

Highest AQI Days
For April 2020

87 April 24
Baton Rouge
Ozone

83 April 12
Lake Charles
PM_{2.5}

80 April 3
Baton Rouge
Ozone

77 April 21
Baton Rouge
Ozone

Louisiana Air Quality Summary | April 2020



Sonoma Technology, Inc. (STI) meteorologists provide same-day, next-day, and two-day Air Quality Index (AQI) forecasts for ozone and particulate matter (PM_{2.5}) in eight Louisiana cities. The graphs and charts shown below and on pages 2 and 3 summarize next-day AQI forecasts and observed AQI levels for April 2020. A monthly meteorological summary is shown on page 4, the year-to-date count of days in each AQI category by city is shown on pages 5 and 6, and forecast accuracy statistics are shown on page 7.

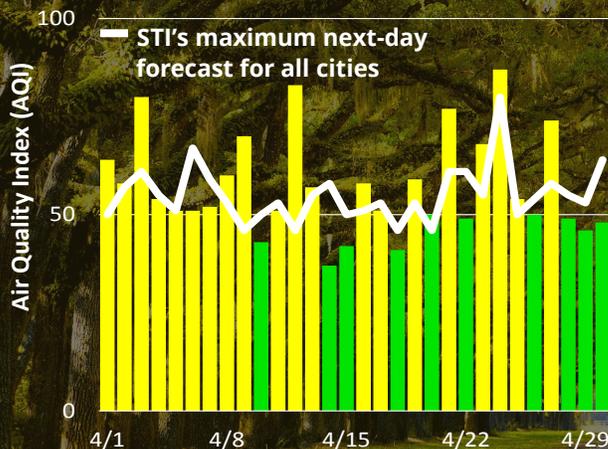
Ozone was the main pollutant on 11 of the 20 Moderate AQI days during the month. On these days, light surface winds hindered vertical mixing in the lower levels of the atmosphere, while abundant sunshine and warm temperatures increased ozone formation.

In April 2020, AQI levels in Louisiana were Good on 10 days and Moderate on 20 days. No Unhealthy for Sensitive Groups days were recorded, and no Action Days were issued.

The highest AQI day of the month occurred on April 24 in Baton Rouge, when surface high pressure east of the Bayou State generated calm-to-light east-southeasterly winds, which limited mixing and dispersion. In addition, sunny skies and temperatures in the mid-80s increased ozone formation. As a result, the observed daily AQI value was 87, which is in the high-Moderate category.

Statewide Maximum AQI for April 2020

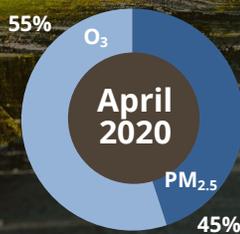
In April 2020, AQI levels in Louisiana were Good on 10 days and Moderate on 20 days. No Unhealthy for Sensitive Groups days were recorded, and no Action Days were issued this month.



Daily Maximum AQI for April 2020 by Category and City*



Highest Pollutant on Moderate or higher AQI Days



Louisiana Department of
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*BR - Baton Rouge
NO - New Orleans
SHV - Shreveport
LCH - Lake Charles

