Grounded by Delays

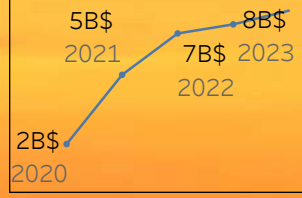
A 5-Year Analysis of U.S. Airline Disruptions(2020–2024)

Total Flights Analyzed
33M

Total Delay Cost (2020–2024)
$27,208M

Total Passengers' time wasted in mins
410,038K

Total Delay Cost incurred across 5 years (In Billions)



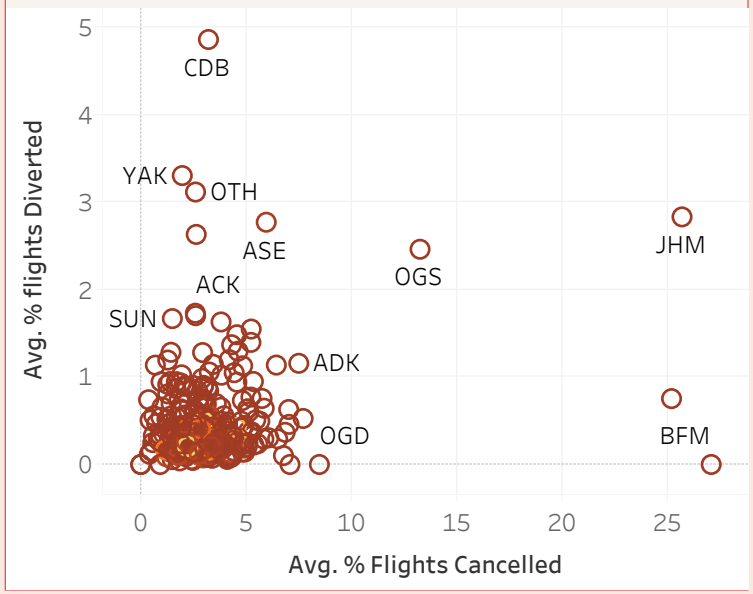
- Who's Wasting Our Time?
- What Did 2024 Teach Us?
- When Do Delays Spike?
- Where Are the Worst Airports?

Between 2020 and 2024, flight delays have cost passengers not just missed connections but over 31,000 years of cumulative time.
This dashboard reveals the airlines, airports, and causes behind the disruption and offers data-backed insights into how the industry can do better.

US Airports Leading in Flight Delays

Arr Flights
1 810,631

Airport Efficiency: Delay vs Cancellation Rates (2020–2024)



Year
All

Avg. Passenger delay ..
10 1,049

Airport Name
All

Month
All

Key Insights (2020–2024)

- A few airports like PIR and OTH show over 30% cancellation/diversion rates mainly small, regional airports
- Most major airports operate below 5% cancellations and 1% diversions.
- Dallas/Fort Worth and Chicago O'Hare show highest passenger delay impact.
- Late aircraft delays are the most severe cause across all top airports.

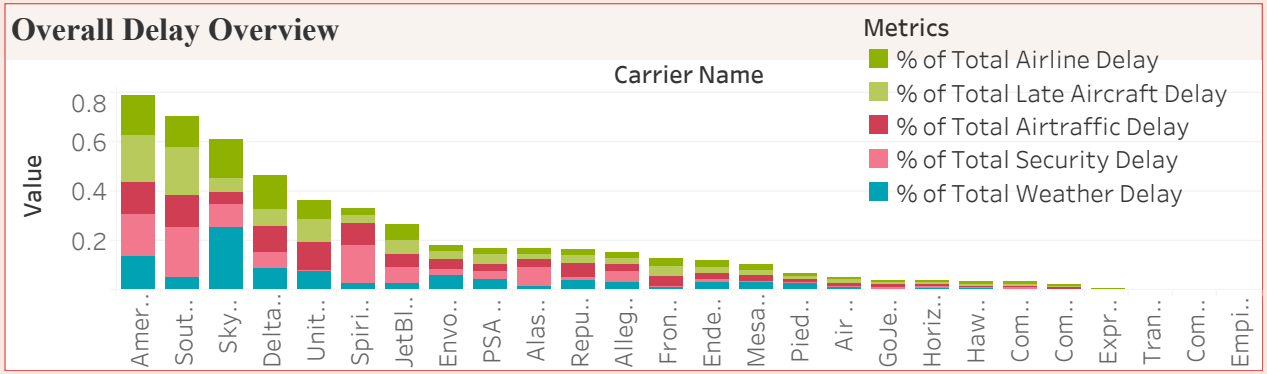
How Each Delay Type Affects Passengers across Top 5 Airports (In Mins)

