

Airline Quality Rating 2020

The 30th Year Reporting Airline Performance



May 2020

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ABOUT THE AUTHORS

The Airline Quality Rating Report is a product of academic research from co-authors Dr. Dean Headley and Dr. Brent Bowen. The research originated at the W. Frank Barton School of Business, Wichita State University in Wichita, Kansas.

Dr. Bowen's and Dr. Headley's research on the development of the national Airline Quality Rating (AQR) is viewed by more than 75 million people each year and is annually featured by national news outlets such as ABC's Good Morning America, The Cable News Network, The Today Show, C-Span, USA Today, The Associated Press, The Wall Street Journal, Aviation Week and Space Technology, the network evening news shows, and in numerous other national and international print and electronic media. Bowen and Headley have served as invited expert witnesses before the U.S. House of Representatives Committee on Government Operations and have served as invited speakers and panelists for such groups as the National Academy of Sciences/Transportation Research Board, Department of Transportation and other Congressional and Executive panels.

Their body of research has been recognized with awards from the American Marketing Association, the American Institute of Aeronautics and Astronautics, the Travel and Transportation Research Association and others.

AIRLINE QUALITY RATING 2020

Abstract

The Airline Quality Rating (AQR) was developed and first announced in early 1991 as an objective method for assessing airline quality on combined multiple performance criteria. This current report, the Airline Quality Rating 2020, reflects monthly Airline Quality Rating scores for calendar year 2019. AQR scores for 2020 are based on 15 elements in four major areas that focus on airline performance aspects important to air travel consumers over the calendar year of 2019.

The Airline Quality Rating 2020 is a summary of month-by-month quality ratings for U.S. airlines that are required to report performance by virtue of having at least 0.05% of domestic scheduled-service passenger revenue during 2019. Using the Airline Quality Rating system of weighted averages and monthly performance data in the areas of on-time arrivals, involuntary denied boardings, mishandled baggage, and a combination of 12 customer complaint categories, airlines' comparative performance for the calendar year of 2019 is reported. This research monograph contains a brief summary of the AQR methodology, detailed data and charts that track comparative quality for domestic airline operations for the 12-month period of 2019, and industry results. Also, comparative Airline Quality Rating data for 2018 are included, where available, to provide historical perspective regarding performance quality in the industry.

The Airline Quality Rating System

Many quality ratings available in the past have relied on subjective surveys of consumer opinion that were infrequently collected. This subjective approach yields a quality rating that is essentially non-comparable from survey to survey for any specific airline. Timeliness of survey-based results can be a problem in the fast-paced airline industry as well. Before the Airline Quality Rating, there was effectively no consistent method for monitoring the quality of airlines on a timely, objective, and comparable basis. With the introduction of the AQR, a multi-factor, weighted average approach became available that had not been used previously in the airline industry. The method relies on utilizing published, publicly available data that reports actual airline performance on critical quality criteria important to consumers and combines them into a rating system. The result is a rating for individual airlines with interval scale properties that is comparable across airlines. The Airline Quality Rating (AQR) is a weighted average of multiple elements (see Table 1) important to consumers when judging the quality of airline services. Elements considered for inclusion in the rating scale were screened to meet two basic criteria; 1) an element must be obtainable from published data sources for each airline; and 2) an element must have relevance to consumer concerns regarding airline quality. Data for the elements used in calculating the ratings represent performance aspects (on-time arrival, mishandled baggage, involuntary denied boardings, and 12 customer complaint areas) of airlines that are important to consumers. All the elements are reported in the *Air Travel Consumer Report* maintained by the U.S. Department of Transportation. Weights were originally established by surveying 65 airline industry

experts regarding their opinion as to what consumers would rate as important (on a scale of 0 to 10) in judging airline quality. Each weight and element were assigned a plus or minus sign to reflect the nature of impact for that criterion on a consumer's perception of quality. For instance, the criteria of on-time arrival performance are included as a positive element because it is reported in terms of on-time successes, suggesting that a higher number is favorable to consumers. The weight for this criterion is high due to the importance most consumers place on this aspect of airline service. Conversely, the criteria that includes mishandled baggage is included as a negative element and is reported in terms of mishandled bags per 1000 checked bags (new metric for 2019 data), suggesting that a higher number is unfavorable to consumers. Because having baggage arrive with passengers is important to consumers, the weight for this criterion is also high. Weights and positive/negative signs are independent of each other. Weights reflect importance of the criteria in consumer decision-making, while signs reflect the direction of impact that the criteria should have on the consumer's rating of airline quality. When all criteria, weights and impacts are combined for an airline over the year, a single interval scaled value is obtained. This value is comparable across airlines. In the spring of 2002, a nationwide survey of frequent flyers was conducted that allowed a revisiting of the weighting for the AQR elements. Analysis of the sample of 766 opinions showed no appreciable difference in the relative weights for the AQR elements. To maintain comparability across the years, the weights have been held constant.

The Airline Quality Rating criteria and the weighted average methodology allow a focused comparison of domestic airline performance. Unlike other consumer opinion approaches that have relied on consumer surveys and subjective opinion, the AQR continues to use a mathematical formula that considers multiple weighted objective criteria to arrive at a single comparable rating for airline industry performance. The Airline Quality Rating provides both consumers and industry watchers a means for monitoring comparative quality for each airline on a timely basis, using objective, performance-based data. Over its 30 year history, the Airline Quality Rating has often been cited as an industry standard for comparing airline performance. Currently, the AQR stands as the longest regularly published rating available for airline performance. With the continued global trend in airline operations alliances, the argument becomes even stronger for the Airline Quality Rating to be used as a standard method for comparing the quality of airline performance for international operations as well.

Table 1

AIRLINE QUALITY RATING CRITERIA, WEIGHTS AND IMPACT

CRITERIA	WEIGHT	IMPACT (+/-)
OT On-Time		8.63 +
DB Denied Boardings		8.03 -
MB Mishandled Baggage		7.92 -
CC Customer Complaints		7.17 -
Flight Problems		
Oversales		
Reservations, Ticketing, and Boarding		
Fares		
Refunds		
Baggage		
Customer Service		
Disability		
Advertising		
Discrimination		
Animals		
Other		

Data for all criteria is drawn from the U.S. Department of Transportation's monthly *Air Travel Consumer Report*. (<http://dot.gov/airconsumer/>)

The formula for calculating the AQR score is:

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

What the Airline Quality Rating Tells Us About 2019

The Airline Quality Rating industry score for 2019 shows an industry that generally held steady in three of the four measured elements of the AQR. The decline in individual and industry scores is directly attributable to the changed metric used to establish the mishandled baggage ratio. Prior to January 2019 mishandled baggage was reported as the number of bags mishandled per 1000 enplaned passengers. This did not reflect the true picture of how many checked bags were being handled and therefore at risk of being mishandled. Starting with the January 2019 Air Travel Consumer Report reporting period the mishandled baggage rate has been reported as the number of bags mishandled per the number of bags checked. The effect of the new metric was an increase in the individual airline and industry mishandled baggage rates, thus affecting the overall AQR scores for each airline and the industry. Eight airlines (Alaska, American, Delta, Hawaiian, JetBlue, Southwest, Spirit and United) showed declines in AQR scores in 2019. Frontier had no change in AQR score from 2018 to 2019 even though their mishandled baggage rate was impacted by the new measurement along with all other airlines rated. American had the largest decline in their AQR score in 2019.

The **overall industry** AQR score for 2019 is -1.46. Taking all 10 rated airlines together, the AQR score for the industry worsened from -0.66 in 2018 to -1.46 in 2019. This change is directly related to the implementation of a new measurement metric for mishandled baggage. The new mishandled baggage ratio used for 2019 is based on the number of checked bags rather than the number of enplaned passengers. While this increased the mishandled baggage value for each airline, it does provide a more relevant measure of performance for the consumer. The switch in measurement essentially makes earlier year comparisons of overall AQR scores and the mishandled baggage rates inaccurate. Other AQR elements are still fully comparable across prior years. Industry AQR scores had improved each year for the previous four years (2015, 2016, 2017, 2018). No improved performance was seen for 2019 in any of the four of the areas tracked. As an industry, the AQR criteria show that on-time arrival percentage was down slightly (79.4% in 2019 compared to 79.6% in 2018). The industry mishandled baggage rate is higher, primarily due to the change in measurement methods (2.43 per 1,000 enplaned passengers in 2018 to 5.57 per 1,000 checked bags in 2019). Involuntary denied boardings by the industry moved from 0.14 per 10,000 passengers in 2018 to 0.19 per 10,000 passengers in 2019. The consumer complaint rate across the industry increased slightly to 1.06 per 100,000 passengers in 2019 from 1.04 per 100,000 passengers in 2018. Of the 9,547 complaints registered with the DOT regarding all U.S. domestic carriers, 74% were for flight problems, baggage problems, reservation, ticketing and boarding issues, or customer service problems. Lack of improvement in industry performance in all four areas tracked in the ratings is not a positive sign for consumers. As the new mishandled baggage measurement is fully embraced and the airlines address its impact on consumers, improvements may be seen. In previous years, when involuntary denied boarding issues were brought to the attention of the flying public, the industry responded and made positive and significant improvements.

Alaska Airlines (AS) Alaska had performance declines in three of the four areas tracked. Worse on-time arrival performance (80.3% in 2019 compared to 81.8% in 2018, a higher rate of mishandled baggage (5.02 per 1000 checked bags in 2019 changed from to 2.67 per 1000 passengers in 2018) and slightly higher rate of complaints (0.60 per 100,000 passengers in 2019 compared to 0.57 in 2018) were negatives for Alaska. The positive for 2019 was a reduction in involuntary denied boardings per 10,000 passengers (0.15 in 2019 compared to 0.23 in 2018). With only one of four areas showing improvement in performance, the AQR score of -0.63 for Alaska Airlines for 2018 declined to -1.21 in 2019.

Allegiant Airlines (G4) New to the Airline Quality Rating for 2019, Allegiant had an on-time arrival percentage of 78.7% in 2019. A customer complaint rate of 0.155 per 100,000 passengers in 2019 is higher than the industry rate 1.06. An involuntary denied boarding rate of 0.42 per 10,000 passengers is second highest of the airlines rated in 2019. A mishandled baggage rate of 1.75 per 1,000 checked bags in 2019 was noticeably better than the industry rate of 5.57 mishandled bags per 1000 checked bags and is the lowest of all rated airlines. Overall, Allegiant had the lowest AQR score of all airlines rated in 2019 with a score of -0.68.

American Airlines (AA) The AQR score for the airline declined in 2019 compared to 2018. The decline in AQR score reflects worse performance all four criteria measured. On-time arrivals (77.0% in 2019 compared to 78.4% in 2018) and baggage handling (8.60 per 1,000 checked bags in 2019 changed from 3.83 per 1000 passengers in 2018) both declined. Involuntary denied boardings per 10,000 passengers (0.57 in 2019 compared to 0.20 in 2018) and customer complaints per 100,000 passengers (1.64 in 2019 compared to 1.38 in 2018) also showed declines in performance. The impact of performance declines in all four criteria produced a drop (-2.45 in 2019 compared to -1.10 in 2018) in American Airlines' AQR score for 2019.

Delta Air Lines (DL) On-time percentage for 2019 shows a slight decline over 2018 (85.2% in 2019 compared to 85.7% in 2018). Their rate of mishandled baggage at 4.82 bags per 1,000 checked bags in 2019 is changed from their rate of 1.80 bags per 1000 passengers in 2018. An unchanged rate of denied boardings (2019 rate of 0.00 per 10,000 passengers compared to 0.00 for 2018) helped stabilize their AQR score for 2019. A decrease in the rate of customer complaints (0.51 per 100,000 passengers in 2019 compared to 0.65 in 2018) helped produce an overall AQR score for 2019 of -1.09 (-0.36 in 2018).

Frontier Airlines (F9) On-time performance in 2019 (73.1%) was better compared to 2018 (69.4%). Frontier's involuntary denied boarding performance (0.38 per 10,000 passengers in 2019 compared to 0.63 in 2018) was also improved. Their mishandled baggage rate of 2.60 per 1,000 passengers for 2018 changed to 4.20 per 1000 checked bags in 2019. A customer complaint rate of 2.57 complaints per 100,000 passengers for 2019 was better than their 2018 rate of 4.02. Frontier's 2019 AQR score of -1.53 compared to -1.53 for 2018 was the result of performance improvements in three of the four criteria. Frontier is the only airline rated that did not show a decline in AQR score.

Hawaiian Airlines (HA) On-time performance (89.3% in 2018 and 88.3% for 2019) is the best of all airlines rated for 2018 and 2019. Hawaiian's involuntary denied boarding performance (0.01 per 10,000 passengers in 2018 and 0.00 in 2019) is among the best of the airlines rated and compares very favorably to the industry average of 0.19. A customer complaint rate of 0.74 complaints per 100,000 passengers in 2019 is better than last year's rate of 1.10. Their mishandled baggage rate of 2.59 per 1,000 passengers in 2018 changed to 4.30 bags per 1000 checked bags in 2019. Hawaiian had the second best AQR score for 2019 at -1.00.

JetBlue Airways (B6) On-time performance in 2019 improved 73.5% from 71.0% in 2018. Jet Blue's denied boarding performance (0.01 per 10,000 passengers in 2019 and 0.01 in 2018) is a positive element of their performance. A customer complaint rate of 0.96 complaints per 100,000 passengers was lower in 2019 (0.99 in 2018). Their mishandled baggage rate of 1.79 per 1,000 passengers in 2018 was changed to 5.53 bags per 1000 checked bags in 2019.

Southwest Airlines (WN) An on-time arrival percentage of 80.2% in 2019 improved from 79.2% in 2018. A customer complaint rate of 0.36 per 100,000 passengers in 2018 improved to 0.33 in 2019. An involuntary denied boarding rate of 0.15 per 10,000 passengers in 2018 declined slightly to 0.19 in 2019. A mishandled baggage rate of 2.89 per 1,000 passengers in 2018 changed to a rate of 4.40 bags per 1000 checked bags in 2019. Overall, Southwest has the third best AQR score (-1.00) of the ten airlines rated for 2019 performance.

Spirit Airlines (NK) On-time performance of 79.5% in 2019 declined from 81.1% in 2018. Spirit's rate of involuntary denied boardings of 0.12 per 10,000 passengers in 2019 improved from 0.56 for 2018. Their mishandled baggage rate of 1.76 per 1,000 passengers in 2018 changed to 4.76 per 1000 checked bags in 2019. A customer complaint rate of 2.83 complaints per 100,000 passengers in 2018 increased slightly to 2.85 in 2019. Improvements in the performance criteria of involuntary denied boardings was not enough to overcome declines in other areas and resulted in Spirit's AQR score being lower in 2019.

United Airlines (UA) On-time arrival performance declined slightly from 77.9% in 2018 to 77.7% in 2019. United's mishandled baggage rate changed from 2.56 per 1,000 passengers in 2018 to 6.68 per 1000 checked bags in 2019. Performance regarding involuntary denied boardings of 0.01 per 10,000 passengers in 2018 remained steady at 0.01 for 2019. An increase in their customer complaint rate to 1.41 in 2019 from 1.28 per 100,000 passengers in 2018 combined with other changes and declines in performance moved United's 2019 AQR score to -1.78 from -0.72 in 2018.

Previous Airline Quality Reports

Bowen, Brent D., Headley, Dean E. and Luedtke, Jacqueline R. (1991), Airline Quality Rating, National Institute for Aviation Research Report 91-11, Wichita, Kansas.

Bowen, Brent D. and Headley, Dean E. (1992,1993,1994,1995), Airline Quality Rating Report, National Institute for Aviation Research Report Series, Wichita, Kansas.