LAF - Lafayette
THX - Thibodaux
MON - Monroe
ALX - Alexandria

Highest AQI Days
For Ozone

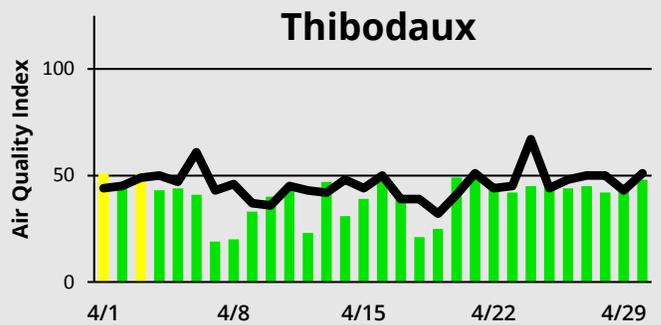
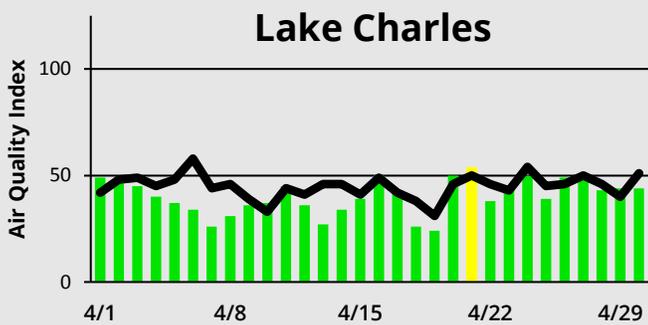
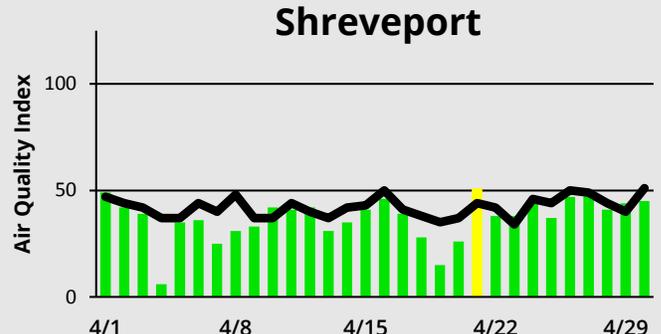
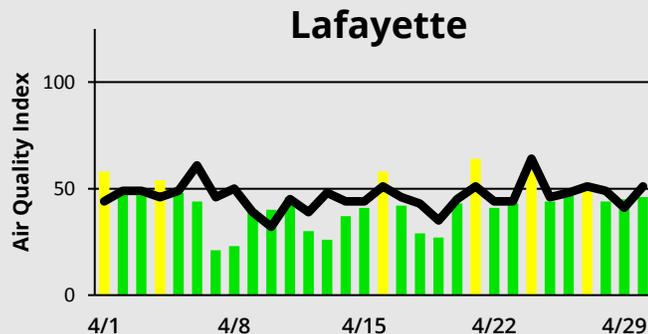
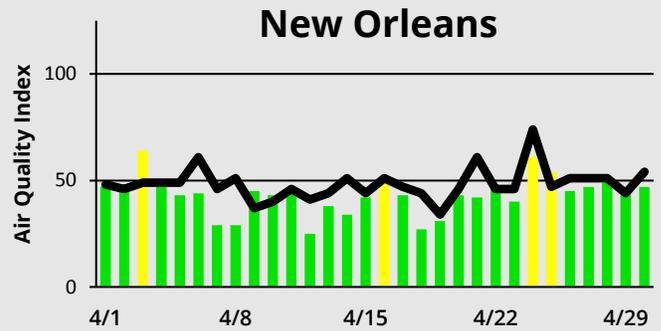
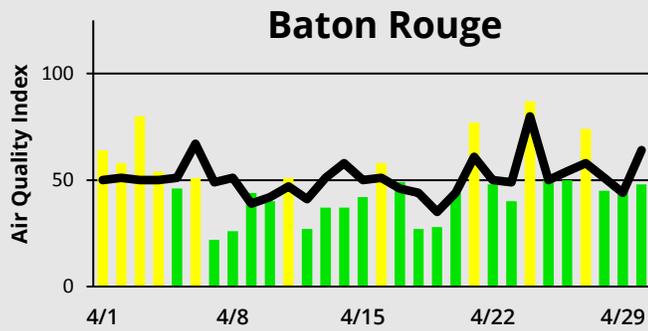
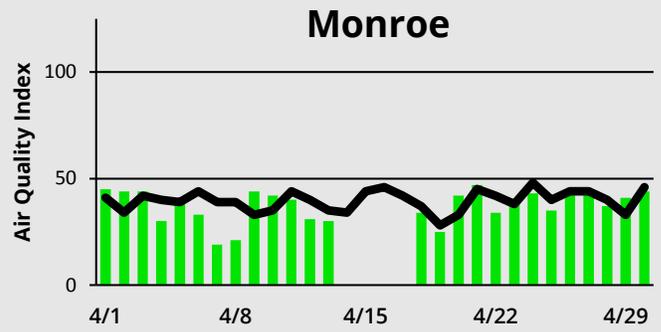
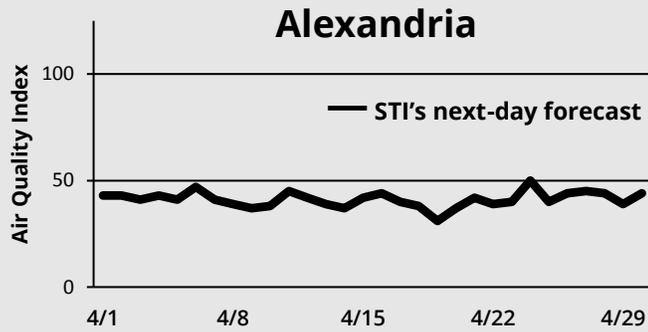
87 April 24
Baton Rouge
Ozone

