

Extract More Value Out of Call-for-Service Data

Turning call-for-service data into operational and strategic intelligence

Benefits

RTI International's CFS Analytics™ tool improves a police agency's ability to understand its own operations:

- **Manage performance:** Quickly compare response times and other performance metrics across different units.
- **Justify budgets:** Demonstrate to external parties the demands on an agency's resources.
- **Allocate resources:** Confirm that resources are being deployed in the right place at the right time.
- **Improve awareness:** Augment institutional knowledge and first responder experience with visualizations and data.
- **Identify time and manpower constraints:** Identify operational chokepoints where resources are outstripped by demand.
- **Compare citizen- and responder-initiated work:** Identify how citizen demand for resources compares with where officers are delivering resources.

Modern public safety and emergency service agencies must justify their operational and strategic decision making to a public demanding increased transparency and accountability. To ensure that your activities align with your communities' needs, you must accurately—and efficiently—determine the demand for your resources and understand how those resources are being used.

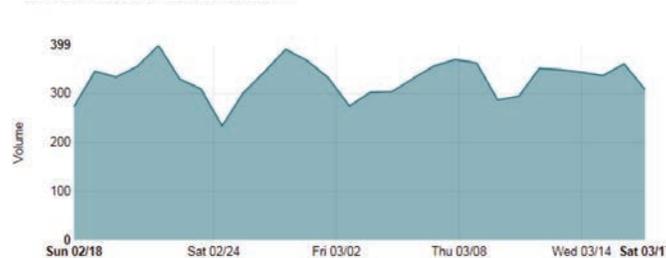
Calls for service (CFS) drive the demand for public safety and emergency service resources, making CFS data the foundation for analyzing operational demands and strategic priorities. Despite understanding the inherent value of CFS data, agencies often lack the resources, time, and tools to transform CFS data into operational and strategic intelligence.

The Solution—CFS Analytics

RTI's CFS Analytics tool uses readily available CFS data to unlock valuable information to improve public safety operations. CFS Analytics processes raw CFS data and presents them in a user-friendly and intuitive interface. Efficient analysis and visualization provide greater insight into operational and strategic issues. CFS Analytics also distributes analytic capability throughout an agency, enabling all levels of the chain of command to make better-informed decisions.

CFS Analytics Dashboard

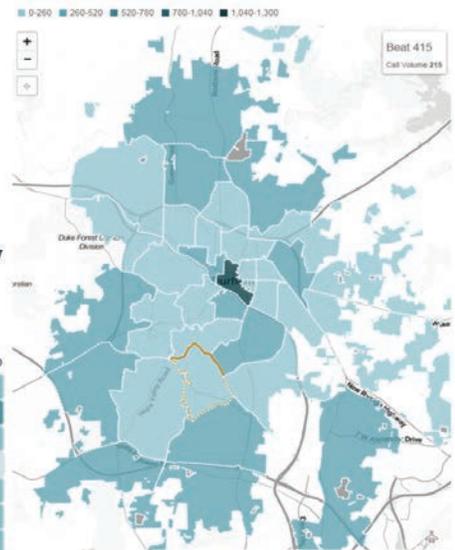
Call Volume Over Time



Call Volume Heatmap



Call Volume By Beat



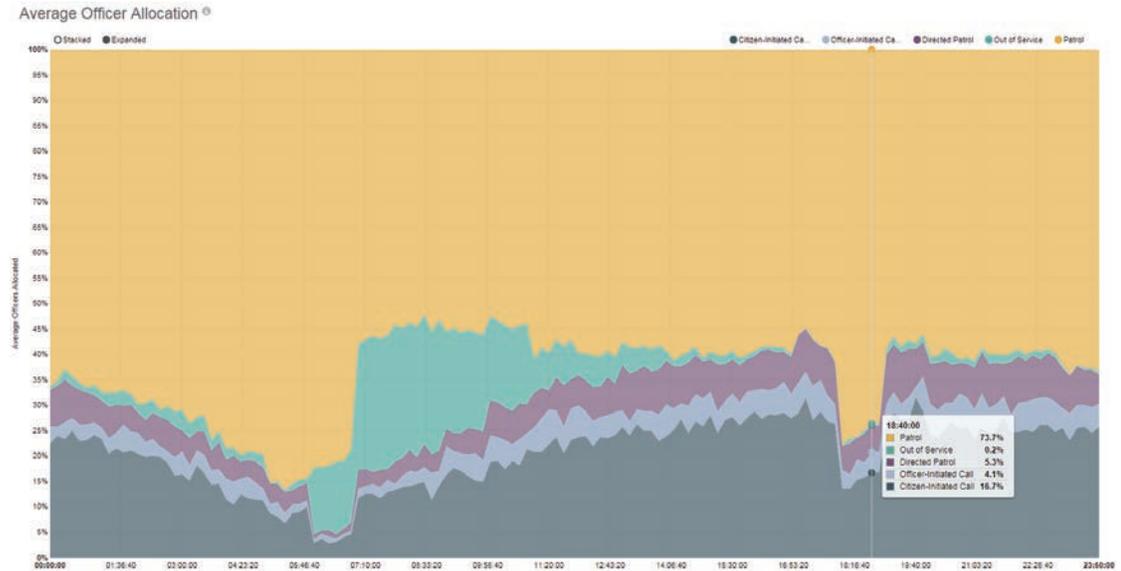
CFS Analytics can identify patterns related to your call-for-service data over time and space. For example, the top graphic shows call volume peak in the middle of the week. The bottom left visual shows calls clustered during the weekdays between 9:00 AM and 5:00 PM, and the visual on the right shows a cluster of calls in the near-east downtown beat.

