

A decorative graphic on the left side of the slide, consisting of a network of white lines and small circles on a blue gradient background, resembling a circuit board or data flow diagram.

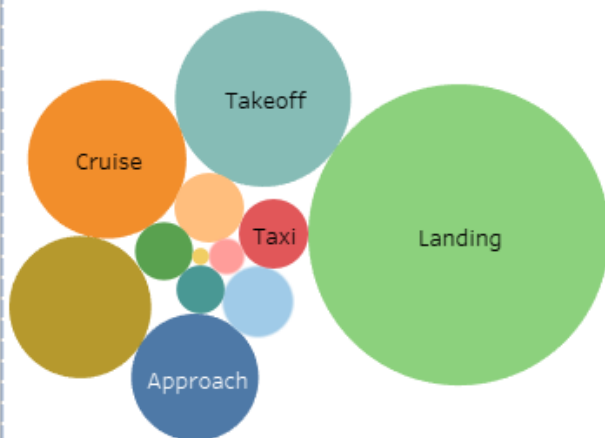
# AVIATION DATA ANALYSIS

## ENGINE TYPE

Error.type (US)

Engine.Type ..	Mechanical err..	Pilot error
Reciprocating	59,603	12,043
Turbo Shaft	2,876	540
Turbo Prop	2,567	650
Turbo Fan	1,997	104
Unknown	1,378	12
Turbo Jet	628	41
None	6	15
Electric	6	4
LR		2
UNK		1
Hybrid Rocket		1

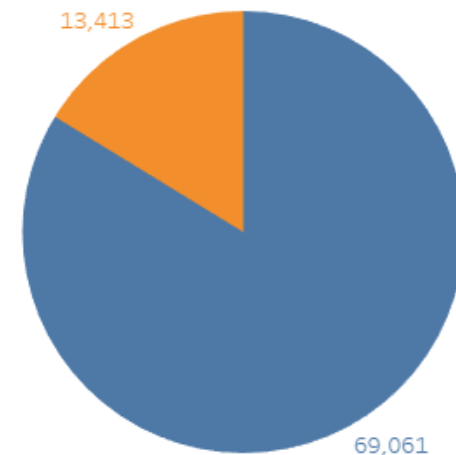
## BROAD TYPE



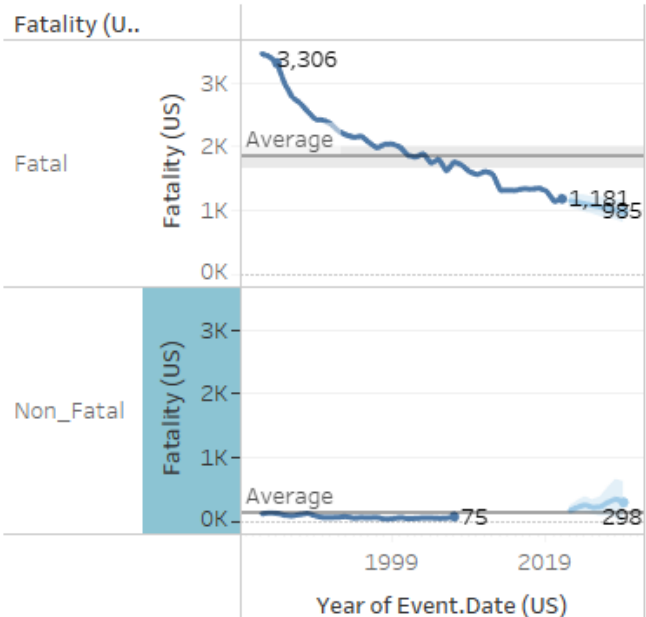
## AIRCRAFT DAMAGE

Aircraft.da..	Error.type (US)	
Destroyed	Mechanical error	15,446
	Pilot error	1,060
Minor	Mechanical error	1,972
	Pilot error	160
Substantial	Mechanical error	51,598
	Pilot error	12,188
Unknown	Mechanical error	45
	Pilot error	5