Bowen, Brent D., and Headley, Dean E. (1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019), Airline Quality Rating Report, W. Frank Barton School of Business, Wichita, Kansas.

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Detail of Airline Performance

Since the Airline Quality Rating is comparable across airlines, monthly rating results can be examined both individually and collectively. The following pages outline the AQR scores for the industry and for each airline rated by month for 2019. For comparison purposes, results are also displayed for 2018, where available. A composite industry chart that combines the airlines tracked is shown at first, with individual airline performance charts following in alphabetical order.

A change in reporting guidelines used by the Air Travel Consumer Report required that changes be made to the number of airlines included in this report. To provide the most comparable data picture, only the main airline data is reported. Branded carriers that are associated with main carriers are not included in the data used in this AQR report. The result is a consistent group of ten carriers that have all data points reported and calculated in the AQR scores for 2019.

A new metric for mishandled baggage was implemented with the January 2019 ATRC. In previous reports mishandled baggage was reported as a ratio of mishandled bags per 1000 passengers enplaned. **Starting with the January 2019 reporting the ratio was changed to reflect the number of mishandled bags per 1000 checked bags (enplaned bags).** This new metric prevents accurate year to year comparisons of the mishandled baggage element for data years prior to 2019. Year over year comparison of monthly and yearly AQR scores is also impacted by the use of this new mishandled baggage metric.

Airline Quality Rating Scores 2019 - 2012

	2019 AQR		2018 AQR		2017 AQR		2016 AQR		2015 AQR		2014 AQR		2013 AQR		2012 AQR	
	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank
Alaska	-1.21	5	-0.63	4	-0.437	1	-0.39	1	-0.80	5	-0.65	5	-0.69	5	-0.77	6
Allegiant	-0.68	1	N/A	-	N/A	-	N/A	-	N/A	-	N/A	-	N/A	-	N/A	-
American	-2.45	10	-1.10	8	-1.03	9	-1.35	9	-1.73	10	-1.35	7	-1.10	9	-1.11	10
Delta	-1.09	4	-0.36	1	-0.442	2	-0.40	2	-0.49	3	-0.60	3	-0.59	4	-0.58	4
Frontier	-1.53	7	-1.53	9	-1.23	11	-2.24	12	-2.60	11	-1.48	8	-1.35	11	-0.78	7
Hawaiian	-1.00	2	-0.65	5	-0.68	4	-0.69	5	-0.67	4	-0.53	2	-0.59	3	-0.71	5
JetBlue	-1.40	6	-0.48	2	-0.58	3	-0.60	4	-0.44	2	-0.61	4	-0.42	2	-0.43	2
Southwest	-1.00	3	-0.62	3	-0.73	5	-0.88	6	-1.00	6	-1.22	6	-1.06	8	-0.81	8
Spirit	-1.65	8	-1.00	7	-1.66	12	-2.01	11	-3.18	13	N/A	-	N/A	-	N/A	-
United	-1.78	9	-0.72	6	-0.86	8	-1.05	8	-1.43	8	-1.62	9	-1.43	12	-2.18	14
Industry	-1.46		-0.66		-0.79		-0.95		-1.21		-1.24		-1.07		-1.11	

NOTES:

Scores and rankings for 2019 reflect the addition of Allegiant to the airlines tracked. Also, the new metric for mishandled baggage is used.

Scores for Alaska Airlines reflect the merger with Virgin America for the full year of 2018.

Scores and rankings for 2015 reflect the addition of Spirit to the airlines tracked.

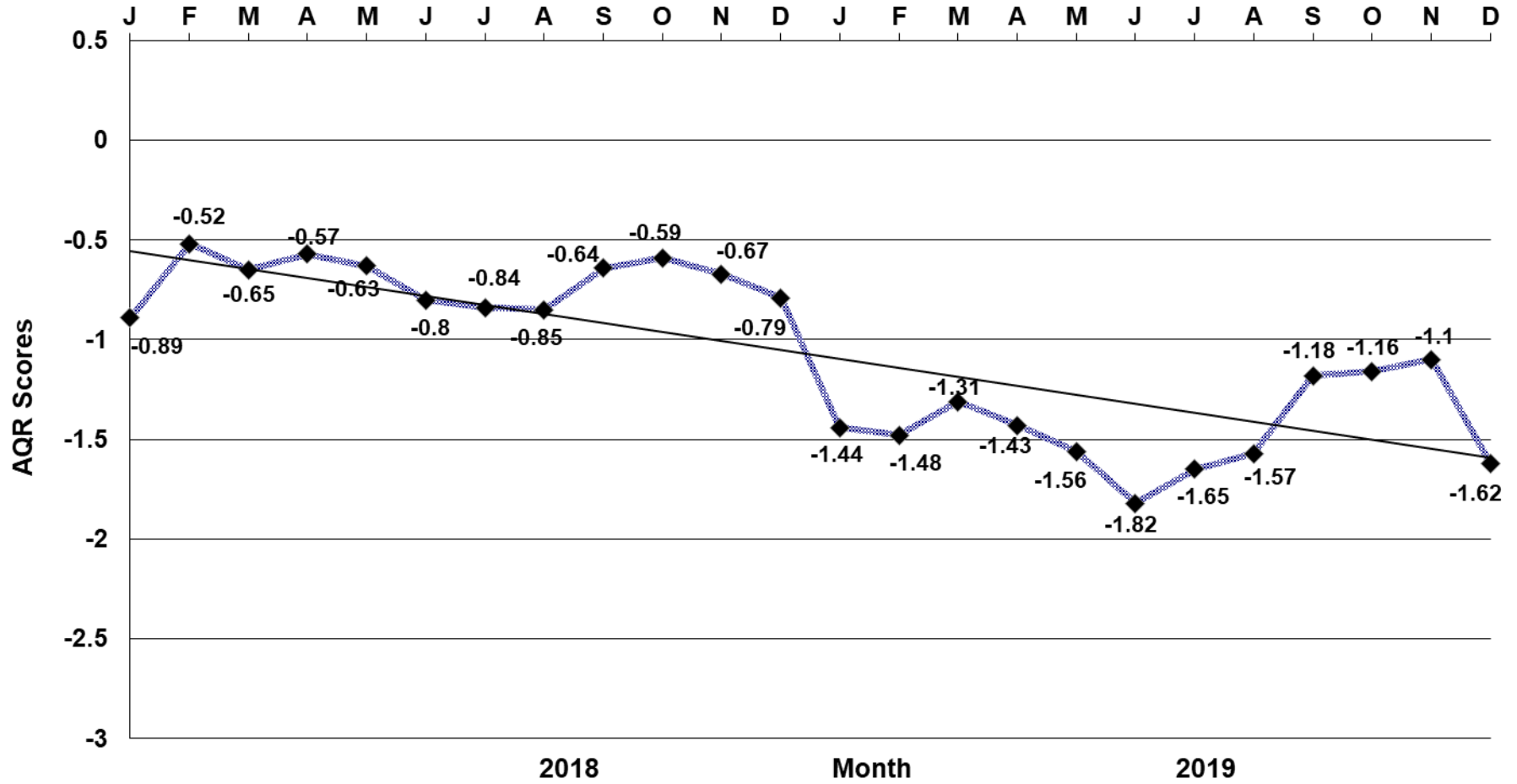
As of January 2014, data of the merged operations of American Airlines and USAirways are combined and appear only as American Airlines.

As of January 2014, data of the merged operations of Southwest Airlines and AirTran Airlines are combined and appear only as Southwest Airlines.

Scores and rankings for 2012 reflect the combining of United and Continental (appears as United).

