BABELSTREET

Refined Information for Flights

BABEL STREET DATA

The Babel Street Data Refined Information Flights product empowers businesses with a comprehensive view of global air travel. We leverage millions of flight reservations across thousands of routes and airports served by over 500 airlines.

By leveraging our vast library of raw data collections sourced from online travel booking engines and other flight reservation systems, our Refined Information Flights product aggregates data to provide statistics by airline on the number of scheduled flights, miles flown, total possible seats flown, and average economy ticket price. Select product outputs also include geographic aggregation filtered by airport code, Core-Based Statistical Area (CBSA) for U.S. domestic flights, country, or other geographic regions.

Product Details

Refined Information Flights overcomes the challenges of preparing and combining data sources, making it readily accessible for business users unfamiliar with complex data manipulation. Our skilled analysts begin by collecting flight details from online travel pricing and booking sources. The raw flight data undergoes a rigorous cleaning, curation, and enrichment process before being aggregated into summarized weekly (Monday–Sunday), monthly, or quarterly outputs delivered in a single, user-friendly data file for easy analysis.

Flight data contains enrichments that structure airports into a geographic hierarchy and use information from the U.S. Federal Aviation Administration to determine the maximum possible seating configuration for the type of equipment used for each flight.

Benefits

Refined Information Flights data can be used to quickly compare the frequency, volume, and cost of commercial air travel to help better understand economic growth trends. While purchasing individual raw datasets containing flight information may provide additional underlying data to help answer specific questions, it is often expensive to procure and requires significant effort by analysis teams to make it intelligible.

Babel Street Data Refined Information Flights is a cost-effective alternative that provides readily available combined and summarized information delivered in a single data output that allows companies to free up resources to focus on making quick, informed decisions. Accessing data from multiple booking engines covering hundreds of major airlines worldwide can also be used as a discovery mechanism to identify additional raw details that would be valuable to purchase for a more detailed analysis.

Uses for Flight Data

Market Analysis

Track travel patterns and pinpoint areas with significant changes in flight activity to help identify potential new markets. Leverage leisure travel data as a proxy for consumer sentiment, providing valuable insights into overall economic health.

Competitive Analysis

Analyze flight offerings for specific routes to assess competition and adjust strategies accordingly. Track new routes added by airlines and anticipate growing travel demand to capitalize on emerging markets.

Investment Analysis

Combine flight data with financial information to build robust investment models and make informed decisions about airlines and travel-related industries. Assess historical trends for airline mergers to help identify potential synergies and overlaps.

Product Methodology

FIELD	DESCRIPTION	WORLD REGIONS REPORT	COUNTRIES REPORT	CBSA REPORT	AIRLINES REPORT	AIRLINE ROUTES REPORT	AIRLINE ROUTE PAIRS REPORT
start_date	Earliest observation date for data included in the aggregation period. For a weekly aggregation, this is a Monday. For a monthly or quarterly period, it is the first day of the respective month.	✔	✔	✔	✔	✔	✔
end_date	Latest observation date for data included in the aggregation period. For a weekly aggregation, this is a Sunday. For a monthly or quarterly period, it is the last day of the respective month.	✔	✔	✔	✔	✔	✔
origin_region_name	Name of the World Region where the flight originates, according to the World Bank regional classification.	✔	✔	✔		✔	
destination_region_name	Name of the World Region where the flight terminates, according to the World Bank regional classification.	✔	✔	✔		✔	
origin_country_code	3-letter ISO 3166 country code where the flight originates		✔	✔		✔	
destination_country_code	3-letter ISO 3166 country code where the flight terminates		✔	✔		✔	
origin_CBSA_name	Name of the CBSA where the flight originates. If the airport is not within a defined CBSA, then the value will be "Non-CBSA" and the state abbreviation.			✔			
origin_CBSA_code	ID of the CBSA (MSA, µSA) where the flight originates. If the airport is not within a defined CBSA, then the value will be NULL.					✔	
destination_CBSA_name	Name of the CBSA (MSA, µSA, or Rural area) where the flight terminates. If the airport is not within a defined CBSA, then the value will be "Non-CBSA" and the state abbreviation.			✔			
destination_CBSA_code	ID of the CBSA (MSA, µSA) where the flight terminates. If the airport is not within a defined CBSA, then the value will be NULL.					✔	
origin_HASC_2	The Hierarchical Administrative Subdivision Code where the flight originates, describing two administrative levels within the country. In the United States, these will be the State and the County.			✔		✔	
destination_HASC_2	The Hierarchical Administrative Subdivision Code where the flight terminates, describing the first two administrative levels within the country. In the United States, these will be the State and the County.			✔		✔	
origin_ISO_1	The ISO Subdivision code where the flight originates, describing one administrative level within the country. In the United States, this will be the State.			✔		✔	
destination_ISO_1	The ISO Subdivision code where the flight terminates, describing one administrative level within the country. In the United States, this will be the State.			✔		✔	

