Folks:

The Gauss Markov Theorem (Greene 4.2 Page 60) simply states that the LS estimator is BLUE (Best Linear Unbiased Estimator).

To  
prove this, you need to prove that the OLS estimator is unbiased.  That  
is, E(b|X)=Beta.  This is easy to show and is in Chapter 1 of my book.

The  
minimum variance part has been shown in the first proof I posted   
earlier today where I take b and some other unbiased estimator c and show   
that the SSE (Sums of Squares Error) with b is smaller than that for c.

Regards

More Airlines Data:

<http://web.mit.edu/airlinedata/www/Res_Glossary.html>

<http://2bts.rita.dot.gov/xml/atpi/src/index.xml>