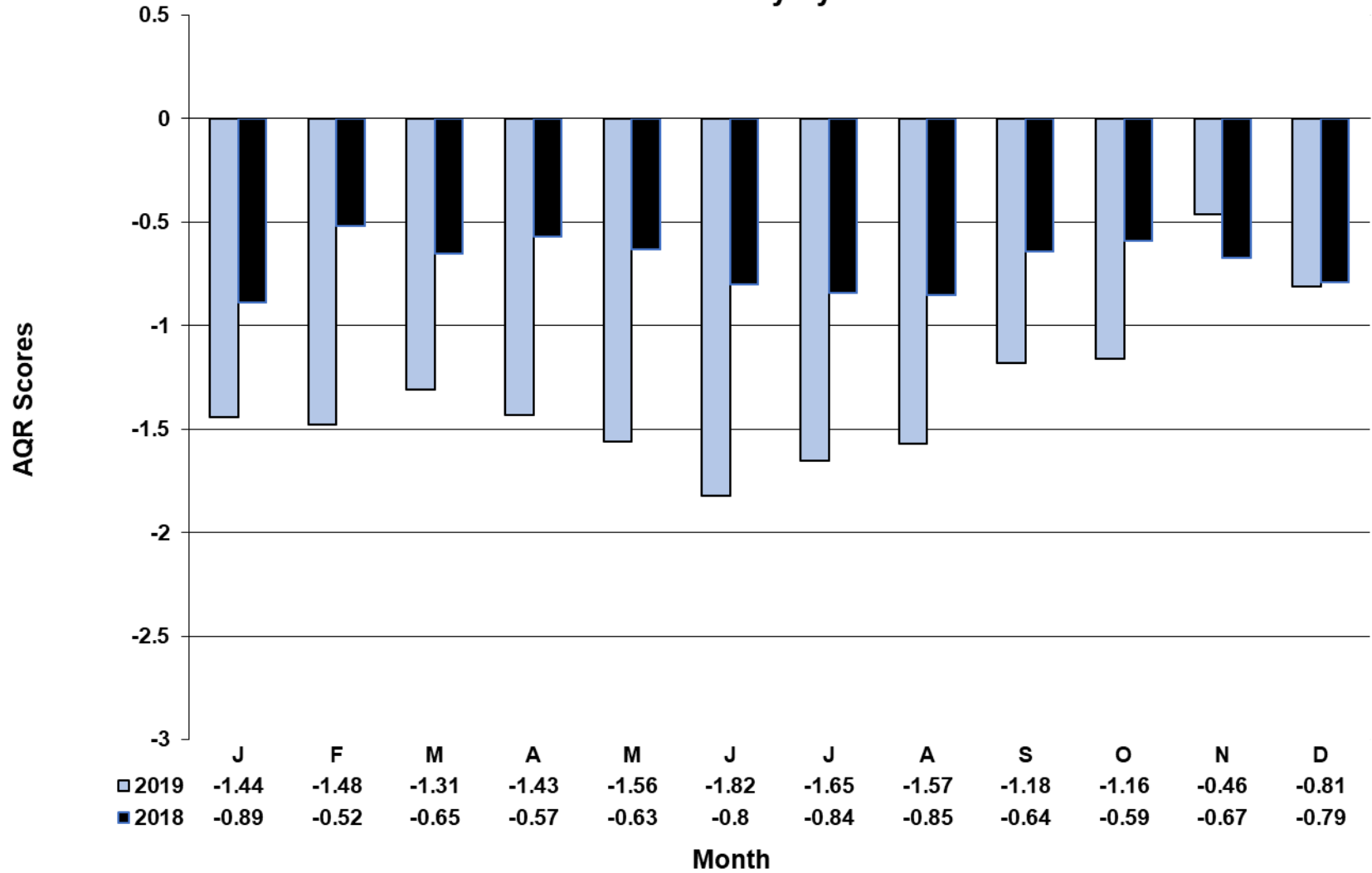
Airline Quality Rating

U.S. Airline Industry 2018 - 2019



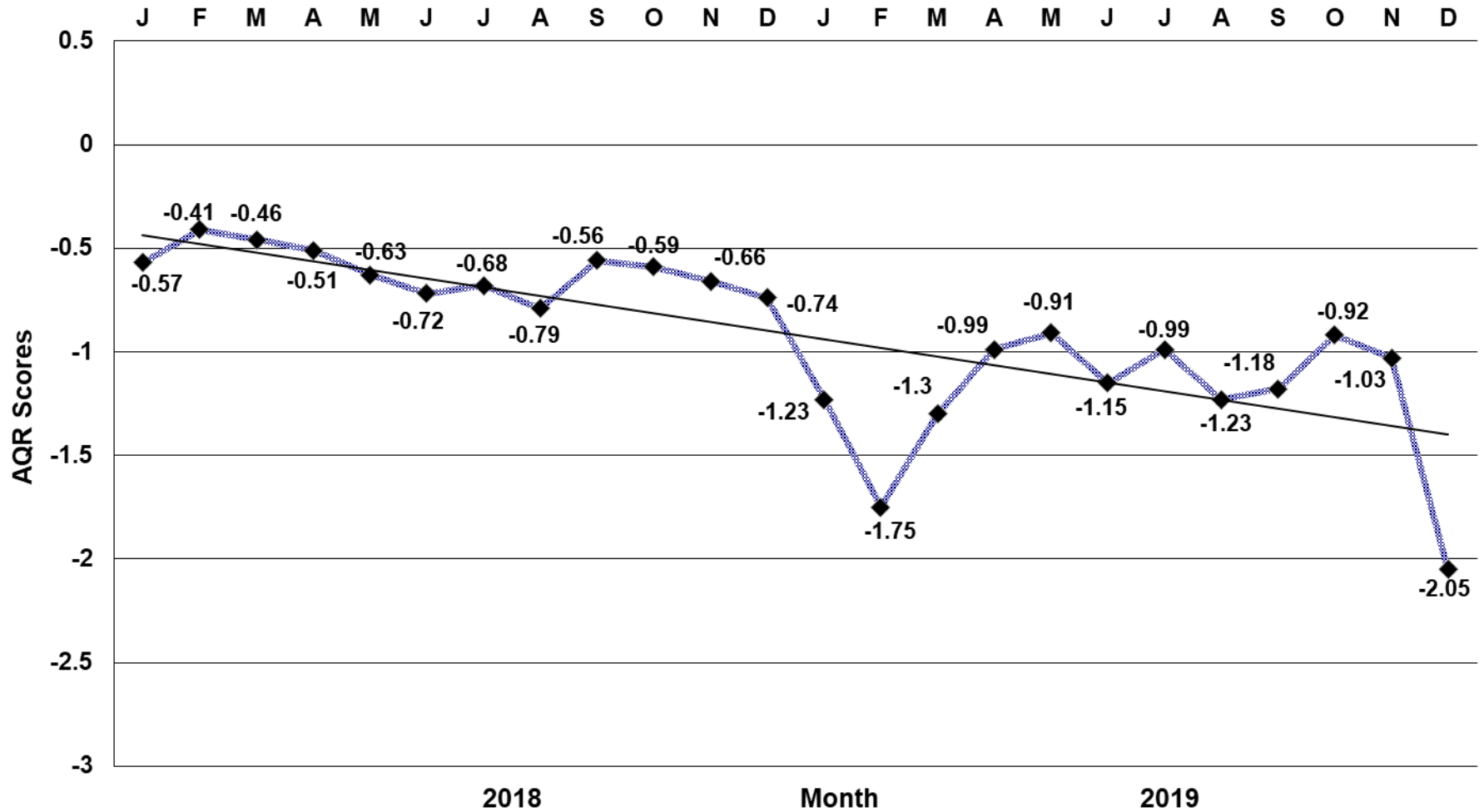
Airline Quality Rating

U.S. Airline Industry by Month



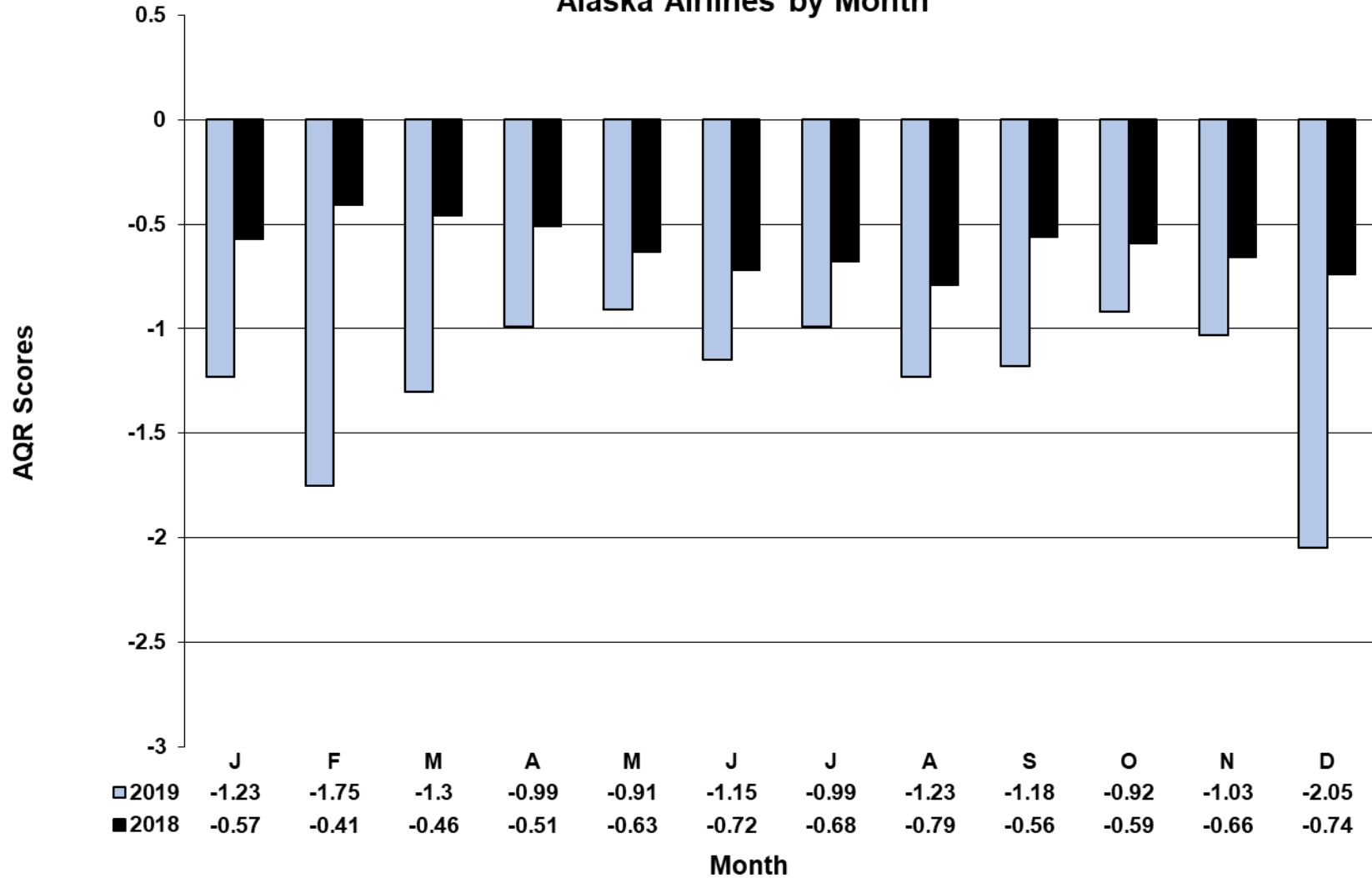
Airline Quality Rating

Alaska Airlines 2018 - 2019



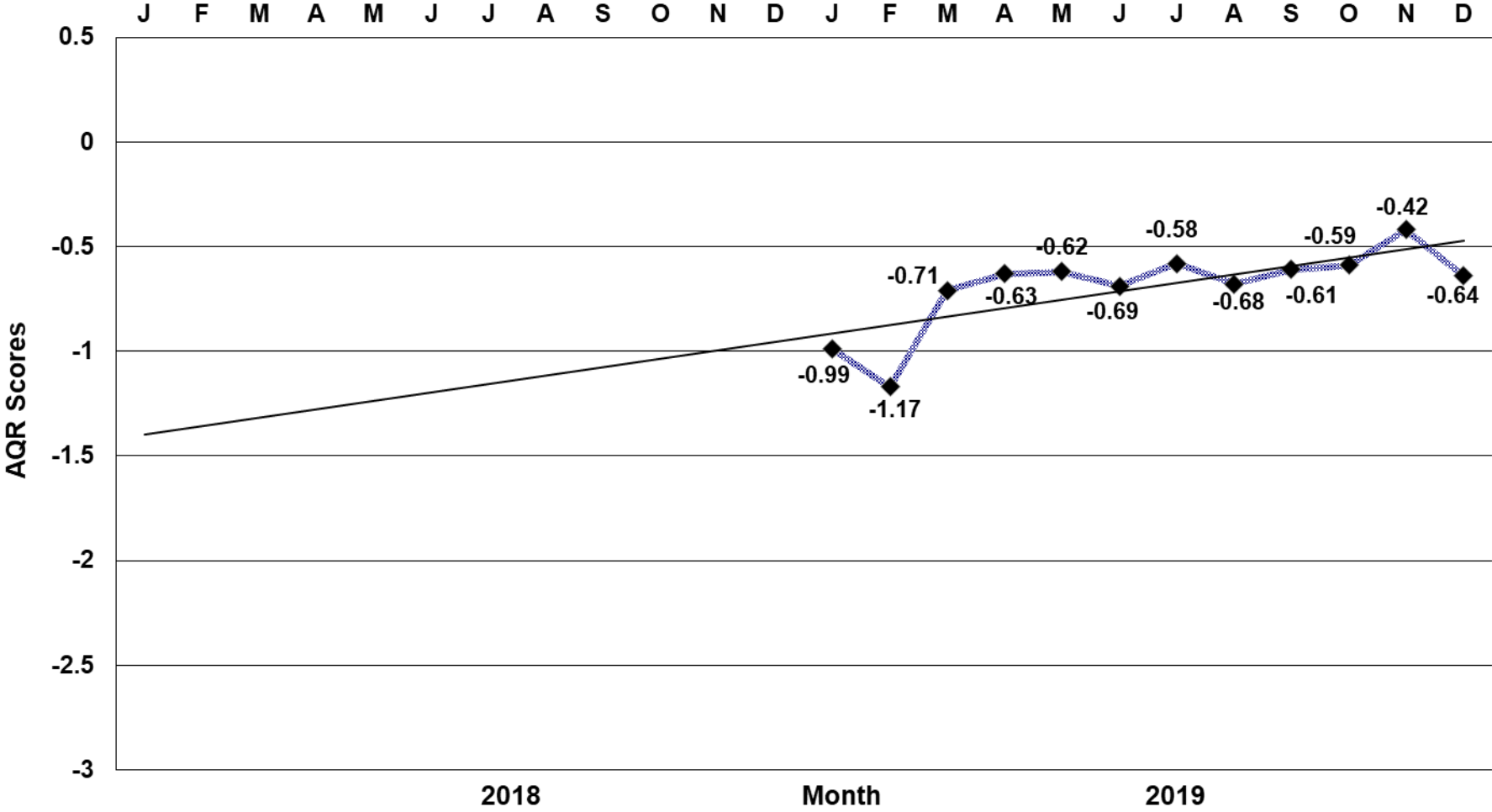
Airline Quality Rating

Alaska Airlines by Month



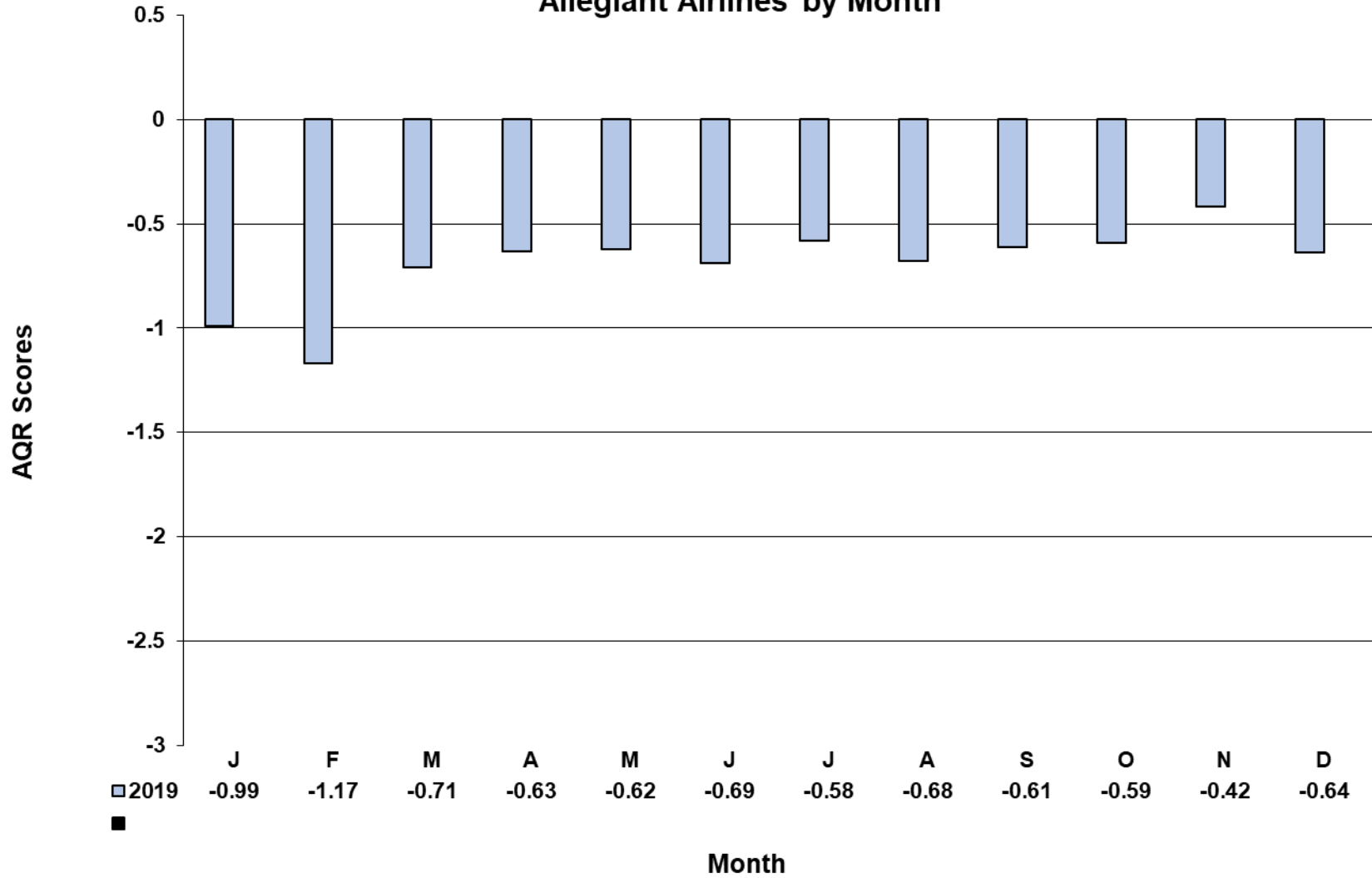
Airline Quality Rating

Allegiant Airlines 2018 - 2019



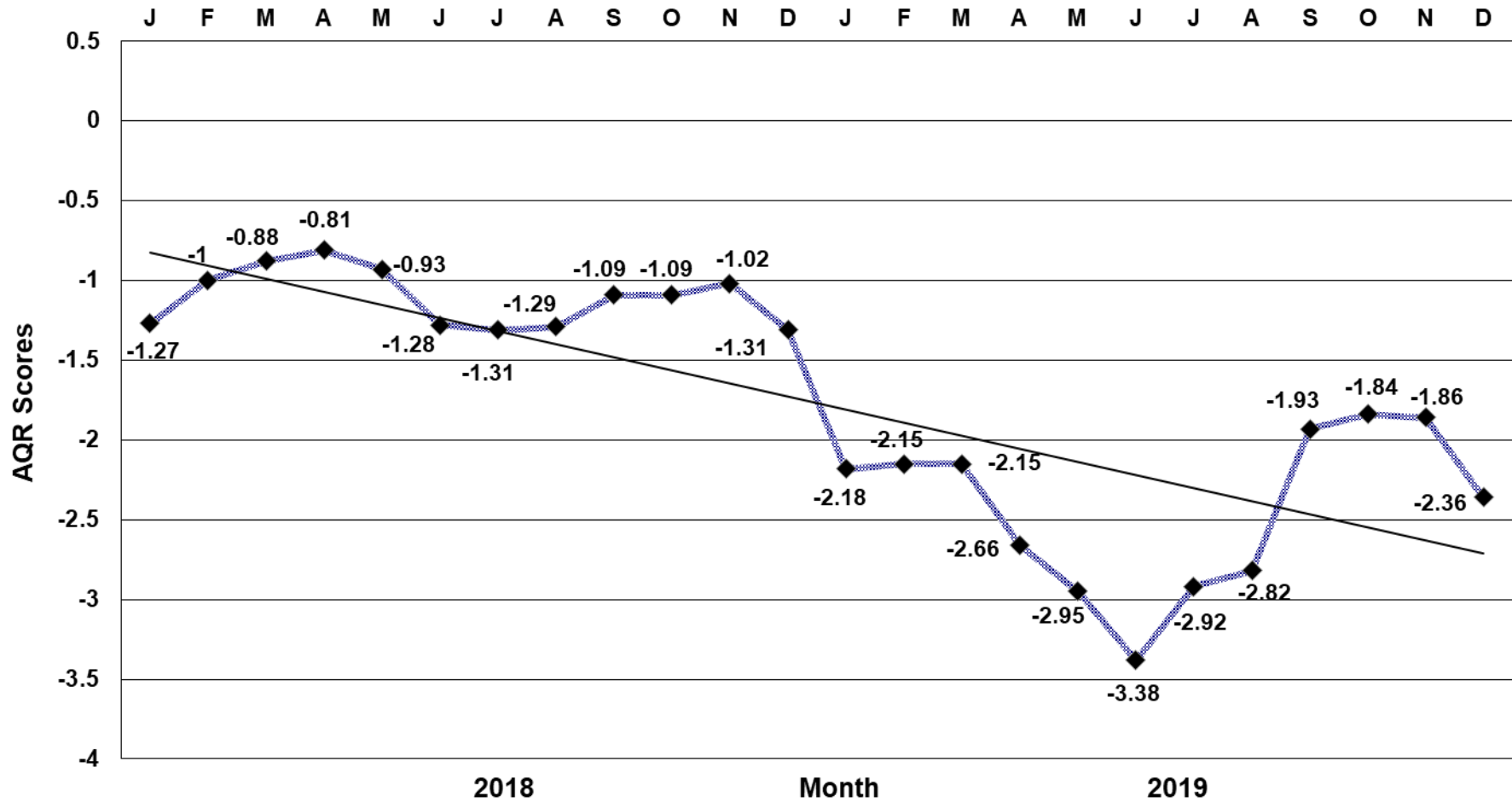
Airline Quality Rating

Allegiant Airlines by Month



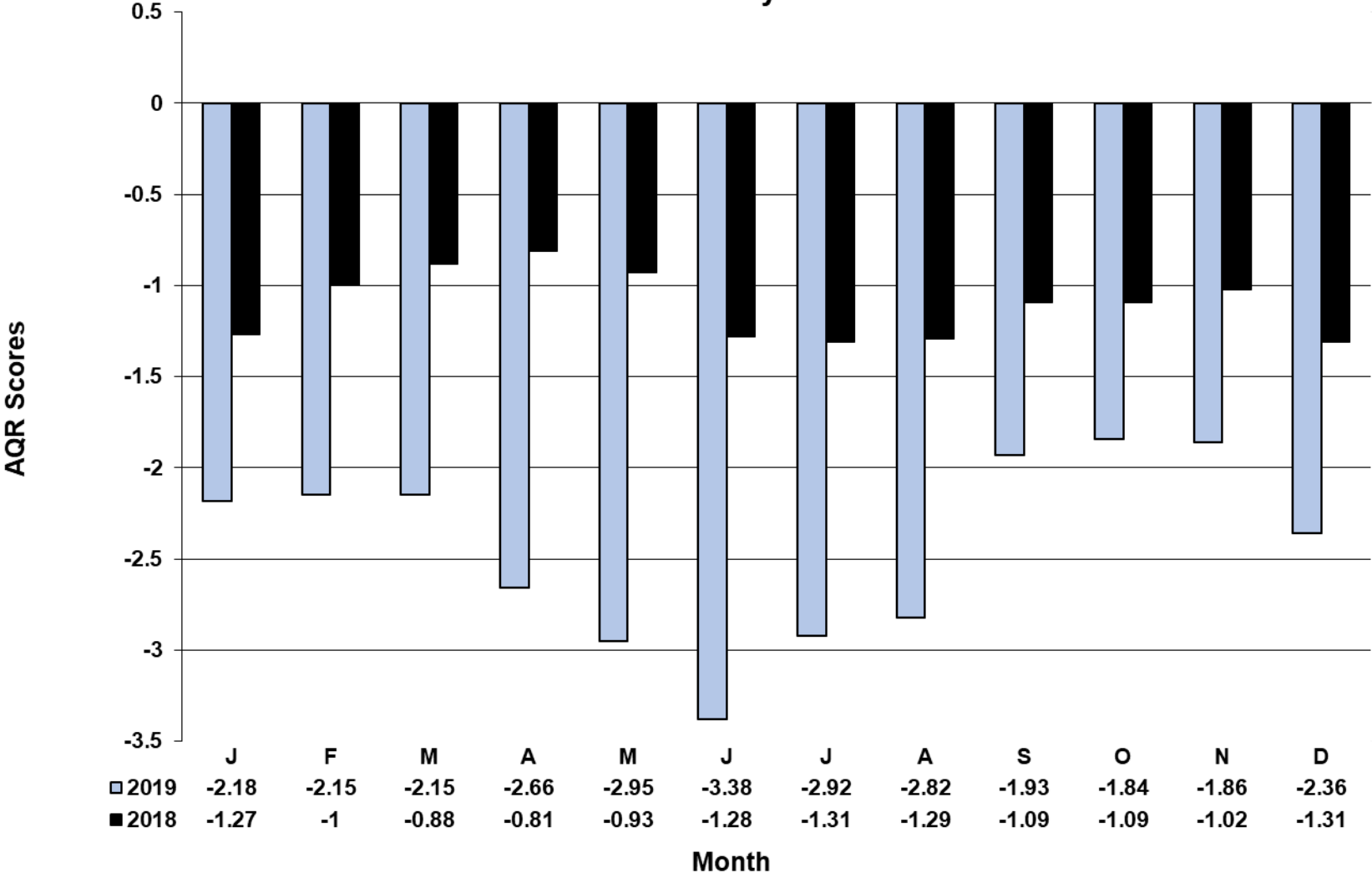
Airline Quality Rating

American Airlines 2018 - 2019



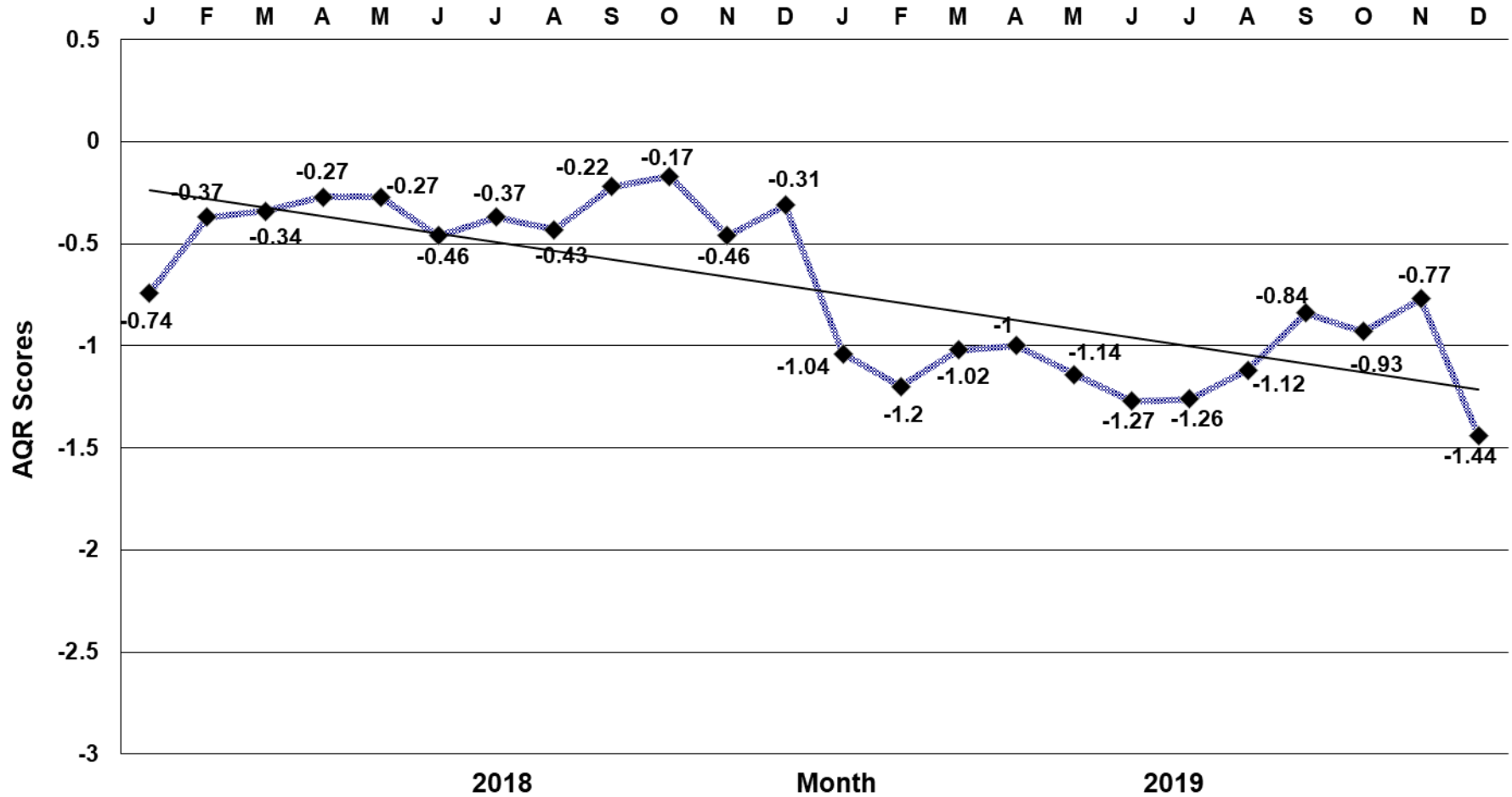
Airline Quality Rating

American Airlines by Month



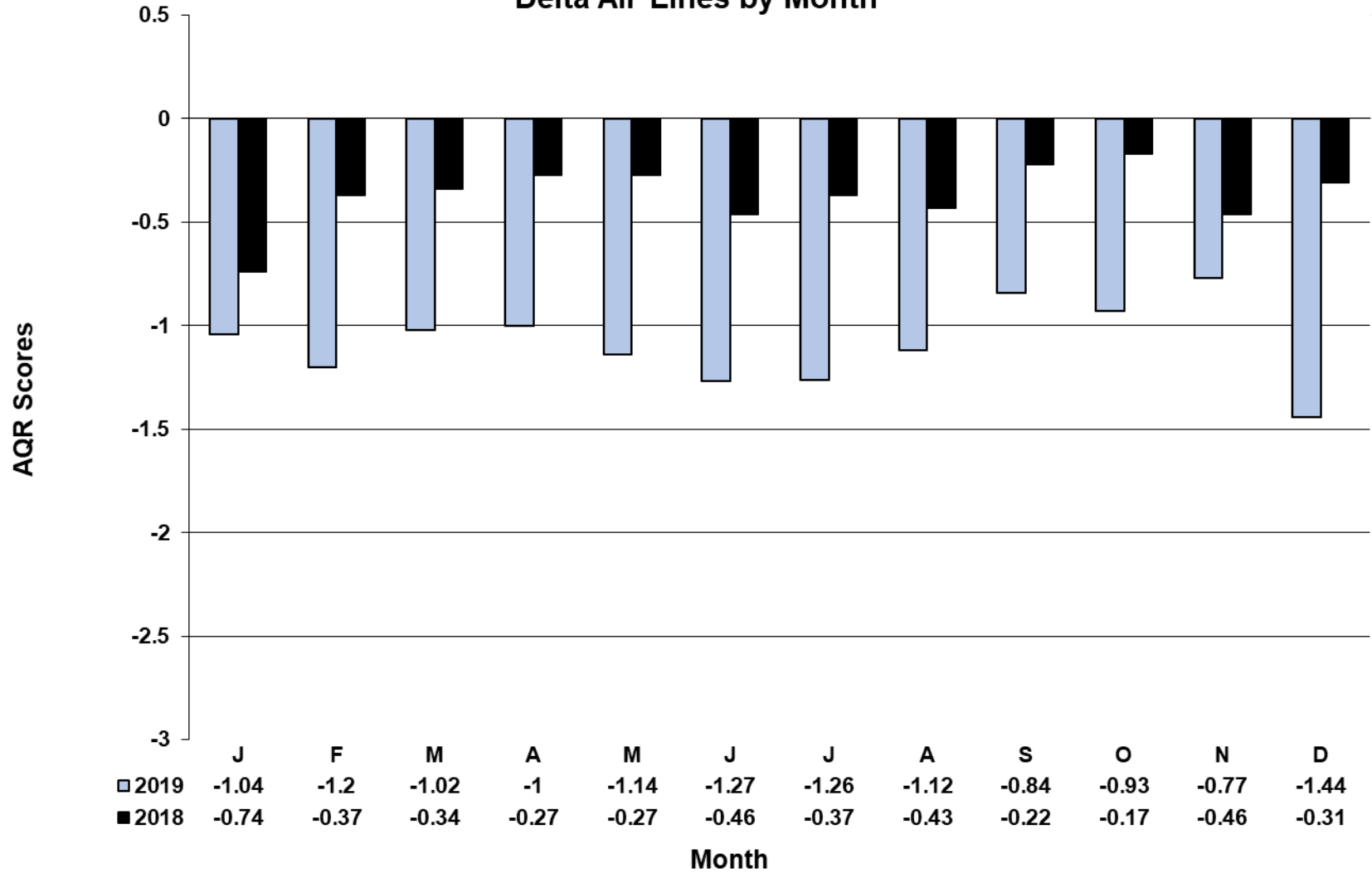
Airline Quality Rating

Delta Air Lines 2018 - 2019



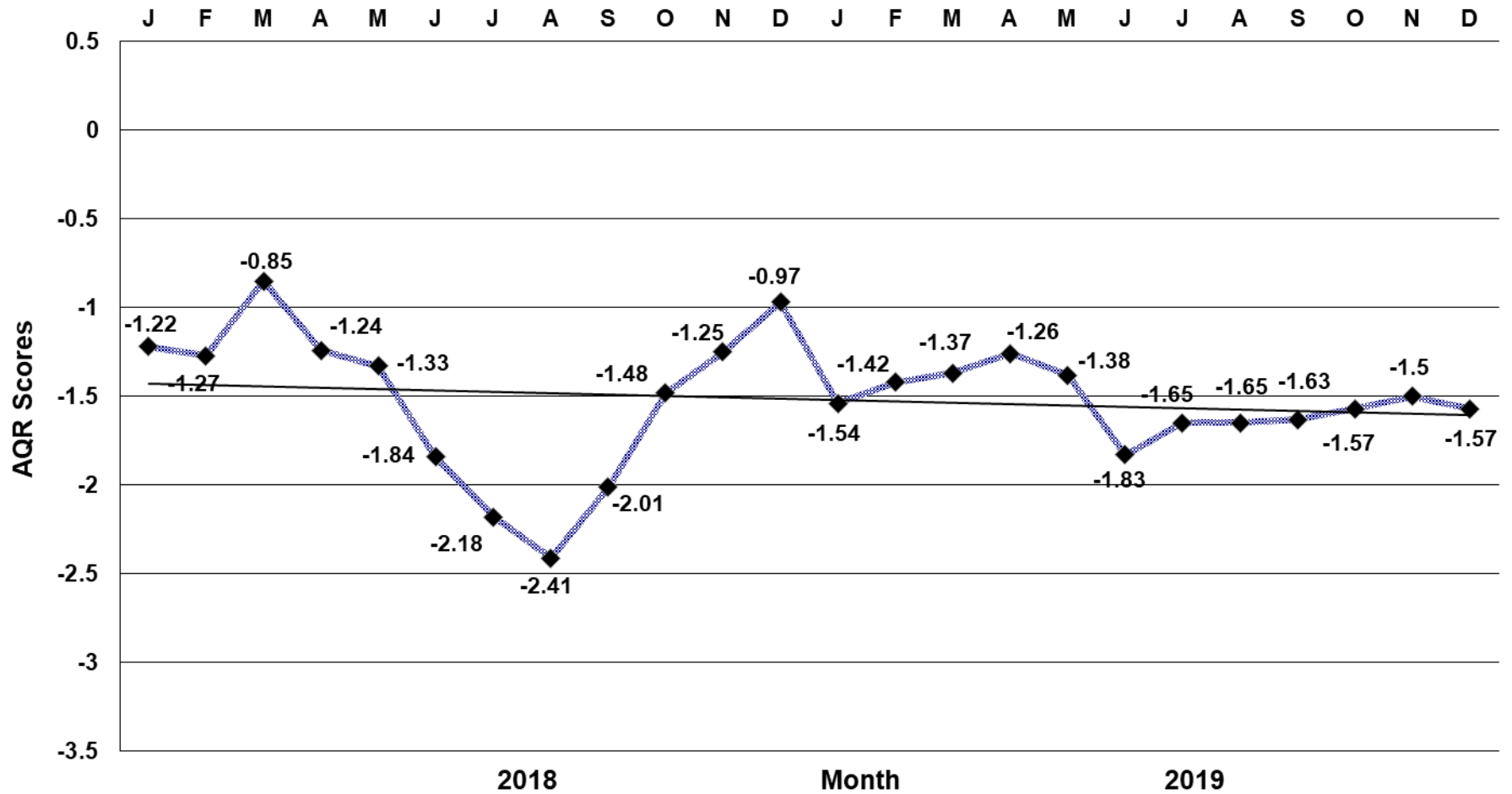
Airline Quality Rating

Delta Air Lines by Month



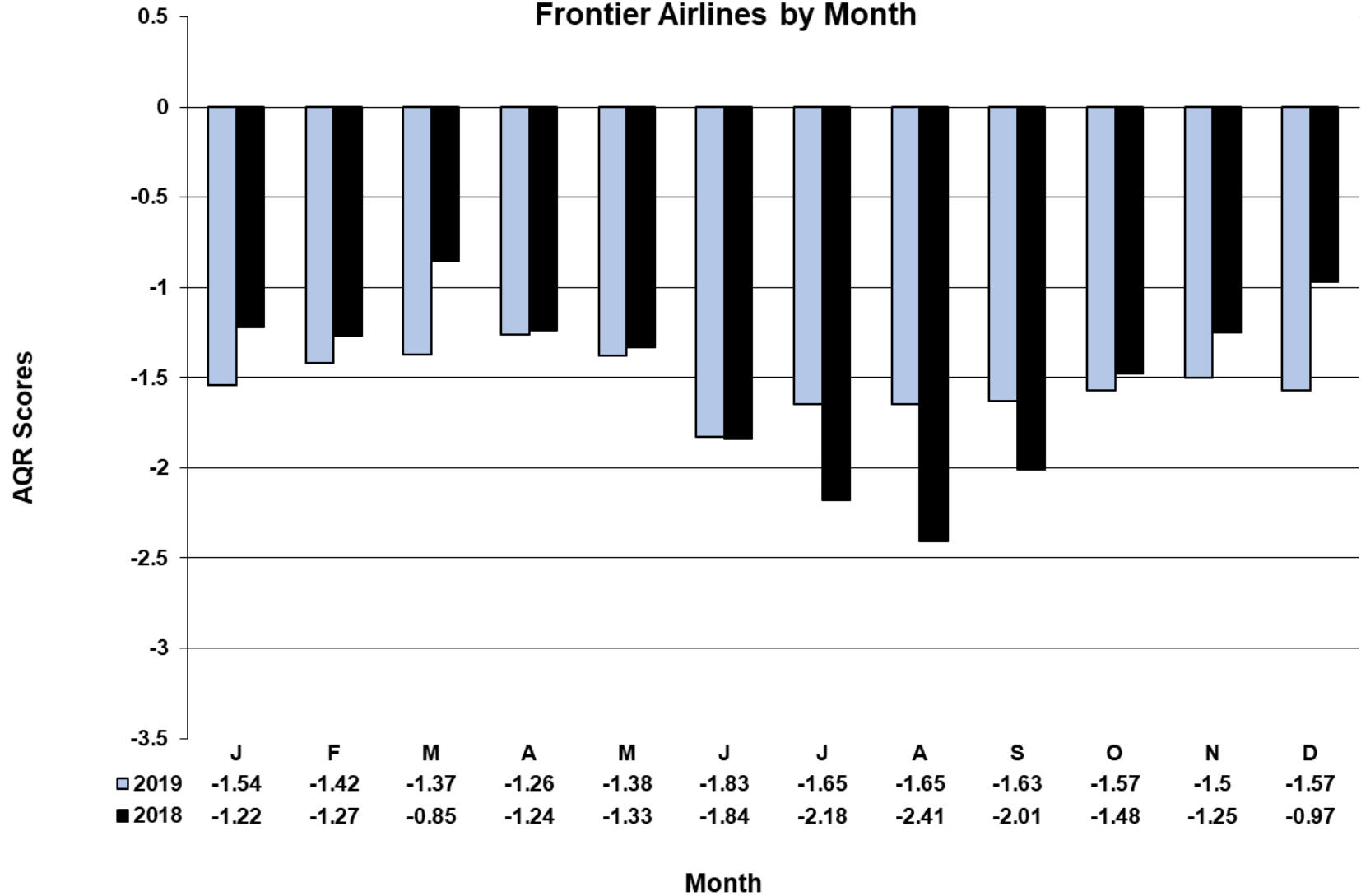
Airline Quality Rating

Frontier Airlines 2018 - 2019



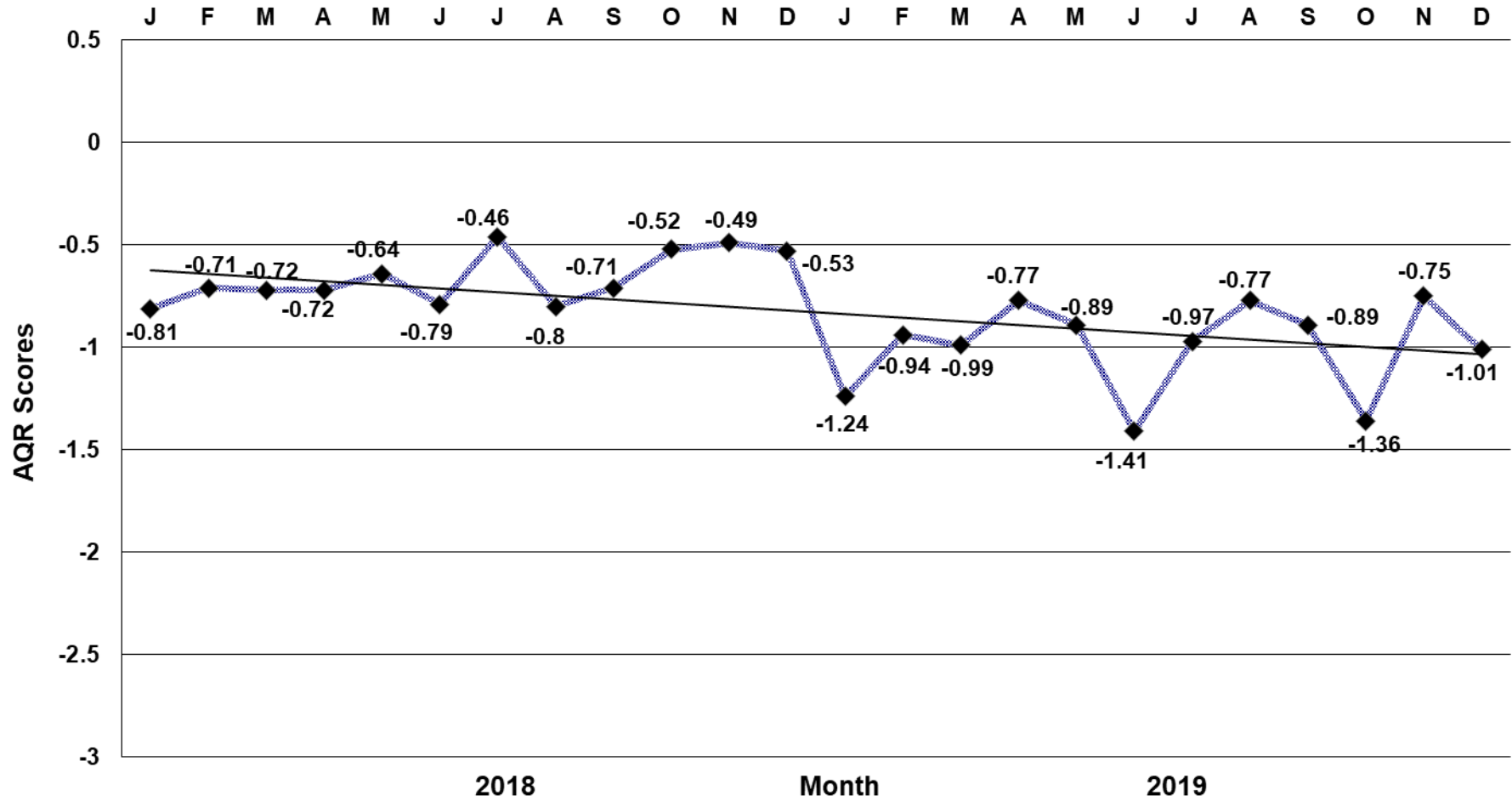
Airline Quality Rating

Frontier Airlines by Month



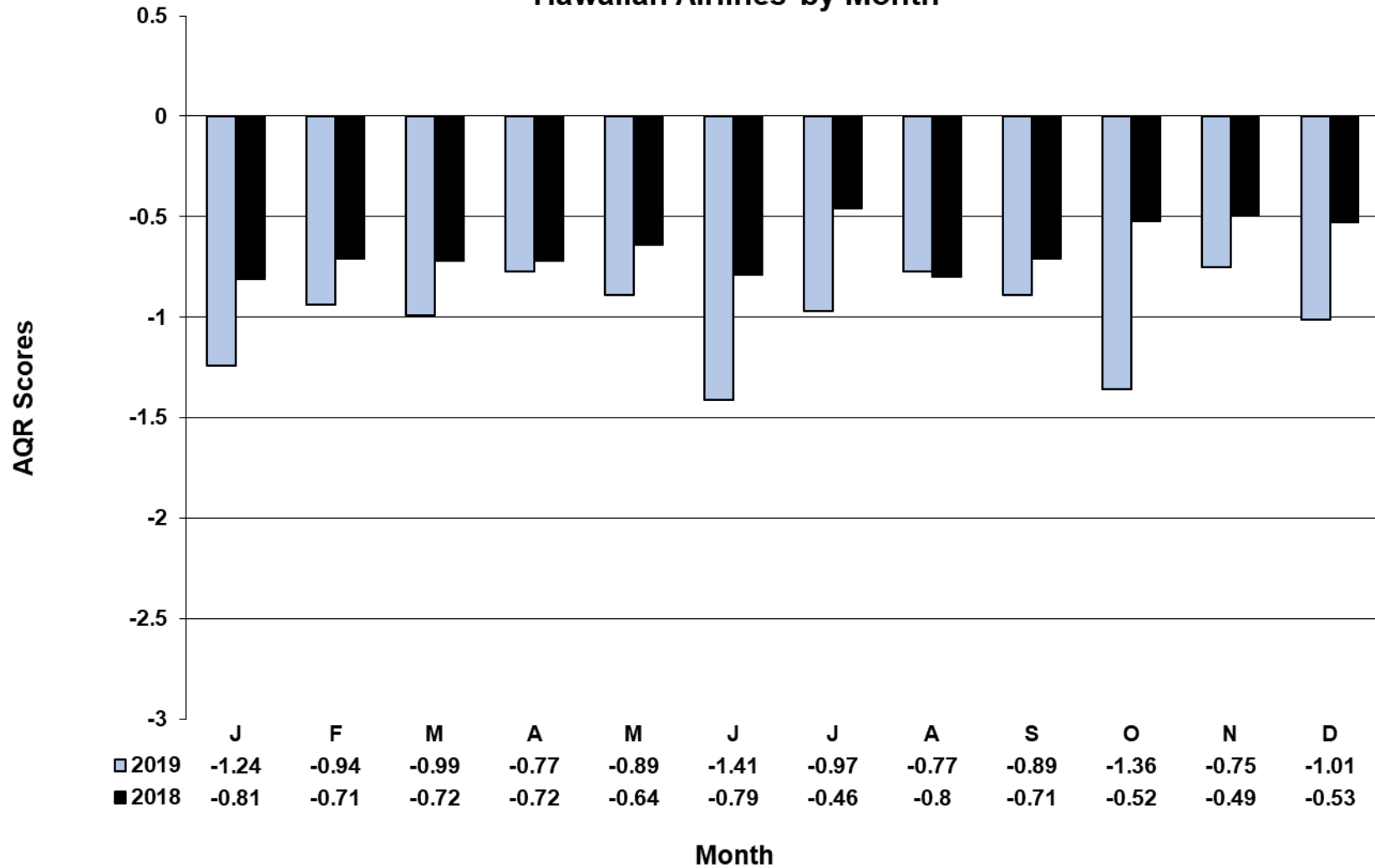
Airline Quality Rating

