United Airlines: Flight Delay Overview (FY 2024–25)

Data Source: BTS.gov | Visualization by Pulkit Garg

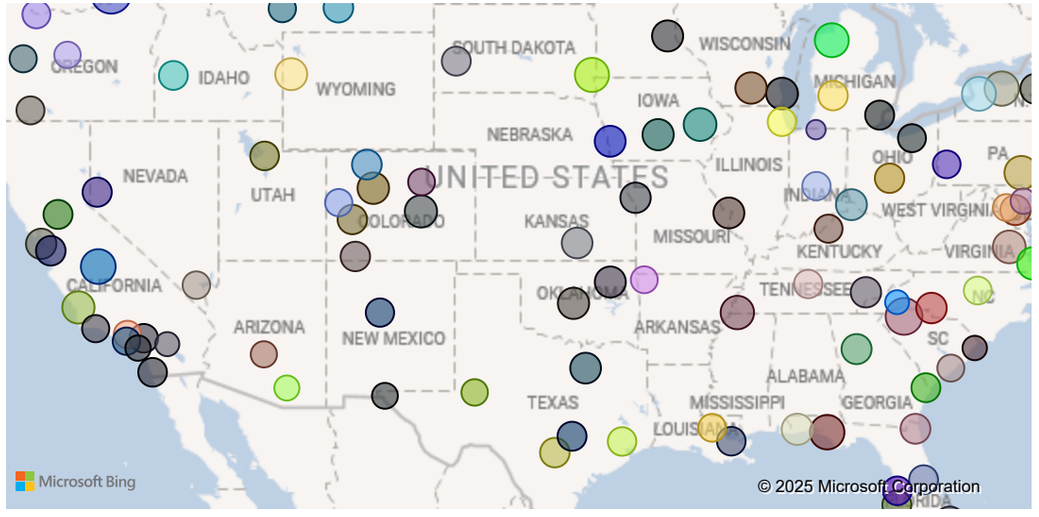
766K	13.78	148K
Total Flights	Avg Delay (min)	Delayed Flights

80.65% On-Time %

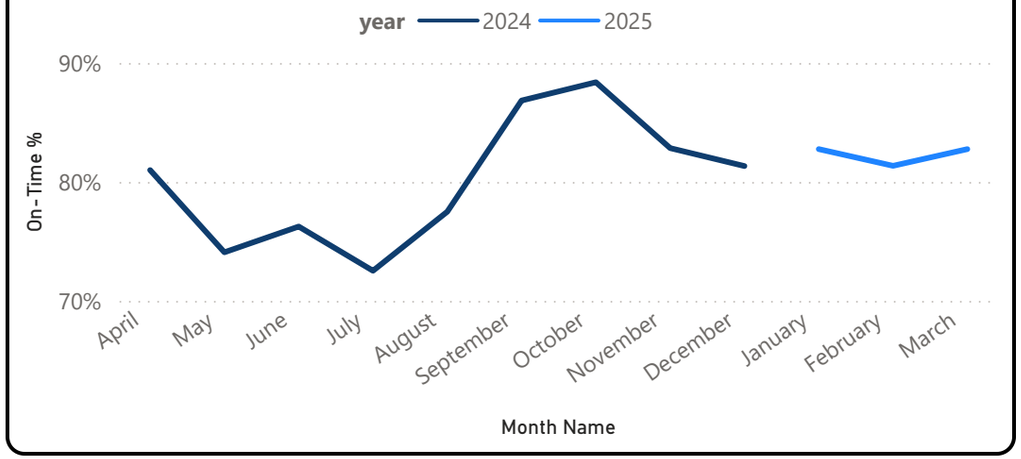
0.28% Diverted %

1.13% Cancelled %

Map of Avg Delay by Airport



Monthly Delay Trend (April 2024 – March 2025)



