Econ 294 Final
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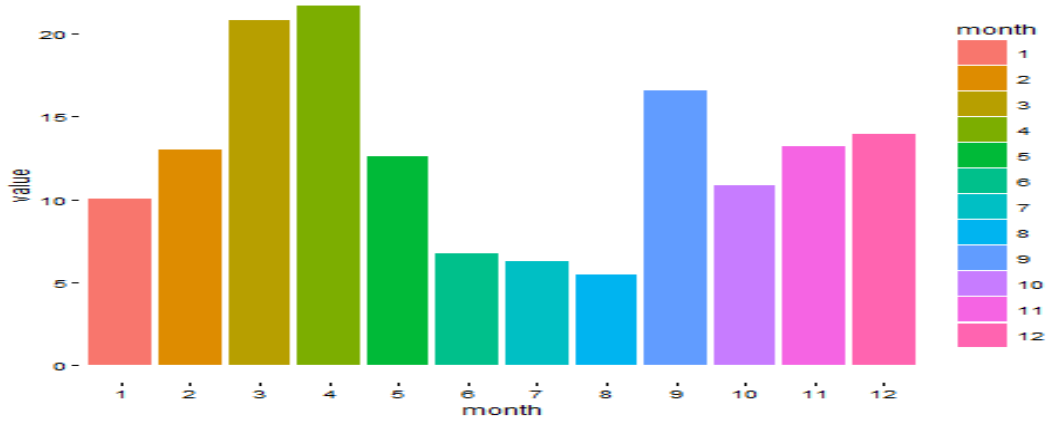
1505000

a)

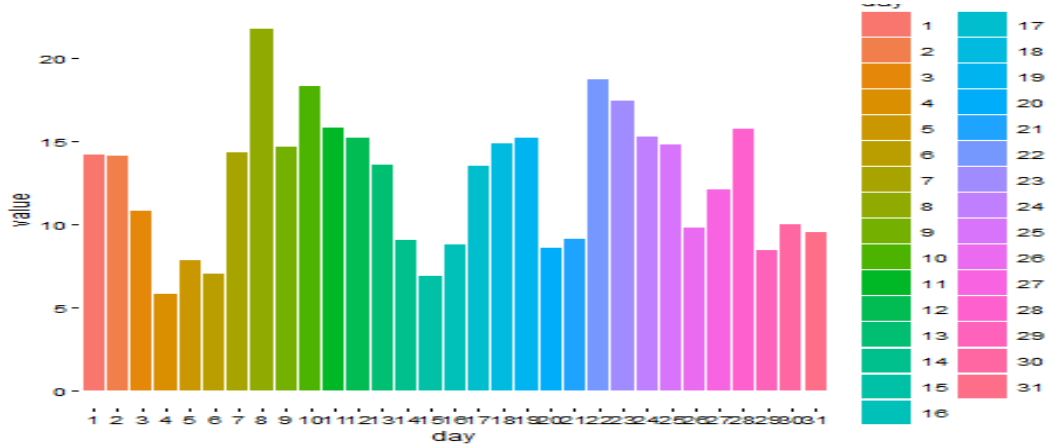
cor.temp	cor.dewp	cor.humid	cor.wind_dir	cor.wind_speed	cor.pressure	cor.visib
0.1289826	0.1245619	0.02285754	-0.02596744	-0.01627221	0.01545038	0.01948515

According to the output, it is obvious that temperature, humidity, pressure and visibility have positive correlations with time delay, while the rest have negative correlations with time delay. From the correlation coefficients table, we can see all of the correlation coefficients are small and no more than 0.05, so we can conclude that there is no correlation between departure delays with these weather conditions.

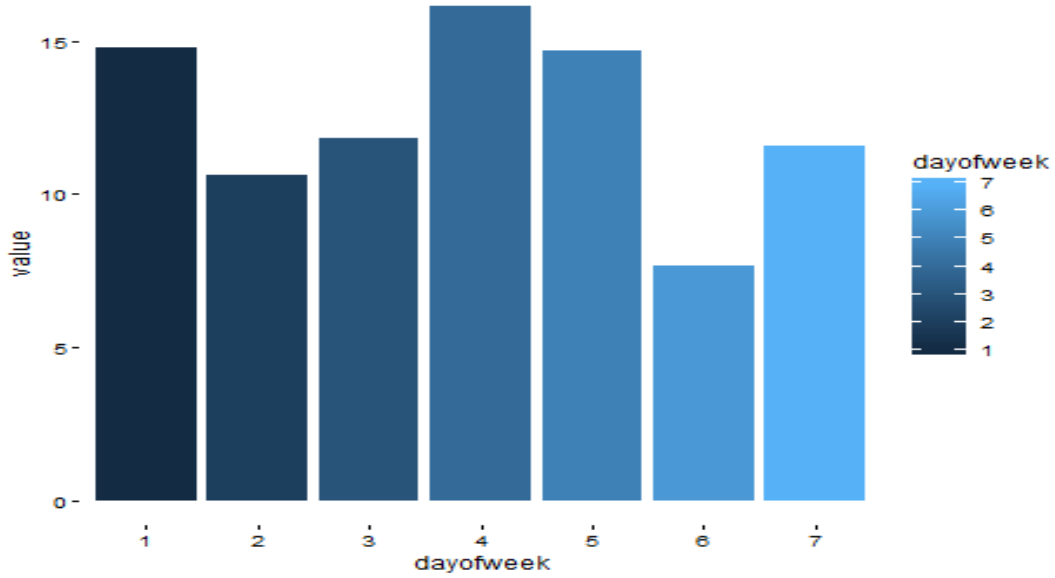
b)



We can see that when month are 6 and 7, 8, the average departure delay are the lowest compared with other months, and month 6,7,8 can be also considered as summer season, so it is a very significant pattern that the average departure delay in summer season is the lowest. On the other hand, the average departure delay are the highest in month 3, 4 and 9.

