FIT 1043- Assignment 1
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Q1. Why are the values lower in 2016 than they were in 2015?

From the dataset provided, the data collected is based on one year, which is 12 months' worth of data. However, for 2016 this is not the case as compared to 2015, in 2016 there was only 5 months' worth of data collected. Hence the reason why 2016 has values lower than in 2015 is because the data collected is not complete.

Q2. Which city has the largest number of international air passengers travelling through it in 2015?

Sydney has the largest number of international air passengers travelling through it in 2015, with a number of 13,911,228 passengers. As it is shown in the motion chart below, Sydney has the biggest bubble and is located at the most right which shows the highest total number of passengers. Followed by Melbourne, being second then Brisbane then Perth.
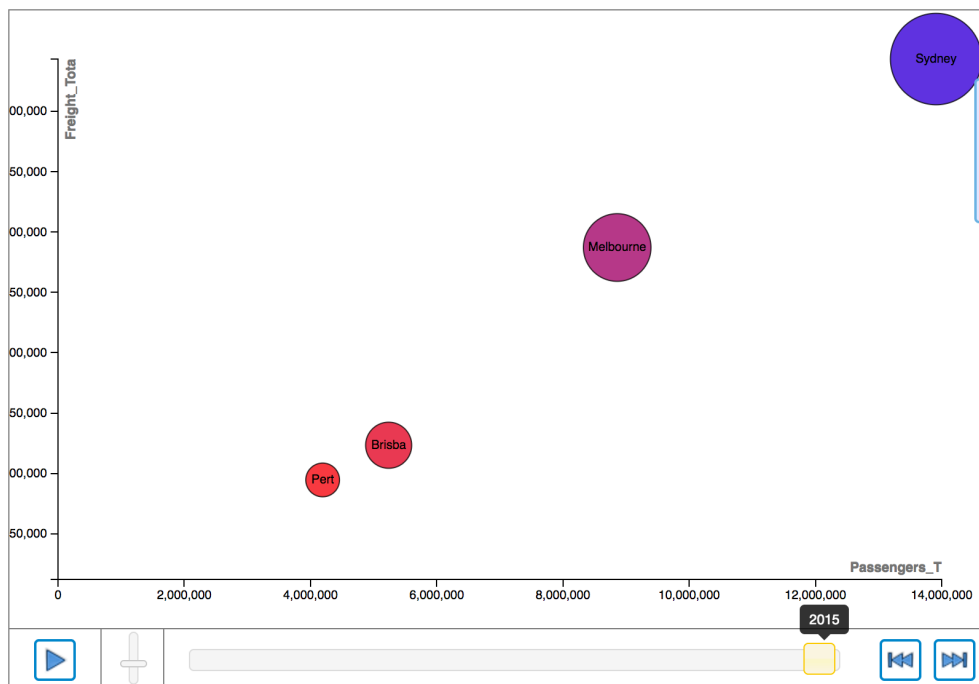

Figure 2.1

An additional information to prove this is the population of the cities in Australia. As shown in the data below, Sydney has the highest population in 2015 followed by Melbourne, Brisbane then Perth.

	Significant urban area	Population June 2015	5 year growth	5 year % growth	1 year growth	1 year % growth
1	Sydney	4,526,479	343,008	8.2%	77,565	1.7%
2	Melbourne	4,353,514	399,575	10.1%	86,796	2.0%
3	Brisbane	2,209,453	190,379	9.4%	33,702	1.5%
4	Perth	1,958,912	235,694	13.7%	26,163	1.4%

Figure 2.2

Q3. In which year did Brisbane have almost the same number of passenger numbers as Melbourne?