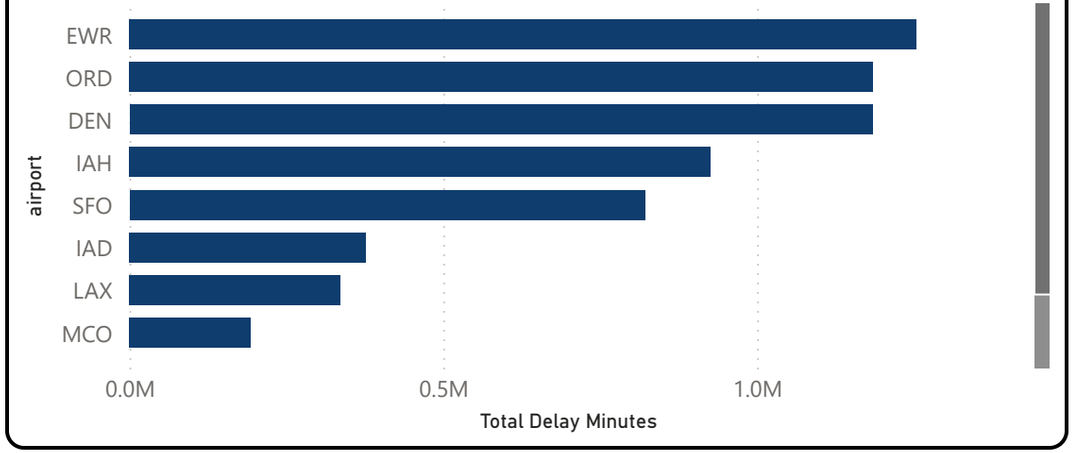
Filter by Airport

All

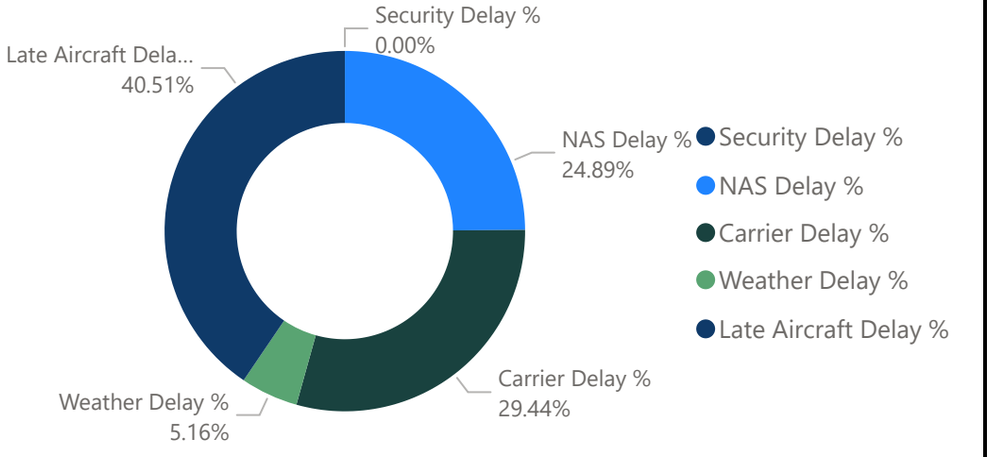
Filter by Month

- Select all
- April
- May
- June
- July
- August
- September

Top 10 Airports by Total Delay Minutes



Share of Delay by Cause



Delay Cause Analysis - United Airlines

Data Source: BTS.gov | Visualization by Pulkit Garg

Filter by Month

Select all | April | May | June | July

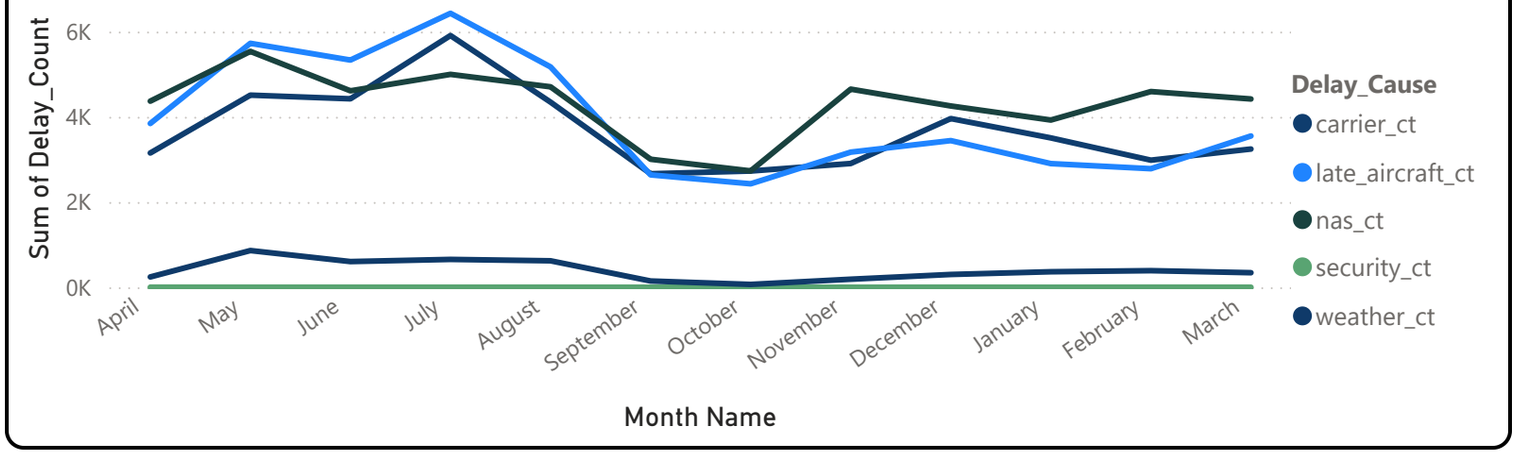
Filter by Airport

All

Avg Delay per Incident by Cause

Delay_cause	Avg Delay per Incident
late_aircraft_delay	28.86
carrier_delay	20.97
nas_delay	17.73
weather_delay	3.67
security_delay	0.00
Total	**71.24**

