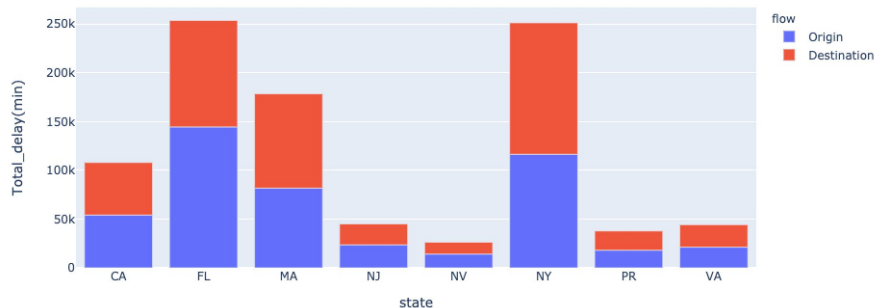
Controllable Delay Rate in 12 Months (JetBlue v.s. All)



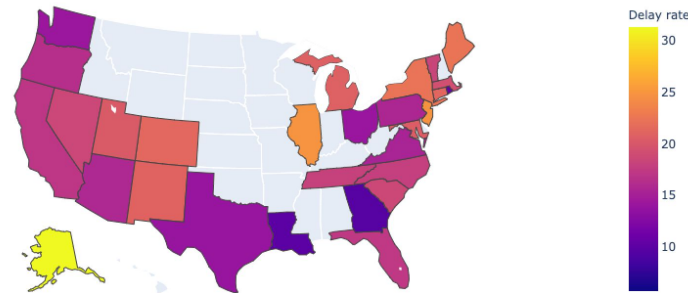
# JetBlue State level breakdown



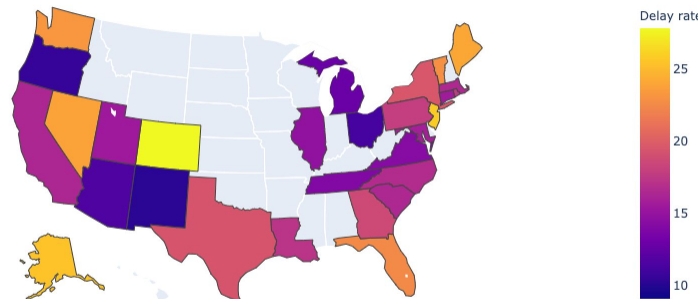
JetBlue 2017 State-wide Delay Time (min)



2017 JetBlue Average Delay per Flight (min/ flight) Destination State Map



2017 JetBlue Average Delay per Flight (min/ flight) Origin State Map



# Solution 1 Cut Schedule

- Examine high delay ratio in major states and major seasons
- Prioritize reducing cash negative routes
- Enhance customer experience and loyalty without many delays

“I want JetBlue to become a customer service company that provide flights” — David Neeleman



# Not convincing?

## NEWS

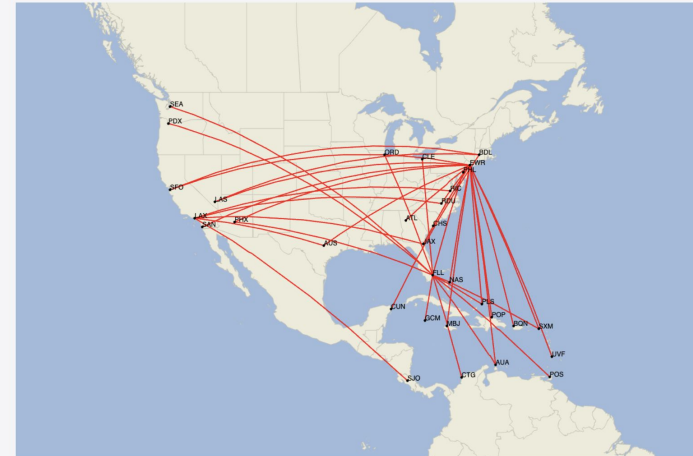
# JetBlue removes 37 routes with big cuts hitting NYC and South Florida

**Zach Griff**

Aug. 14, 2022 • 6 min read

- That's exactly what they did on Apr 2022
- Cut schedule due to demand downturn, on those two states
- Lack of data at hand, we couldn't verify

The full list of cuts is at the bottom of this story, but the two airports hit hardest are Fort Lauderdale (FLL) and Newark (EWR).



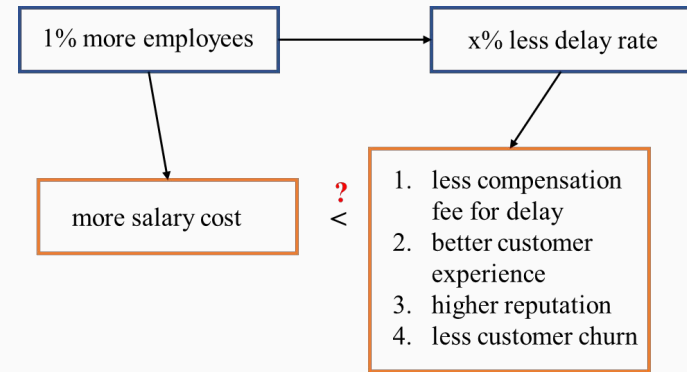
(Map courtesy of Cirium)

The former is one of the airline's biggest focus cities and has been [especially resilient during the demand downturn](#) associated with the pandemic.



