

# Crime Analyst Exercise

## **Scenario:**

The Chief has been asked to give a presentation to City leadership based on answers generated from your analysis. You are tasked with providing answers to each question in preparation for the presentation.

## **Work Product:**

There are four questions you will need to address in your analysis for the Chief's presentation. You will be asked to create a presentation from your answers and present it to the panel during your interview.

## **Instructions:**

Data Source: <https://data.virginiabeach.gov/>

Use the link above to navigate to the Public Safety dataset category in the open portal. Search and select the "Police Incident Reports" dataset. Click on the Download option and proceed to export the dataset as a CSV file. **It is recommended to save the CSV as an Excel file prior to beginning your analysis.**

You may conduct your analysis with the software of your choosing. All work is to be saved and submitted back with the answers used to produce the analysis. Additionally, ensure you have completed the PowerPoint exercise and send back as you will be expected to present your findings in your interview.

## **Questions:**

**Question 1:** What are the Top 10 Part 1 offenses (as defined by the FBI's UCR reporting standards) for the first half of each year by total count from 2021 to 2023? Use a total cumulation of all years to establish the Top 10.

- Use the "Date Found" field for the date category.
- Use the "Offense Description" field for the offense category.
- Be sure to remove Unfounded cases from your analysis.

*\*Total possible points: 30 points*

*\*3 points awarded for each correct answer*

**Question 2:** Using the #1 offense from Question 1, what Zone had the most incidents for that crime type in the first half of 2023? Is this Top Zone trending up or down comparative to previous years?

- Bonus Opportunity: list the maximum value, minimum value, mean, 1 standard deviation value, and 2 standard deviation value (1 point for each correct answer)

*\*Total possible points: 10 points for the correct answer*

*\*1 bonus point awarded for each correct bonus answer*

**Question 3:** Using the #1 Zone from Question 2, what are the Top 10 address blocks with the most incidents in the first half of 2023? Is the top block segment a systemic problem or was this an outlier?

*Hint – you should still be using the #1 offense identified in Question 1*

*\*Total possible points: 30 points*

*\*3 points awarded for each correct answer*

**Question 4:** The Chief is required to present your responses to City Council members and the City Manager. Create a visual representation for questions 1 - 3. If time permits, take time to dive into the dataset and provide any additional relevant findings.

*\*\*\*Remember, this is going to city leadership, points are awarded for professionalism and consistency.*

*\*Total possible points: 30 points*

*\*10 possible points per visualization*

<b>Date</b>	
<b>Applicant</b>	
<b>Begin Time</b>	
<b>End Time</b>	
<b>Staff Initials</b> (to be completed by VBPD)	