**DSC 640 Project Task 2 - Executive Summary**

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The current media coverage of airlines has cast a negative light on the entire air transportation industry. The impact of this can lead to lost revenue and eventually lost jobs for employees and lost resources for customers. To better understand the scope of the situation, my presentation will cover past airline incidents, past and projected revenue, and the contrast with motor vehicle transportation.

To begin, I looked at prior incidents involving 50+ fatalities. With data starting in the 1930s, there was an intense increase in the number of incidents and number of fatalities year over year until it peaked in the mid 1970s until the Airline Deregulation Act passed in 1978 placed “the maintenance of safety as the highest priority in air commerce”. The incidents and fatalities noticeably decreased after the passage of this legislation, with just one incident in 2019 and 2020. One exception to this was the year 2001, where the number of fatalities rocketed to 3,417 due to the 9-11 terrorist attacks. Shortly after, the Transportation Security Administration was created to thwart further attacks.

When looking at all incidents, regardless of number of fatalities, we see the same trend. The number of incidents overall has decreased from 402 in 1985-1999 to 231 in 2000-2014. This, combined with the fact that the percentage of incidents with any fatalities has gone also down significantly from 30.35% in 1985-1999 to 16.02% in 2000-2014 indicates that air travel is getting safer than ever. The numbers even point to US airlines being the safest around, with the top 5 airlines with an increase in the number of incidents being international.

In contrast, when analyzing car accident sample data, we saw trends for both number of incidents and number of fatalities increasing, which means car travel is just getting more dangerous.

In the past 15 years, airline profits typically stayed steady, but have taken hits from the recessions and world events. Gratefully, with the 2008 recession, we saw a quick turnaround within 2 years. Profits also took a dramatic hit from the COVID-19 pandemic in 2020 with -137.7 billion USD in last half of the year; however, calculations show the deficit decreasing year over year (-63% in 2021 to -51.8B USD, and another -78% projected in 2022 to -11.8B USD) to quickly recoup losses.

From my research, I've concluded that the media coverage is simply to garner attention due to the rarity of airline incidents. Now that we have the analysis to support that air travel is indeed one of the safest forms of transportation, we can use this knowledge to connect with our passengers and assure them while improving their overall experience with our company.

**References:**

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