Hawaiian Airlines 2018 - 2019



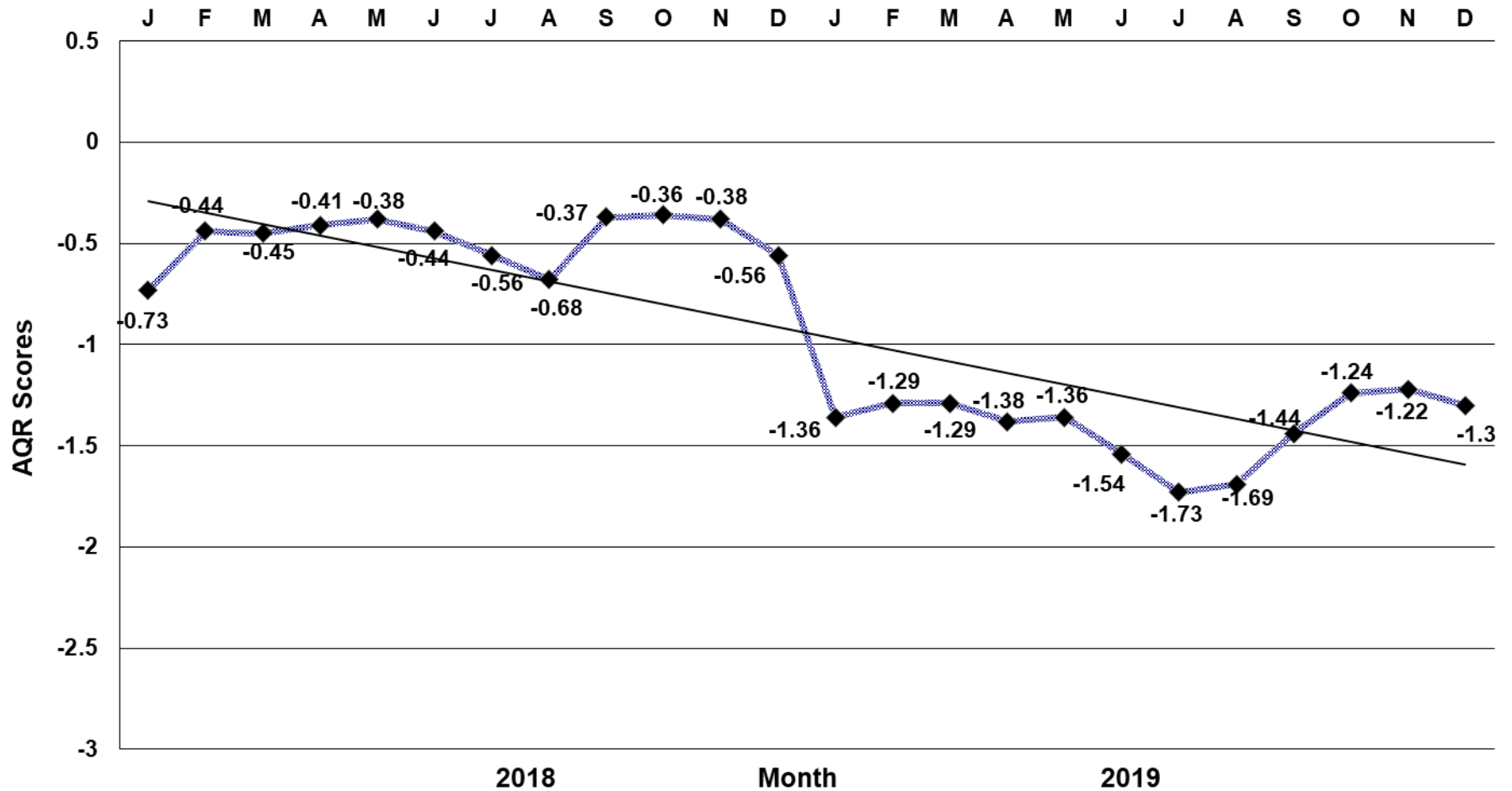
Airline Quality Rating

Hawaiian Airlines by Month



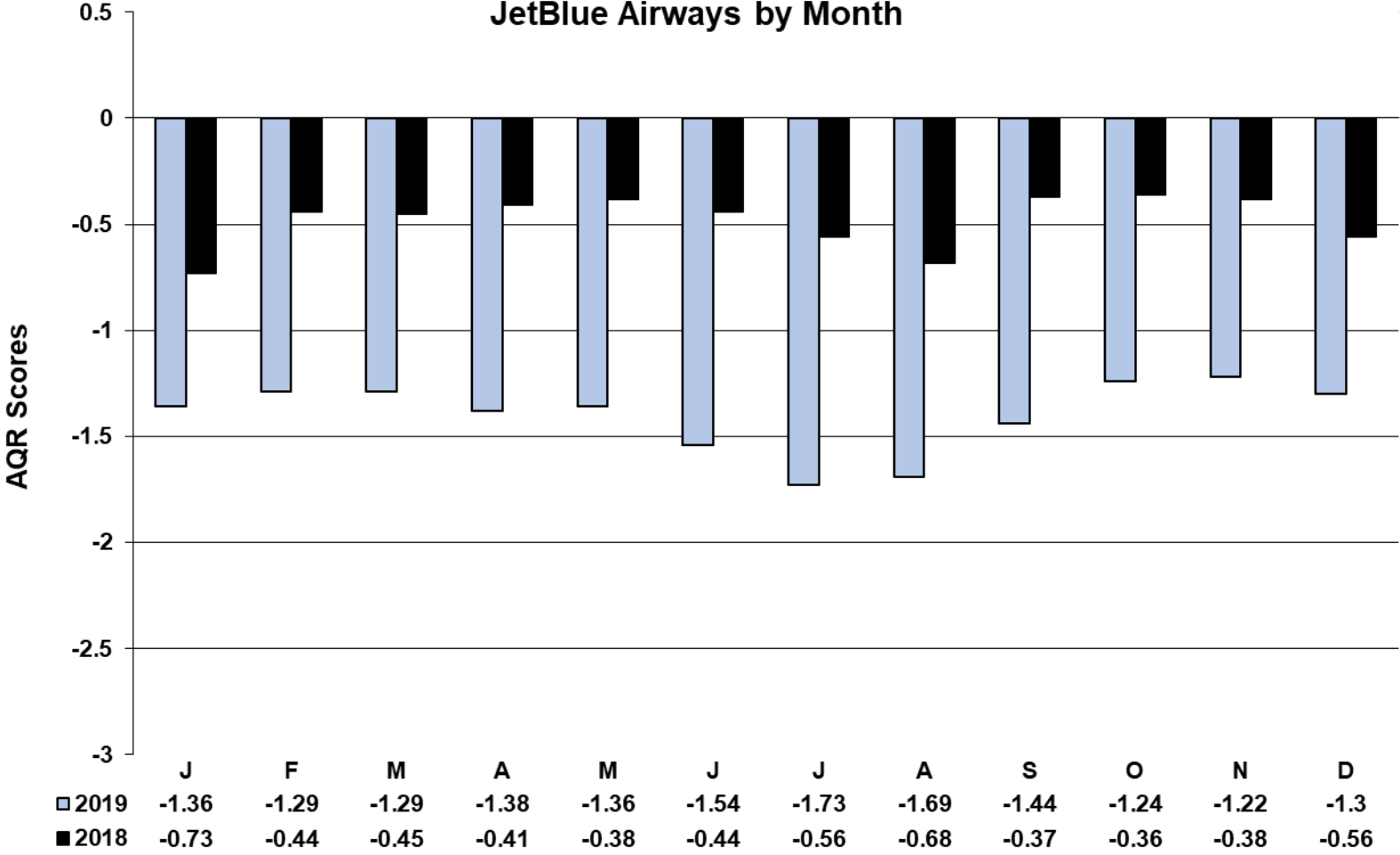
Airline Quality Rating

JetBlue Airways 2018 - 2019



Airline Quality Rating

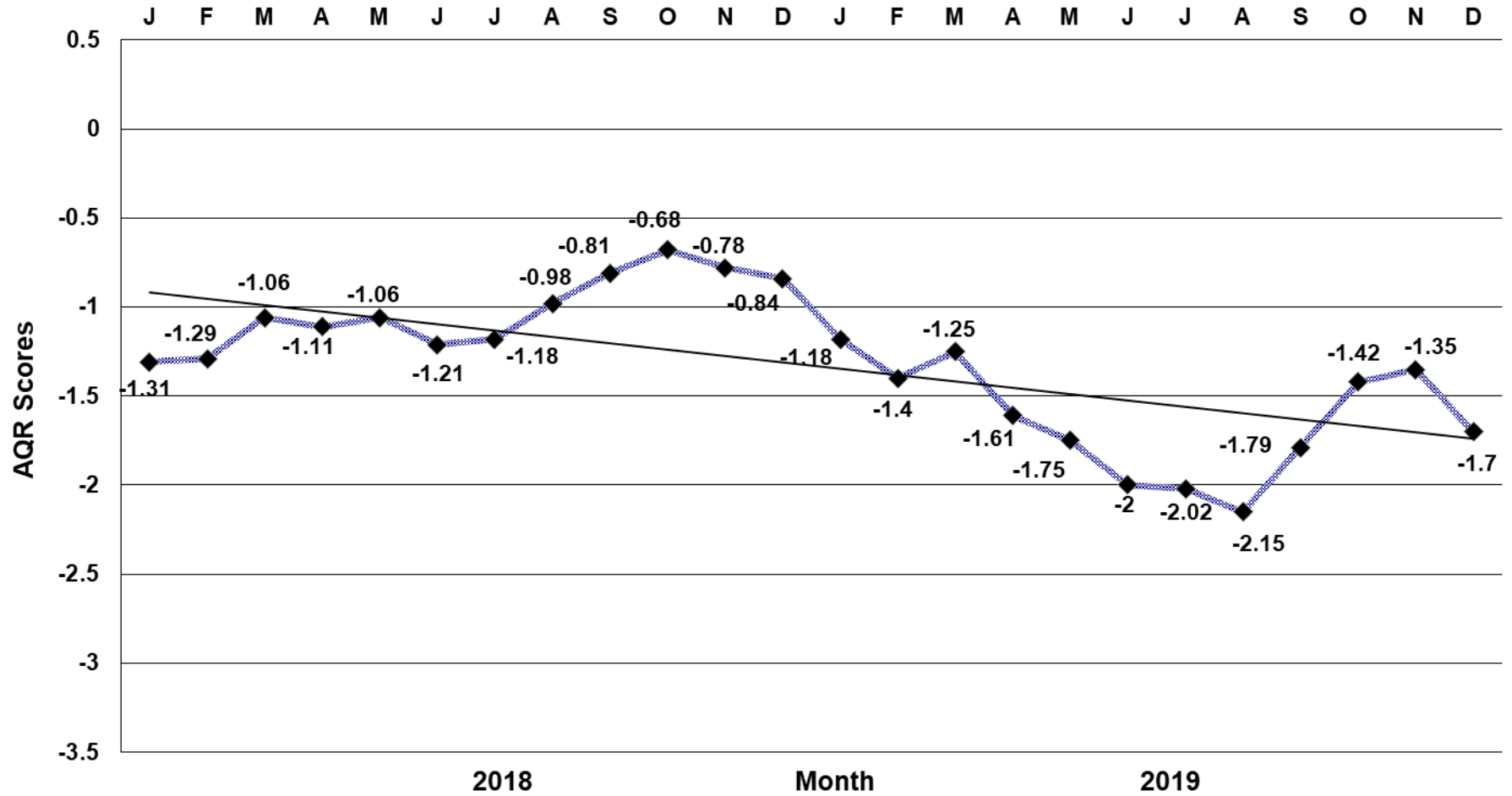
JetBlue Airways by Month



Month

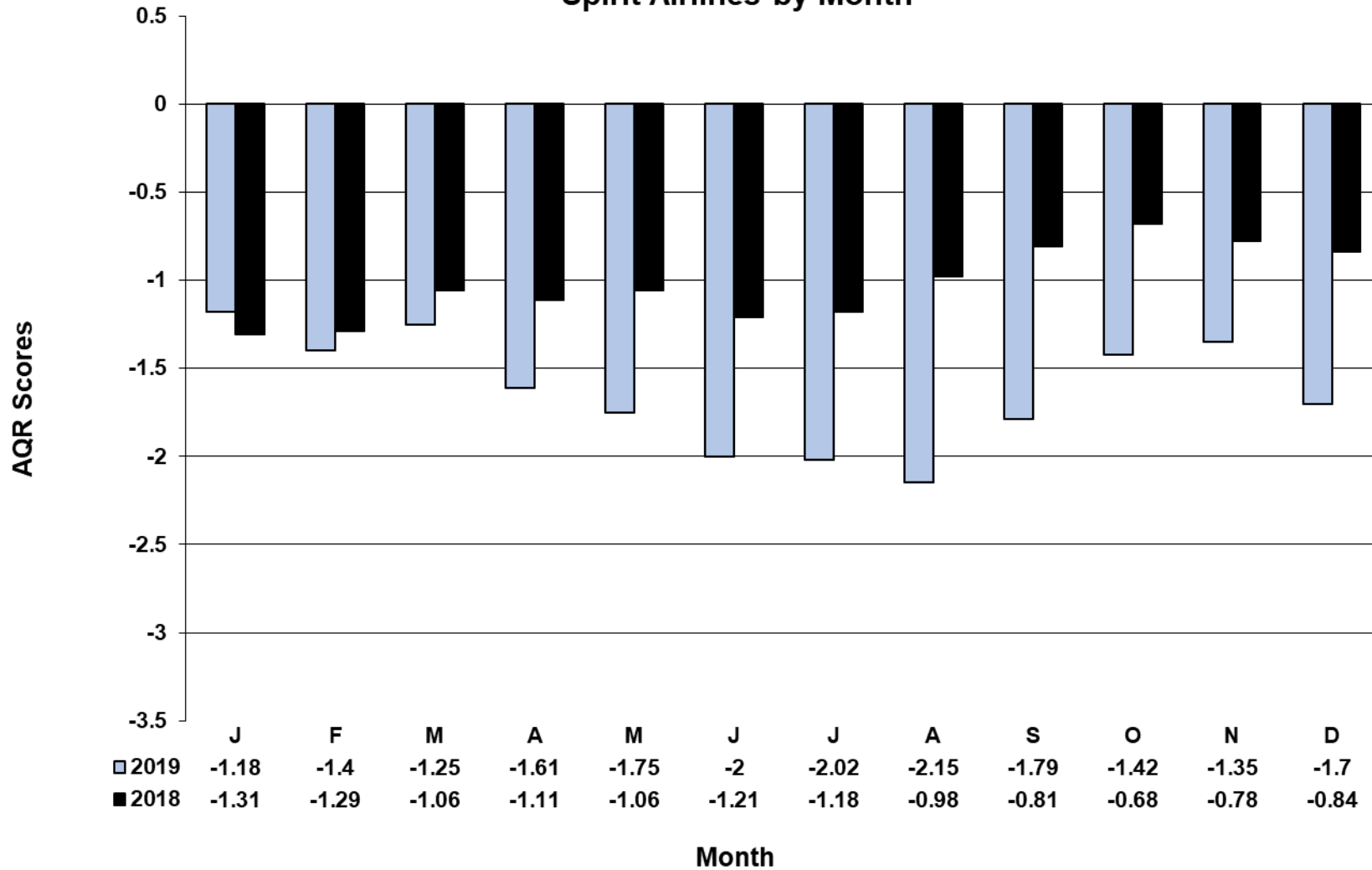
Airline Quality Rating

Spirit Airlines 2018 - 2019



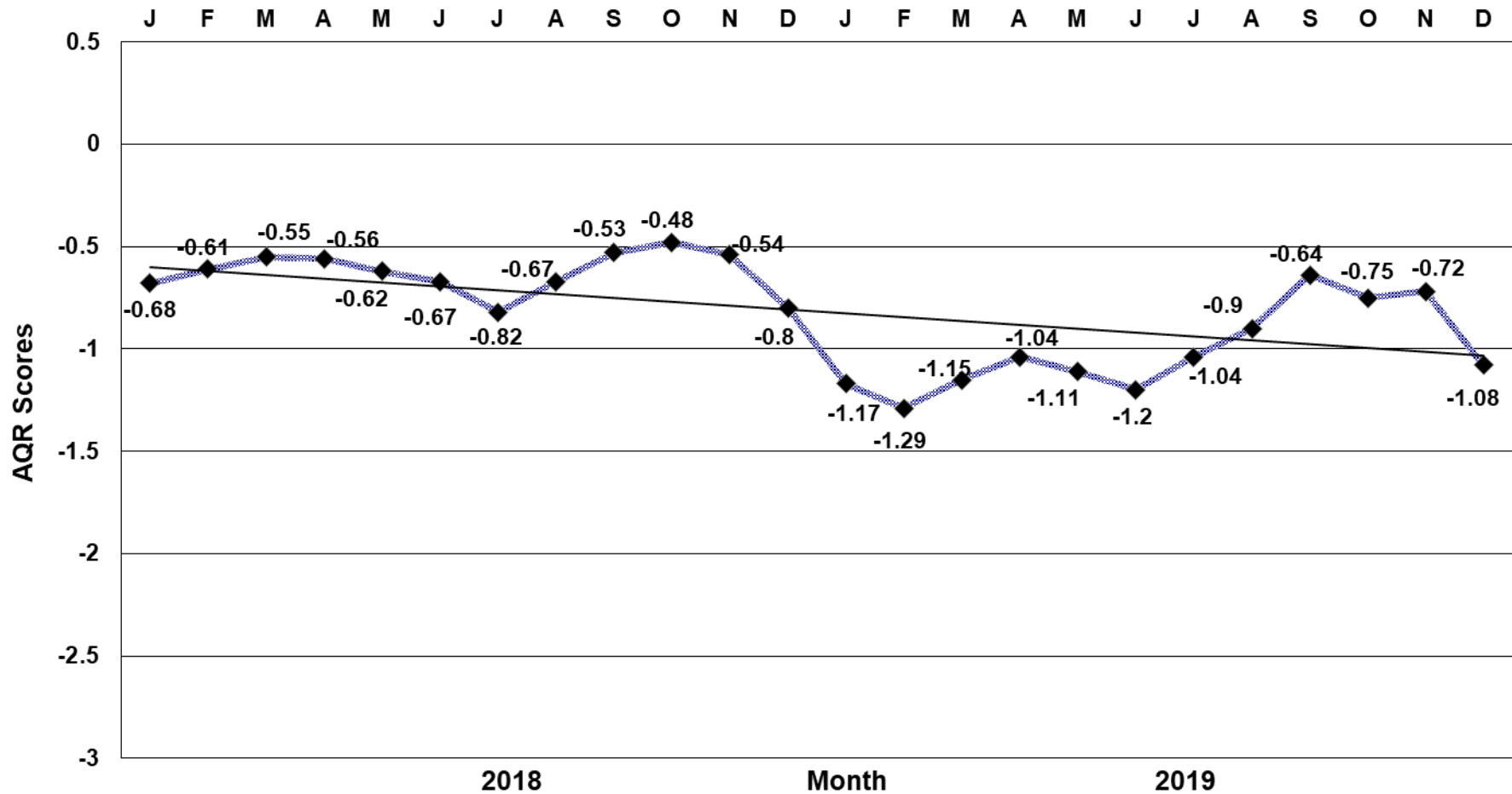
Airline Quality Rating

Spirit Airlines by Month



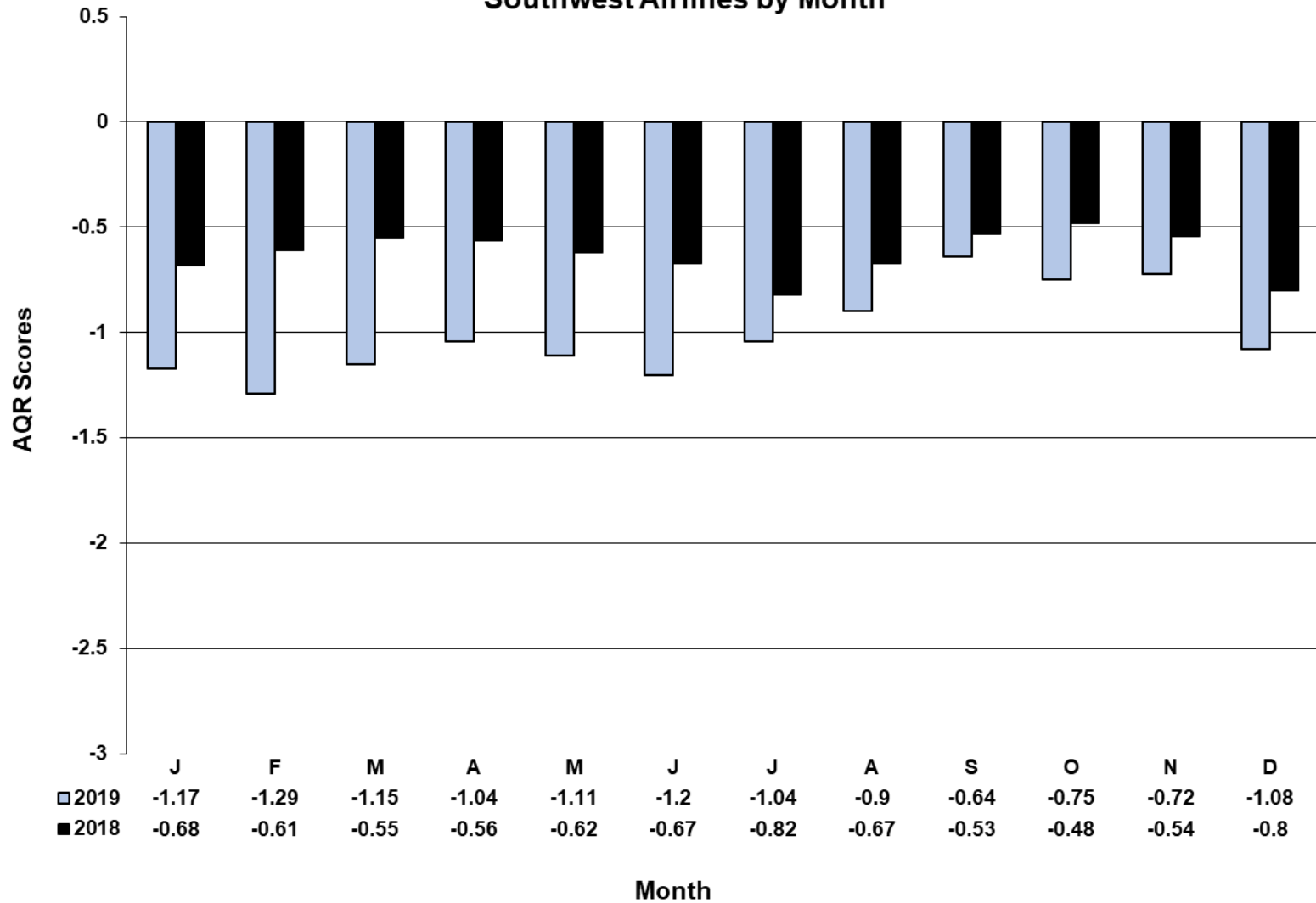
Airline Quality Rating

Southwest Airlines 2018 - 2019



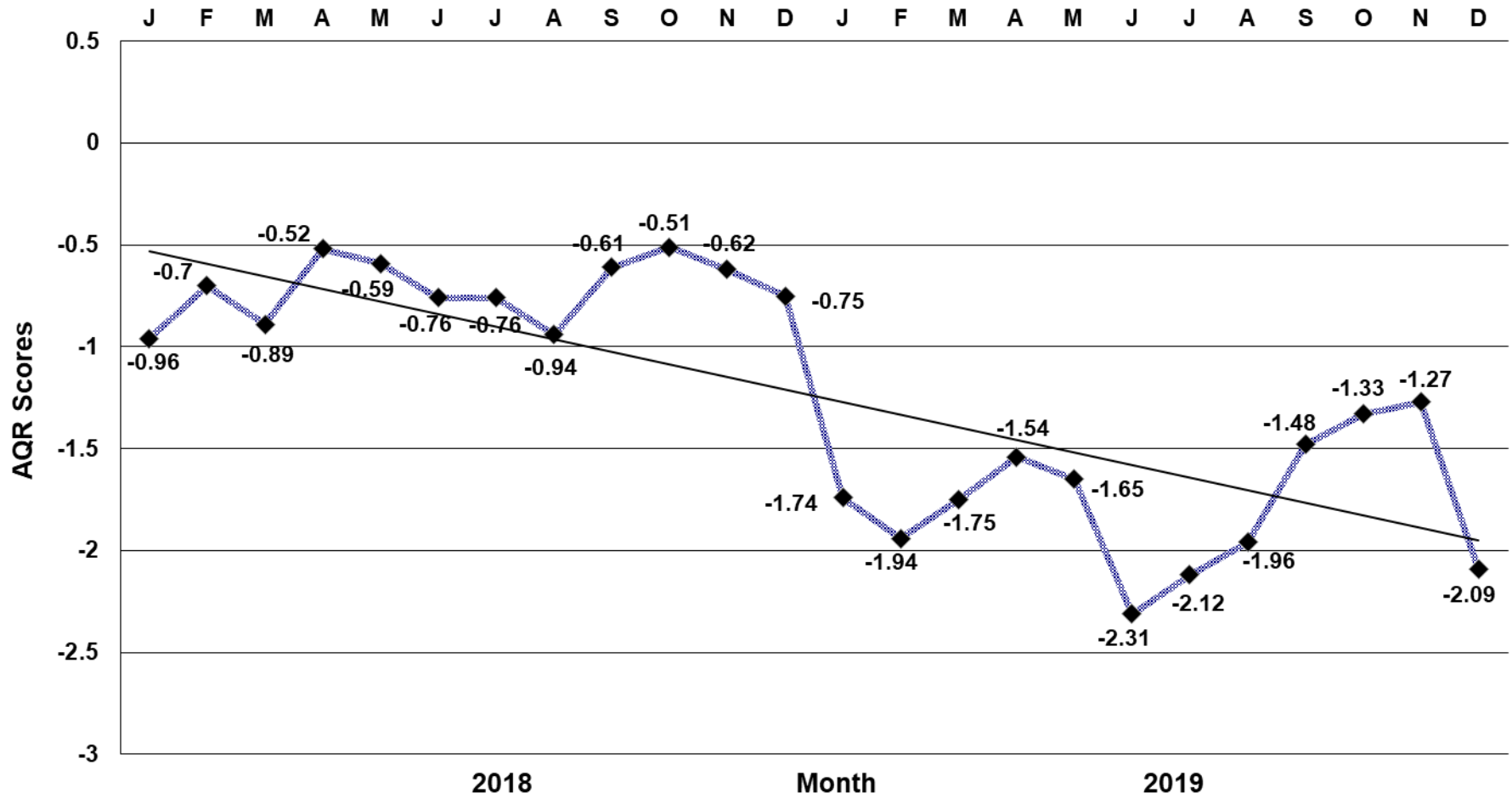
Airline Quality Rating

Southwest Airlines by Month



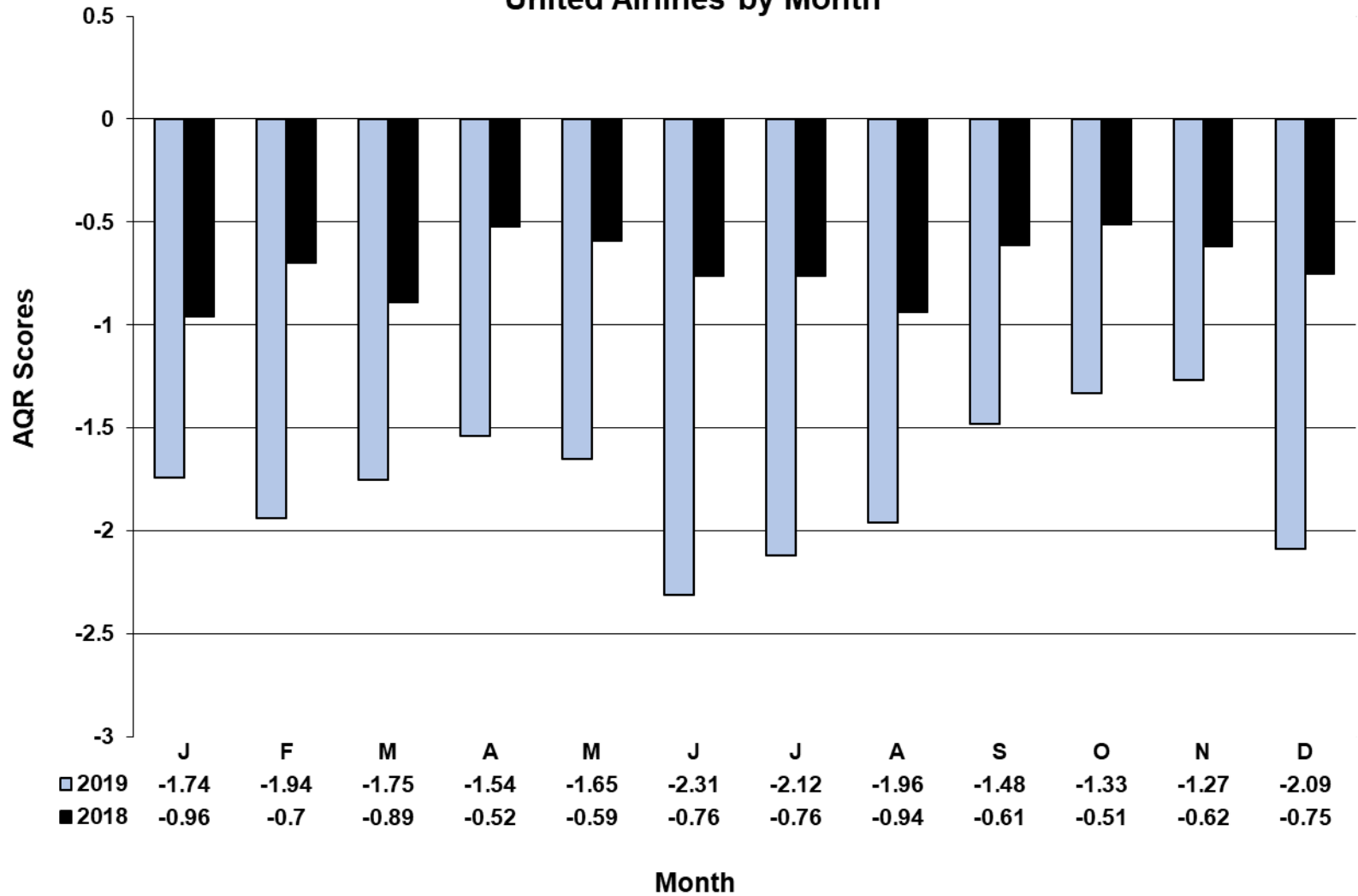
Airline Quality Rating

United Airlines 2018 - 2019



Airline Quality Rating

United Airlines by Month



Detail of Frequently Cited Airline Performance Criteria

Consumer interest remains high regarding such issues as on-time performance, mishandled baggage, involuntary denied boardings (bumping or oversales), and treatment of customers. Since these criteria are central to the AQR calculations, it is important to provide more complete data for individual airlines in these areas. The