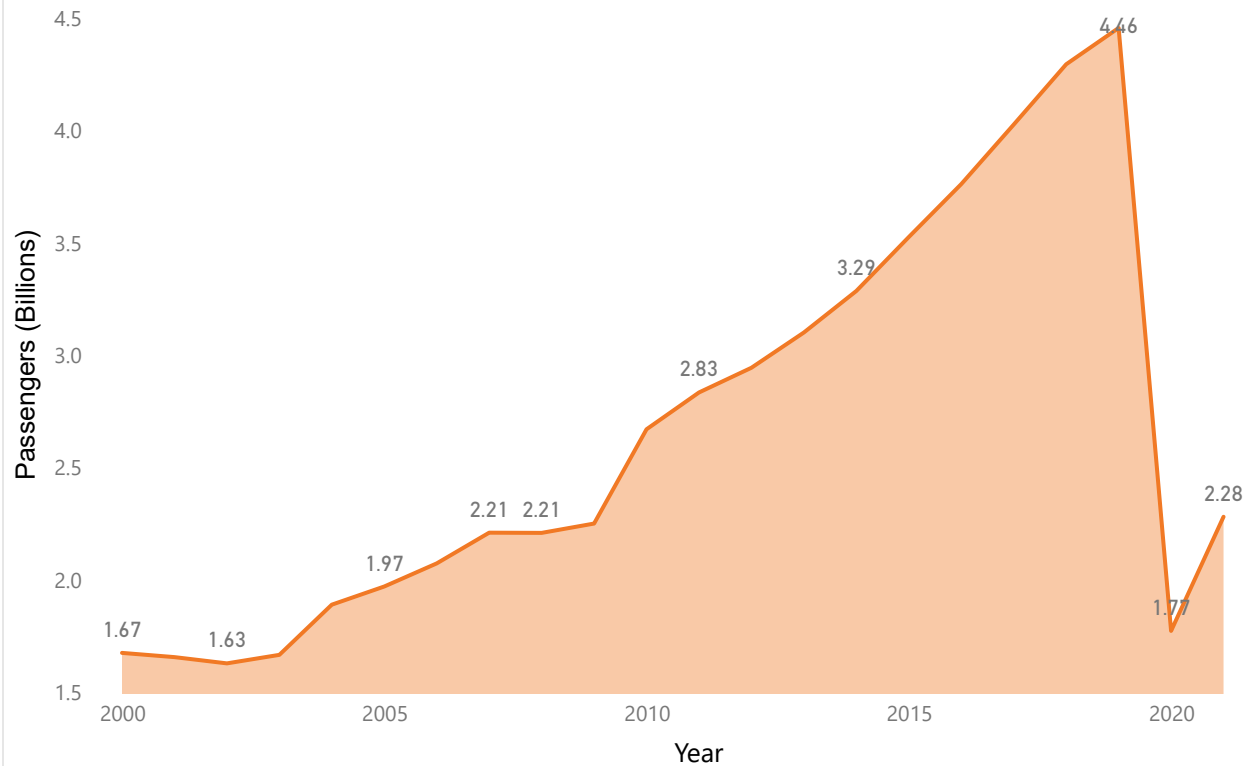


# Aviation Industry Analysis

Passenger Volume Reduction % (PreCovid and PostCovid)

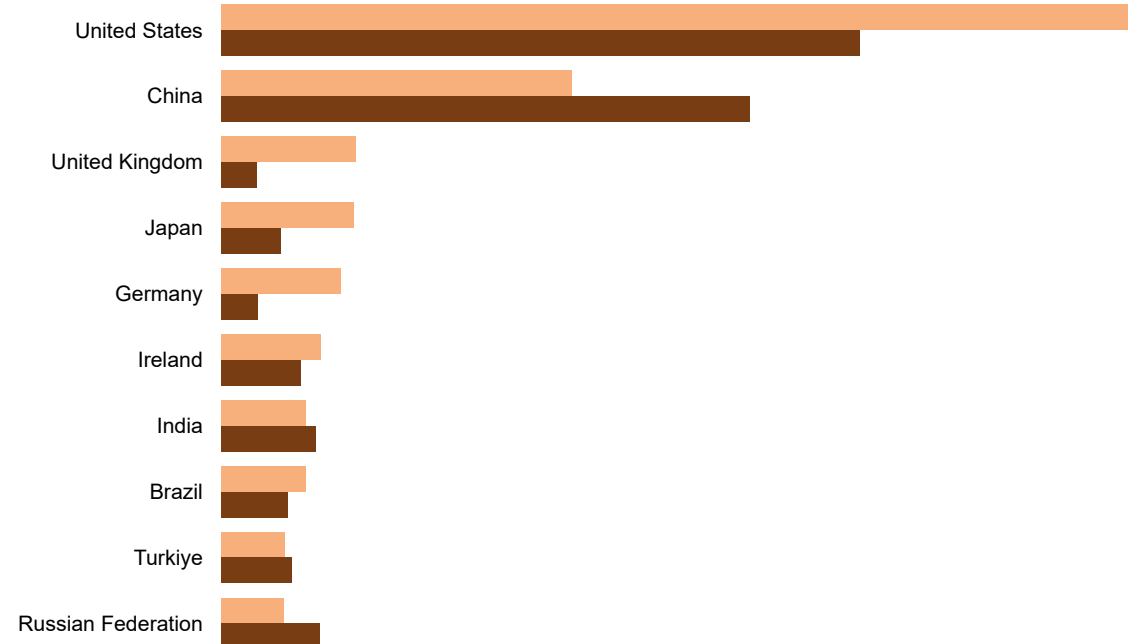
-26.16

How many people are travelling?