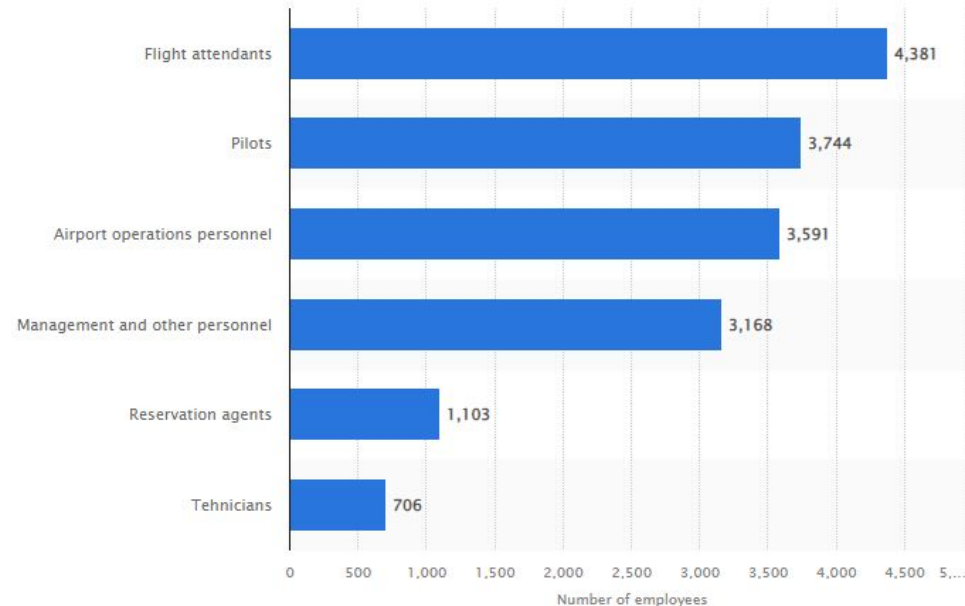
# Solution 2 Increase bonus

- Cost & Benefit analysis
- Calculate breakeven target rate
- Continental targeted at rising to 5th on the arrival rate from the last
- Currently number 10 with 74% on-time
- What percentage should JetBlue targeting at



# Cost (left side)

salary cost = hourly salary \* 8 hours per day \* 30 days \* 1% \* origin employees



Flight attendant: 41,500  
 Mechanics operational staff: 64,809  
 Technician: 791,630

# Benefit (right side)

reduced compensation fee = seats per aircraft \* loadfactor \* compensation fee per person \* flights per month \* x%

Monthly Compensation Avoided = Fee to Passenger \* x%

= # of passengers \* fee per person \* x%

Because # of passengers = load factor \* seats per airplane

- Load factor: 84%
- Seats: 200
- fee two ways to calculate

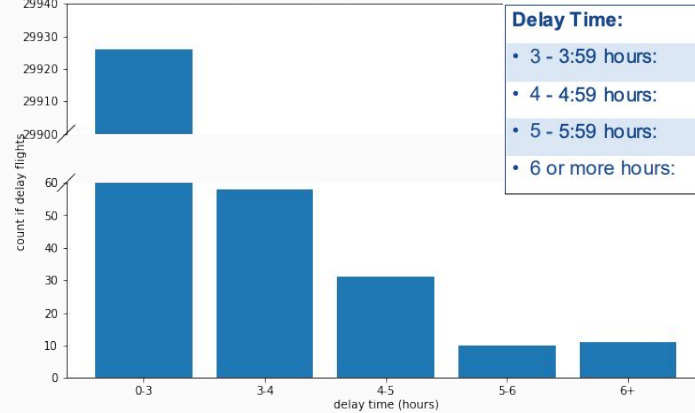
General approach: Fee 100/person, then break even point x needs 1.4 decrease

Breakdown approach:

X = 67% breakeven point , decrease by 67% with 1% increase in bonus

Source: JetBlue

Barplot of delay flights and delay hours of JetBlue



Delay Time:	Compensation amount:
• 3 - 3:59 hours:	\$50 credit
• 4 - 4:59 hours:	\$100 credit
• 5 - 5:59 hours:	\$150 credit
• 6 or more hours:	\$200 credit

# Conclusion:

1. Airlines lose huge money every year because of delay **\$8.3 billion** every year
2. JetBlue performs worse than the rest of the industry for **6 consecutive years**
3. Although its prevailing states FL, NY, MA had the largest delay time in 2017, its delay time per flight is not the highest. Not too Bad
4. Solution 1: already taken by JetBlue last April
5. Solution 2: realistically the delay rate need a  $\frac{2}{3}$  decrease. Not times decrease but rate decrease, i.e. from 15% to 5%, given no other implicit cost, e.g. customer churns



Thank you! Any questions!