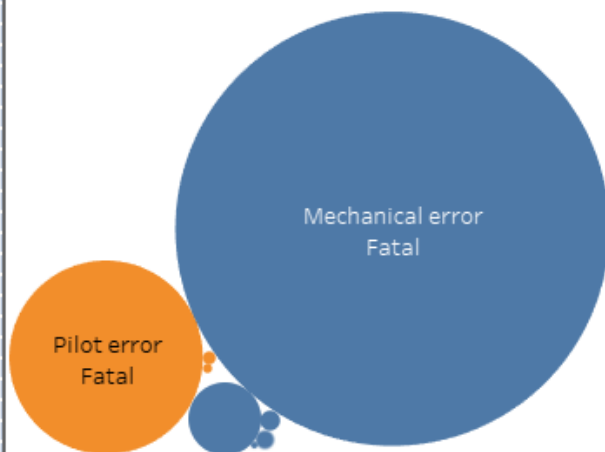
## FATALITY DUE TO ERROR TYPE



## FATALITY RATE WITH FORECAST



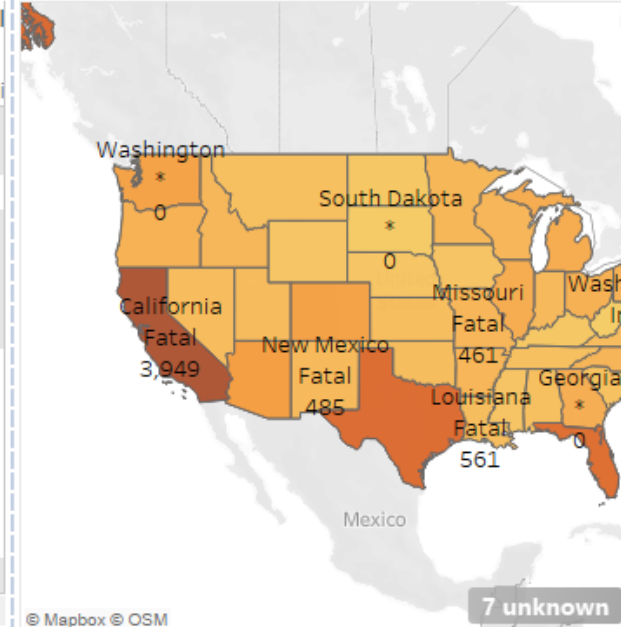
## CAUSE OF ACCIDENT



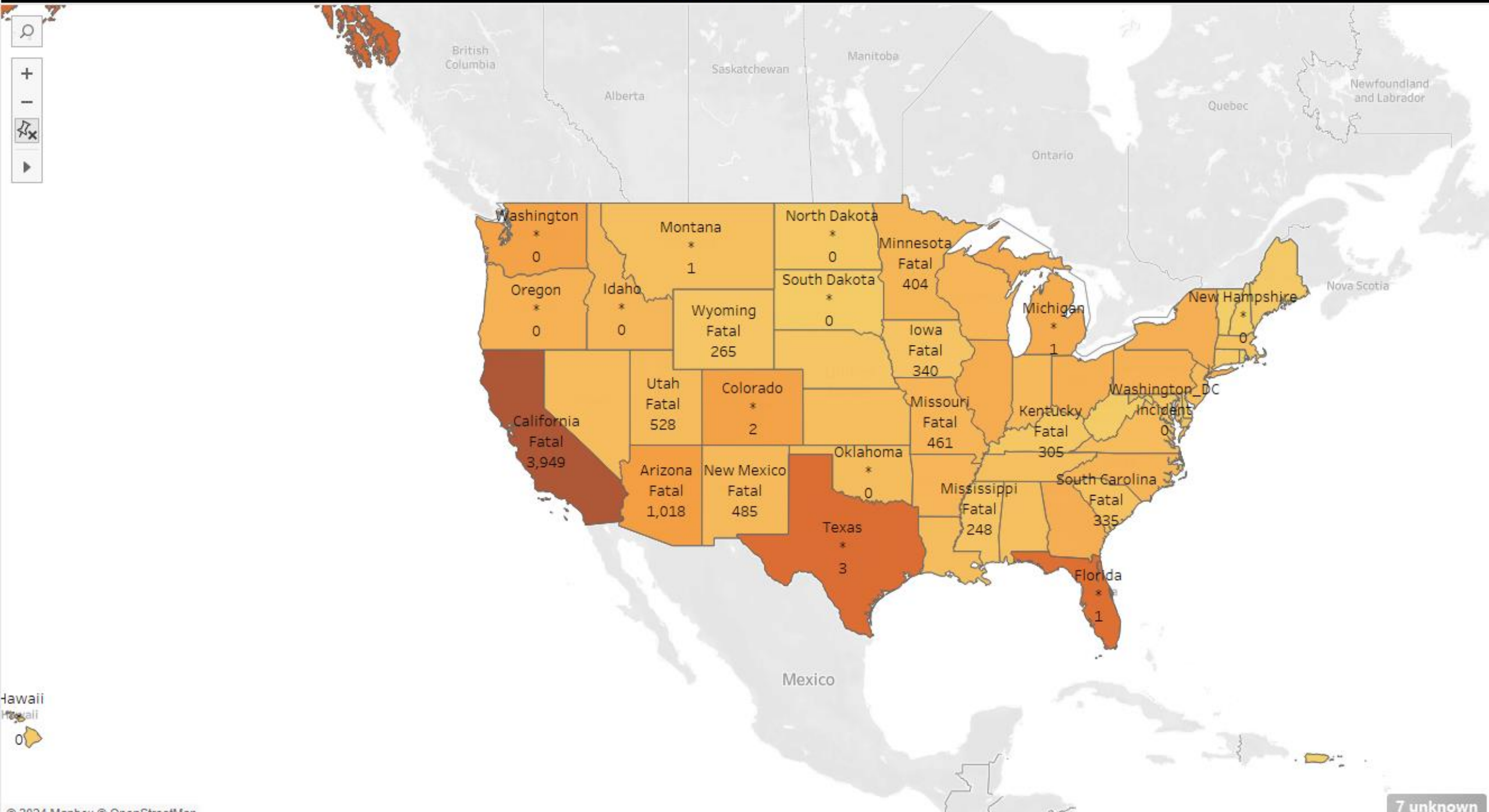
## AIRCRAFT TYPE

Aircraft. Category (..	Fatal		Non_Fatal	
	Mechanical error	Pilot error	Mechanical error	Pilot error
Airplane	64,859	11,500	2,115	
Balloon	112	111	3	
Blimp	4			
Glider	251	246	5	
Gyrocraft	76	91	4	
Helicopter	1,509	1,161	44	
Powered P..	12	76		
Powered-L..	3			
Rocket		1		
ULTR			1	
Ultralight	14	11		
Unknown	4			
Weight-Sh..	37	124		
WSFT	7		1	