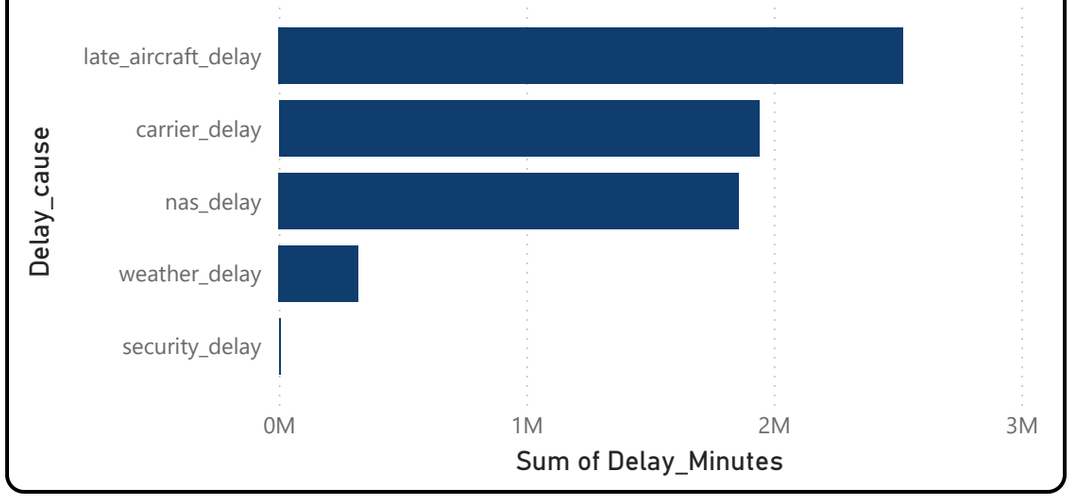
Monthly Delay Count by Cause



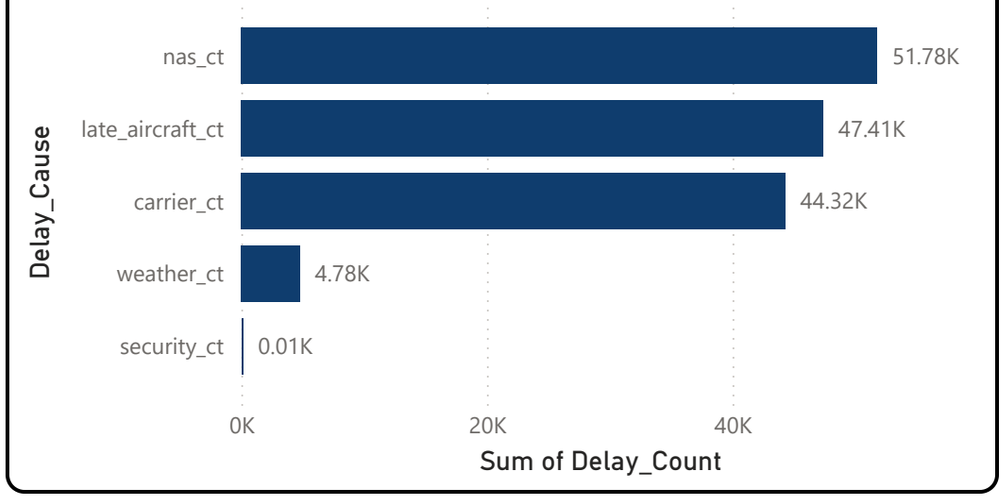
Month Name

Select all | April | May | June

Total Delay Minutes by Cause



