

## Solving Problems Using Statistics

Compare sets of data by analysing and interpreting measures of central tendency and measures of spread.

**Example 1**

Consider the following list of data collected from MLS:

*AVERAGE HOME PRICES BY PROVINCE (IN \$)*

PROVINCE	JUNE 2006	JUNE 2005
Yukon	177191	159668
Northwest Territories	243745	250222
British Columbia	399829	330333
Alberta	294282	215964
Saskatchewan	134161	121984
Manitoba	155531	139195
Ontario	280263	268074
Quebec	284747	252745
New Brunswick	127406	123732
Nova Scotia	170547	157524
Prince Edward Island	134115	114223
Newfoundland/ Labrador	132571	140958

Compare the two years by finding all measures of central tendency and measures of spread.

	2005 DATA	2006 DATA
<b>Mean</b>	189 551.80	211 199
<b>Median</b>	158 596	173 869
<b>Mode</b>	N/A	N/A
<b>Conclusions</b>	<p>On average housing prices rose \$21 647.20 during the year, however median only changed by \$15 273. This indicates that there was an outlier (BC and Alberta)</p>	

	2005 DATA	2006 DATA
<b>Range</b>	$330\ 333 - 114\ 223 = 216\ 110$	$399\ 829 - 127\ 406 = 272\ 423$
<b>Standard Deviation</b>	71 187.98	87 755.31
<b>Conclusions</b>	<p>The 2006 values are not as consistent (larger range and standard deviation)</p>	