Dominant Dela..	Airport Name: Chicago O'Hare Interna..	Cincinnati/Northern Ke..	Pittsburgh International
Airline Delay	4.592	3.894	3.332
Airtraffic Delay	5.252	2.431	3.452
Late Aircraft Delay	6.185	6.110	5.752

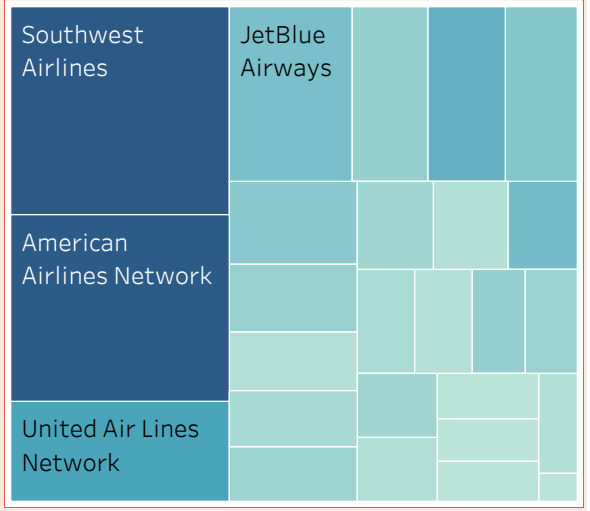
Airline Delay Breakdown

Carrier Name
All

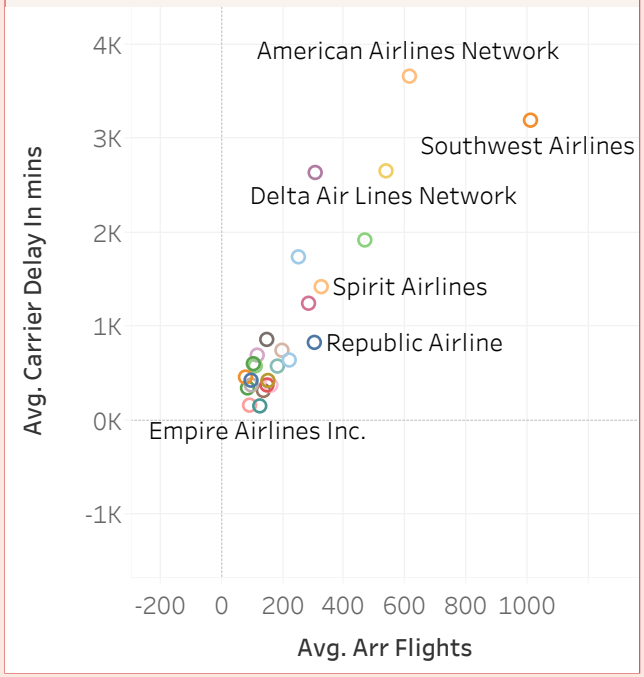
Overall Delay Overview



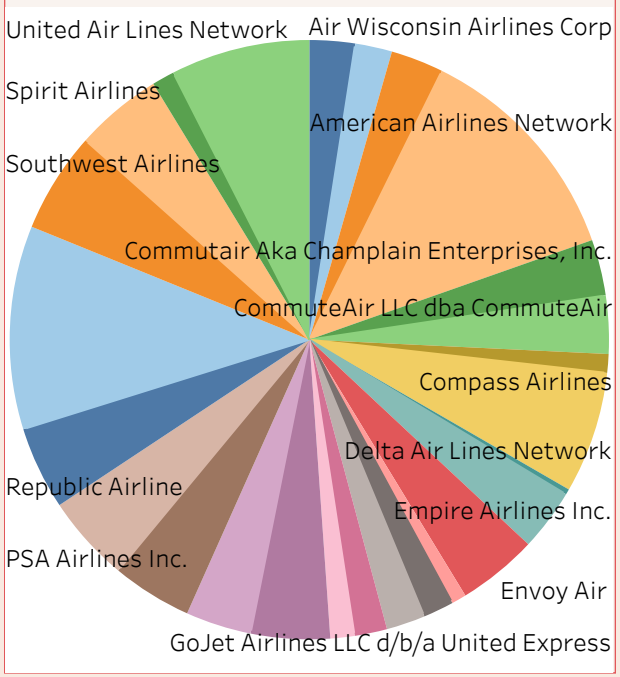
Airlines with the Most Late Aircraft Delays (In Mins)



Airline Delay Vs Total Delay (In Mins)



Weather Delay Share By Airlines (In Mins)

