NACA 2026

Crime Analyst

Competency Self-Assessment

A scored self-evaluation across all six NACA competency domains.

Use this tool to identify strengths, target development areas, and build your professional growth plan.

The estimated time needed to complete this assessment is 30-45 minutes

Analyst Name	Agency / Department	Date Completed
_____	_____	_____

National Association of Crime Analysts (NACA)
naca-usa.org| 2026

How to Use This Assessment

This self-assessment covers all six NACA competency domains for crime analysis. For each skill or activity listed, select the score (0–5) that most accurately reflects your current level of experience. Be honest; this tool is for your development, not evaluation.

HOW TO SCORE EACH ITEM

0 – I have never been trained in or performed this activity.
1 – I have been trained in this activity, but have not performed it.
2 – I have been trained and performed it in a classroom or training exercise.
3 – I have not performed this on my own, but have assisted others on the job.
4 – I have performed this activity on my own on the job.
5 – I have performed this on my own and have directed or trained others in its performance.

A note on automated features: Some capabilities in this assessment, such as patrol deployment maps, may already be generated in whole or in part by your software. Score based on your ability to build, adjust, or troubleshoot these features, not on whether your current software already includes them.

After completing each domain, calculate your domain score using the scoring summary box. Then transfer all domain scores to the overall profile on the final page.

Note: You are allowed **one exemption per domain**. An exemption may be used to subtract 5 from the max score possible for that section. This exemption is allowed if a competency or category **does not apply to your current role, responsibilities, or work environment**. This is not to be used to replace a zero when there is no knowledge base in this category. For example, Domain 2 has 14 items with a maximum possible score of 70. If you use your one exemption on an item that does not apply to your role, the maximum for that domain becomes 65 (70 minus 5). If your total score on the remaining 13 items is 50, your domain score is 50 ÷ 65, or 77 percent, not 50 ÷ 70.

Score %	Proficiency Level	What It Means
80–100%	**Advanced**	You perform this work independently at a high level and can direct or train others. You are a resource for your agency and peers.
55–79%	**Proficient**	You perform this work independently and consistently. You handle novel situations without needing guidance.
30–54%	**Foundational**	You understand the concepts and have some hands-on experience. Targeted training and mentored practice will build proficiency.
0–29%	**Developing**	This is an area for growth. Formal training, coursework, or structured mentorship is recommended.

1 DOMAIN 1
Data Fundamentals & Literacy

Data literacy is the foundation of crime analysis. This domain covers your ability to work with law enforcement data at a technical level, from writing SQL queries to understanding what data fields mean and where they come from.

Skill / Activity	Your Score (0–5)
SQL and Database Querying	
Writing SELECT queries with WHERE and ORDER BY clauses *Filtering and sorting data from a single table*	Score (circle): 0 1 2 3 4 5
Using JOIN statements to combine multiple tables *INNER JOIN, LEFT JOIN — matching records across related tables*	Score (circle): 0 1 2 3 4 5
Writing aggregation queries using GROUP BY, COUNT, SUM, and AVG *Summarizing data by category (offense type, district, shift, etc.)*	Score (circle): 0 1 2 3 4 5
Writing subqueries and Common Table Expressions (CTEs) *Breaking complex queries into readable, reusable parts*	Score (circle): 0 1 2 3 4 5
Using date and time functions in SQL *Filtering by date ranges, extracting year/month/day, and calculating time elapsed*	Score (circle): 0 1 2 3 4 5
Exporting query results for use in analysis tools *CSV, Excel, or direct connections to BI platforms*	Score (circle): 0 1 2 3 4 5
Scheduling or automating recurring SQL queries *Stored procedures, scheduled jobs, or task automation*	Score (circle): 0 1 2 3 4 5
Understanding Law Enforcement Data Systems	
Records Management System (RMS) data structure *Offense reports, arrests, field contacts, and how fields are populated and what they mean (NIBRS & UCR)*	Score (circle): 0 1 2 3 4 5
Computer-Aided Dispatch (CAD) data structure *Can explain what generates each field, such as call type, disposition, and response time calculation, and can identify when the data is inaccurate.*	Score (circle): 0 1 2 3 4 5
Connecting data across RMS, CAD, and other agency systems *Understanding how records link (incident numbers, unit IDs, location fields)*	Score (circle): 0 1 2 3 4 5