Top 10 Countries: Passenger Volume Decline Pre vs. Post-COVID

● Average Population PreCovid ● Average Population Post Covid



Overview of Global Airlines

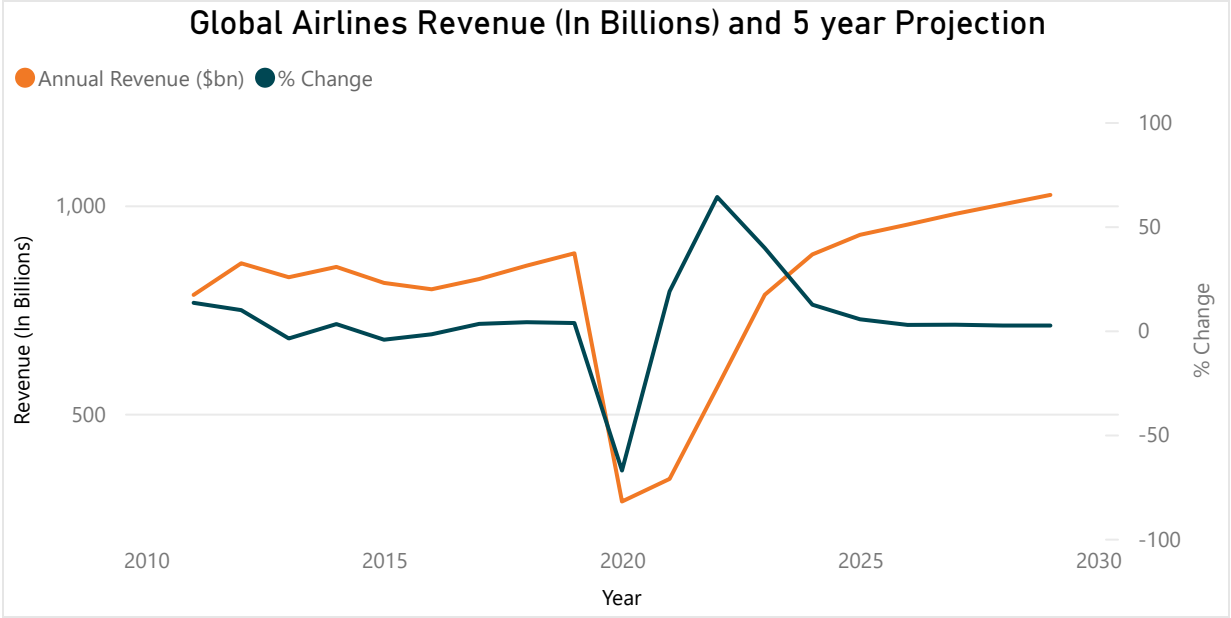
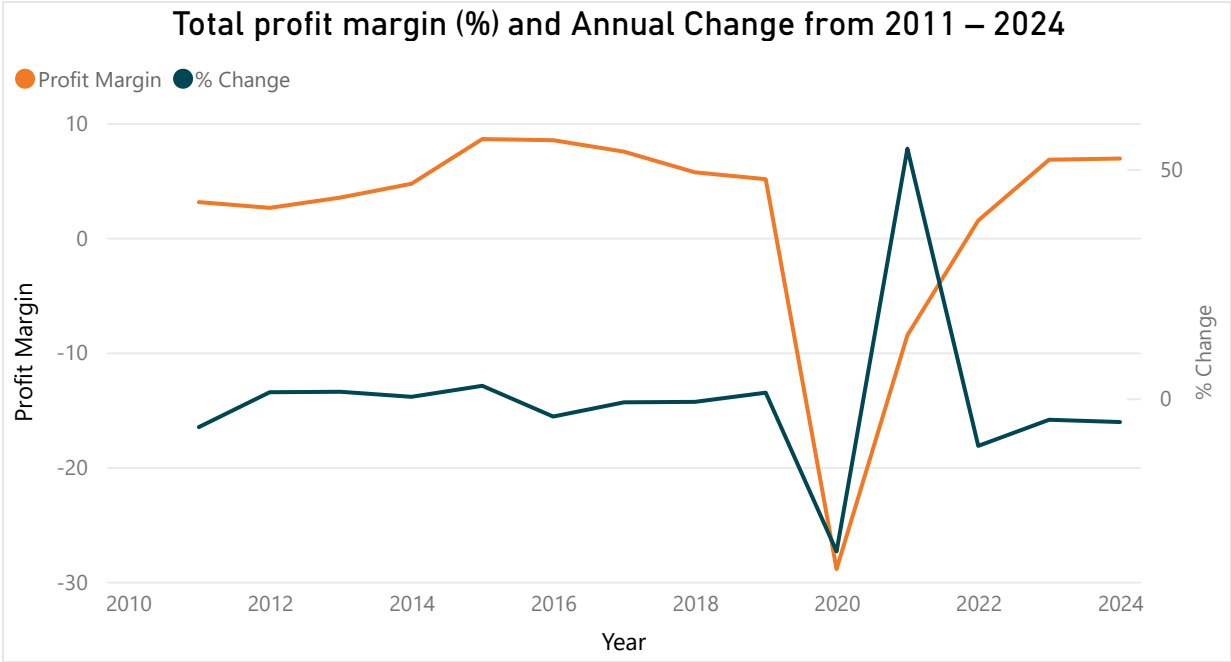
Global Aviation Performance Metrics

