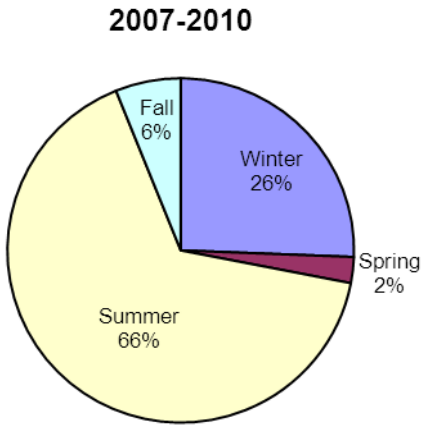
Appendix IV

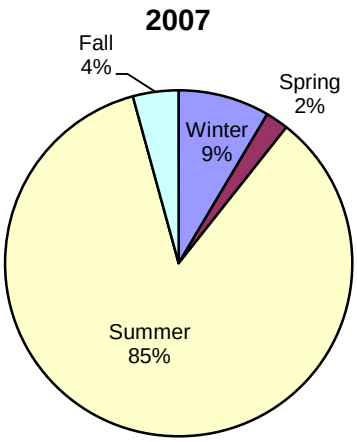
PM2.5 Seasonal Monitoring Data Analysis

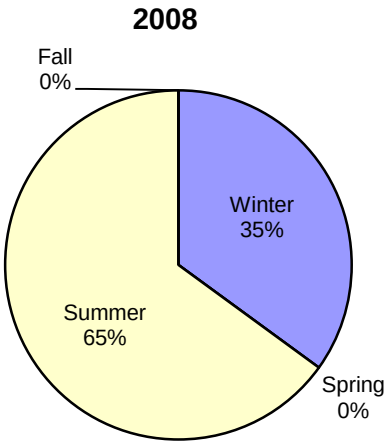
New Jersey analyzed the seasonal distribution of maximum 24-hour PM2.5 concentrations over 35.0 µg/m^3 in its nonattainment areas. For each New Jersey monitor in the nonattainment areas, the values analyzed were concentrations measured higher than 35.0 µg/m^3 each year between 2007 and 2010. The number of days greater than 35.0 µg/m^3 were counted and totaled on a monthly and seasonal basis. Seasons were defined using the United States Environmental Protection Agency's (USEPA) Air Emissions Reporting Requirements: Dec-Feb (Winter), Mar-May (Spring), Jun-Aug (Summer), and Sep-Nov (Fall).

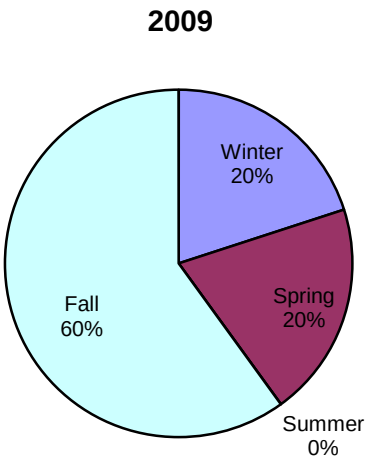
The percentage of maximum values over 35.0 µg/m^3, by season, is shown in the pie charts below for each year from 2007 to 2010, and the total for the timeframe from 2007 to 2010. The pie chart summarizing the timeframe from 2007 to 2010 shows the highest percentage of maximum values over 35.0 µg/m^3 occurring in the summer (66%), followed by the winter (26%), fall (6%), and spring (2%). The data indicates that exceedances have occurred in all seasons over the time period analyzed.

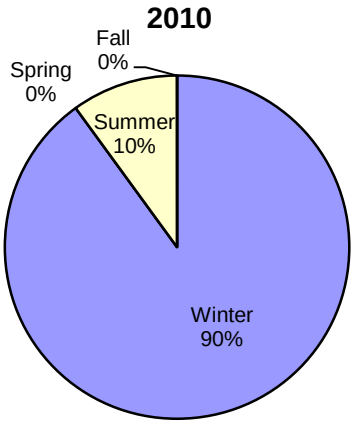
Percentage of Maximum Values Over 35.0 µg/m^3 By Season




2007
Fall
4%
Spring
2%
Winter
9%
Summer
85%


2008
Fall
0%
Winter
35%
Summer
65%
Spring
0%


2009
Winter
20%
Spring
20%
Fall
60%
Summer
0%


2010
Fall
0%
Spring
0%
Summer
10%
Winter
90%