following data tables provide a detailed look at the performance of each of the 10 U.S. branded airlines required to report performance in the specific areas of on-time arrivals, mishandled baggage, involuntary denied boardings, and consumer complaints to the Department of Transportation in 2019. The requirement is based on the criteria that an airline handled at least 0.05% or more of the total domestic scheduled-service passenger revenues for 2019. Data were drawn from the U.S. Department of Transportation monthly *Air Travel Consumer Report*. The final pages of this report outline the Airline Quality Rating criteria definitions for reference and clarity in more fully understanding the nature of the data reported.

2019 On-Time Arrival Percentage by Month for U.S. Airlines

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Alaska (AS)	.805	.680	.812	.837	.826	.818	.834	.777	.815	.843	.835	.742	.803
Allegiant (G4)	.734	.752	.853	.816	.795	.729	.786	.768	.841	.834	.816	.736	.787
American (AA)	.800	.758	.783	.756	.704	.671	.737	.746	.829	.805	.847	.783	.770
Delta (DL)	.867	.816	.883	.862	.867	.799	.808	.832	.886	.866	.896	.830	.852
Frontier (F9)	.739	.743	.783	.776	.670	.640	.660	.712	.788	.745	.785	.753	.731
Hawaiian (HA)	.873	.821	.873	.894	.900	.897	.895	.904	.908	.839	.900	.876	.883
JetBlue (B6)	.694	.700	.738	.734	.776	.701	.702	.678	.820	.807	.804	.667	.735
Southwest (WN)	.819	.735	.800	.787	.758	.751	.803	.822	.881	.840	.853	.779	.802
Spirit (NK)	.829	.777	.864	.802	.760	.716	.741	.709	.838	.845	.869	.869	.795
United (UA)	.788	.770	.788	.797	.755	.702	.736	.754	.802	.820	.839	.759	.777
Industry by Month	.795	.755	.818	.806	.781	.742	.770	.770	.841	.824	.844	.774	.794

Source: *Air Travel Consumer Report*, U.S. Department of Transportation, Office of Aviation Enforcement and Proceedings.

2018 On-Time Arrival Percentage by Month for U.S. Airlines

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Alaska (AS)	.851	.835	.784	.834	.818	.824	.829	.750	.852	.800	.808	.819	.818
American (AA)	.776	.808	.823	.839	.786	.737	.700	.725	.783	.788	.809	.796	.784
Delta (DL)	.804	.879	.870	.864	.850	.815	.834	.833	.883	.900	.833	.891	.857
Frontier (F9)	.749	.738	.784	.764	.718	.603	.597	.614	.663	.682	.701	.744	.694
Hawaiian (HA)	.883	.803	.853	.877	.908	.907	.926	.916	.911	.910	.916	.884	.893
JetBlue (B6)	.658	.746	.642	.676	.710	.738	.672	.667	.775	.788	.712	.745	.710
Southwest (WN)	.818	.771	.789	.777	.764	.777	.745	.779	.850	.835	.817	.788	.792