Aviation Market Breakdown

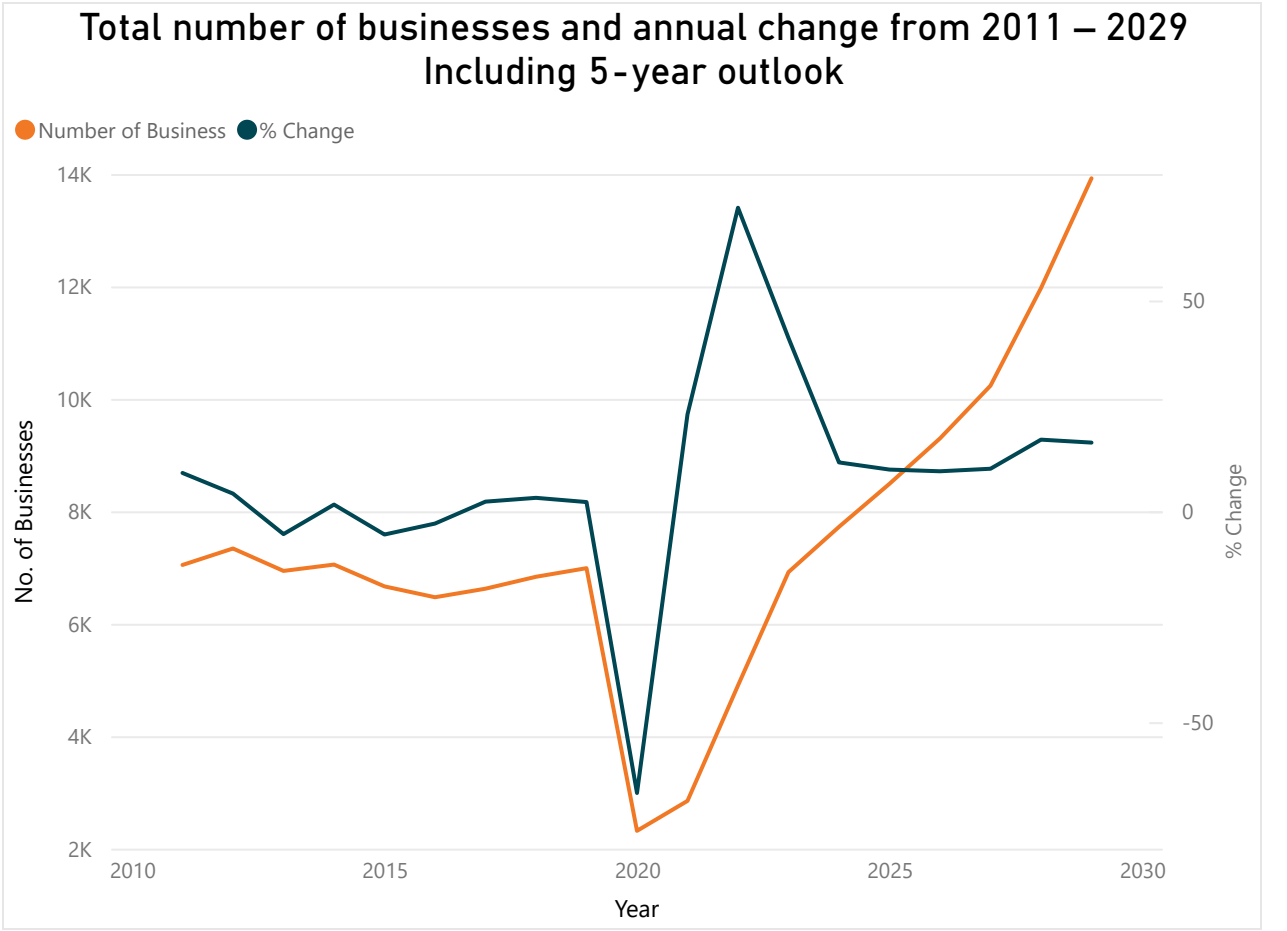
Global Aviation: Revenue, Cost & Market Overview