 In 1996, Melbourne has 2,193,309 number of passengers and Brisbane has 2,192,110 number of passengers, which has a difference of only 1199.
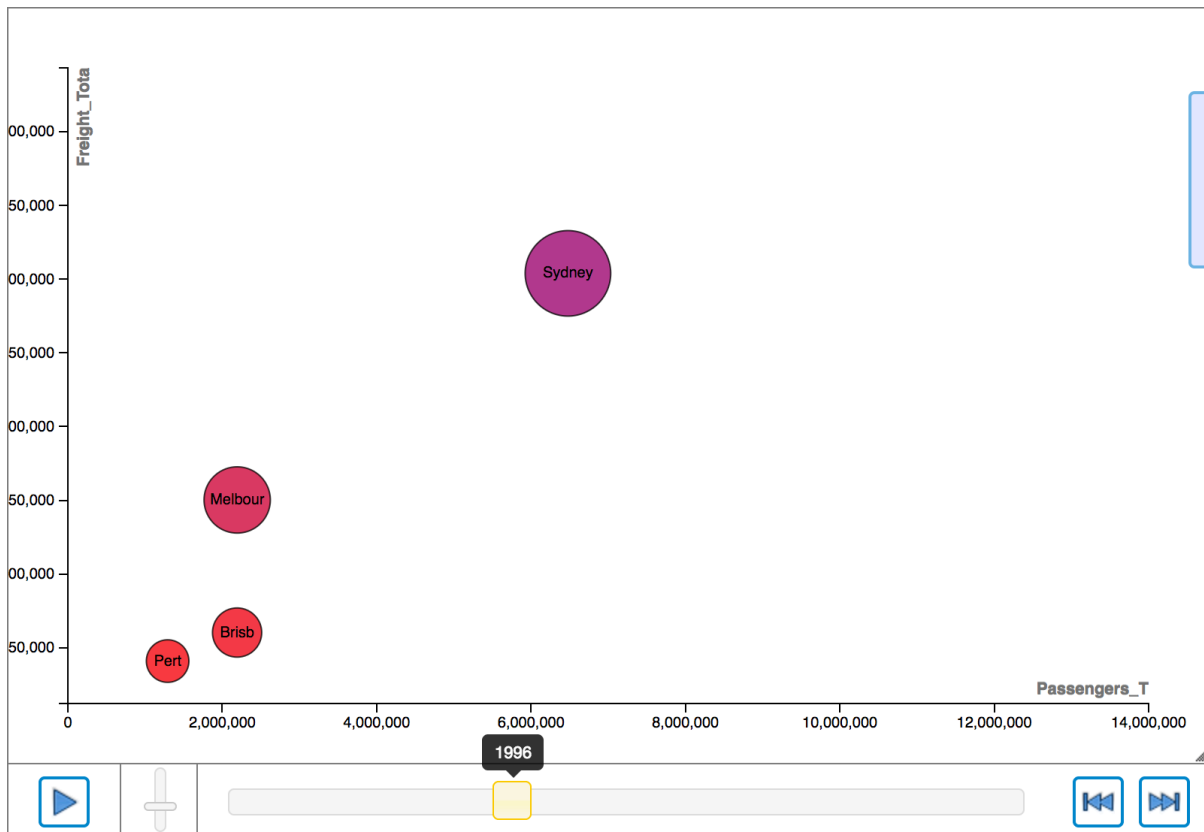

Figure 3.1

Q4. (*Bonus question*) Has the number of passengers travelling through Sydney airport ever decreased from one year to the next? If so, when did it happen? Any idea why that might have occurred?

Yes, there are certain years that the number of passengers had decreased. The years that the number of passengers had decreased:
- In 1988 to 1989, from 4,106,460 to 4,026,296
- In 1990 to 1991, from 4,264,091 to 4,220,272
- In 2000 to 2001, from 8,237,223 to 8,228,973
- In 2001 to 2002, from 8,228,973 to 8,006,775
- In 2002 to 2003, from 8,006,775 to 7,929,841

From observation, there are drastic decrease in number of passengers from 2000 onwards up till 2003. In September and October 2000, the Olympics and Paralympics were held in Sydney. This has led to an increase number of passengers in the year 2000 as compared to in the year 1999 which has only 7,388,153 number of passengers. There is a decrease of 8250 number of passengers in the following year, 2001. However, this not consider an abnormal case because in 2000 the increasing number of passengers was due to a massive event which attracted international visitors. If you compare the number of passengers of 1999 and 2001, it is still increasing.

In 2001 to 2002, there is a drastic decrease in number of passengers travelling through Sydney airport. This could be due to terrorist attack that happened in September 14th, 2011 that has caused a chaos to the tourism industry and safety of the country. Short-term visitors may be afraid to travel to or through Sydney in 2002.

In 2002 to 2003, there is once again a drastic decrease in the number of passengers travelling through Sydney airport. This could be due to the outbreak of SRS in some Asian countries.