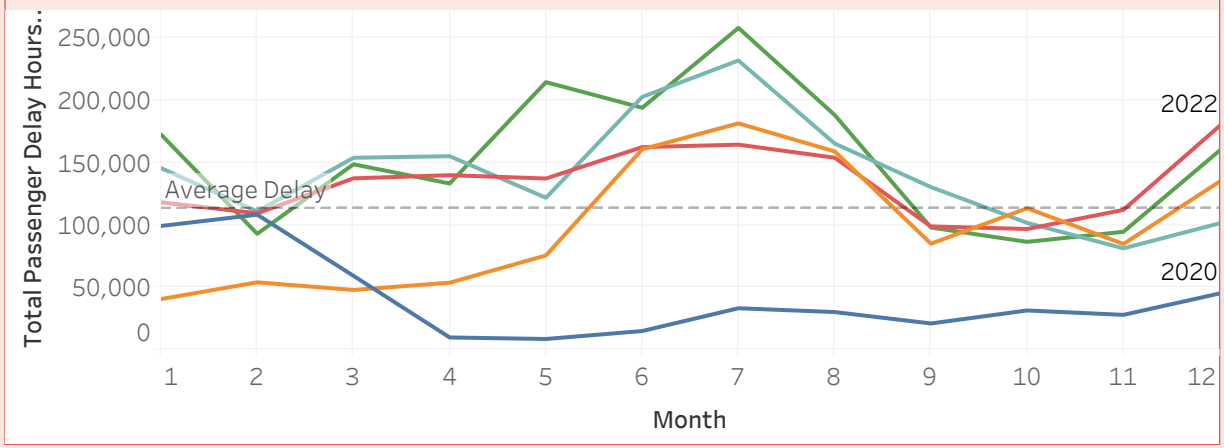


Late Aircra..
21K 30M

American Airlines Network and Southwest Airlines face the highest delays, mainly from carrier-related issues, highlighting internal inefficiencies that could be reduced through better scheduling and operational improvements.

Time Based Analysis of Delay

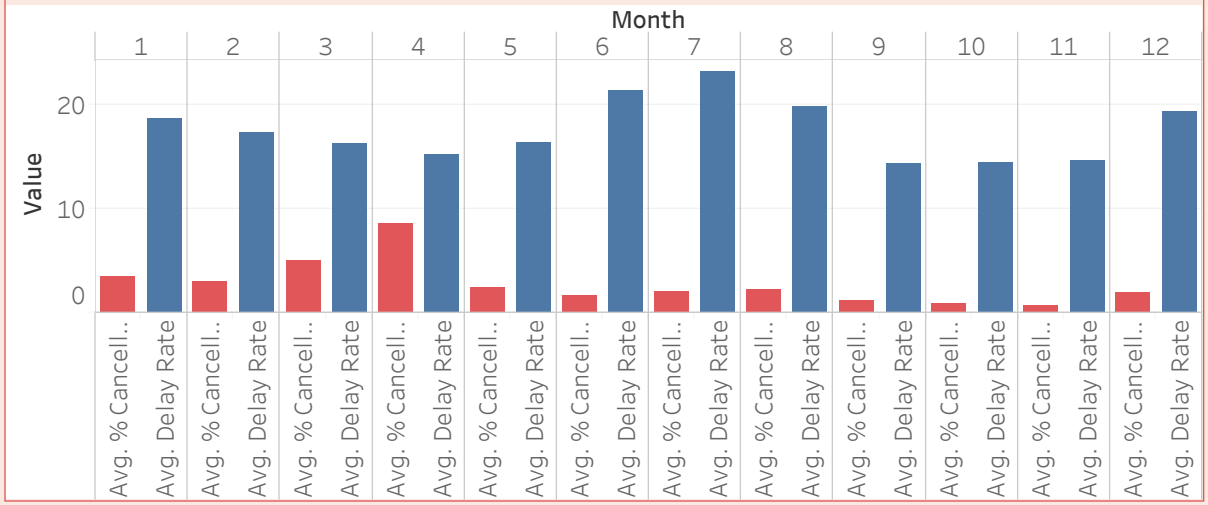
Seasonal Peaks in Passenger Delay Hours (2020–2024)



Year
2020
2021
2022
2023
2024

• As average delay rates climbed in July, the percentage of cancelled flights dropped sharply from, indicating airlines prioritized operating flights—even with delays—to minimize cancellations. While this reduced cancellations, more passengers might've faced longer waits, potentially impacting satisfaction during the busy summer travel season.