U.S. Aviation Domestic Market Overview

U.S. Airline Operations: Volume, Cancellations & Routes

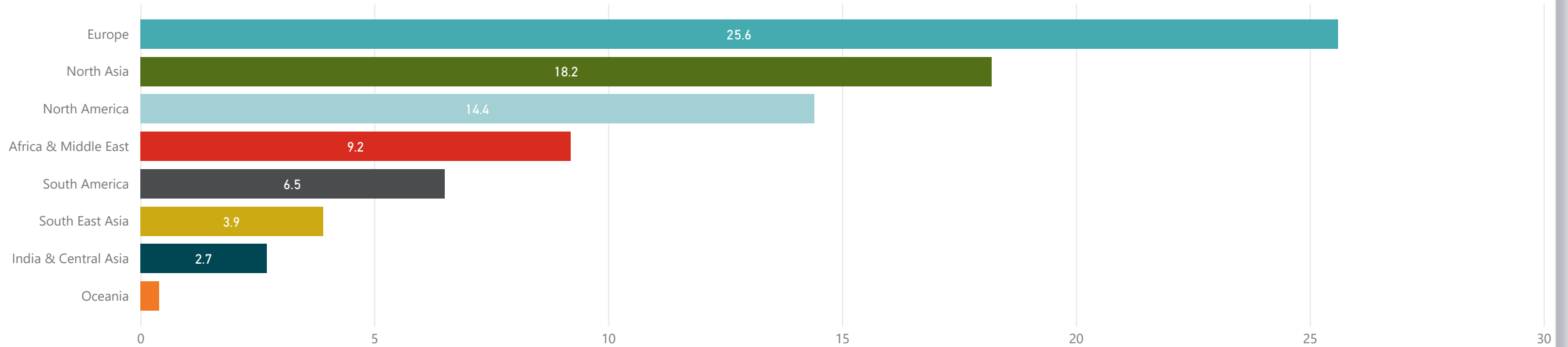


**Note:** If no year is selected then it will show the data for Latest year in Cards

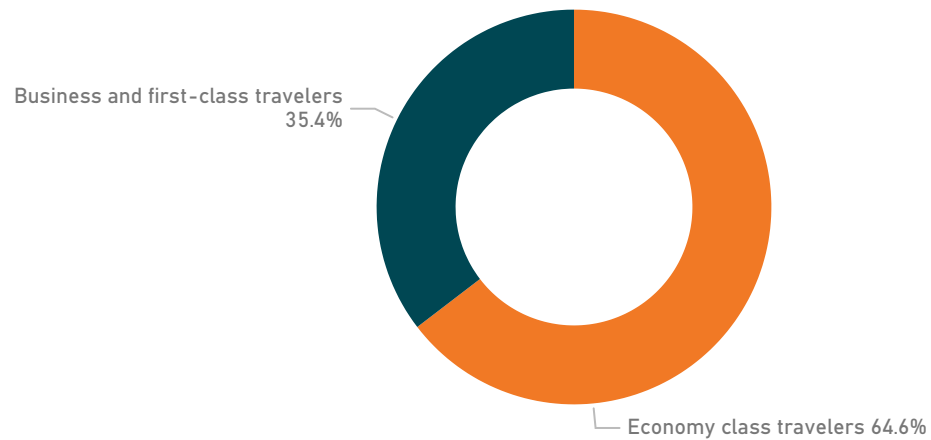


# Aviation Market Breakdown

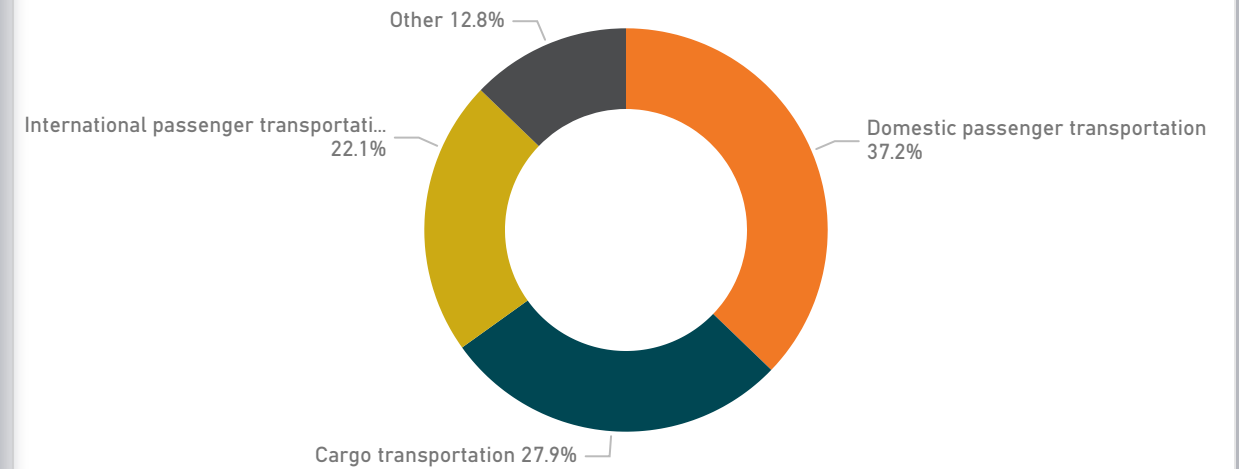
Percentage of total industry volume of output in each region ( % )