Product Methodology

FIELD	DESCRIPTION	WORLD REGIONS REPORT	COUNTRIES REPORT	CBSA REPORT	AIRLINES REPORT	AIRLINE ROUTES REPORT	AIRLINE ROUTE PAIRS REPORT
origin_airport_code	IATA code of the airport where the flight originates					✔	
destination_airport_code	IATA code of the airport where the flight terminates					✔	
airline_iata_code	Two-character IATA airline code for the carrier showing flights bookable during the aggregation period				✔	✔	✔
airline_name	Full name of the carrier showing flights bookable during the aggregation period				✔	✔	✔
popular_airport_route_pair	Comma-separated pair of IATA airport codes representing the most common route observed as bookable by the airline during the aggregation period				✔		
ticker_symbol	Symbol or identifier of the tradable company that owns or operates the airline				✔	✔	✔
exchange_code	Code for the exchange where the tradable asset is listed				✔	✔	✔
exchange_country	Name of the country where the exchange described in exchange_code is located				✔	✔	✔
ticker_as_of_date	Date on which a change in ticker information occurred within the respective exchange and country, or the first published ticker_knowledge_date				✔	✔	✔
ticker_knowledge_date	Date ticker information for this record was last reported by Babel Street. Will always be the same or later than ticker_as_of_date.				✔	✔	✔
flight_count	Number of flights observed as bookable during the aggregation period, between the points and/or on the airlines listed	✔	✔	✔	✔	✔	✔
seats_flown	Estimated number of the possible seats flown on the route/carrier based on flights observed as bookable during the aggregation period, based on the maximum seat configuration of each aircraft used. Does not attempt to describe the number of filled, available or empty seats actually flown.	✔	✔	✔	✔	✔	✔
total_miles_flown	Total number of miles flown on the route/carrier based on flights observed as bookable during the aggregation period, assuming straight line distance between the origin and destination points	✔	✔	✔	✔	✔	✔
average_ticket_price	Average observed price in USD of an economy ticket on the route/carrier for flights booked 14 days in advance, as measured from the observation date	✔	✔	✔	✔	✔	✔
total_seat_miles_flown	The product of seats_flown and total_miles_flown	✔	✔	✔	✔	✔	✔

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airport_1	IATA code of an airport comprising the route pair						✔
airport_2	IATA code of an airport comprising the route pair						✔
airport_1_region_name	Name of the World Region where airport_1 is located, according to the World Bank regional classification						✔
airport_2_region_name	Name of the World Region where airport_2 is located, according to the World Bank regional classification						✔
airport_1_country_code	Three-letter ISO 3166 country code where airport_1 is located						✔
airport_2_country_code	Three-letter ISO 3166 country code where airport_2 is located						✔
airport_1_HASC_2	The Hierarchical Administrative Subdivision Code where airport_1 is located, describing the first two administrative levels within the country. In the United States, these will be the State and the County.						✔
airport_2_HASC_2	The Hierarchical Administrative Subdivision Code where airport_2 is located, describing the first two administrative levels within the country. In the United States, these will be the State and the County.						✔
airport_1_CBSA_CODE	ID of the CBSA (MSA, μSA) where airport_1 is located. If the airport is not within a defined CBSA, then the value will be NULL.						✔
airport_2_CBSA_CODE	ID of the CBSA (MSA, μSA) where airport_2 is located. If the airport is not within a defined CBSA, then the value will be NULL.						✔
airport_1_ISO_1	The ISO Subdivision code where airport_1 is located, describing one administrative level within the country. In the United States, this will be the State.						✔
airport_2_ISO_1	The ISO Subdivision code where airport_2 is located, describing one administrative level within the country. In the United States, this will be the State.						✔

Aggregation Procedure

The Babel Street Data Refined Information Flights product aggregates raw information observed from booking engines and other sources of online flight reservations. The aggregations are oriented around the dates the information was published on those sources.

Because air travel is affected by real-world events, the data provided in this product is not a retroactive record of actual flight traffic. It is a forward-looking aggregation of the flights shown as bookable by the providers during the observation periods.

Within these booking engines, Babel Street Data explicitly requests non-stop travel between select global airport pairs. Therefore, not every airport, airline, or route in every region will be represented in the data.

Within these sets, the refined product aggregates flights with a scheduled departure date two weeks in advance of the dates within the observation period. For example, a monthly aggregation with a start_date of 2024-01-01 and an end_date of 2024-01-31 will contain information on flights observed with scheduled departures between 2024-01-15 and 2024-02-14.

Babel Street Data enriches each airport within the data by orienting it into a geographic hierarchy. The broadest level, World Region, uses World Bank definitions and boundaries. Country and administrative subdivision information is based on the ISO 3166 standard and the HASC two-level structure. Within the United States, metropolitan and micropolitan areas use the Office of Management and Budget's Core-Based Statistical

Areas. Straight-line distance between each airport pair is calculated to determine miles flown on those routes. This does not consider specific paths taken by aircraft when traveling on those routes.

Babel Street enriches the aircraft scheduled for each flight by joining it with the U.S. Federal Aviation Administration's information on the maximum possible seating configuration for that equipment. This does not consider seating variations offered by specific airlines or on specific routes. Aggregated seating information reported by the Refined Information Flights product does not consider the number of reserved or available seats, or what portion of an aircraft's seats were filled by customers when it departed.

Depending on the report type, each flight is aggregated into one or more of these geographic groupings, and/or by the airline brand offering the flight. For each grouping combination, the refined product performs a sum on the number of flights observed as bookable, the total miles flown by those flights, the total maximum seats flown on those flights, and the total seat-miles flown on those flights (the product of miles and seats).

Each report also averages the cost of a single main cabin, economy seat on the flights aggregated in the grouping, when available. Note that although the flights' distance statistics are for one-way movement between origination and destination points, the average price is for a round-trip ticket.