Spirit (NK)	.829	.819	.851	.818	.803	.768	.736	.733	.842	.890	.821	.845	.811
United (UA)	.786	.847	.839	.839	.789	.752	.751	.708	.822	.819	.778	.797	.779
Industry by Month	.817	.808	.802	.810	.794	.769	.754	.747	.820	.824	.799	.813	.796

Effective April 2018 Alaska Airlines and Virgin America are combined. Data for January, February and March have been adjusted to combine the airlines data prior to April for Alaska Airlines.
 Source: *Air Travel Consumer Report*, U.S. Department of Transportation, Office of Aviation Enforcement and Proceedings.

2019 Involuntary Denied Boardings by Quarter for U.S. Airlines (per 10,000 passengers)

	1Q	2Q	3Q	4Q	Annual
Alaska (AS)	0.21	0.17	0.10	0.13	0.15
Allegiant (G4)	1.47	0.29	0.01	0.01	0.42
American (AA)	0.52	0.91	0.52	0.30	0.57
Delta (DL)	0.00	0.00	0.00	0.00	0.00
Frontier (F9)	0.33	0.36	0.40	0.43	0.38
Hawaiian (HA)	0.00	0.00	0.00	0.00	0.00
JetBlue (B6)	0.03	0.01	0.01	0.02	0.01
Southwest (WN)	0.43	0.22	0.08	0.07	0.19
Spirit (NK)	0.06	0.18	0.08	0.15	0.12
United (UA)	0.01	0.01	0.00	0.01	0.01
Industry by Quarter	0.26	0.27	0.14	0.09	0.19

Source: *Air Travel Consumer Report*, U.S. Department of Transportation, Office of Aviation Enforcement and Proceedings.

