The City of Chattanooga is depicted in the image {direction}, divided into 694 equally sized hexagons, each measuring .2 square miles, or roughly the size of 2 city blocks. Dividing the city into smaller areas allows for historical analysis of accident ‘hotspots’, as well as simplifying modeling for future accident prediction.

**Weekday and Hour**

The division of accidents among the days of the week and hours of the day is presented by image {direction/caption #}. Clearly, days included in the traditional workweek follow a certain trend, with accidents rising to a given peak within the 7am to 8am hour, then falling during the lunchtime hours. Then, one can see the start of another upward trend beginning shortly afterward, culminating in the evening rush hours. However, after the evening rush, accidents again decline to their overnight lows. The highest occurrence of accidents within any given hour would be 4pm on Fridays at 1,402 accidents over the three-year period, followed closely behind with 1,389 accidents for 5pm on Thursdays throughout the same timeframe. However, weekends present an entirely different trend. As can be seen, early morning hours for Saturday and Sunday involve a higher number of accidents than their workweek counterparts. Then, accident occurrences build slower throughout the day, reaching their highest around noon on Saturdays, and 1pm on Sundays. This peak also persists longer than the workweek trend, slowly declining throughout the remainder of the day.

**Year and Month**

Alternatively, the division of accidents for the three years of study divided into months can be seen in the image {direction\caption 3}. Interestingly, all three years follow the same rough trends, albeit fluctuating higher or lower within varying margins. January begins the year with the least number of accidents for two of the three years, with February staying roughly the same for 2017 and 2019, while 2018 experienced a slight decline in accident occurrence during the month. Then, accident counts across all three years increase significantly in March and continue to climb until May. Then all three years once again follow the same trend, falling to the June accident counts. However, note that while 2017 and 2019 experienced a significant drop in accident occurrences, 2018 did not decline as rapidly. The decline in occurrence persists into July, before once again rising in August. One observer of this trend noted that this summertime decline could be contributed to children not attending classes. After the increase of August, accidents again decline to some degree for all three years for September. October begins an interesting development for 2019, as a noteworthy increase of accidents begins. While 2017 and 2018 both demonstrate a slight increase for October, followed by a slight decrease into November and December, 2019 continues to increase.