Total Delay Count by Cause



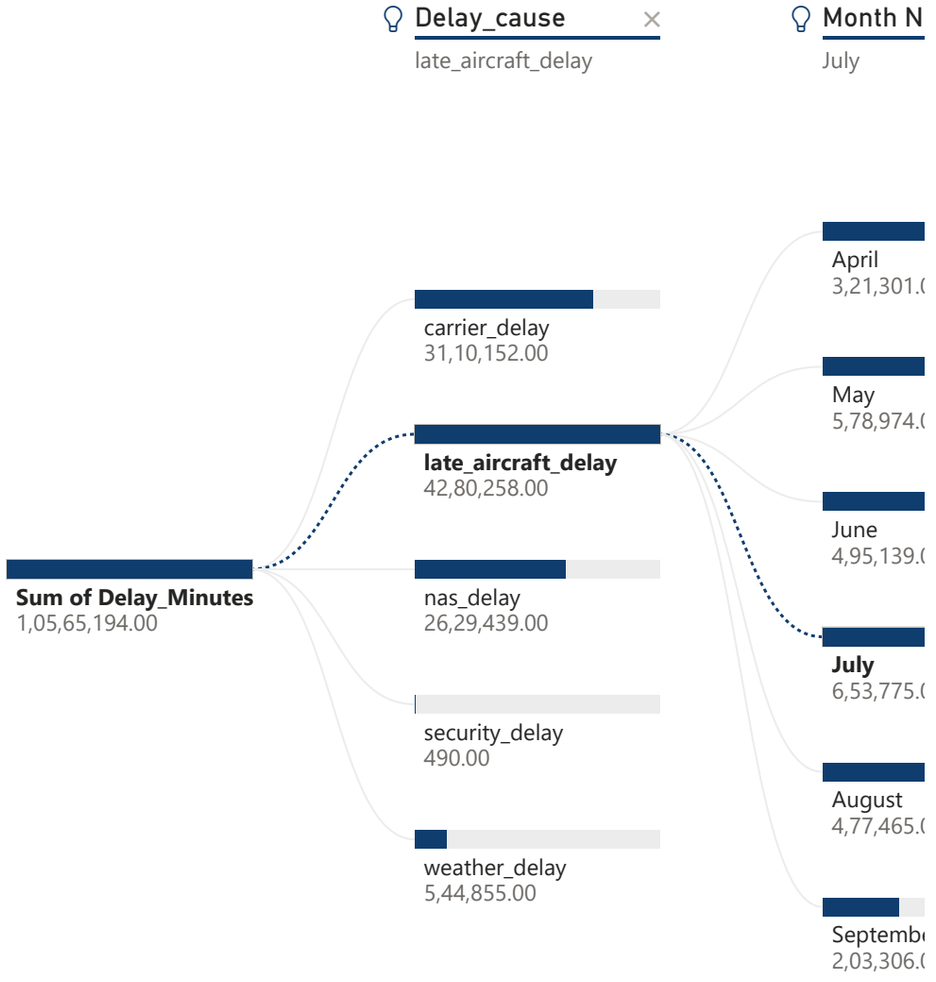
Avg Delay/ Incident
71.24

Total Delay Count
148.29K

Total Airports
126

Total Flights
766K

Decomposition: What's Driving Total Delay Minutes?