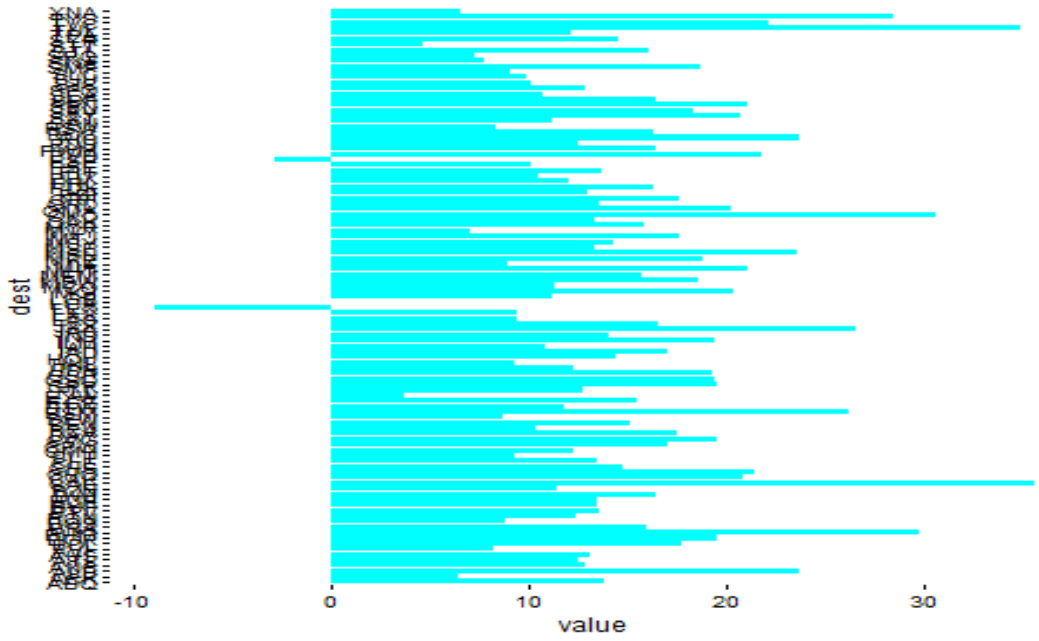


According to the above figure, we can see that the flights on 8th, 10th, 22nd, 23rd, 28th date of the month normally tend to delay.



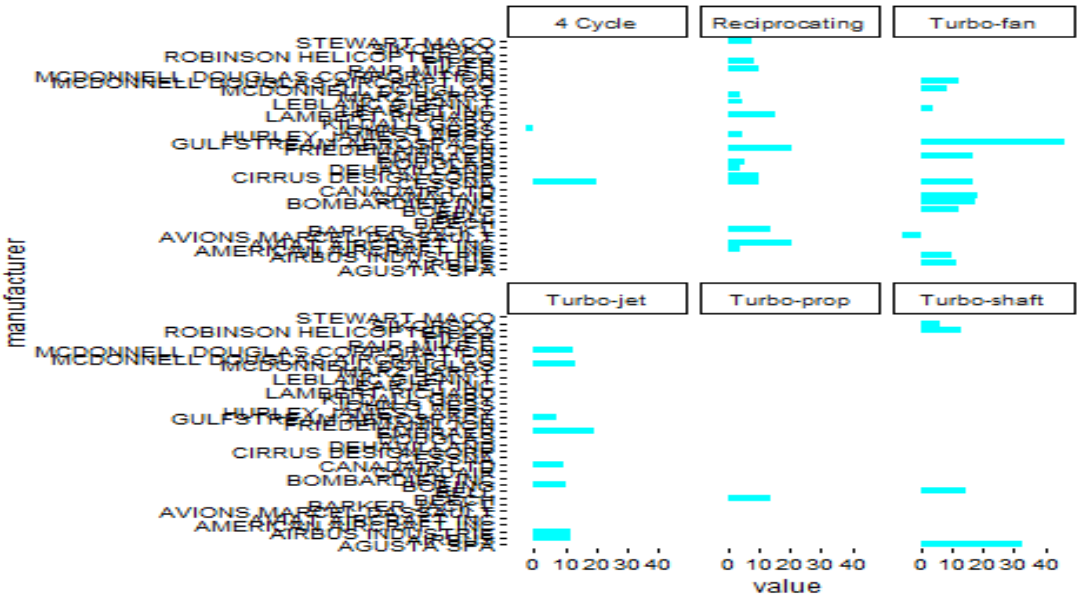
According to the above figure, we can see that the flights on Monday, Thursday and Friday tend to delay.

c)



According to the output of arrival time, the flights from NY to BHM, CAE, DSM, OKC, RIC, TUL and TYS have tendency to delay.

d)



The last plot shows that the relationship between average departure delay within different manufacturers and engine types. With all of the above we found, we now expect takeoff delays at New York City airports in 2013 that when the season is not summer and day is not Saturday, and if we also know the details of the plane, we may know more conditions.