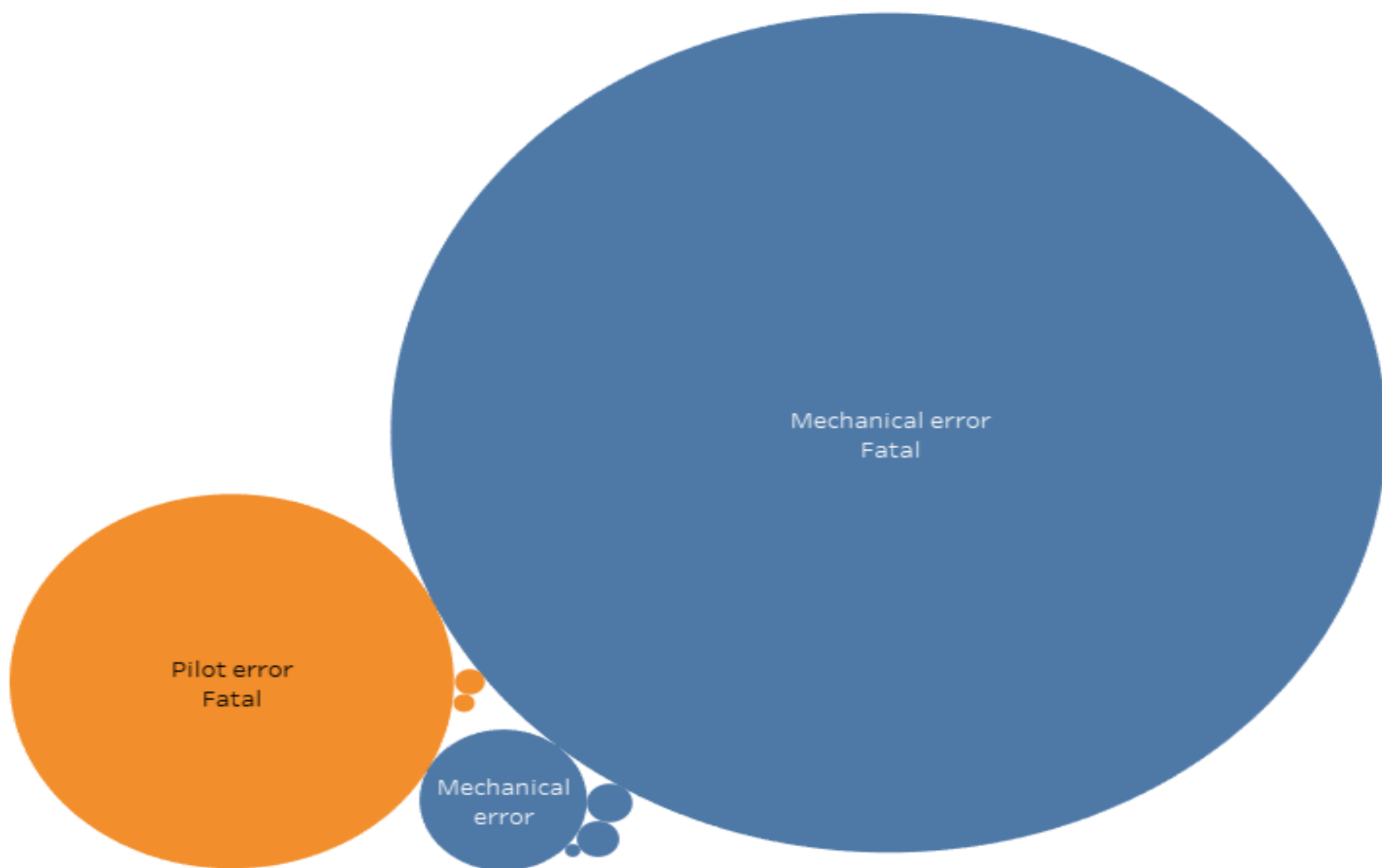
## UNITED STATES



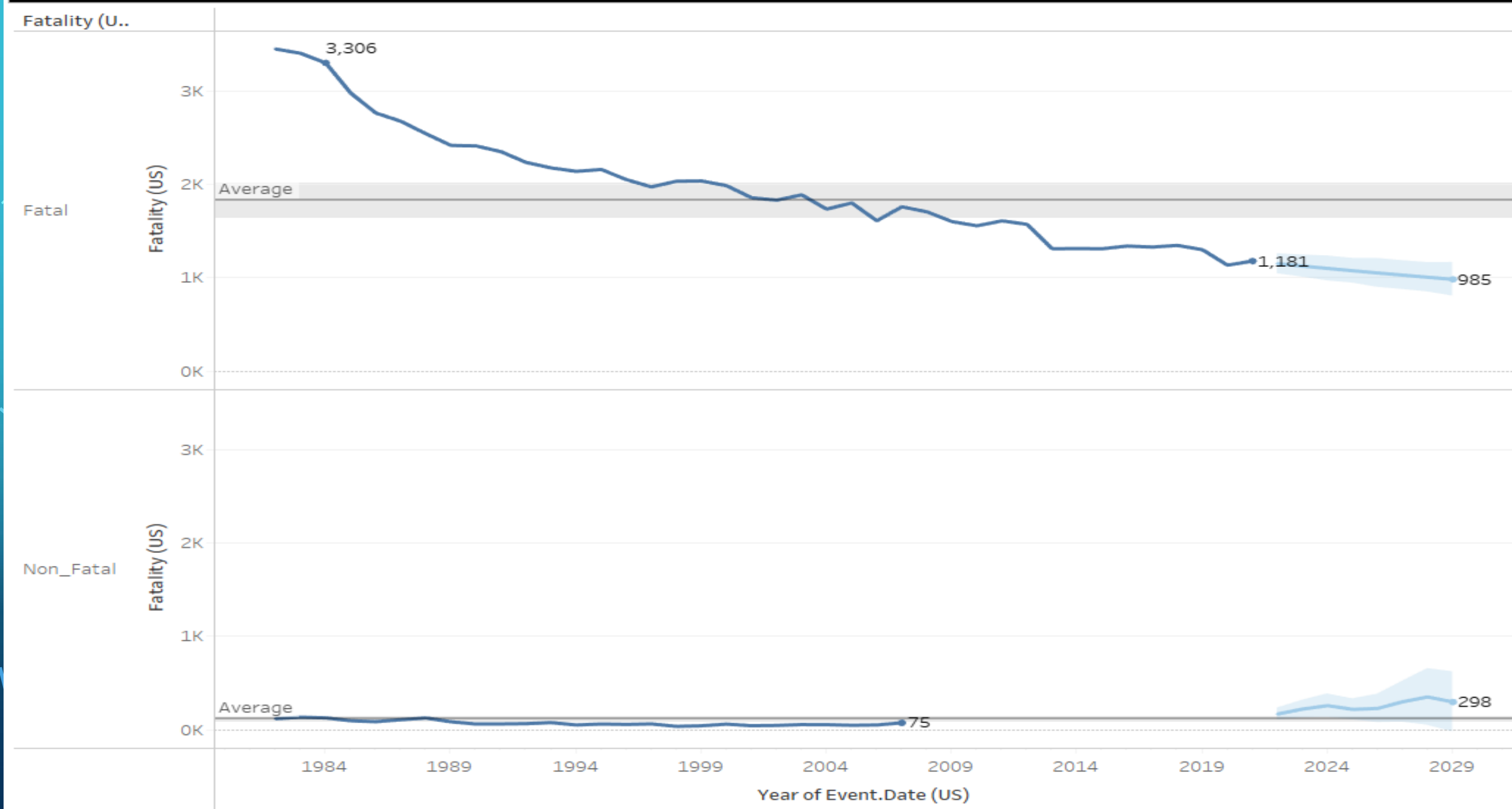
# UNITED STATES



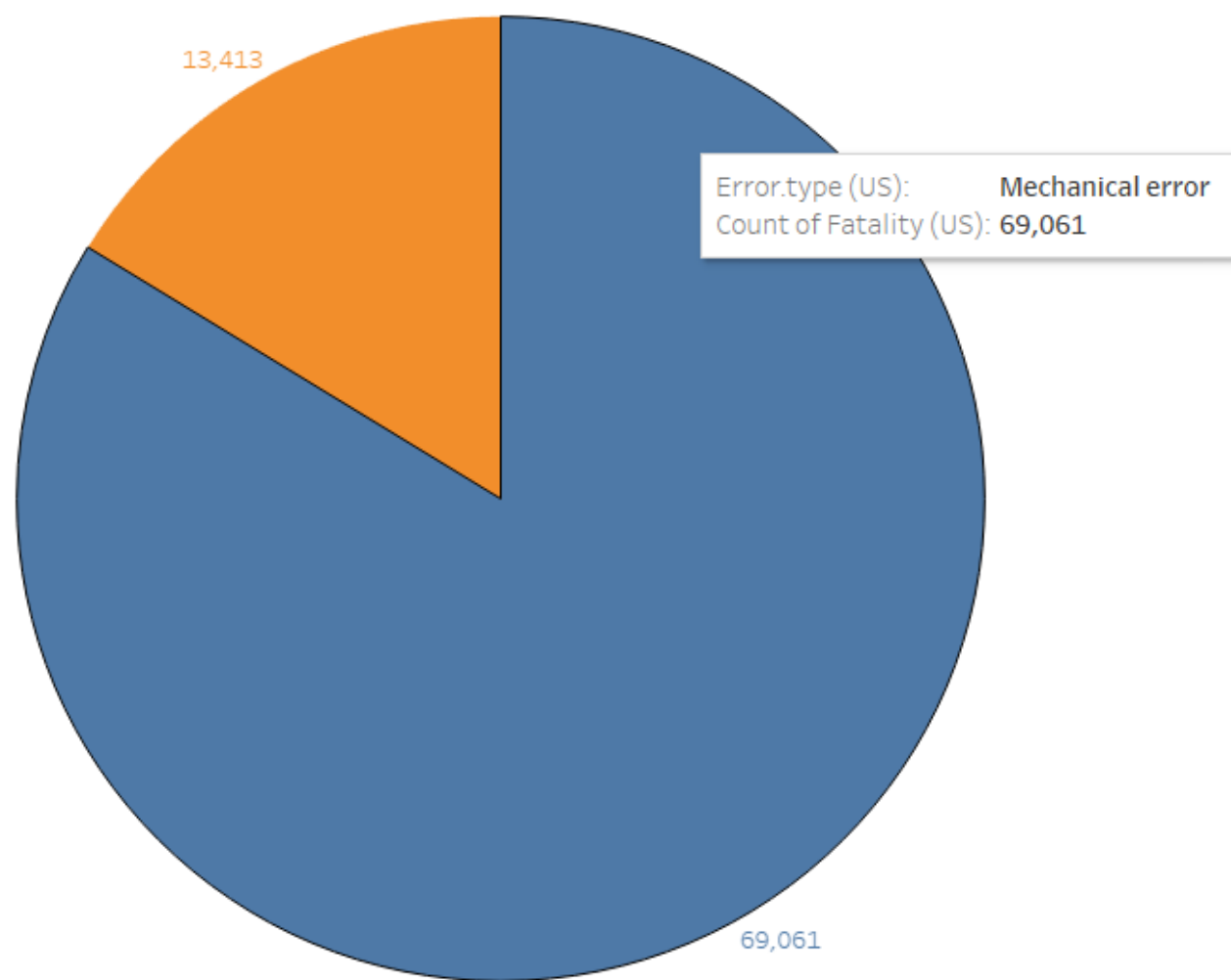
## CAUSE OF ACCIDENT



# FATALITY RATE WITH FORECAST



## FATALITY DUE TO ERROR TYPE



WEATHER CONDITIONS				
Fatality (U..	Error.type (US)	Weather.Condition (US)		
		IMC	UNK	VMC
Fatal	Mechanical error	4,754	601	61,533
	Pilot error	668	40	12,613
Non_Fatal	Mechanical error	207	33	1,933
	Pilot error	2	1	89

ENGINE TYPE			
Engine.Type ..	Error.type (US)		
	Mechanical error	Pilot error	
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Electric	6	4	
LR		2	
UNK		1	
Hybrid Rocket		1	

AIRCRAFT CATEGORY		
Aircraft.Category (US)	Error.type (US)	
	Mechanical error	Pilot error
Airplane	66,974	11,570
Helicopter	1,553	1,175
Glider	256	247
Weight-Shift	37	124
Balloon	115	114
Gyrocraft	80	92
Powered Parachute	12	78
Ultralight	14	11
WSFT	8	1
Rocket		1
Unknown	4	
ULTR	1	
Powered-Lift	3	
Blimp	4	