Working with external data feeds *Parole/probation, court dispositions, sex offender registry, jail systems, open source intelligence (OSINT), or commercial mobile location data*	Score (circle): 0 1 2 3 4 5
Identifying how recording conventions affect data *Recognizing when data reflects officer behavior rather than ground truth*	Score (circle): 0 1 2 3 4 5
Data Quality Assessment	
Identifying missing or null values in a dataset *Quantifying completeness; finding patterns in missing data*	Score (circle): 0 1 2 3 4 5
Detecting and resolving duplicate records *Using key field combinations to find and address duplicate entries*	Score (circle): 0 1 2 3 4 5
Assessing geocoding quality and address match rates *Reviewing geocoding failures, correcting and improving match rates*	Score (circle): 0 1 2 3 4 5
Identifying temporal data errors *Future dates, impossible time sequences, shift-boundary recording artifacts*	Score (circle): 0 1 2 3 4 5
Communicating data quality limitations in analytical products *Including caveats and source notes without being prompted*	Score (circle): 0 1 2 3 4 5
Data Literacy and Interpretation	
Distinguishing between counts, rates, and ratios and using the right one *Knowing when a rate per population is more meaningful than a raw count*	Score (circle): 0 1 2 3 4 5
Recognizing recording artifacts vs. real-world change *Identifying when a trend reflects a data entry shift, not a crime change*	Score (circle): 0 1 2 3 4 5
Explaining data concepts to non-technical audiences *Commanders, city councils, media: translating analytical findings clearly*	Score (circle): 0 1 2 3 4 5
Critically evaluating vendor-produced data visualizations *Identifying misleading charts, inappropriate metrics, or oversimplified claims*	Score (circle): 0 1 2 3 4 5

Domain 1: Data Fundamentals & Literacy — Domain Score

Total items: 21 × Max score: 5 = Max possible: 105

My total score: _____ ÷ 105 × 100 = _____%

Proficiency Interpretation

80–100% Advanced
55–79% Proficient
30–54% Foundational
0–29% Developing

Domain 1 — Development Notes

Skills I want to develop: _____

Resources/training I will pursue: _____

Target timeline: _____

2 DOMAIN 2
Data Management & Infrastructure

Crime analysts build and maintain the data systems their agencies depend on. This domain assesses your ability to design databases, create semantic models, and manage the infrastructure that makes data usable at the organizational level.

Skill / Activity	Your Score (0–5)
Database Design and Management	
Designing relational database schemas for analytical use *Tables, primary/foreign keys, normalization, and building structures that support querying*	Score (circle): 0 1 2 3 4 5
Creating and modifying tables, views, and stored procedures *Database platform proficiency (SQL Server, PostgreSQL, Access, MySQL, etc.)*	Score (circle): 0 1 2 3 4 5
Building ETL (Extract, Transform, Load) workflows for recurring data ingestion *Automating data import from external files or systems on a schedule*	Score (circle): 0 1 2 3 4 5
Managing data retention and archiving processes *Complying with agency retention schedules, archiving historical data without losing usability*	Score (circle): 0 1 2 3 4 5
Semantic Modeling	
Building data dictionaries defining field names, values, and meanings *Documenting what each field means, how it is populated, and how it has changed*	Score (circle): 0 1 2 3 4 5
Creating taxonomies for incident types, offense categories, and disposition codes *Ensuring terminology is consistent across units, systems, and time periods*	Score (circle): 0 1 2 3 4 5
Developing semantic layers in BI tools (Power BI, Tableau, etc.) *Translating raw fields into named measures and dimensions that non-technical users can trust*	Score (circle): 0 1 2 3 4 5
Designing calculated fields and KPIs that reflect agency-specific definitions *Not relying on default vendor logic, building measures that match how your agency counts things*	Score (circle): 0 1 2 3 4 5

