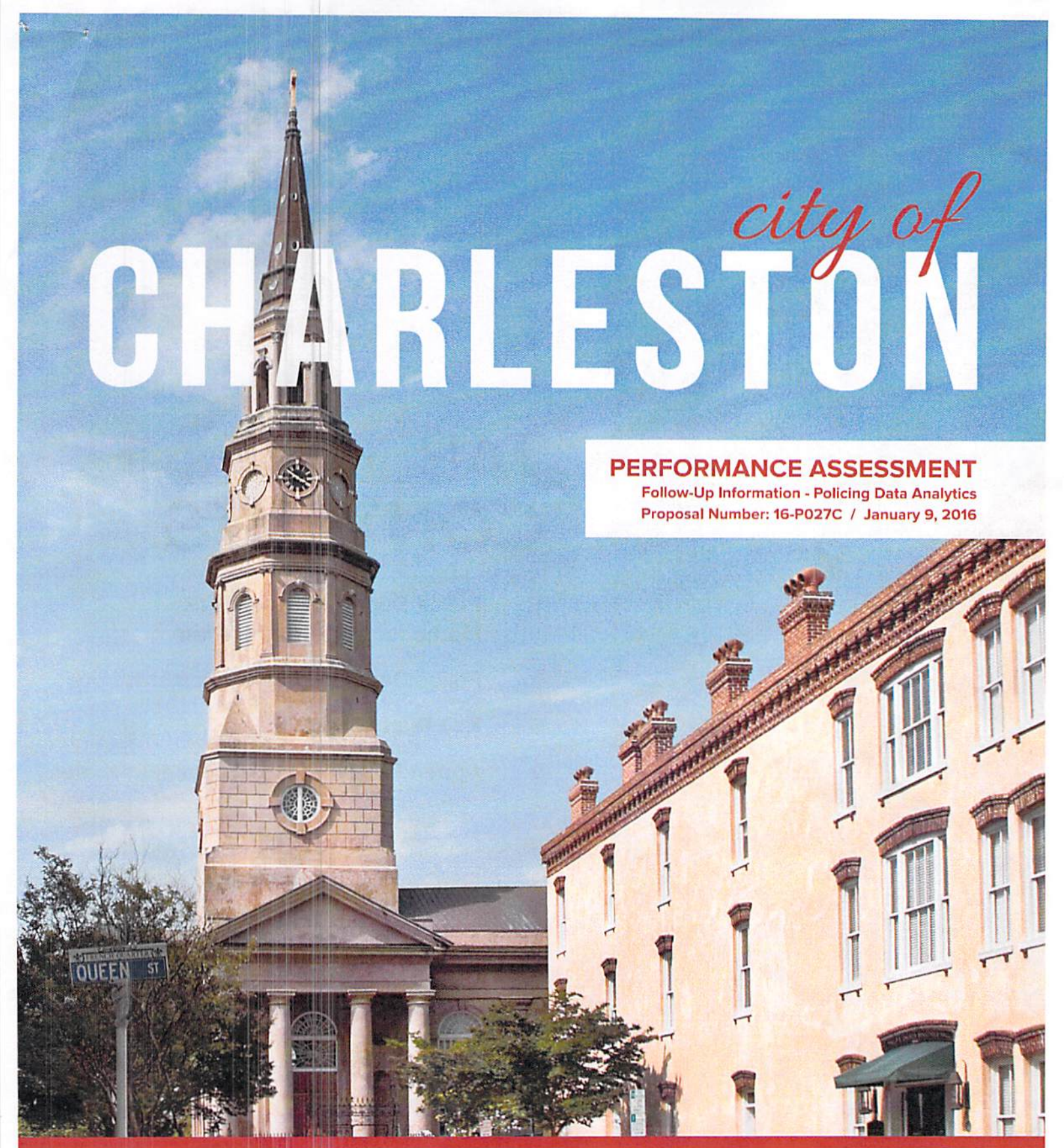




city of CHARLESTON

PERFORMANCE ASSESSMENT

Follow-Up Information - Policing Data Analytics

Proposal Number: 16-P027C / January 9, 2016



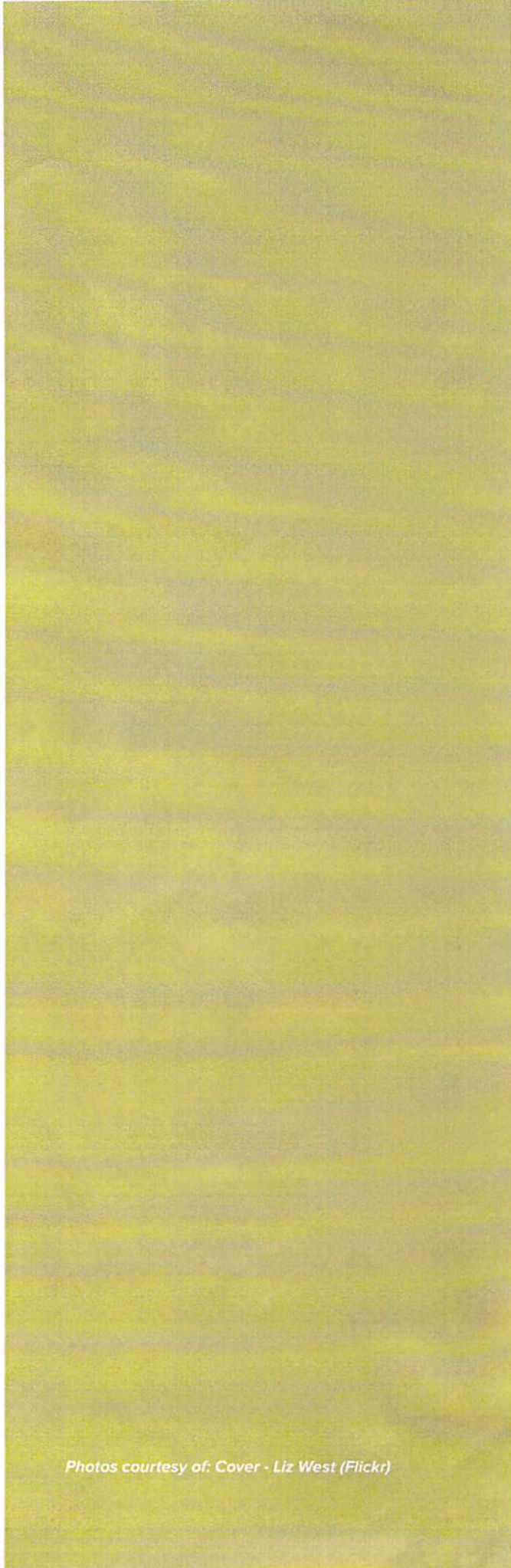


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POLICE DEPARTMENT ANALYSIS: METHODOLOGY & PROJECT PLAN

Today's police departments face a difficult operating challenge. They are tasked with proactively and effectively controlling crime in a policing climate that has largely evolved to assume bias, rather than good intent, on the part of police agencies and officers. This climate constricts the ability of municipalities to meet the practical challenges of delivering police services and creates barriers to implementing broad, community-based strategies to crime prevention and reduction.

The strategic partnership between The Novak Consulting Group and Raftelis Financial Consultants offers direct, related experience and a powerful, nuanced analytical approach that allows the question of policing bias to be vetted within the practical, operational requirements of effective policing. As local government practitioners, we have an experiential understanding of these challenges. We understand that the nuanced complexity of delivering effective policing services cannot be easily captured with simple, high level metrics or broadly extrapolated anecdotal information. A more intentional, thoughtful view of the challenges of policing is required. To meet this goal, we have applied a four tiered analytical methodology that distills questions of police operations, and the questions of policing bias, through distinct filters, including: 1) Community Experiences and Expectations; 2) Police Operations and Officer Experiences;



periences; 3) Data Assessment and Validation; and 4) Solutions. This methodology, which is described in detail below, provides a circular framework that has the power to serve as a continuous improvement and community engagement framework into the future.

COMMUNITY EXPERIENCES AND EXPECTATIONS

The first step in our process is engaging the public to understand the needs, experiences, and expectations of the community. Ultimately it is the trend of those expectations and experiences that provides context for new

initiatives, and serves as the ultimate test of success. The City of Charleston Police Department's implementation of the Illumination Project serves as an important foundation in that effort. The extensive community engagement and thoughtful strategic planning provide a clearly articulated vision for police and community relations and, just as importantly, set a precedent for proactive dialogue and discussion. We would build upon that work with further discussions, focus groups, and public engagement sessions designed to continue advancing the agenda and assess how perceptions and expectations are evolving.

