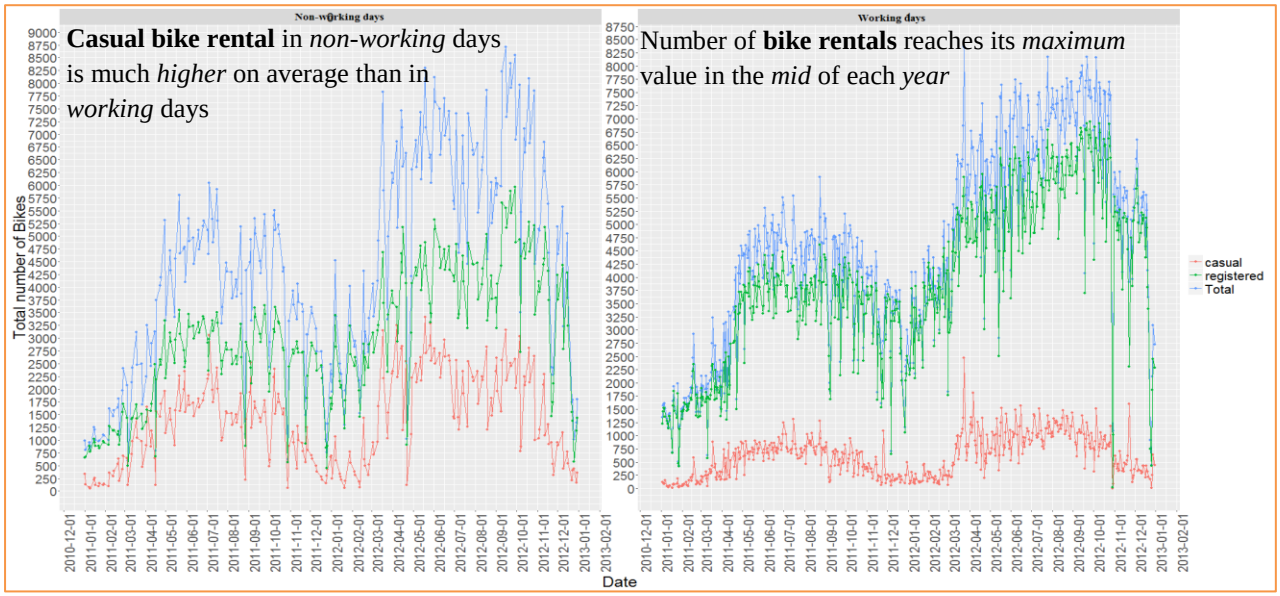
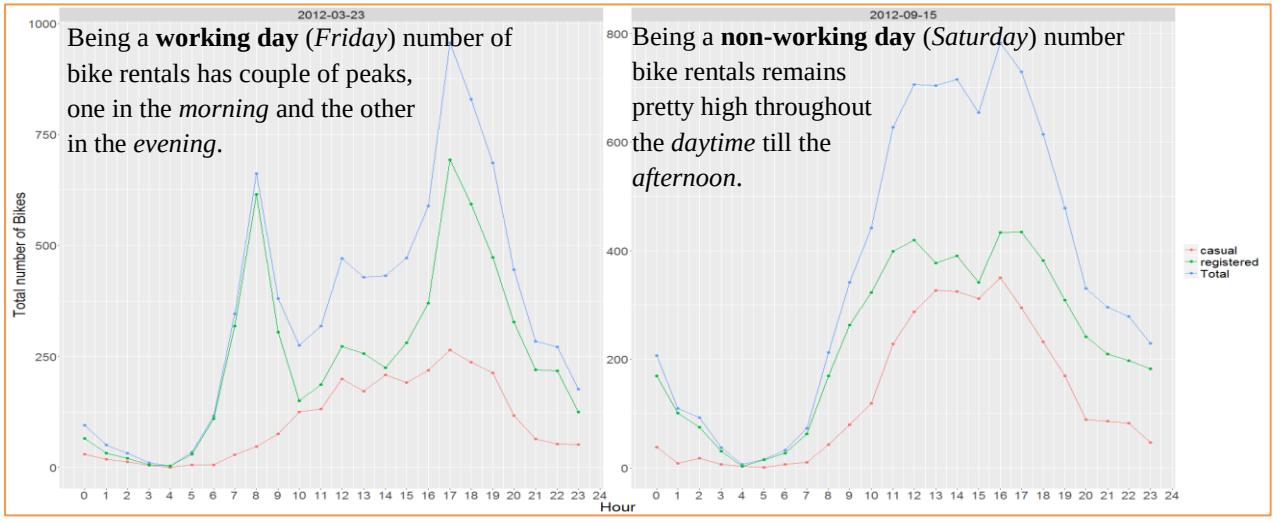
Sensing traffic mobility in the Washington D.C. area in 2011-2012 with the Bike Rental Data from the Capital Bikeshare system

Method: The **casual**, **registered** and **overall** *bike rental counts* were plotted as time series.

- From the *daily bike rental* count plots the *peak traffic days* are identified.
- The *different patterns* in the bike rental counts on the *working days* vs. on the *non-working days* are compared.
- *23rd March 2012* had the *highest* bike rental counts among the *working days*, whereas *15th September 2012* had the *highest* bike rental counts among the *non-working days*.
- The *hourly bike rentals* are plotted for both the above 2 days (which seem to be the most eventful days in the weekday & weekend resp.) and they have *different patterns*.





Conclusion

The most of important events in the city can be detected via monitoring the bike rental counts. At the same time, the number of bike-rental patterns in the working and in the non-working days can be seen to be quite different, as shown in the above figures.