Type of Population travelling in Global Airlines



Industry revenue in 2024 broken down by key product and service lines

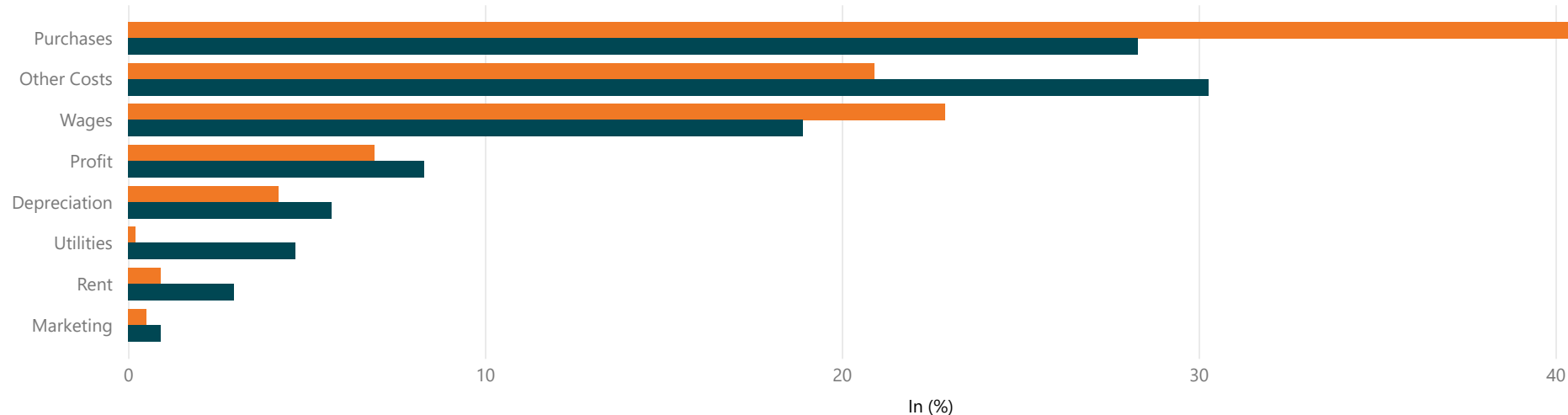




## Global Aviation: Revenue, Cost & Market Overview

Average operating costs by industry and sector as a share (%) of revenue 2024

Type ● Industry ● Sector



Company ▼

All ▼

Year ▼

2024 ▼

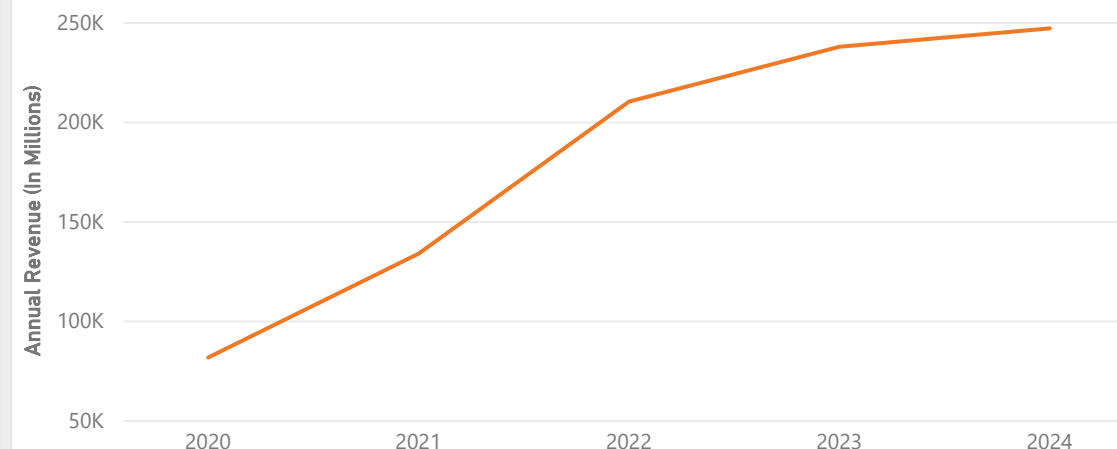
Average Profit  
Margin (%)

12.10

Industry Market Share by Company



Company's Industry revenue





# U.S. Aviation Domestic Market Overview

Airline

All

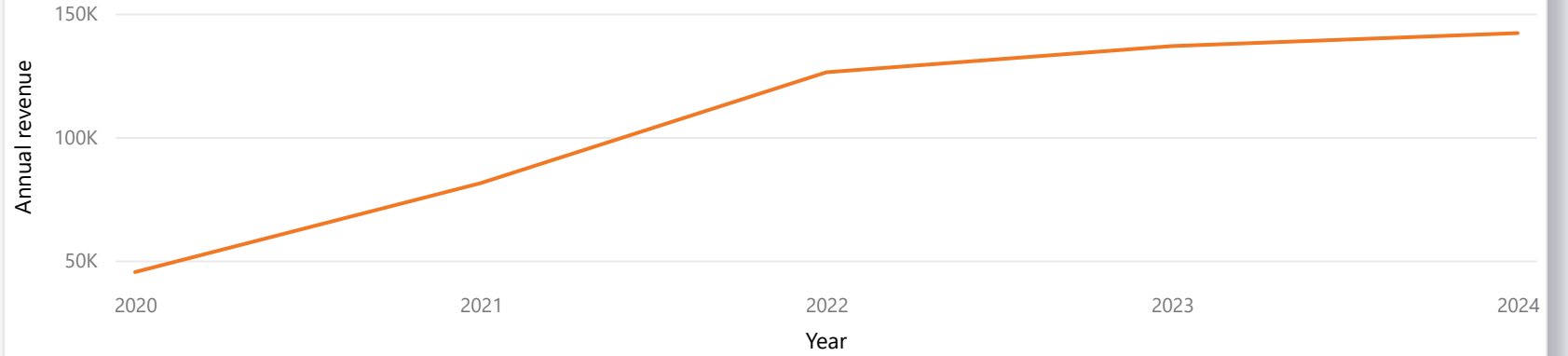
Year

2024

Profit Margin (%)

3.34

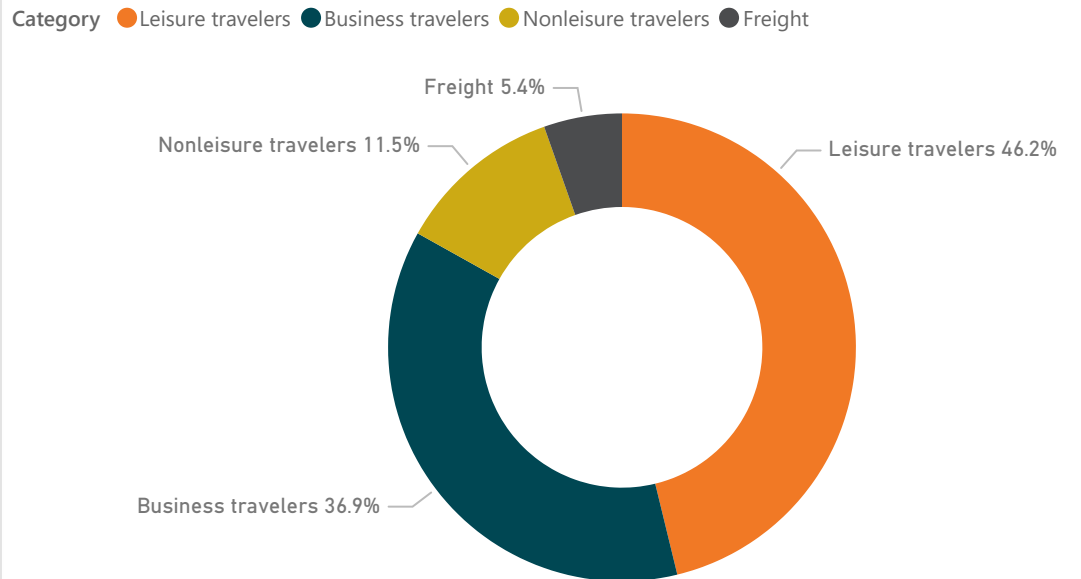
Annual Revenue of U.S Airlines(In Millions)