Documenting analytical logic so products can be reproduced and handed off *Ensuring analytical products survive staff transitions*	Score (circle): 0 1 2 3 4 5
Reconciling terminology differences between systems *Mapping RMS and CAD codes to unified analytical categories*	Score (circle): 0 1 2 3 4 5
System Integration and Data Governance	
Managing data feeds from external systems *Parole/probation, regional platforms, state repositories, federal databases*	Score (circle): 0 1 2 3 4 5
Establishing and documenting data entry standards for officers *Creating or improving a written standard, such as an SOP, field guide, or training memo, that officers can reference.*	Score (circle): 0 1 2 3 4 5
Participating in RMS/CAD procurement or configuration *Representing analytical requirements in system selection and setup*	Score (circle): 0 1 2 3 4 5
Documenting data lineage from source to analytical product *Where each element originates, how it is transformed, and where it ends up*	Score (circle): 0 1 2 3 4 5

Domain 2: Data Management & Infrastructure — Domain Score

Total items: 14 × Max score: 5 = Max possible: 70

My total score: _____ ÷ 70 × 100 = _____%

Proficiency Interpretation

80–100%	**Advanced**
55–79%	Proficient
30–54%	Foundational
0–29%	Developing

Domain 2 — Development Notes

Skills I want to develop: _____

Resources/training I will pursue: _____

Target timeline: _____

3 DOMAIN 3 Spatial Analysis & Mapping

Spatial analysis is a defining skill of crime analysis. This domain covers your GIS proficiency, your ability to apply spatial statistical methods, and your skill in producing operational mapping products for different audiences.

Skill / Activity	Your Score (0–5)
GIS Platform Proficiency	
Navigating a GIS platform (ArcGIS, QGIS, or equivalent) *Opening layers, applying symbology, using basic spatial tools*	Score (circle): 0 1 2 3 4 5
Geocoding address data *Geocoding offense and call-for-service records; reviewing and correcting failures*	Score (circle): 0 1 2 3 4 5
Managing coordinate systems and projections *Reprojecting data; selecting appropriate projections for local analysis*	Score (circle): 0 1 2 3 4 5
Performing spatial joins and overlays *Point-in-polygon joins, buffers, and intersects, independently and correctly*	Score (circle): 0 1 2 3 4 5
Organizing and maintaining agency layer files and GIS resources *Managing a shared GIS library; documenting layer sources and update schedules*	Score (circle): 0 1 2 3 4 5
Hot Spot and Spatial Analysis Methods	
Kernel Density Estimation (KDE) *Producing and interpreting density surfaces; selecting an appropriate bandwidth*	Score (circle): 0 1 2 3 4 5
Grid-based and repeat address analysis *Using grid counts or address-level frequency to identify chronic locations*	Score (circle): 0 1 2 3 4 5
Near Repeat Analysis *Applying near repeat victimization concepts to generate patrol recommendations*	Score (circle): 0 1 2 3 4 5
Choropleth mapping *Correctly using rate vs. count maps; selecting appropriate classification schemes*	Score (circle): 0 1 2 3 4 5
Risk terrain or environmental factor analysis	Score (circle): 0 1 2 3 4 5

Layering spatial risk variables to identify high-risk areas based on environment	
Operational Mapping Products	
Producing patrol deployment maps *Geographically bounded, time-filtered, operationally formatted, not raw data dumps*	Score (circle): 0 1 2 3 4 5
Producing crime series maps with MO and suspect information integrated *Tracking linked offenses across time and space for investigators and patrol*	Score (circle): 0 1 2 3 4 5
Producing beat and sector analysis maps *Supporting boundary design, workload comparisons, and staffing decisions*	Score (circle): 0 1 2 3 4 5
Producing community briefing or public-facing maps *Simplified, clearly labeled, appropriate for non-law-enforcement audiences*	Score (circle): 0 1 2 3 4 5