POLICE OPERATIONS AND OFFICER EXPERIENCES

The second step is to engage the Police Department to understand their needs, experiences, and expectations. The daily experience of sworn officers must be considered alongside those of the community. Policing remains a dangerous profession, and the practical, daily requirements of providing policing services must be respected. Our team will engage with each level of the Police Department – executive, supervisory, and front-line – to develop a detailed understanding of the departmental operations, patrolling expectations, organizational values, and the Department's underlying strengths, weaknesses, and challenges.

DATA ASSESSMENT AND VALIDATION

Following the operational analysis, we will review the department's current state of data analytics and assess to what degree the data and systems line up with operations and goals identified in the step above, in the Illumination Project Strategic Plan, and in the CPD 2015-2019 Strategic Plan. We will pursue a two-pronged approach to: 1) analyze existing data and 2) improve quality of data and data collection to the point where we can help the CPD achieve the Illumination Project Strategic Plan within the three-year timeline.

CPD has a long history of utilizing technology and data analysis to improve public safety. Our team has extensive experience gathering and manipulating large data sets to provide the reporting and metrics to objectively represent CPD's pol-

icies and operating environment. Datasets that we will initially request and mine include:

CPD DATA

- Police activity data and incident data including crime reports, arrest reports, and other event details accessible on the CPD Police 2 Citizen website
- Calls for service records, patrol rosters, and other event and operational data that is not currently on the public-facing site
- Current and past years' crime analysis data as available from the IBM i2 COPLINK database and IBM SPSS predictive analytics database

CITY AND OTHER AGENCY DATA

- Computer Aided Dispatch System (CAD) data, including the distribution of calls for service by geography, call type, priority, hour of the day, and day of the week to assess what relationships may exist between demand for police response and officer-initiated activity
- Demographic data at different levels of detail from the U.S. Census Bureau; the City Department of Planning, Preservation, and Sustainability; Berkeley-Charleston-Dorchester Council of Governments; Charleston Regional Development Alliance; Charleston Metro Chamber of Commerce; South Carolina Office of Research and Statistics; and other local and regional agencies
- Charleston County Tax Assessor data
- Regional and local news articles

ILLUMINATION PROJECT DATA

- Listening sessions and survey data
- Strategic Plan measurements collected to date

Raftelis has widespread experience performing quality control and assurance on data for over 40 municipal utilities across the country. To determine the integrity of the data listed above, we will compare CPD and City datasets against other agency data and local jurisdictional data to confirm what is statistically valid. We can marry the data geographically and tabularly in ArcGIS mapping software, and verify if the datasets fall within the same range. We can also conduct time series analysis on data for certain locations and blocks to determine whether the data fall within reasonable bounds for event and demographic characteristics. The Police 2 Citizen site already has a Google-based crime map to which we can add more detailed demographic data, and we can check against past data that was input and produced from the IBM SPSS predictive analytics software and other tools that the CPD is currently using to determine reasonable bounds for the datasets.

After processing the datasets, the team will analyze the data using geostatistical models to normalize demographic and event changes over time for particular blocks and neighborhoods. Against the backdrop of these various mapped datasets and relational databases, we can establish a baseline to evaluate current CPD policies and practices. Raftelis can create custom reports and maps to eval-

uate strategies that have been prioritized for implementation in 2017. We can assist with data gathering, filtering, categorization, and aggregation to get to the level of detail needed to assess operational performance and effectiveness of individual strategies.

Using these integrated datasets, we will apply multiple linear regression analysis to test and validate perspectives and experiences. This offers a rigorous analytical approach to identifying correlations between key outcome indicators in a police department, allowing us to uncover the depth of situational and operational nuance that lies below superficial macro indicators. For example, one of the common indicators cited in academia as an indicator of potential implicit bias in a police department is the racial distribution of individuals stopped for traffic violations as compared to racial distribution of the general population. We have successfully worked with other agencies to move beyond this metric in attempt to clarify the reality, and necessity, of proactive and responsive policing by developing a clear picture of all correlating factors. The table to the right summarizes some of the key measures that we propose to evaluate alongside aggregate population demographics.