2018 Involuntary Denied Boardings by Quarter for U.S. Airlines (per 10,000 passengers)

	1Q	2Q	3Q	4Q	Annual
Alaska (AS)	0.18	0.30	0.21	0.13	0.23
American (AA)	0.15	0.10	0.11	0.47	0.20
Delta (DL)	0.00	0.00	0.00	0.00	0.00
Frontier (F9)	0.43	0.47	1.01	0.52	0.63
Hawaiian (HA)	0.01	0.01	0.01	0.02	0.01
JetBlue (B6)	0.01	0.01	0.01	0.01	0.01
Southwest (WN)	0.18	0.13	0.24	0.10	0.15
Spirit (NK)	1.41	1.00	0.22	0.06	0.56
United (UA)	0.01	0.01	0.01	0.01	0.01
Industry by Quarter	0.16	0.10	0.13	0.19	0.14

Effective April 2018 Alaska Airlines and Virgin America are combined. Data for January, February and March have been adjusted to combine the airlines data prior to April for Alaska Airlines.
 Source: *Air Travel Consumer Report*, U.S. Department of Transportation, Office of Aviation Enforcement and Proceedings.

2019 Mishandled Baggage by Month for U.S. Airlines (per 1,000 bags enplaned)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Alaska (AS)	5.04	6.75	5.39	4.19	4.04	5.01	4.32	5.36	5.07	4.15	4.06	7.72	5.02
Allegiant (G4)	1.94	1.71	1.70	1.59	1.64	1.98	2.00	1.90	1.43	1.68	1.53	1.84	1.75
American (AA)	7.85	7.73	7.64	8.85	10.06	11.30	9.71	9.67	6.72	6.94	7.20	8.94	8.60
Delta (DL)	4.74	5.23	4.78	4.54	5.06	5.42	5.36	4.83	3.87	4.27	3.80	6.00	4.82
Frontier (F9)	4.52	3.93	4.01	3.70	4.35	4.43	3.91	4.02	4.94	4.56	4.06	4.42	4.20
Hawaiian (HA)	4.97	3.60	4.25	3.39	3.55	6.08	4.18	3.47	3.94	5.81	3.79	4.53	4.30
JetBlue (B6)	5.59	5.25	5.30	5.59	5.60	5.92	6.36	6.33	5.46	4.99	4.94	5.19	5.53
Southwest (WN)	4.91	5.08	4.70	4.42	4.73	5.05	4.69	4.14	3.24	3.57	3.59	4.88	4.40
Spirit (NK)	4.64	4.44	4.33	3.99	5.17	5.54	5.53	5.52	4.45	4.08	4.36	5.02	4.76
United (UA)	7.03	7.41	6.99	5.95	6.24	8.39	7.37	6.96	5.56	5.18	5.13	7.70	6.68
Industry by Month	5.67	5.87	5.13	5.37	5.89	6.63	6.01	5.78	4.56	4.66	4.57	6.28	5.57

Effective January 2019, Mishandled Baggage ratio is reported as per 1000 bags enplaned not per 1000 passengers.
 Source: *Air Travel Consumer Report*, U.S. Department of Transportation, Office of Aviation Enforcement and Proceedings.

2018 Mishandled Baggage by Month for U.S. Airlines (per 1,000 passengers)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Alaska (AS)	2.55	2.09	2.34	2.22	2.78	2.87	2.79	3.09	2.43	2.45	2.67	3.24	2.67
American (AA)	4.62	3.65	3.33	3.05	3.36	4.42	4.39	4.34	3.58	3.34	3.39	4.53	3.83
Delta (DL)	3.01	1.72	1.81	1.53	1.54	2.15	1.83	1.94	1.39	1.30	1.75	1.80*	1.80*
Frontier (F9)	2.97	2.59	2.44	2.47	2.65	3.62	3.10	2.77	2.32	2.19	2.00	1.95	2.60
Hawaiian (HA)	3.26	2.67	2.62	2.79	2.46	3.26	2.43	2.58	2.51	2.50	1.75	2.24	2.59
JetBlue (B6)	2.30	1.58	1.80	1.59	1.62	1.76	1.96	1.97	1.60	1.45	1.63	2.24	1.79
Southwest (WN)	3.11	2.78	2.65	2.56	2.84	3.03	3.39	2.90	2.50	2.50	2.66	3.79	2.89
Spirit (NK)	1.99	1.52	1.46	1.53	1.83	2.00	2.11	1.84	1.56	1.39	1.62	2.14	1.76
United (UA)	3.31	2.52	2.42	1.98	2.33	2.77	2.77	3.15	2.08	1.96	2.33	3.10	2.56
Industry by Month	3.28	1.89	2.45	2.25	2.48	2.97	2.97	2.90	2.31	2.22	2.43	3.15*	2.43*

*Due to reporting changes, Delta Airlines December mishandled baggage rate is presented as an average of January thru November rates. This rate is also included in the industry rate.
 Effective April 2018 Alaska Airlines and Virgin America are combined. Data for January, February and March have been adjusted to combine the airlines data prior to April for Alaska Airlines.
 Source: *Air Travel Consumer Report*, U.S. Department of Transportation, Office of Aviation Enforcement and Proceedings.

2019 Total Complaints to the Department of Transportation by Month for U.S. Airlines (per 100,000 passengers)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Alaska (AS)	0.63	0.89	0.54	0.59	0.36	0.37	0.50	0.36	0.49	0.34	0.93	1.30	0.60
Allegiant (G4)	1.49	2.53	0.66	1.71	1.55	1.42	1.30	1.82	2.11	1.74	1.14	1.66	1.55
American (AA)	1.36	1.33	1.46	1.88	1.76	2.27	2.49	2.10	1.52	1.10	0.96	1.17	1.64
Delta (DL)	0.41	0.53	0.31	0.46	0.52	0.60	0.65	0.61	0.49	0.44	0.28	0.76	0.51
Frontier (F9)	2.34	2.47	2.19	2.03	1.73	3.58	3.32	3.29	2.25	2.32	2.60	2.49	2.57
Hawaiian (HA)	1.06	1.17	0.72	0.75	1.11	0.61	0.76	0.67	0.66	0.62	0.22	0.51	0.74
JetBlue (B6)	0.64	0.70	0.71	0.79	0.78	1.11	1.46	1.28	1.31	0.95	0.91	0.80	0.96
Southwest (WN)	0.26	0.51	0.38	0.44	0.37	0.40	0.30	0.30	0.21	0.31	0.18	0.27	0.33
Spirit (NK)	1.01	2.16	1.74	3.47	2.73	3.38	3.64	4.19	3.91	2.63	2.05	2.81	2.85
United (UA)	0.88	1.32	0.97	1.19	1.29	1.81	2.12	1.92	1.39	1.13	0.96	1.64	1.41
Industry by Month	0.79	0.67	0.82	1.08	1.03	1.33	1.45	1.35	1.05	0.86	0.74	1.07	1.06

Source: *Air Travel Consumer Report*, U.S. Department of Transportation, Office of Aviation Enforcement and Proceedings.

2018 Total Complaints to the Department of Transportation by Month for U.S. Airlines (per 100,000 passengers)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Alaska (AS)	0.54	0.32	0.19	0.46	0.38	0.67	0.70	0.74	0.58	0.73	0.78	0.54	0.57
American (AA)	1.28	1.18	1.05	1.11	1.24	1.57	1.69	1.65	1.68	1.56	1.20	1.25	1.38
Delta (DL)	0.93	0.79	0.56	0.55	0.51	0.65	0.61	0.78	0.50	0.39	1.11	0.44	0.65
Frontier (F9)	2.55	3.16	1.55	3.15	3.30	4.34	5.82	7.23	6.00	4.37	3.60	2.47	4.02
Hawaiian (HA)	1.05	1.13	1.30	1.16	1.21	0.97	0.46	1.79	1.44	0.63	1.30	0.93	1.10
JetBlue (B6)	1.49	1.10	0.77	0.86	0.74	0.87	1.11	1.61	0.81	0.92	0.71	0.87	0.99
Southwest (WN)	0.38	0.37	0.27	0.46	0.37	0.41	0.51	0.43	0.32	0.27	0.31	0.21	0.36
Spirit (NK)	3.02	3.42	2.52	3.07	2.50	2.95	3.55	2.94	2.64	2.46	2.60	2.30	2.83
United (UA)	1.51	1.32	2.25	1.12	0.97	1.19	1.21	1.51	1.38	1.08	1.09	0.84	1.28
Industry by Month	1.11	1.03	0.98	0.92	0.88	1.08	1.20	1.33	1.12	0.95	1.03	0.80	1.04

Effective April 2018 Alaska Airlines and Virgin America are combined. Data for January, February and March have been adjusted to combine the airlines data prior to April for Alaska Airlines.
 Source: *Air Travel Consumer Report*, U.S. Department of Transportation, Office of Aviation Enforcement and Proceedings.

**Monthly Count of Complaints Received by the Department of Transportation
Regarding U.S. Airlines for 2019 and 2018**

	Complaints for All U.S. Airlines		Complaints for 10 AQR Rated Airlines		Top Four Categories ¹ of Complaints for All U.S. Airlines			
	2019	2018	2019	2018	2019			
					1	2	3	4
Jan	506	707	435	593	FP	BG	TB	CS
Feb	619	605	531	522	FP	BG	TB	CS
Mar	683	726	542	612	FP	RF	TB	BG
Apr	759	690	677	574	FP	RF	TB	BG
May	814	644	687	565	FP	RF	TB	BG
Jun	1,112	894	915	732	FP	BG	TB	CS/RF
Jul	1,279	962	966	837	FP	BG	TB	RF
Aug	1,096	1,008	924	889	FP	BG	CS	TB
Sep	724	721	621	633	FP	BG	TB	CS
Oct	637	676	549	592	FP	BG	RF	CS
Nov	533	697	444	619	FP	BG	TB	RF
Dec	<u>791</u>	<u>544</u>	<u>691</u>	<u>478</u>	FP	CS	BG	TB
	9,547	8,876	8,047	7,646				

¹ FP = Flight Problems; CS = Customer Service; BG = Baggage; TB = Reservations, Ticketing, and Boarding; RF = Refunds; FA= Fares; DS=Disability.
Details of categories are at the back of this report.

Source: *Air Travel Consumer Report*, U.S. Department of Transportation, Office of Aviation Enforcement and Proceedings.

**Overview of Complaints Received by the Department of Transportation for All U.S. Domestic Airlines
by Complaint Category for 2019 and 2018**

	% of all Complaints Received		Number of Complaints Received	
	2019	2018	2019	2018
Flight Problems	40.0%	36.9%	3,822	3,273
Customer Service	12.6%	12.1%	1,202	1,076
Baggage	12.0%	13.0%	1,145	1,156
Reservations, Ticketing, and Boarding	9.4%	10.1%	893	895
Disability	8.1%	7.5%	773	665
Refunds	6.6%	4.7%	627	417
Fares	5.1%	8.7%	489	770
Other	2.6%	3.0%	245	270
Oversales	2.3%	2.8%	218	246
Discrimination	1.0%	0.9%	96	81
Advertising	0.4%	0.3%	36	26
Animals	0.0%	0.0%	1	1
Total	100%	100%	9,547	8,876

Source: *Air Travel Consumer Report*, U.S. Department of Transportation, Office of Aviation Enforcement and Proceedings.

Airline Quality Rating Criteria Overview

The individual criteria used to calculate AQR scores are summed up in four basic areas that reflect customer-oriented areas of airline performance. Definitions of the four areas used in this AQR 2020 (2019 data) are outlined below:

OT ON-TIME PERFORMANCE (+8.63)

Regularly published data regarding on-time arrival performance is obtained from the U.S. Department of Transportation's monthly *Air Travel Consumer Report*. According to the DOT, a flight is counted "on time" if it is operated within 15 minutes of the scheduled time displayed in the carriers' Computerized Reservations System. Delays caused by mechanical problems are included as of January 1, 1995. Canceled and diverted operations are not considered on-time arrivals. The AQR calculations use the percentage of flights arriving on-time for each airline for each month.

DB INVOLUNTARY DENIED BOARDINGS (-8.03)

This criterion includes involuntary denied boardings. Data regarding denied boardings is obtained from the U.S. Department of Transportation's *Air Travel Consumer Report*. Data includes the number of passengers who hold confirmed reservations and are involuntarily denied boarding on a flight that is oversold. These figures include only passengers whose oversold flight departs without them on board. The AQR uses the ratio of involuntary denied boardings per 10,000 passengers boarded by month.

MB MISHANDLED BAGGAGE REPORTS (-7.92)

Regularly published data regarding consumer reports to the carriers of mishandled baggage is obtained from the U.S. Department of Transportation's *Air Travel Consumer Report*. According to the DOT, a mishandled bag includes checked bags that are lost, damaged, delayed, and pilfered, as reported by or on behalf of the passenger, that were in the airline's custody for its reportable domestic nonstop scheduled passenger flights. The number of bags enplaned represent the total number of checked bags enplaned, including wheelchairs and scooters that were placed into the aircraft cargo compartment for any reportable domestic nonstop scheduled passenger flight. Data is reported by carriers regarding the rate of mishandled baggage reports per 1,000 checked bags (enplaned bags) and for the industry. The AQR ratio is based on the total number of reports each carrier received concerning lost, damaged, delayed, or pilfered baggage per 1,000 checked bags.

CC CONSUMER COMPLAINTS (-7.17)

The criteria of consumer complaints is made up of 12 specific complaint categories (outlined below) monitored by the U. S. Department of Transportation and reported monthly in the *Air Travel Consumer Report*. Consumers can file complaints with the DOT in writing, by telephone, via e-mail, or in person. The AQR uses complaints about the various categories as part of the larger customer complaint criteria and calculates the consumer complaint ratio on the number of complaints received per 100,000 passengers flown for each airline.

CONSUMER COMPLAINT CATEGORIES

Flight Problems

Data is available by the total number of consumer complaints pertaining to cancellations, delays, or any other deviations from schedule, whether planned or unplanned for each airline each month.

Oversales

This complaint category includes all bumping problems, whether or not the airline complied with DOT oversale regulations. Data is available by the total number of consumer complaints pertaining to oversales for each airline each month.

Reservations, Ticketing, and Boarding

This category includes airline or travel agent mistakes in reservations and ticketing, problems in making reservations and obtaining tickets due to busy telephone lines, or waiting in line or delays in mailing tickets, and problems boarding the aircraft (except oversales). Data is available by the total number of consumer complaints pertaining to ticketing and boarding for each airline each month.

Fares

As defined by the DOT, consumer complaints regarding fares include incorrect or incomplete information about fares, discount fare conditions and availability, overcharges, fare increases, and level of fares in general. Data is available for the total number of consumer complaints pertaining to fares for each airline each month.

Refunds

This category includes customer complaints about problems in obtaining refunds for unused or lost tickets, fare adjustments, or bankruptcies. Data is available by the total number of consumer complaints pertaining to refunds for each airline each month.

Baggage

Claims for lost, damaged, or delayed baggage, charges for excess baggage, carry-on problems, and difficulties with airline claim procedure are included in this category. Data is available by the total number of consumer complaints pertaining to baggage for each airline each month.

Customer Service

This category includes complaints about rude or unhelpful employees, inadequate meals or cabin service, and treatment of delayed passengers. Data is available by the total number of consumer complaints pertaining to customer service for each airline each month.

Disability

This category includes complaints about civil rights complaints by air travelers with disabilities. Data is available by the total number of consumer complaints pertaining to disabilities for each airline each month.

Advertising

These are complaints concerning advertising that is unfair, misleading or offensive to consumers. Data is available by the total number of consumer complaints regarding advertising for each airline each month.

Discrimination

Civil rights complaints by air travelers (other than disabilities); for example: complaints based on race, national origin, religion, etc. (This category was first reported in May, 2002).

Animals

This category tracks customer complaints about loss, injury, or death of an animal during air transport by an air carrier. Data is available by the total number of customer complaints regarding animals for each airline each month.

Other

Data regarding consumer complaints about frequent flyer programs, tours credit, cargo problems, security, airport facilities, claims for bodily injury, and other problems not classified above are included in this category. Data is available by the total number of consumer complaints regarding other problems for each airline each month.