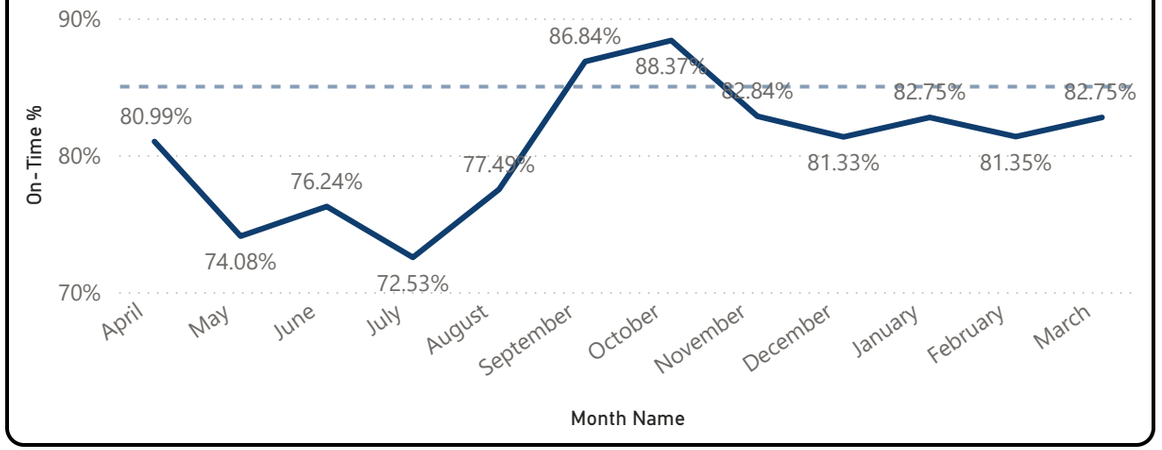
Key influencers | Top segments

What influences Delay_Minutes to Increase ?

When...	....the average of Delay_Minutes increases by
airport_name is Newark, NJ: Newark Liberty International	19.56K
airport_name is Chicago, IL: Chicago O'Hare International	18.39K
airport_name is Denver, CO: Denver International	18.38K
airport_name is Houston, TX: George Bush Intercontinental/Houston	14.04K
airport_name is San Francisco, CA: San Francisco International	12.28K
Delay_cause is late_aircraft_delay	1.94K

Strategic Insights & Action Plan (United Airlines)

Monthly On-Time Performance vs Target



Month Name

Select all | April | May | June | July | August

Breakdown of Flight Delay Causes – Share by Time and Frequency

Cause of Delay	% of Delay Count	% of Delay Minutes
Security Procedures	0.01%	0.00%
Weather Conditions	3.22%	5.16%
NAS System Delays	34.92%	24.89%
Carrier-related Issues	29.88%	29.44%
Late-arriving Aircraft	31.97%	40.51%
Total	**100.00%**	**100.00%**

Filter by Airport

All

Avg Delay/ Incident

71.24

Total No. of Delays

148.29K

Key Findings Summary

Late-arriving aircraft is the **top contributor to delay time** – accounting for **40.5% of total delay minutes**.

- Indicates systemic ripple effects due to upstream delays.

NAS delays are the **most frequent cause**, representing **34.9% of all delay incidents**.

- Caused by air traffic congestion and FAA routing.

Carrier-related delays account for nearly **29% of delay time and incidents**, showing opportunities for internal operational improvements.

On-time performance dipped to ~73% during **June to August**, highlighting seasonal operational stress.

Three airports – EWR, ORD, and DEN – consistently had the **highest cumulative delay minutes**, making them priority focus zones.

Strategic Recommendations

Improve Aircraft Turnaround Efficiency: Streamline crew scheduling and gate operations to reduce delays from late-arriving flights.

Engage with FAA for NAS Bottlenecks: Collaborate with ATC to address congestion at delay-prone airports and explore alternate routing.

Optimize Carrier Operations: Deploy operational audits at top delay airports to address staffing, maintenance, and equipment lag.

Deploy Summer Surge Plans: Strengthen June–August readiness with staffing buffers, flexible scheduling, and backup resources.

Target EWR, ORD, and DEN with Airport-Specific Action Plans: These hubs drive a disproportionate share of delays — tailored interventions are needed.

Data Source: BTS.gov | Visualization by Pulkit Garg | Created using Power BI