80 April 3
Baton Rouge
Ozone

77 April 21
Baton Rouge
Ozone

74 April 27
Baton Rouge
Ozone

Ozone Forecasts and Observations, April 2020



Observational ozone data are not measured for Alexandria. No bars are shown for monitors or dates for which data were not available.



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Highest AQI Days
For PM_{2.5}

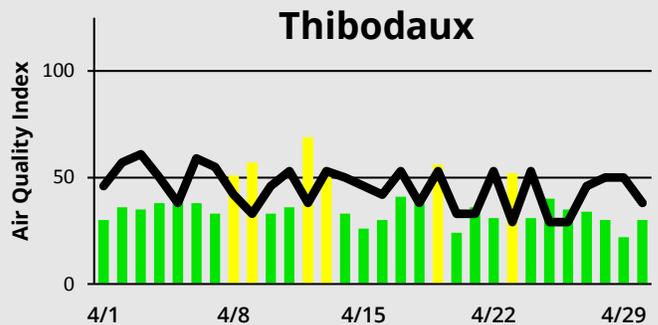
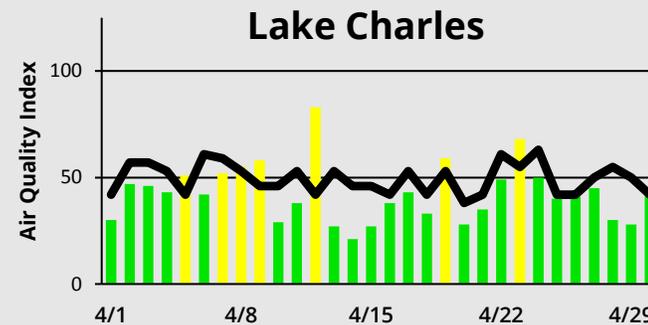
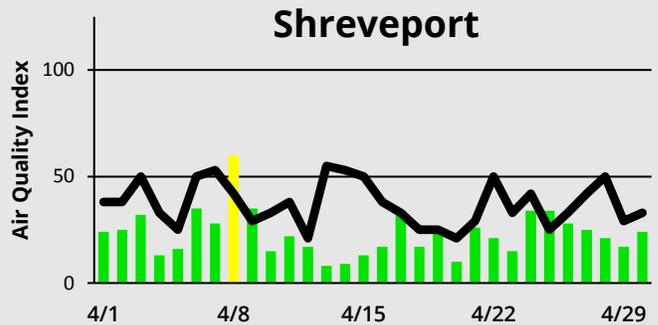
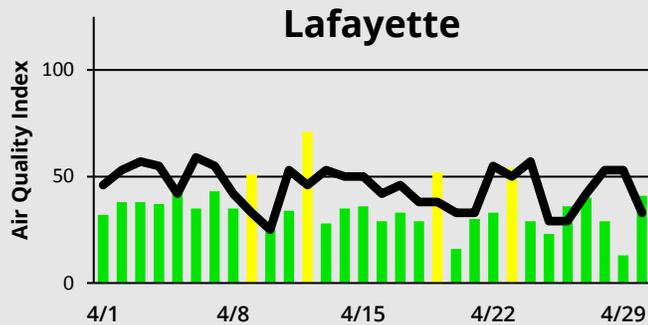
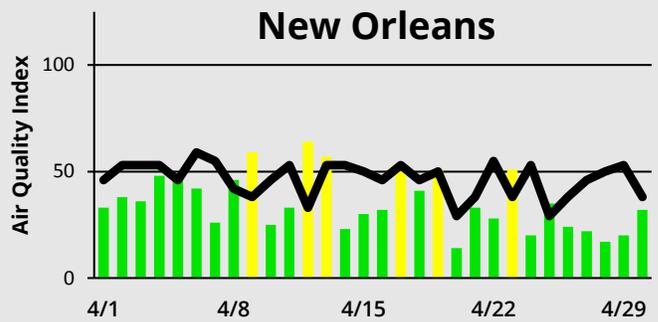
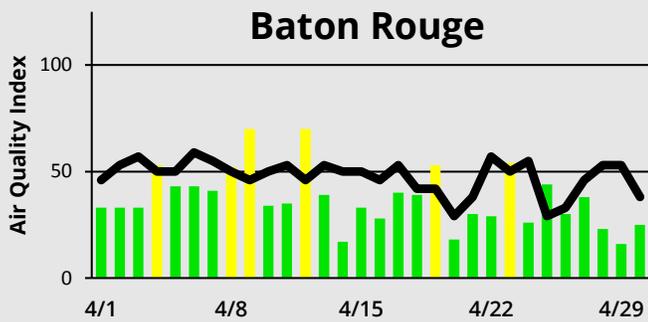
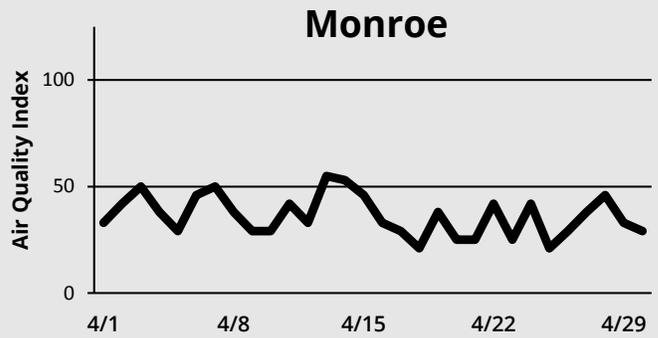
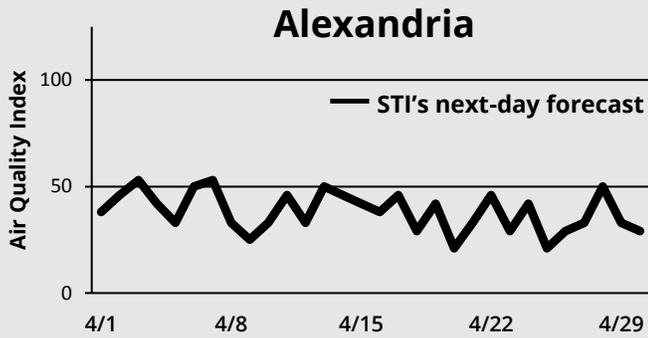
83 April 12
Lake Charles
PM_{2.5}

