

INTEGRATING ENVIRONMENTAL SCIENCE● **Air Quality Trends**

Air quality is determined by measuring concentrations of major air pollutants, including carbon monoxide, lead, nitrogen dioxide, ozone, sulfur dioxide, and particles. The Environmental Protection Agency (EPA) sets a maximum amount of each pollutant that air can contain and still be considered safe. If an amount is over the EPA limit, the city has exceeded federal air quality standards for that pollutant. The table shows the average number of days per year, for two 5-year periods, that the EPA found some metropolitan areas to exceed standards.

Average Number of Days Per Year Pollutants Exceeded Standards

Metropolitan Area	1987–1991	1992–1996	Percent Change
Atlanta, GA	14.8	10.2	31% drop
Dayton, OH	5.0	1.6	
Greensboro, NC	5.2	1.0	
Los Angeles, CA	206.0	131.6	
Milwaukee, WI	10.4	2.0	
New York, NY	29.6	6.0	
Tucson, AZ	2.4	0.0	

Your Turn to Think

1. Fill in the Percent Change column. To find the percent change between two numbers, first subtract to find the amount of change. (For Atlanta, $14.8 - 10.2 = 4.6$.) Then divide the amount of change by the number for the 1987–1991 period, and multiply the answer by 100. (For example, $4.6/14.8 = 0.31$; $0.31 \times 100 = 31\%$.) If the number increased from the first period to the second period, write “rise” after the answer. If it decreased, write “drop.”
2. Which area was most successful in meeting EPA standards from 1992 to 1996?
3. Which area improved the least from the first period to the second period?
4. Based on the table, write a statement that summarizes the success of air quality improvement in these metropolitan areas.