# Strategic Business Recommendations

## 1. Focus on Reliable Airplane Models to Minimize Mechanical Failures

Given that airplanes have the highest number of incidents caused by mechanical failures, we should prioritize purchasing models that have proven reliability. Selecting newer models with strong mechanical performance will be critical, particularly in avoiding costly repairs and ensuring safe operations. Additionally, it's essential to implement a proactive maintenance schedule to keep the fleet in optimal condition.

## 3. Account for Regional Safety Considerations

The data highlights specific regions, such as California and New Mexico, where fatal accidents are more common. As we plan operations in these areas, we should consider aircraft with weather-resistant capabilities and enhanced navigation systems. Additionally, allocating extra resources for pilot training tailored to the unique risks in these regions will be important for safety and regulatory compliance.

## 2. Invest in Comprehensive Maintenance Systems

With substantial damage incidents being predominantly due to mechanical errors, it's crucial to invest in advanced maintenance systems that can predict and prevent failures. Utilizing predictive maintenance technology will allow the company to reduce downtime and minimize the risk of accidents. This will also improve long-term cost efficiency, as early detection of mechanical issues can prevent more severe damage and expensive repairs.

## Plan for Reducing Non-Fatal Incident Rates

While fatal incidents have been decreasing, non-fatal accidents still represent a challenge. As a new entrant, we should prioritize purchasing aircraft with strong safety records for both fatal and non-fatal events. These models will help reduce operational disruptions and lower costs associated with repairs and liability claims, ensuring long-term business sustainability.

For short-term or less frequent operations, consider leasing aircraft to minimize long-term costs associated with maintenance and repairs. For essential, high-usage airplanes, investing in newer models with solid safety records may provide a better return on investment.