70 April 9
Baton Rouge
PM_{2.5}

68 April 23
Lake Charles
PM_{2.5}

60 April 8
Shreveport
PM_{2.5}

PM_{2.5} Forecasts and Observations, April 2020



Observational PM_{2.5} data are not measured for Monroe or Alexandria. No bars are shown for monitors or dates for which data were not available.



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Meteorological and Air Quality Summary

Temperatures and precipitation were above average for most of the Louisiana forecast cities in April 2020. Ozone pollution was the primary contributor to Moderate AQI days during the month, as a combination of warm temperatures and sunny skies aided ozone formation. In addition, most days with Moderate ozone levels featured light surface winds, which hindered vertical mixing and dispersion. Of the 20 Moderate AQI days during the month, fine particles were the primary pollutant on 9 days; on most of these days, particle concentrations increased as southerly to southwesterly winds transported smoke from fires in Mexico into the southern portion of the state. Most of the days with high particulate concentrations also featured fog and mist, which further increased concentrations by enhancing the formation of fine particles.

April 2020	Alexandria	Baton Rouge	Lafayette	Lake Charles	Monroe	New Orleans	Shreveport
Average temperature (Average temperature departure from normal) (°F)	65.9 (-0.4)	68.9 (+0.8)	69.1 (+0.1)	68.6 (+0.5)	64.5 (-1.3)	72.7 (+3.6)	65.3 (+0.1)
Highest Temperature (°F) (Day)	86 (8, 9)	87 (9, 19)	88 (9)	88 (9, 23)	88 (8)	90 (9)	88 (8)
Lowest Temperature (°F) (Day)	39 (15)	43 (16)	43 (16)	45 (15, 16)	39 (16)	53 (2)	39 (15)
Precipitation (Precipitation departure from normal) (inches)	6.65 (+2.10)	7.23 (+2.77)	3.85 (-0.08)	3.91 (+0.58)	7.19 (+2.69)	5.41 (+0.80)	7.77 (+3.58)
Number of days with 0.5 inches of precipitation or more	3	5	2	3	5	4	6
Number of clear days (as defined by the National Weather Service)	16	15	17	15	17	3	3
Average wind speed (mph)	6.3	7.2	6.7	8.5	6.0	8.7	6.9

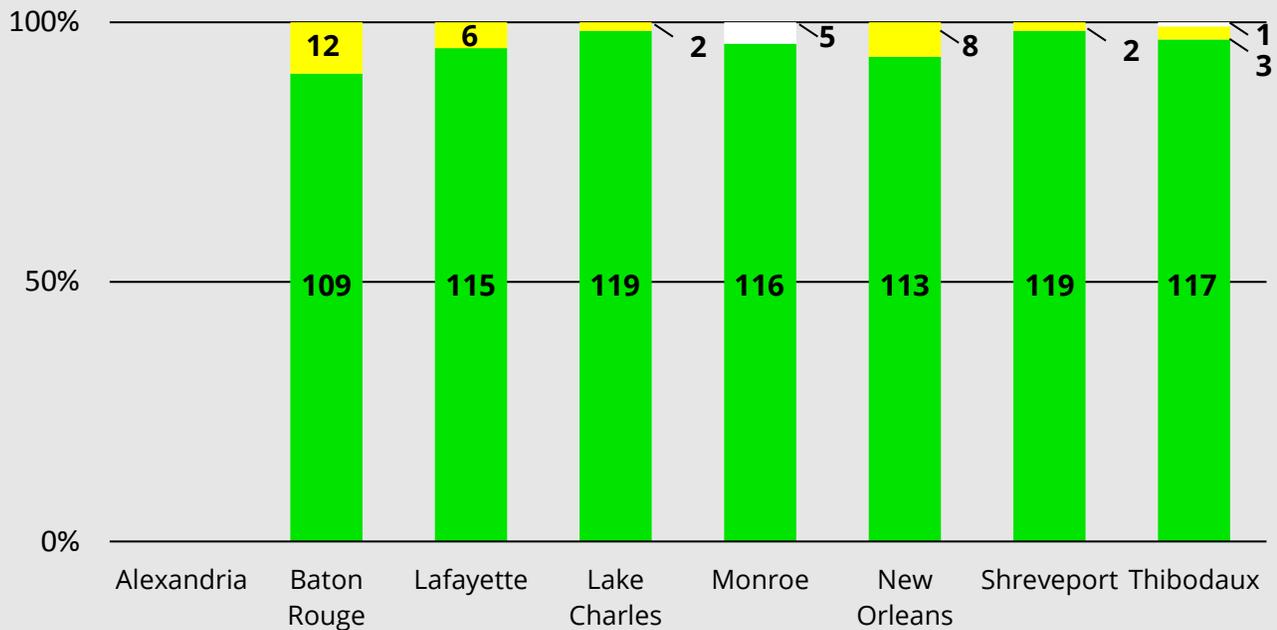
Red: warmer-than-normal temperatures. Blue: colder-than-normal temperatures.

Green: wetter-than-normal conditions. Brown: drier-than-normal conditions.