Annual Market Share by Airline



Domestic Airlines in the US by Category



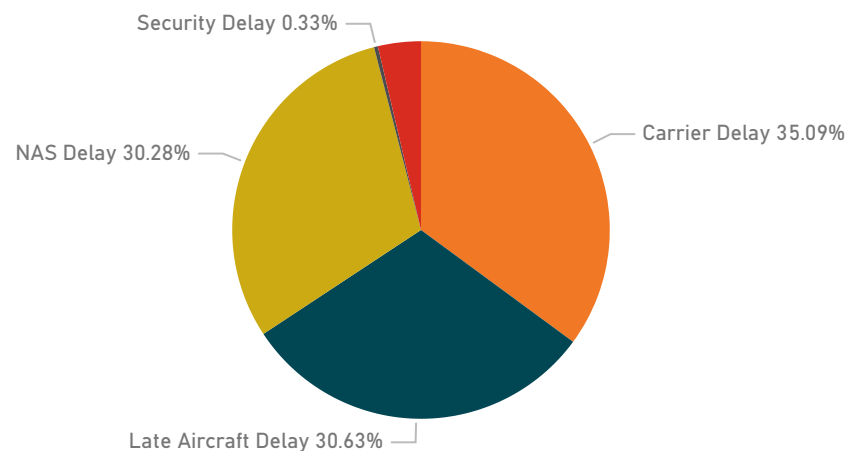


# U.S. Airline Operations: Delayed Cause, Cancellations & Routes

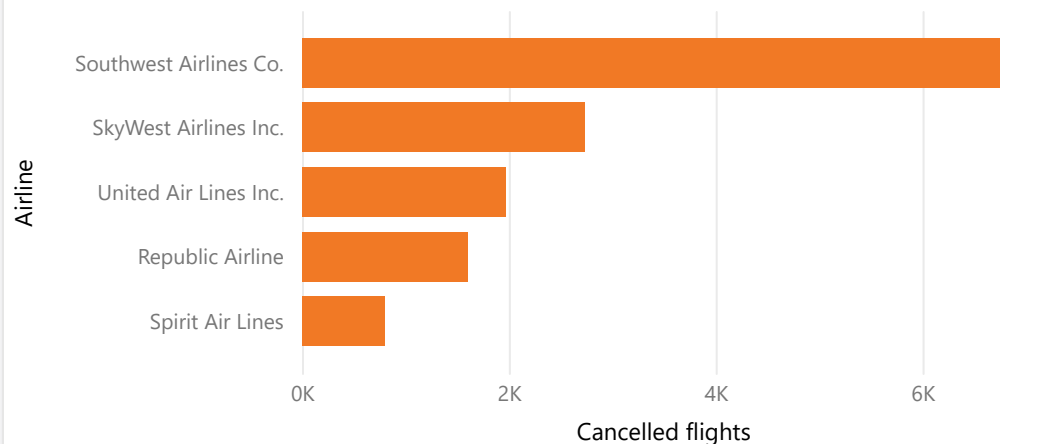
Year

All

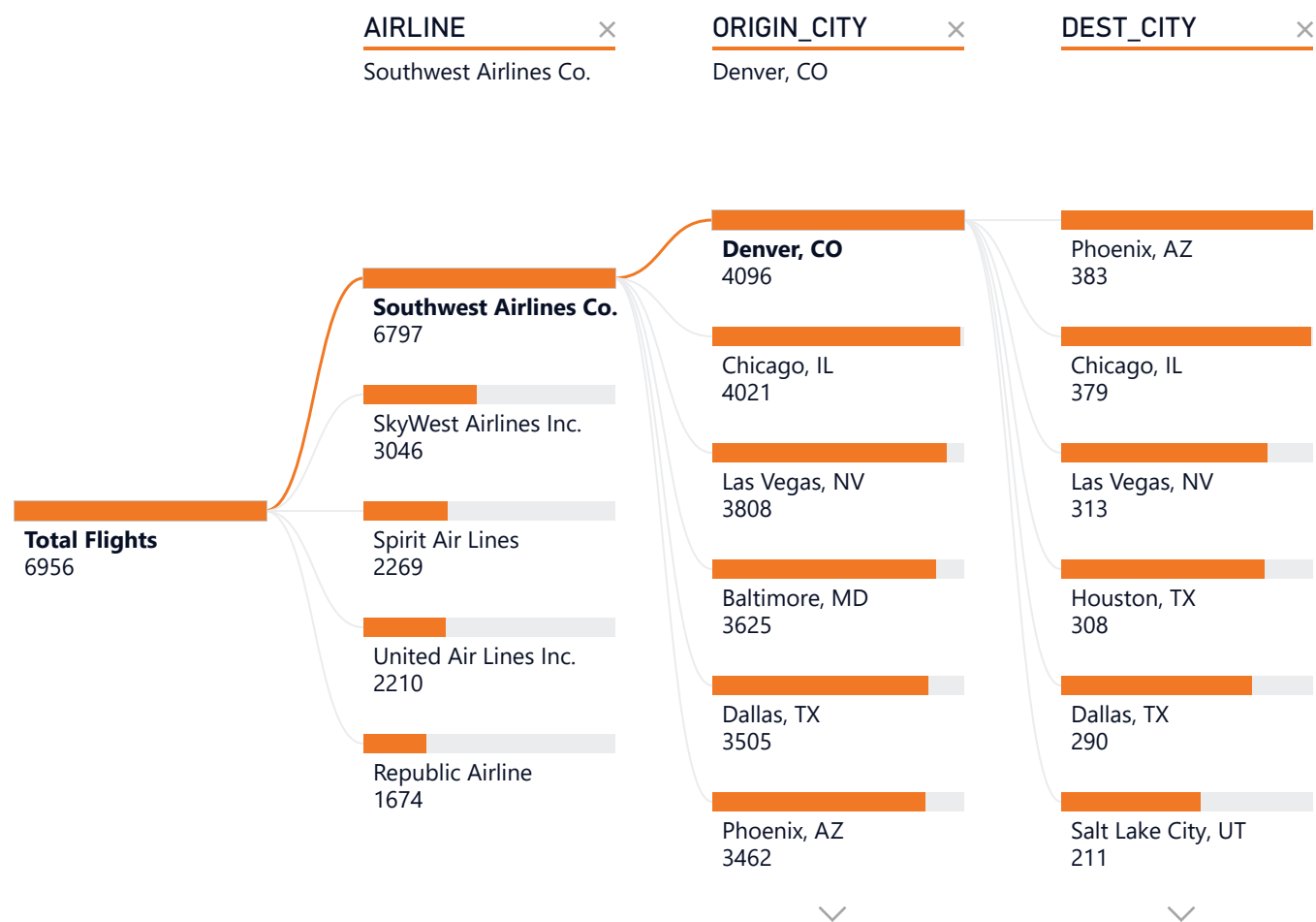
## Reasons for Delayed Aircraft



## Which airlines had the highest number of cancelled flights?



## Which cities have the most flights for each airline, and what are their top destinations?



## Key Questions from Overview of Global Airlines

### 1.How has global air passenger volume changed over time, especially during the COVID-19 period?

From 2000 to 2019, global air travel steadily increased, rising from 1.67 billion passengers in 2000 to a peak of 4.46 billion in 2019. However, due to the COVID-19 pandemic, there was a sharp decline to 1.76 billion in 2020, marking a 60.5% drop compared to the previous year. A partial rebound occurred in 2021 with 2.28 billion passengers.

The global aviation industry witnessed two decades of strong, consistent growth, with air travel nearly tripling between 2000 and 2019. This trend was abruptly disrupted in 2020 by the COVID-19 pandemic, resulting in a historic collapse in passenger traffic. The industry began its recovery in 2021, but passenger numbers remain significantly below pre-pandemic levels, highlighting the long-term impact of the global health crisis.

### 2.Which countries experienced the most significant decline in air passenger traffic after COVID-19?

The impact of COVID-19 on aviation was felt across the globe, but countries like the United States and China, which dominate international air traffic, experienced the largest absolute declines. European nations such as the United Kingdom, Germany, and Ireland saw some of the steepest percentage drops, with air traffic falling by over 55%. These figures reflect not just travel restrictions but also differing rates of recovery, national policy responses, and domestic versus international travel reliance.

Also, The summary card highlights a 26.16% global average decline in air travel after COVID-19. This reflects the sharp contraction in international and domestic air traffic worldwide. While the impact varied by country, this KPI gives a clear top-line view: the pandemic disrupted nearly one-quarter of global air passenger activity — a setback not seen in decades.