Delays Rise as Cancellations Fall: A Shifting Trend



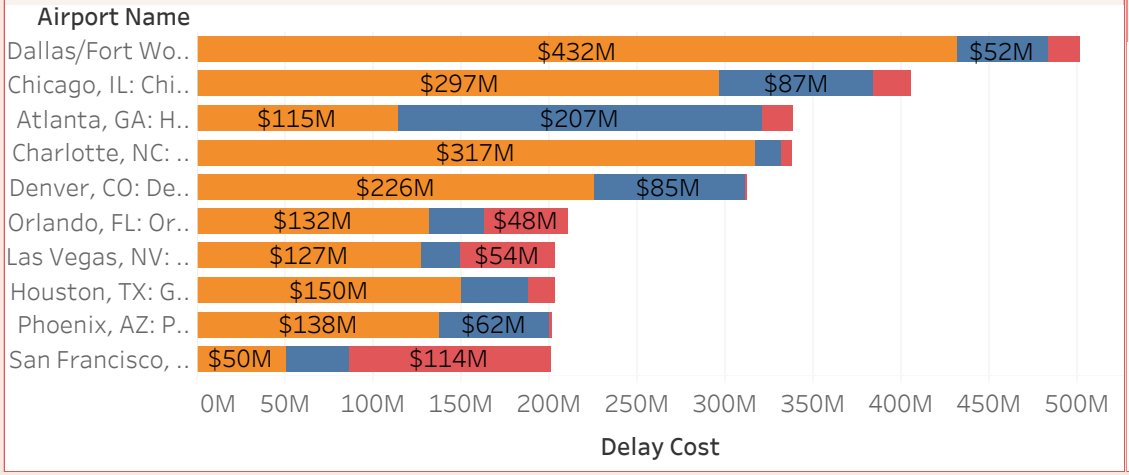
Year
All

Airport Name
All

Metrics
Avg. % Cancelle..
Avg. Delay Rate

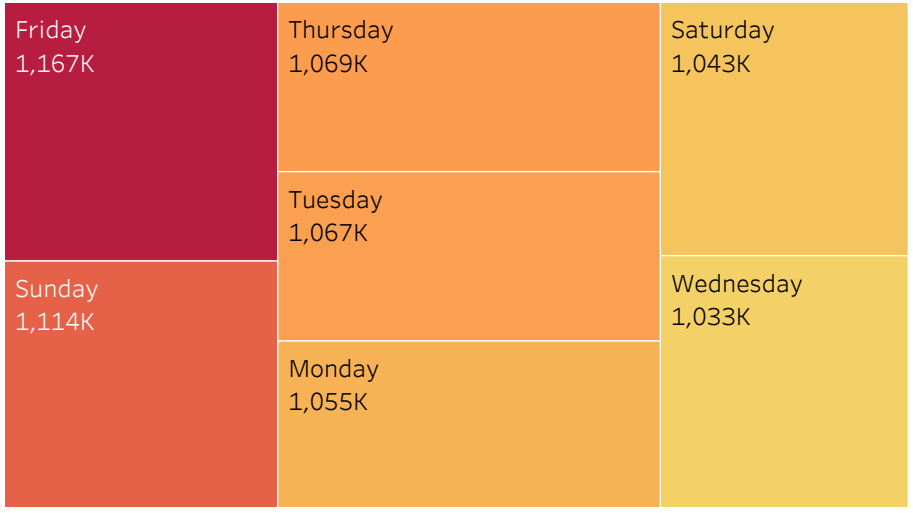
Passenger Impact of U.S. Airlines (2024)

Airports with the Highest Delay Costs in 2024



Which Airlines Waste the Most Passenger Time? (in Hours – 2024)

Busiest Days of the Week by Arriving Flights (2024)



