

STAT 251 Statistical Inference for Management I Winter 2012

Quiz 5

Taken on Wed Jan 11. You may work with a group of as many as four students, submitting one quiz with all names, provided that everyone contributes.

A recent study compared the performance of two airlines with regard to whether or not their flights landed on time. Results for roughly 2400 flights of each airline are organized in the following table:

Overall	America West	Alaska Airlines
On time	2141	2062
Delayed	229	317
Total	2370	2379

1. Identify the cases (observational units) in this study.
2. For each airline, determine its proportion of on-time flights. Which airline has the higher proportion of on-time flights?
3. Create a (well-labeled) segmented bar graph to display these data.

Now consider the same data, further broken down by the airport/city from which the flight began, as shown in the two tables below:

Seattle	America West	Alaska Airlines
On time	201	1841
Delayed	61	305
Total	262	2146

Phoenix	America West	Alaska Airlines
On time	1940	221
Delayed	168	12
Total	2108	233

4. For each airport/city, perform the calculations to determine which airline has a higher proportion of on-time flights.
5. Explain, based on the data provided here, why it happens that one airline does better (as judged by proportion of on-time flights) overall yet the other airline does better for both cities/airports.