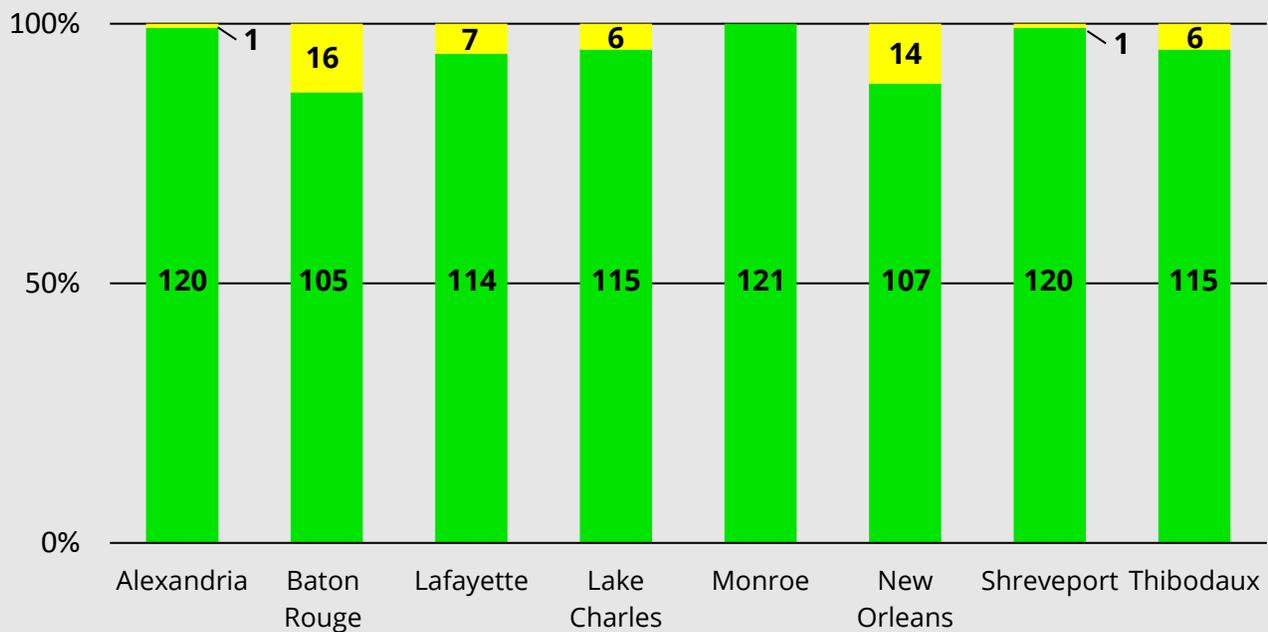
Meteorological data courtesy of the National Weather Service, w2.weather.gov/climate/index.php.
The National Weather Service does not report preliminary monthly climate data for Thibodaux.

Year-to-Date Ozone

Count of Ozone Observations in Each AQI Category



Count of Ozone Forecasts in Each AQI Category



Observational ozone data are not measured for Alexandria.



