US Airports Data Analysis Report

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This report presents a comprehensive analysis of US airports data, including their geographic distribution, state-wise distribution, and various visualizations.

Dataset Statistics

Total number of airports analyzed: 322

Number of states/territories with airports: 51

Top 10 States by Number of Airports

1. TX: 24 airports
2. CA: 22 airports
3. AK: 19 airports
4. FL: 17 airports
5. MI: 15 airports
6. NY: 14 airports
7. CO: 10 airports
8. MT: 8 airports
9. WI: 8 airports
10. NC: 8 airports

Geographic Extremes

Northernmost: BRW - Wiley Post/Will Rogers Memorial (Barrow, AK)

Southernmost: PPG - Pago Pago International (Pago Pago, American Samoa)

Easternmost: GUM - Agana Field (Guam, Guam)

Westernmost: ADK - Adak NS (Adak Island, AK)

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Latitude and Longitude Statistics

Mean latitude: 38.85°

Median latitude: 39.26°

Range: -14.33° to 71.29°

Mean longitude: -97.31°

Median longitude: -93.22°

Range: -176.64° to 144.80°

Airport Density Analysis

Distribution by latitude bands:

(-14.334, 2.79]: 0 airports (0.0%)

(2.79, 19.914]: 8 airports (2.5%)

(19.914, 37.038]: 116 airports (36.0%)

(37.038, 54.162]: 179 airports (55.6%)

(54.162, 71.286]: 18 airports (5.6%)

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Visualizations

The following visualizations were created as part of this analysis:

1. Geographic Distribution of Airports

2. Top States by Number of Airports

3. Airport Distribution by Latitude Bands

4. Airport Distribution by Longitude Bands

5. Airport Density Heatmap

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Conclusion

The analysis reveals that US airports are not evenly distributed across the country. There is a higher concentration in the eastern and western coastal regions, as well as in states with larger populations or geographic areas. Texas, California, and Alaska have the highest number of airports, reflecting their large size and economic importance.

The majority of airports (55.6%) are located between 37.038°N and 54.162°N latitude, which corresponds to the northern part of the continental United States. Another significant portion (36.0%) falls between 19.914°N and 37.038°N, covering the southern continental US.

The interactive dashboard provides a comprehensive tool for exploring this data further, allowing users to visualize the geographic distribution of airports, analyze state-wise distribution, and examine the distribution by latitude and longitude.