The distribution of analytic capability provides many benefits. For instance, with CFS Analytics

- Commanders are better equipped to optimize resource allocations
- City managers can view their community’s public safety operations holistically and systematically
- Departments can automate routine analyses and visualizations, allowing crime analysts to focus on more complex analyses.

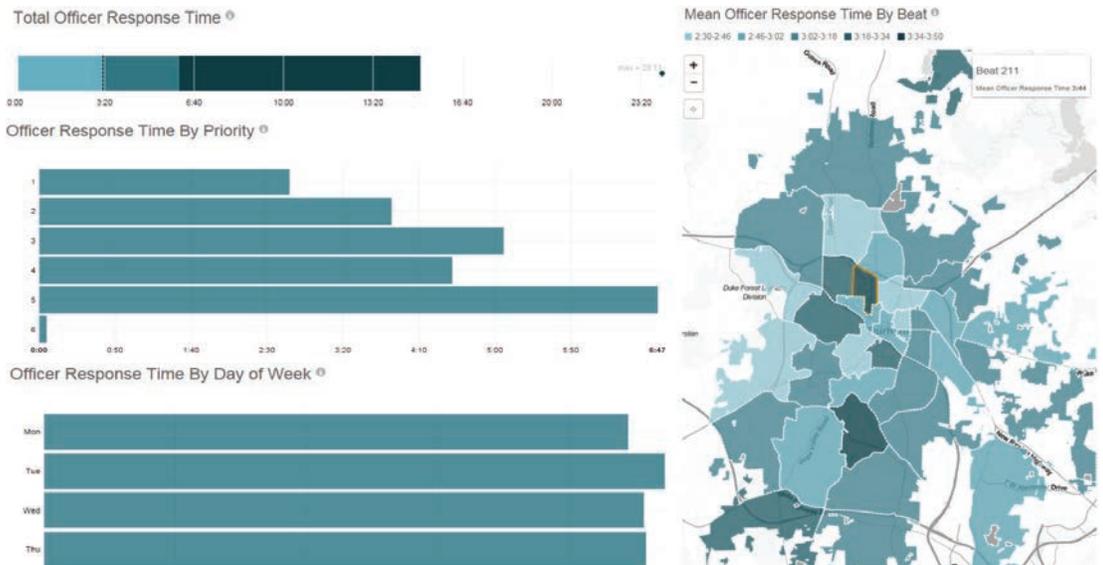
CFS Analytics is a web-based application with a robust data architecture that makes CFS data analytically accessible. CFS Analytics uses web technologies that run on existing hardware, making it easily deployable in your agency.

Analyze Officer Allocation



CFS Analytics helps you visualize the allocation of patrol resources and easily identify the proportion of patrol resources dedicated to specific activities, like citizen-initiated calls and self-initiated calls. With the example above, you can easily see where citizen-initiated calls increase through daytime hours while proactive activity remains fairly constant. This can help decision makers determine how many officers are available at any given time to engage in higher levels of proactive activity.

Analyze Response Time



Citizens demand efficient and rapid response to calls for service. In the top left graphic, CFS Analytics helps you see total officer response time in quarter intervals. In the middle left graphic, response time by call priority is displayed; in the bottom graphic, the variation in response time by day of week is shown. The map on the right demonstrates the spatial variation in response time across a jurisdiction.

“The Durham Police Department has benefited from our partnership with RTI International in many ways. The calls for service tool that was developed has allowed department leadership to quickly analyze our operations and allocate resources appropriately.”

– Durham, NC
Chief of Police Cerelyn J. Davis

RTI International is an independent, nonprofit research institute dedicated to improving the human condition. Clients rely on us to answer questions that demand an objective and multidisciplinary approach—one that integrates expertise across the social and laboratory sciences, engineering, and international development. We believe in the promise of science, and we are inspired every day to deliver on that promise for the good of people, communities, and businesses around the world. For more information, visit www.rti.org.

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