Missing

Good

Moderate

Unhealthy For Sensitive Groups

Unhealthy

Very Unhealthy

Hazardous

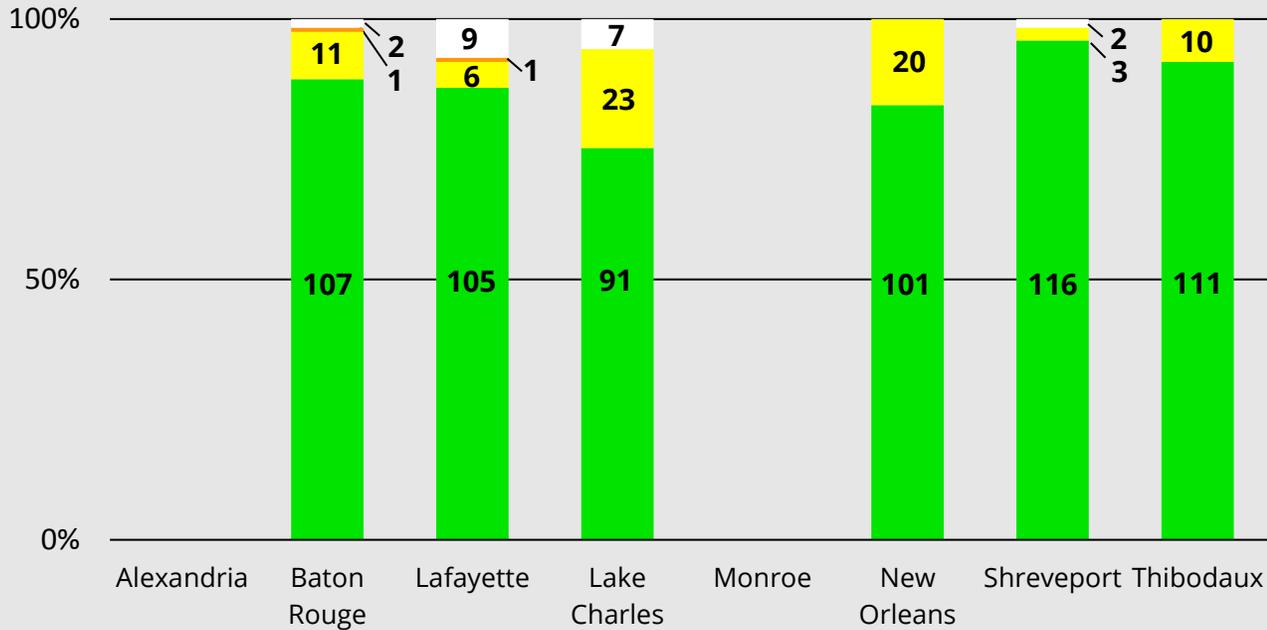
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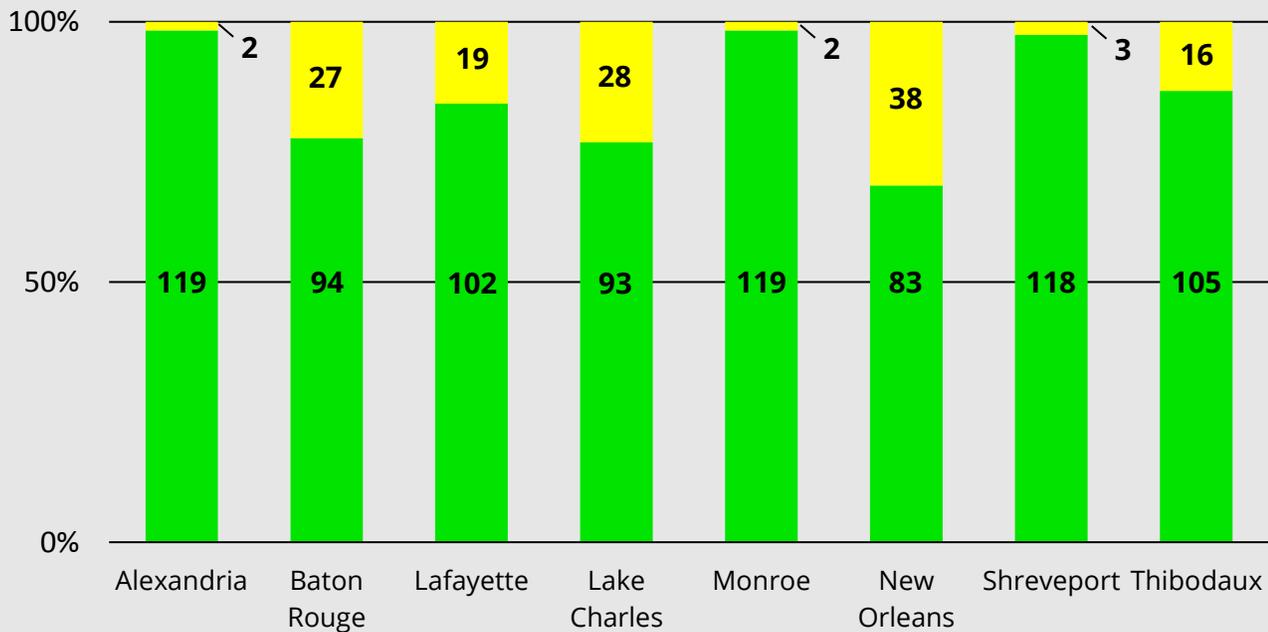
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Year-to-Date PM_{2.5}

Count of PM_{2.5} Observations in Each AQI Category



Count of PM_{2.5} Forecasts in Each AQI Category



Observational PM_{2.5} data are not measured for Monroe or Alexandria.



