

A Concept Model for Comparative Analysis Applied to the U.S. Airline Industry

Michelle Bennett, Undergraduate Research Assistant
College of Aviation, Embry-Riddle Aeronautical University, Prescott, AZ

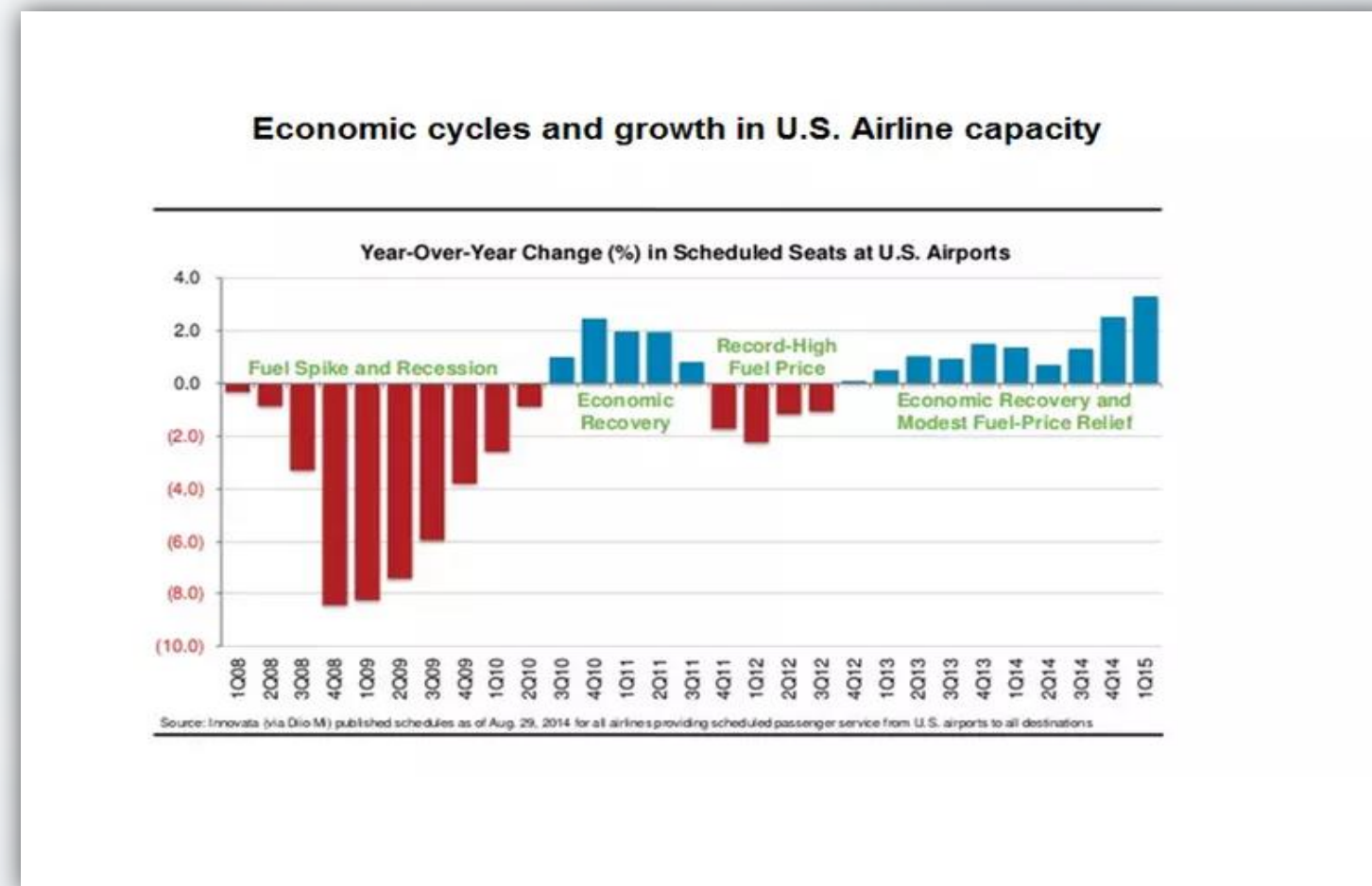
Dr. Jacqueline Luedtke
Associate Professor
ERAU Prescott
Dr. Brent D. Bowen
Dean, College of Aviation
ERAU Prescott

Introduction

The objective of this research is to analyze the trends in quality and performance of US airlines over the past ten years and determine what economic factors influence the level of service. By identifying variables that directly affect the level of performance using data from Airline Quality Rating (AQR), service benchmarks for the airline industry can be established.