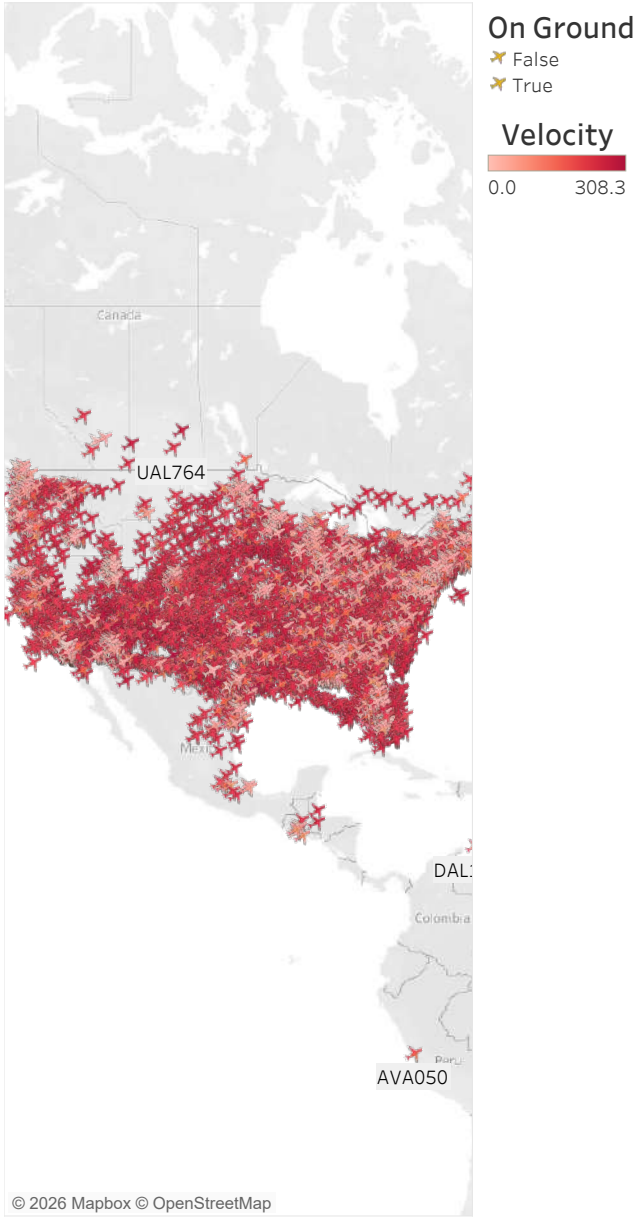
Key Takeaways:

- American Airlines caused over 54,000 passenger-hours of delay in 2024.
- Fridays are the busiest, averaging 1.1M arrivals weekly.
- Late aircraft remains the top delay cause — a fixable internal issue.

Recommendations:

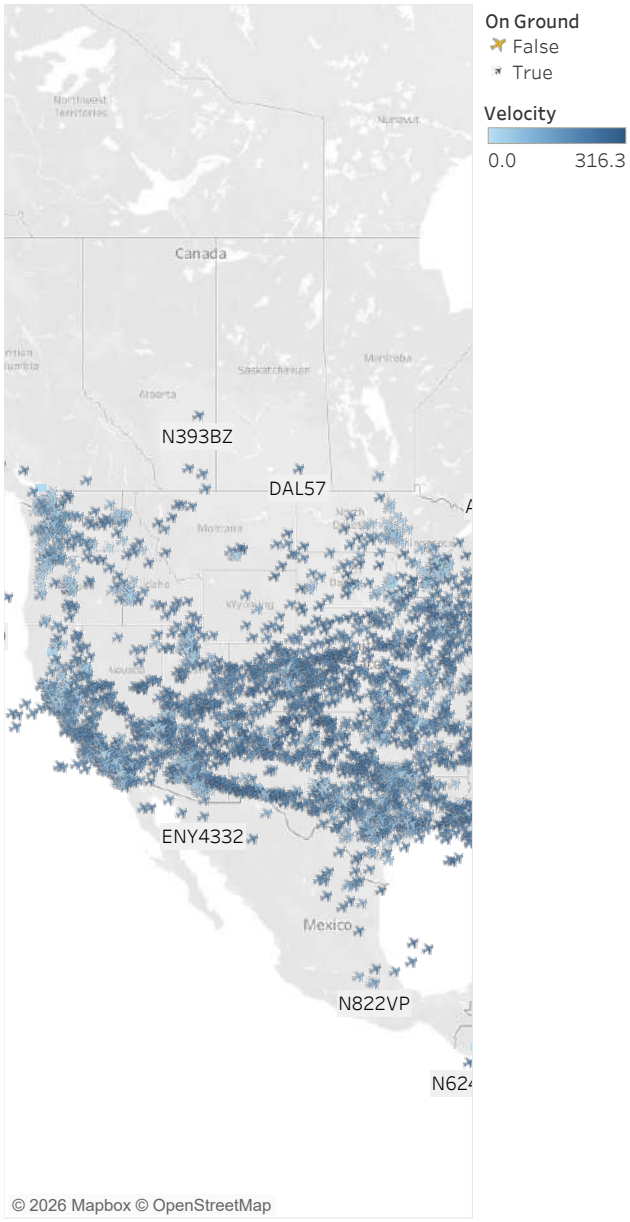
- Invest in predictive maintenance & turnaround efficiency.
- Rethink flight schedules on peak days like Friday and Sunday.

Live Map



Map based on average of Longitude and average of Latitude. Color shows sum of Velocity. Shape shows details about On Ground. The marks are labeled by Callsign. Details are shown for Icao24 and Callsign. The view is filtered on On Ground, which keeps False and True.

Live Aircraft Map



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