## Key Questions from Performance Metrics

### 1. How has the global aviation industry recovered financially since the pandemic?

In 2024, the global aviation industry has reached a revenue of \$882 billion, marking a 12.3% increase over the previous year. However, despite this short-term growth, total revenue has only increased 0.1% over the past five years, indicating a slow recovery from the pandemic-era lows. Airlines have managed to stabilize profit margins, which now stand at 6.9%, recovering from a significant dip during the COVID years. This return to profitability has been achieved through operational optimization and reliance on ancillary revenue sources such as seat selection and baggage fees.

While these strategies have helped stabilize revenue, they've also raised regulatory concerns — particularly in countries like the United States — where customer protection policies may limit how airlines can generate additional fees. Additionally, high fuel costs and labor shortages continue to influence bottom-line performance. Still, the upward trend in profit margin and revenue suggests that the industry is gradually regaining its footing.

### 2. What does the current business environment in the airline industry look like, and what are the projections moving forward?

As of 2024, the number of businesses in the airline industry has increased to 7,724, reflecting a broader return to market activity and growing investor confidence. The revenue per business has reached \$114 million, a sign of improving efficiency and market consolidation. However, labor intensity remains high, with 363 employees per business on average, signaling ongoing pressure from staffing needs and rising wage costs.

Looking ahead, the industry is projected to grow at an annualized rate of 3.0%, surpassing \$1 trillion in total revenue by 2029. This growth will be driven by rising global travel demand, improved connectivity, and economic expansion. However, future profitability will depend on how well airlines navigate risks such as labor cost inflation, fuel volatility, and stricter operational regulations. The road ahead looks positive — but turbulent conditions remain.



## Key Questions from Aviation Market Breakdown

### 1. Which region dominates the aviation industry in terms of output, and what are the key trends driving regional differences?

In 2024, Europe leads the global aviation market, contributing 25.6% of the total industry output. It is followed by North Asia (18.2%) and North America (14.4%). Other regions like Africa & the Middle East (9.2%) and South America (6.5%) also represent notable shares, while Oceania contributes the least.