Background

- Industry standard is set by AQR providing consumers and industry watchers objective performance-based data to compare performance quality among different US airlines.
- Data used in this research are readily available from the Department of Transportation

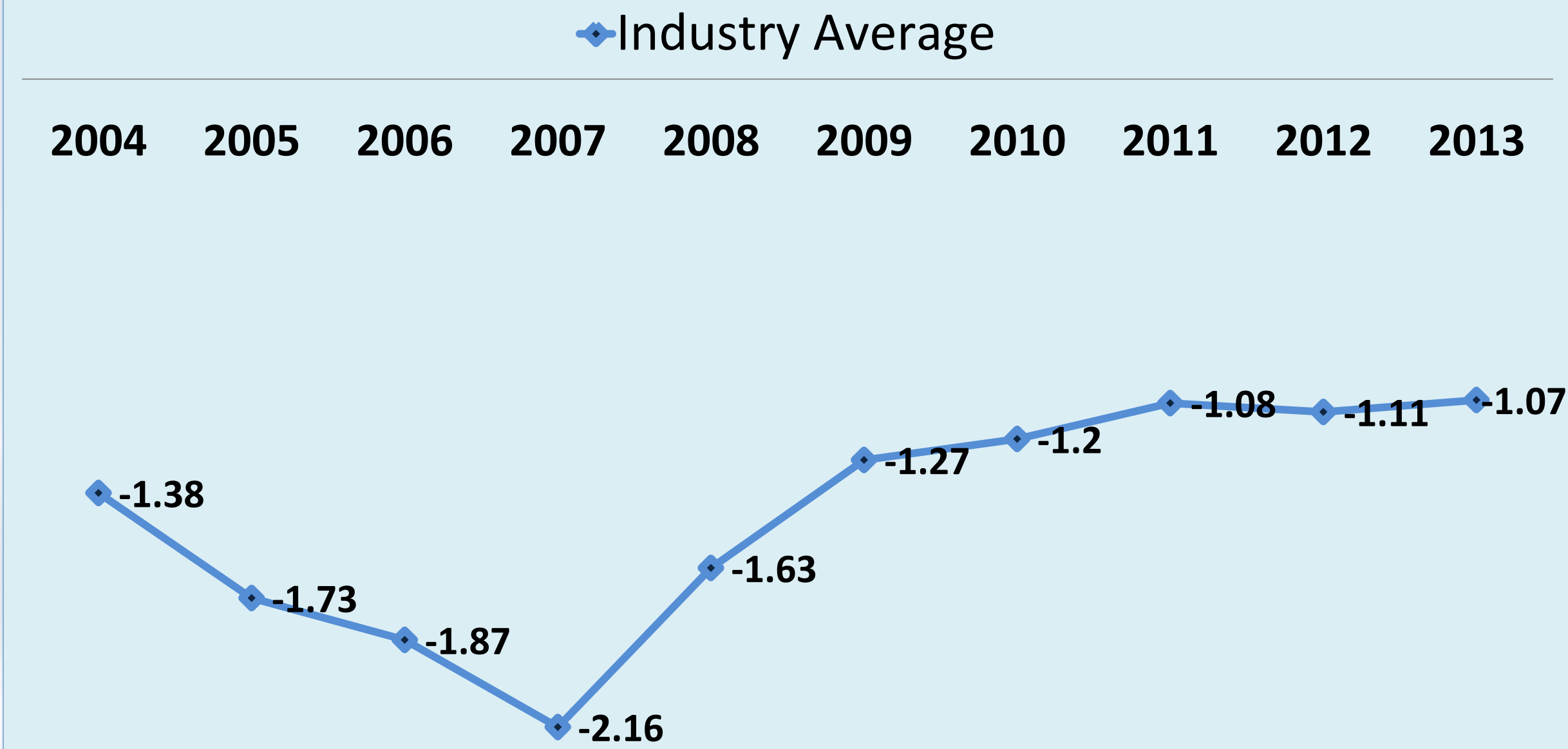


Both airports and airlines suffered from economic factors including spikes in jet fuel prices and the recession

Methods

- Analyzing the data over the past ten years (2004-2013), this research will utilize the application of a comparative trend analysis methodology.
- This will provide a way to track the ebbs and flows of the quality of service provided by airlines and the ability to develop theories explaining the shifts in data.