Domain 3: Spatial Analysis & Mapping — Domain Score

Total items: 14 × Max score: 5 = Max possible: 70

My total score: _____ ÷ 70 × 100 = _____%

Proficiency Interpretation

80–100% Advanced
55–79% Proficient
30–54% Foundational
0–29% Developing

Domain 3 — Development Notes

Skills I want to develop: _____

Resources/training I will pursue: _____

Target timeline: _____

4 DOMAIN 4 Statistical Analysis & Pattern Recognition

Crime analysts are applied statisticians. This domain assesses your quantitative skills — from descriptive statistics to trend analysis, crime series identification, and program evaluation.

Skill / Activity	Your Score (0–5)
Descriptive Statistics and Data Summarization	
Calculating and interpreting mean, median, and mode *Selecting the right measure for the data distribution and audience*	Score (circle): 0 1 2 3 4 5
Calculating and interpreting standard deviation or Poisson Z-score *Using dispersion measures to set alert thresholds and identify outliers*	Score (circle): 0 1 2 3 4 5
Producing frequency distributions and histograms *Interpreting distributional shape and identifying anomalies*	Score (circle): 0 1 2 3 4 5
Building cross-tabulations (crosstabs) *Multi-variable tables with correct row/column percentages*	Score (circle): 0 1 2 3 4 5
Producing time-of-day and day-of-week analyses *Shift-adjusted temporal profiles; distinguishing recording patterns from crime patterns*	Score (circle): 0 1 2 3 4 5
Trend Analysis and Forecasting	
Calculating percent change correctly *Understanding when percent change is misleading (small base numbers, period selection)*	Score (circle): 0 1 2 3 4 5
Applying moving averages and smoothing techniques *Reducing noise in weekly or monthly crime counts to surface real trends*	Score (circle): 0 1 2 3 4 5
Using control charts to identify statistically meaningful change *Setting upper/lower control limits; distinguishing signal from noise*	Score (circle): 0 1 2 3 4 5
Identifying and accounting for seasonal crime patterns *Adjusting comparisons across months and years for seasonal variation*	Score (circle): 0 1 2 3 4 5
Communicating forecast uncertainty appropriately *Presenting projections — not predictions — with honest confidence framing*	Score (circle): 0 1 2 3 4 5
Crime Pattern and Series Recognition	

Identifying crime series *Linking offenses by MO, geography, and timing to a common offender or group*	Score (circle): 0 1 2 3 4 5
Identifying crime patterns *Aggregating structurally similar offenses that may not share a single offender*	Score (circle): 0 1 2 3 4 5
Identifying statistically meaningful crime trends *Distinguishing real trend changes from normal variation using appropriate methods*	Score (circle): 0 1 2 3 4 5
Identifying repeat victimization *Address or victim-level frequency analysis; flagging for preventive intervention*	Score (circle): 0 1 2 3 4 5
Identifying crime spikes *Threshold-based alerting; rapid analysis to support operational response*	Score (circle): 0 1 2 3 4 5
Program Evaluation and Outcome Measurement	
Defining measurable outcomes before an initiative launches *Establishing baselines and metrics proactively, not retroactively*	Score (circle): 0 1 2 3 4 5
Establishing comparison baselines for evaluation *Prior-period, comparison area, or matched control group methods*	Score (circle): 0 1 2 3 4 5
Assessing crime displacement in evaluated areas *Measuring whether reductions in target areas are accompanied by increases nearby*	Score (circle): 0 1 2 3 4 5
Communicating the difference between correlation and causation *In presentations to command staff or city leadership*	Score (circle): 0 1 2 3 4 5
Applying regression-to-the-mean awareness *Not attributing natural post-spike declines to intervention effects*	Score (circle): 0 1 2 3 4 5