Missing

Good

Moderate

Unhealthy For Sensitive Groups

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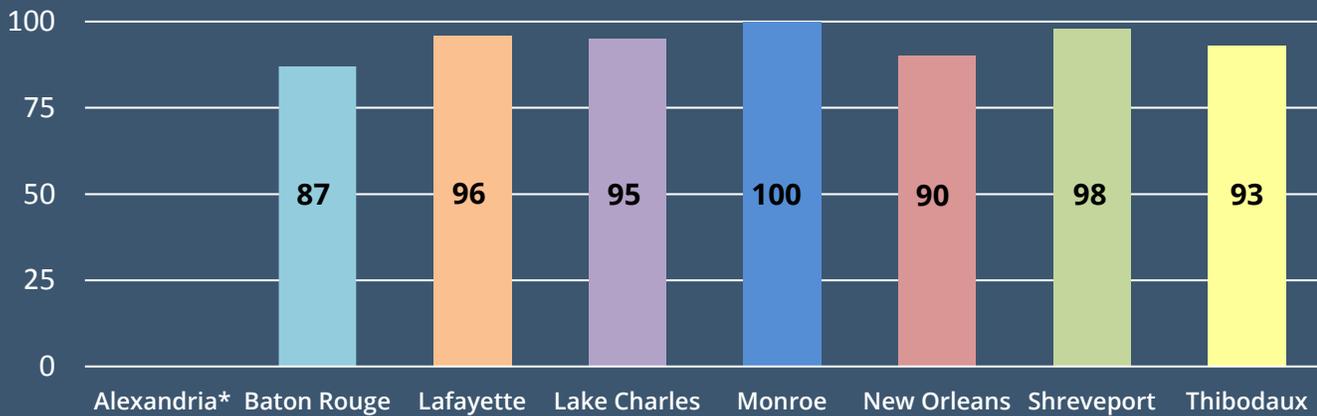
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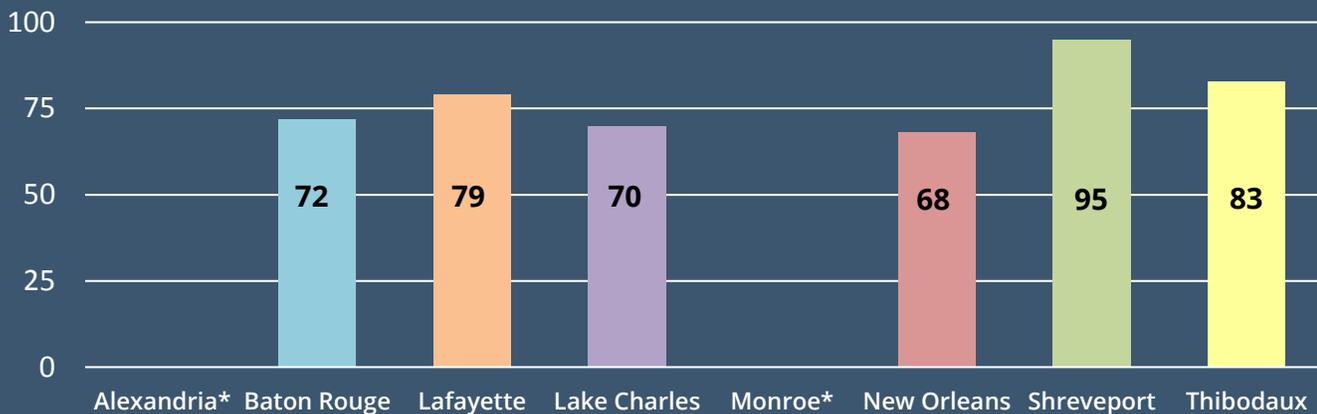
2020 Next-Day Forecast Statistics at the Good-to-Moderate Threshold

Next-day forecasting performance statistics for 2020 are presented in the charts below. The statistics are calculated by comparing forecasted and observed AQI levels for the Good-to-Moderate threshold. Percent Correct indicates the percentage of forecasts that correctly predicted whether observations would be above or below a certain threshold. Because few USG days were predicted or observed in the Louisiana forecast cities in 2020, Moderate-to-USG forecast statistics are not shown.

Percent Correct—Ozone



Percent Correct—PM_{2.5}



*Observational PM_{2.5} data are not measured for Monroe, and ozone and PM_{2.5} data are not measured for Alexandria.

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