

# FLIGHT CANCELLATIONS

## CLASSIFICATION

### About Dataset

The U.S. Department of Transportation's (DOT) Bureau of Transportation Statistics tracks the on-time performance of domestic flights operated by large air carriers. Summary information on the number of on-time, delayed, canceled, and diverted flights is published in DOT's monthly Air Travel Consumer Report and in this dataset of 2015 flight delays and cancellations.

From **Kaggle**: <https://www.kaggle.com/datasets/usdot/flight-delays?select=flights.csv>

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### Content (5.8m Row X 31 Feature)

**YEAR**: Year of the Flight Trip

**MONTH**: Month of the Flight Trip

**DAY**: Day of the Flight Trip

**DAY\_OF\_WEEK**: Day of week of the Flight Trip

**AIRLINE**: Airline Identifier

**FLIGHT\_NUMBER**: Flight Identifier

**TAIL\_NUMBER**: Aircraft Identifier

**ORIGIN\_AIRPORT**: Starting Airport

**DESTINATION\_AIRPORT**: Destination Airport

**SCHEDULED\_DEPARTURE**: Planned Departure Time

**DEPARTURE\_TIME**: WHEEL\_OFF - TAXI\_OUT

**DEPARTURE\_DELAY**: Total Delay on Departure

**TAXI\_OUT**: The time duration elapsed between departure from the origin airport gate and wheels off

**WHEELS\_OFF**: The time point that the aircraft's wheels leave the ground

**SCHEDULED\_TIME**: Planned time amount needed for the flight trip

**ELAPSED\_TIME**:  $\text{AIR\_TIME} + \text{TAXI\_IN} + \text{TAXI\_OUT}$

**AIR\_TIME**: The time duration between wheels\_off and wheels\_on time

**DISTANCE**: Distance between two airports

**WHEELS\_ON**: The time point that the aircraft's wheels touch on the ground

**TAXI\_IN**: The time duration elapsed between wheels-on and gate arrival at the destination airport

**SCHEDULED\_ARRIVAL**: Planned arrival time

**ARRIVAL\_TIME**:  $\text{WHEELS\_ON} + \text{TAXI\_IN}$

**ARRIVAL\_DELAY**:  $\text{ARRIVAL\_TIME} - \text{SCHEDULED\_ARRIVAL}$

**DIVERTED**: Aircraft landed on airport that out of schedule

**CANCELLED**: Flight Cancelled (1 = cancelled)

**CANCELLATION\_REASON**: Reason for Cancellation of flight: A - Airline/Carrier; B - Weather; C - National Air System; D - Security

**AIR\_SYSTEM\_DELAY**: Delay caused by air system

**SECURITY\_DELAY**: Delay caused by security

**AIRLINE\_DELAY**: Delay caused by the airline

**LATE\_AIRCRAFT\_DELAY**: Delay caused by aircraft

**WEATHER\_DELAY**: Delay caused by weather

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## Questions

1. The months with the most frequent flights ?
2. The main reasons for delay flights ?
3. The main reasons for canceling flights ?
4. Most airlines cancelled flights ?
5. Most of the states where flying flights are cancelled ?
6. Most airport cancelled flights ?