Domain 4: Statistical Analysis & Pattern Recognition — Domain Score

Total items: 20 × Max score: 5 = Max possible: 100

My total score: _____ ÷ 100 × 100 = _____%

Proficiency Interpretation

80–100% Advanced
55–79% Proficient
30–54% Foundational
0–29% Developing

Domain 4 — Development Notes

Skills I want to develop: _____

Resources/training I will pursue: _____

Target timeline: _____

5 DOMAIN 5
Automation, Reporting & Visualization

Analytical findings are only valuable when they reach the right people in a usable form. This domain covers your ability to build dashboards, automate workflows, and communicate data visually and in writing.

Skill / Activity	Your Score (0–5)
Business Intelligence and Dashboard Tools	
Building dashboards from connected data sources *Power BI, Tableau, ESRI Insights, or equivalent, not just modifying existing ones*	Score (circle): 0 1 2 3 4 5
Creating calculated measures and fields within BI tools *DAX, calculated fields, or platform-equivalent logic beyond basic SUM/COUNT*	Score (circle): 0 1 2 3 4 5
Designing data models within BI tools *Relationships between tables, star/snowflake schemas, optimized for performance*	Score (circle): 0 1 2 3 4 5
Designing dashboards for specific audiences *Applying visual hierarchy, minimizing cognitive load, and calibrating to operational vs. executive use*	Score (circle): 0 1 2 3 4 5
Configuring scheduled data refresh and troubleshooting connectivity *Keeping dashboards current without manual intervention*	Score (circle): 0 1 2 3 4 5
Automation and Scripting	
Writing scripts in Python or R for data analysis tasks *Data cleaning, aggregation, statistical analysis, and scheduled report generation*	Score (circle): 0 1 2 3 4 5
Automating repetitive tasks using Excel macros or VBA *Structured report templates, calculated field automation, legacy workflow scripting*	Score (circle): 0 1 2 3 4 5
Scheduling scripts or reports to run automatically *Task Scheduler, cron jobs, or equivalent, without analyst intervention*	Score (circle): 0 1 2 3 4 5
Building workflow automations (Power Automate or equivalent) *Automated alerts, email notifications, and file movements triggered by data conditions*	Score (circle): 0 1 2 3 4 5

Automating spatial analysis workflows *ArcGIS Model Builder, arcpy, or equivalent batch processing tools*	Score (circle): 0 1 2 3 4 5
Data Visualization and Analytical Writing	
Choosing chart types that match the data structure and message *Bar, line, scatter, map: selecting based on the question, not habit*	Score (circle): 0 1 2 3 4 5
Avoiding misleading visualization patterns *Truncated axes, dual-axis abuse, inappropriate 3D charts, overplotting*	Score (circle): 0 1 2 3 4 5
Designing visualizations for accessibility *Color-blind-safe palettes, contrast for projection, and clear labeling*	Score (circle): 0 1 2 3 4 5
Writing analytical products that lead with findings, not methods *Giving commanders conclusions and recommendations, not methodology sections*	Score (circle): 0 1 2 3 4 5
Producing written products calibrated to the audience *Shift briefings vs. command reports vs. city council presentations — different length and depth*	Score (circle): 0 1 2 3 4 5
Using precise, quantified language in analytical writing *Avoiding undefined terms like 'significant,' 'high,' or 'unusual'*	Score (circle): 0 1 2 3 4 5

Domain 5: Automation, Reporting & Visualization — Domain Score

Total items: 16 × Max score: 5 = Max possible: 80

My total score: _____ ÷ 80 × 100 = _____%

Proficiency Interpretation

80–100%	**Advanced**
55–79%	Proficient
30–54%	Foundational
0–29%	Developing

Domain 5 — Development Notes

Skills I want to develop: _____

Resources/training I will pursue: _____

Target timeline: _____

6 DOMAIN 6 Professional Practice & Ethics

Technical skill alone does not define a professional crime analyst. This domain covers your analytical integrity, legal compliance, communication practices, and professional development habits.

