

Blockbusters

You need: a classmate

That was a long movie! We sure got our money's worth.

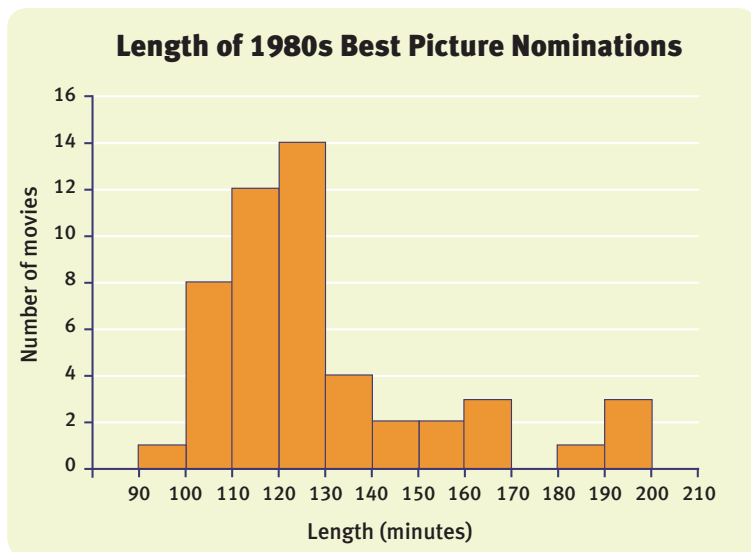
I wonder if movies are longer than they used to be?



ACTIVITY ONE

The frequency table and histogram below show the lengths of the 50 movies nominated for Best Picture (Academy Awards) in the 1980s:

Length (in minutes) of 1980s Best Picture Nominations												
80–89	90–99	100–109	110–119	120–129	130–139	140–149	150–159	160–169	170–179	180–189	190–199	200–209
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0	1	8	12	14	4	2	2	3	0	1	3	0



1. a. What are the features of this distribution?
- b. Where is its middle?

2. a. How long was a typical Best Picture nomination in the 1980s?
b. Judging from this data, how long was a “long” movie in the 1980s?
3. If the data was in minutes instead of 10-minute intervals, how would you graph it?

Here is a table of the Best Picture nominations for 2000–2006, together with their lengths.

Year	Title and Length (in minutes) of 2000–2006 Best Picture Nominations				
2000	<i>Chocolat</i>	<i>Crouching Tiger</i>	<i>Erin Brockovich</i>	<i>Gladiator</i>	<i>Traffic</i>
	121	120	130	155	147
2001	<i>A Beautiful Mind</i>	<i>Gosford Park</i>	<i>In the Bedroom</i>	<i>The Fellowship of the Ring</i>	<i>Moulin Rouge</i>
	135	137	130	178	127
2002	<i>Chicago</i>	<i>Gangs of New York</i>	<i>The Hours</i>	<i>The Two Towers</i>	<i>The Pianist</i>
	113	167	114	179	150
2003	<i>The Return of the King</i>	<i>Lost in Translation</i>	<i>Master and Commander</i>	<i>Mystic River</i>	<i>Seabiscuit</i>
	201	102	138	137	141
2004	<i>The Aviator</i>	<i>Finding Neverland</i>	<i>Million Dollar Baby</i>	<i>Ray</i>	<i>Sideways</i>
	170	106	132	152	126
2005	<i>Brokeback Mountain</i>	<i>Capote</i>	<i>Crash</i>	<i>Goodnight, and Good Luck.</i>	<i>Munich</i>
	134	114	113	93	164
2006	<i>Babel</i>	<i>The Departed</i>	<i>Letters from Iwo Jima</i>	<i>Little Miss Sunshine</i>	<i>The Queen</i>
	143	151	141	101	103

1. Collate the data in a frequency table similar to the one in **Activity One**. Then create a histogram.
2. Compare the features of the two histograms. What do you notice? Think of possible reasons for differences.
3. a. What information from the nominations table becomes lost in the histogram?
b. With a classmate, discuss how you could display more of the available information in an interesting graph. Create the graph.
c. What can others learn from your graph?
d. What information from the nominations table doesn't your graph show?
4. Using the data in the nominations table, compare movie lengths by year. You may want to reorganise the data, create a new graph as a starting point, or look at median and mean.
5. Here is the information for the Best Picture nominations for 2007 and 2008.

Year	Title and Length (in minutes) of 2007–2008 Best Picture Nominations				
2007	<i>Atonement</i>	<i>Juno</i>	<i>Michael Clayton</i>	<i>No Country for Old Men</i>	<i>There Will Be Blood</i>
	123	96	119	122	158
2008	<i>The Curious Case of Benjamin Button</i>	<i>Frost/Nixon</i>	<i>Milk</i>	<i>The Reader</i>	<i>Slumdog Millionaire</i>
	166	122	128	124	120

Add this information to your frequency table and recreate the histogram. What difference does the new data make to the shape of the graph?