Airline Quality Ratings 2004-2013

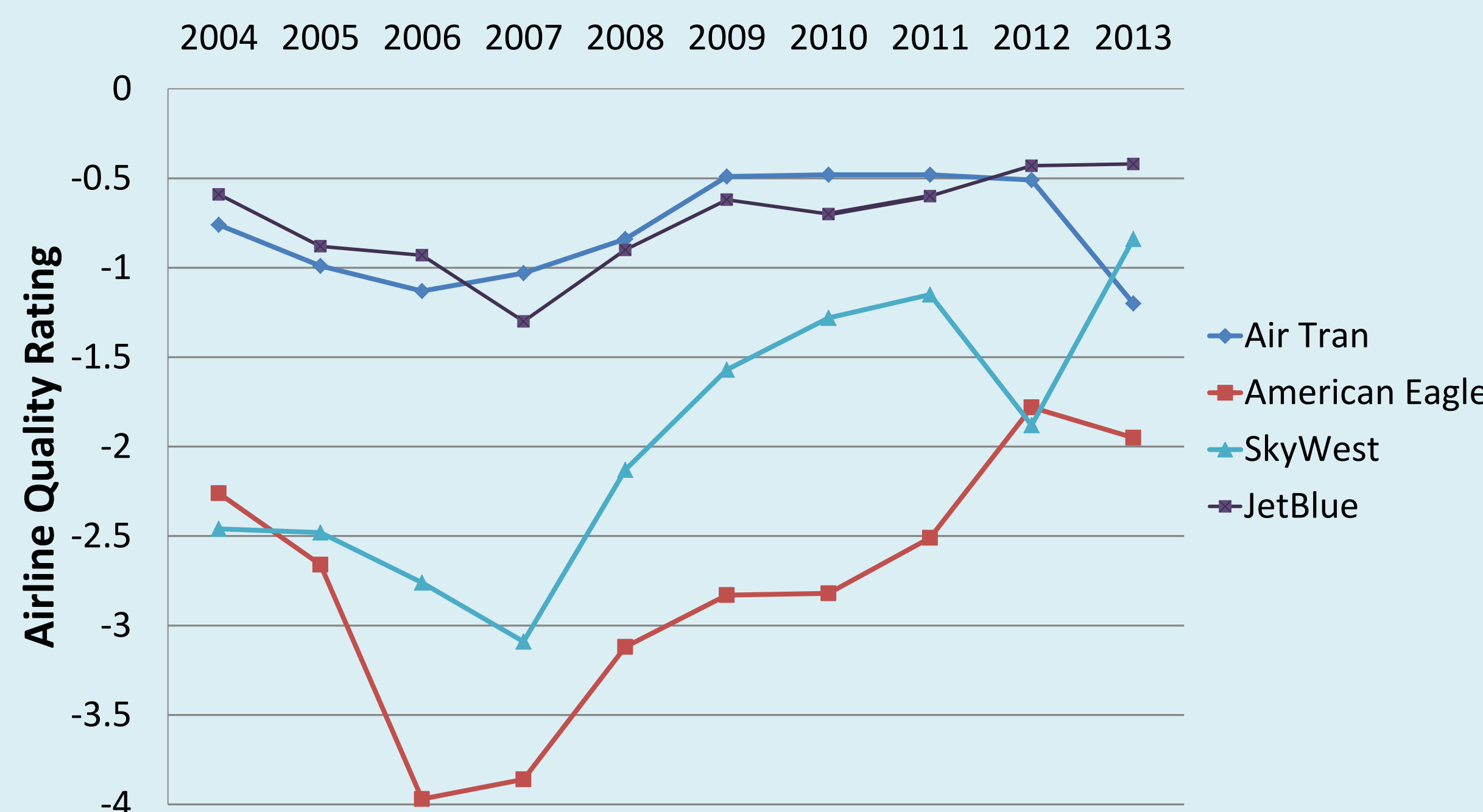


AQR Criteria & Weights

- On-Time (OT), Weight- 8.63
- Denied Boarding (DB), Weight- 8.03
- Mishandled Baggage (MB) Weight- 7.92
- Customer Complaints (CC) Weight- 7.17
 - Flight Problems, Over sales, Fares, Ticketing, Refunds, etc.

$$AQR = \frac{(+8.63 \times OT) + (-8.03 \times DB) + (-7.92 \times MB) + (-7.17 \times CC)}{(8.63 + 8.03 + 7.92 + 7.17)}$$

AQR Trends Among Airlines



Conclusions

- The graph shows a dip in the airline quality weighed average in 2007 and 2008 which parallels the recession the economy suffered in this past decade.
- This shows that economic factors have an influence over the quality of service perceived by the consumer according to the data provided in AQR.

Developed in 1991 by
Dr. Brent D. Bowen
and Dr. Dean E.
Headley



Future Direction

- The next steps include continuing research on the economic factors that could contribute to the decline in Airline Quality Ratings and identify best practices the airlines have incorporated to avoid suffering the economic downturns.

Results

- Through the collected data and analysis, airlines, government entities and the traveling public will be able to make better decisions, implement policies and develop best practices.

Selected References

Bowen, B. D., & Headley, D. E. (2014). Airline Quality Rating 2014.
Bowen, B. D., & Headley, D. E. (2010). Airline Quality Rating 2010.
Cederholm, T. (2014, September 15). Must-Know: Key Indicators impacting airline industry performance. Retrieved January 6, 2014
Fareena Sultan Merlin C. Simpson, Jr, (2000) "International service variants: airline passenger expectations and perceptions of service quality", Journal of Services Marketing, Vol 14 Iss 3 pp. 188-216
Ragin, Charles C. The Comparative Method: Moving Beyond Qualitative and Quantitative Strategies. University of California Press 1987.