Skill / Activity	Your Score (0–5)
Analytical Integrity	
Presenting findings accurately even when they are unfavorable *When results conflict with a preferred narrative or departmental initiative*	Score (circle): 0 1 2 3 4 5
Distinguishing clearly between what the data shows and what conclusions might be drawn *Not conflating evidence with interpretation*	Score (circle): 0 1 2 3 4 5
Documenting analytical methods so findings can be reproduced *Maintaining a record that allows any product to be reviewed and audited*	Score (circle): 0 1 2 3 4 5
Declining to produce an analysis designed to reach a predetermined conclusion *And escalating such requests appropriately*	Score (circle): 0 1 2 3 4 5
Including data quality and methodological limitations in every product *Proactively, not only when prompted*	Score (circle): 0 1 2 3 4 5
Data Privacy, Security, and Legal Compliance	
Understanding and complying with FBI CJIS Security Policy *Data access, storage, transmission, and disposal requirements*	Score (circle): 0 1 2 3 4 5
Understanding 28 CFR Part 23 as it applies to analytical products *Dissemination rules for criminal intelligence system data*	Score (circle): 0 1 2 3 4 5
Applying PII minimization practices in analytical products *Limiting personal identifying information to what is necessary for the audience*	Score (circle): 0 1 2 3 4 5
Understanding the scope and limitations of data sharing agreements *Using data received under MOUs only as authorized*	Score (circle): 0 1 2 3 4 5

Identifying which analytical products may be subject to public records requests *And consulting legal counsel appropriately*	Score (circle): 0 1 2 3 4 5
Communication and Professional Practice	
Delivering verbal briefings that convey findings clearly *Answering follow-up questions without referring back to documents*	Score (circle): 0 1 2 3 4 5
Writing analytical products that are attributed, dated, and version-controlled *Maintaining accountability and auditability in all written products*	Score (circle): 0 1 2 3 4 5
Mentoring newer analysts or sharing knowledge with peers *Contributing to professional development beyond your own role*	Score (circle): 0 1 2 3 4 5
Maintaining current awareness of tools, methods, and research *Applying relevant developments in data tools and crime analysis research to your work*	Score (circle): 0 1 2 3 4 5
Pursuing NACA certification or equivalent continuing education *As a standard of professional practice, not just an employer requirement*	Score (circle): 0 1 2 3 4 5

Domain 6: Professional Practice & Ethics — Domain Score

Total items: 15 × Max score: 5 = Max possible: 75

My total score: _____ ÷ 75 × 100 = _____%

Proficiency Interpretation

80–100%	**Advanced**
55–79%	Proficient
30–54%	Foundational
0–29%	Developing

Domain 6 — Development Notes

Skills I want to develop: _____

Resources/training I will pursue: _____

Target timeline: _____

Overall Competency Profile

Transfer your domain scores below. This profile gives you a complete picture of your current competency and highlights the areas where development investment will have the greatest impact.

Domain	Raw Score	% Score	Proficiency Level
1. Data Fundamentals & Literacy	/ 105	_____%	_____
2. Data Management & Infrastructure	/ 70	_____%	_____
3. Spatial Analysis & Mapping	/ 70	_____%	_____
4. Statistical Analysis & Pattern Recognition	/ 100	_____%	_____
5. Automation, Reporting & Visualization	/ 80	_____%	_____
6. Professional Practice & Ethics	/ 75	_____%	_____

Reflection and Planning

My two strongest domains are:

_____

My two highest-priority development areas are:

_____

The single skill I will work on first is:

_____

I will seek support or mentorship from:

_____

I will reassess my competency in:

6 months ☐ 12 months ☐ Other: _____

National Association of Crime Analysts (NACA)

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