### 2. What is the passenger composition in global airlines, and how does this affect airline strategies and revenue generation?

In 2024, 64.6% of global airline travelers are economy-class passengers, while 35.4% belong to business and first-class categories. The strong demand for budget-friendly travel continues to drive the dominance of economy class, making it the core revenue driver for most airlines. This is due to the affordability of economy seating and aircraft configurations that allow more passengers per flight. Airlines are responding by enhancing economy offerings and even introducing "premium economy" classes.

Despite a smaller passenger base, business and first-class generate disproportionately high revenue due to their premium pricing and personalized services. Offerings such as lounge access, private terminals, and exclusive in-flight amenities allow airlines to maximize profit per seat — making premium cabins a key strategic focus for high-end carriers.

### 3. What are the key revenue segments in the global aviation industry in 2024?

In 2024, the global aviation industry's revenue is primarily driven by domestic passenger transportation, which accounts for 37.2% of total income. This is fueled by the strong return of leisure and short-haul travel. Cargo transportation follows closely at 27.9%, a segment that surged during the pandemic and has remained strong due to e-commerce growth, especially in the Asia-Pacific region. International passenger travel contributes 22.1%, still recovering as long-haul and business travel lag behind. The remaining 12.8% comes from ancillary services such as loyalty programs, baggage fees, and onboard purchases. Airlines are increasingly relying on diversified revenue streams, adapting to evolving travel behavior and boosting profitability beyond ticket sales.

## Key Questions from Revenue, Cost & Market Overview

### 1. How have the operating cost components for airlines evolved from 2020 to 2024 at the industry level?

Over the past five years, the industry-level cost structure for airlines has remained largely dominated by Purchases and Wages, reflecting the critical importance of fuel, equipment, and labor. For example, by 2024, Purchases accounted for 43.5% of revenue, while Wages stood at 22.9%. Although the precise percentages in 2020, 2021, 2022, and 2023 vary slightly, the overall trend shows that these categories have consistently represented a major cost burden. Minor shifts in Other Costs and Depreciation over the years indicate incremental efficiency improvements or adjustments in expenditure—but the industry still operates under high capital and operational expense pressures. In essence, the overall airline industry continues to rely heavily on these core expense areas, even as it struggles to achieve sustainable profitability on a global scale.

### 2. How do the cost structures compare between the overall industry and a specific sector over the same period, and what does that tell us about operational efficiency?

When we zoom in on a particular sector within the aviation industry—representing, for example, a regionally focused group or a subset of carriers with similar business models—a contrasting cost profile emerges. In 2024, this sector shows a markedly different allocation: Purchases drop to 28.30% and Wages fall to 18.91%, while Other Costs rise to 30.26%. Moreover, while the overall industry reported an average profit share of  $-4.44\%$ , the sector turns a positive profit at  $9.35\%$ . Reviewing the data over the years (from 2020 to 2024), the sector appears to have gradually rebalanced its spending—reducing its reliance on costly inputs like fuel and labor relative to the industry average—and, in doing so, managed to achieve operational efficiencies that translate into profit. This comparison indicates that, while the industry as a whole faces high input costs and compressed margins, certain segments have optimized their cost structures to better withstand external pressures and drive profitability. In other words, the better-controlled cost allocation in these sectors—demonstrated by lower percentages for Purchases and Wages and improved profit figures—highlights a clear pathway to greater financial resilience within the broader aviation landscape.

### 3. How did the top global airlines perform in 2024 compared to 2023 in terms of market share, revenue, and profit margins?

Between 2023 and 2024, major airlines saw higher revenues but shrinking market shares and mixed profit margins. United and Delta led in revenue growth but lost 0.6% market share each. Lufthansa and American faced both declining profitability and market presence, while Emirates stayed steady with a 29.8% profit margin despite a small share drop. Overall, revenue growth didn't translate into stronger market or profit performance, reflecting rising competition in the global airline industry.

## Key Questions from U.S Domestic Airlines

### Domestic Airlines:

(When the dashboard first loads, it shows the average profit margins for all years except 2020. This is because 2020 was a very rough year for airlines, and including it would make their profit margins look negative. By leaving it out, the dashboard gives a clearer picture of their regular performance.)

**1.What was the performance of the airlines in terms of profit margin and market share and Has the annual revenue trend changed after covid. Who are the major travellers?**

The dashboard indicates that, once the most challenging Covid year is set aside, U.S. airlines have shown a healthy performance with steady profit margins and clear market dominance among a few major players. Major carriers like Delta, American, and United hold a significant share of the market. The revenue trends, observed over several years, point to a growth trajectory following the initial Covid downturn. Additionally, the breakdown of traveler segments reveals that leisure travelers are currently the largest group, playing a key role in the post-Covid recovery of the industry.

## **Key Questions from U.S. Airline Operations: Delayed Cause, Cancellations & Routes**

**1. What is the most common reason for flight delays among U.S. airlines?**

**2. Which airlines had the highest number of cancelled flights between 2019 and 2023?**

**3. For each airline, which cities have the highest number of departures and what are their top destinations?**

In 2023, the data shows that carrier-related delays were the dominant issue, emerging as the primary cause of flight delays compared to other factors such as weather or NAS-related issues. When compared to previous years, carrier delay has been getting better. The data shows that Southwest Airlines Co. had the most cancelled flights followed by United Air Lines Inc. From a volume standpoint, Southwest emerge as a busiest airline and cities like Denver, Chicago, Las Vegas are key hubs.

## Data Source and Contribution

### Dataset Sources:

1. [Domestic Airlines in the US - Market Research Report](#)
2. [Flight Delay and Cancellation](#)
3. [World Bank Indicator](#)