As part of the Illumination Project Strategic Plan, CPD has begun the process of collecting over 80 discrete performance measures. Our analytical process will use the data collected through the Illumination Project as a core data set in our geostatistical and regression

Key measures that we would evaluate alongside aggregate population demographics

Aggregate Metric	Data Set Tested for Correlation	Insight Gained
Officer initiated Traffic Stops	Racial, ethnic, and gender distribution by population – permanent and adjusted daytime	How does the distribution of traffic stops compare to aggregate population demographics?
	Racial, ethnic, and gender distribution by census block	How does the distribution of traffic stops compare to population demographics in the specific geographic area of the traffic stop?
	Number, type, and geographic distribution of reported crimes by severity of crime (e.g., Part 1, Part 2, etc.)	How do traffic stops correlate to proactive policing requirements associated with effective response to crime by severity of crime?
	Demographics characteristics of perpetrator descriptions in crime reports	Do traffic stops correlate with active searches for individuals, victims, or suspects
	Distribution of traffic stops by police unit (patrol, VICE/Street Crimes, Investigations) as compared to aggregate and census block population demographics	Does the distribution of traffic stops correlate strongly to active investigations?

analysis. This will allow us to clearly articulate the full operational requirements of policing in Charleston and to partner with the City to complete a gap analysis that integrates that reality and the expectations and experience of the community.

During the gap analysis, if our team identifies immediate improvements that can be made in data quality, gathering, and integration, we will provide a detailed assessment and assist with implementing the improvements if desired. We can also facilitate the CPD's goal of increasing transparency by implementing solutions to present visualized and summarized event

data to the public through the CPD Police 2 Citizen website.

SOLUTIONS

The final step in our methodology is to work collaboratively and constructively with the City and the Police Department to develop a practical, measurable series of initiatives that serves to address any issues or opportunities clarified through the analytical process. Just as importantly, we will work to identify the strengths of the Police Department and to ensure that the factors which support those strengths continue to receive dedicated attention and priority. The outcome of this effort will serve as an action plan that can be pre-

sented to the community and serve as a rubric for ongoing feedback, dialogue, and success.

The Novak Consulting Group recently applied this nuanced analytical approach to test accusations of bias in Boulder, Colorado. In January of 2016, the City of Boulder contracted with The Novak Consulting Group to review an analysis completed on behalf of the Denver-based Homeless Advocacy Policy Project (HAPP). HAPP had submitted an open records request to the City regarding municipal citations for illegal camping in the City limits. Their analysis concluded that the Boulder Police Department was unfairly targeting the homeless in its use of the camping ban. While HAPP's analysis was factually accurate in stating that the City of Boulder issued more violations for camping violations than other Front Range communities, The Novak Consulting Group identified a number of questionable conclusions that unfairly characterized the City of Boulder in this report.

1) The presentation of the data did not compare the broader programmatic approaches to the issue of homelessness employed in each community. The analysis did not compare data regarding the services offered by each community, service referrals, or the enforcement approach employed in each community for issues of ordinance violations within the homeless population.

2) For many criminal or ordinance violations, it is reasonable to expect citation statistics to be representative of a community's

demographics. However, this is not the case with all ordinances. For example, citations for a failure to maintain working exit signs will be primarily attributable to business owners. This does not imply that business owners are "disproportionately" targeted for enforcement. This is also the case with the camping ban citations. In the case of camping ban citations, the homeless population is far more likely to camp outside of designated areas than other segments of the population because people with access to housing, or on holiday, do not have pressing need to camp in areas not designated for camping. To justify the statement that the City of Boulder "disproportionately" targets the homeless population, HAPP would need to demonstrate evidence that the non-homeless population is regularly camping illegally and that enforcement is not occurring in that population. HAPP has not provided such evidence.

The Novak Consulting Group's analysis noted that the issue of homelessness is a sensitive one for any community, and the policy discussion regarding how to approach that issue may be a legitimate topic for discussion. However, HAPP's analysis did not justify initiating that policy discussion on the basis of a pre-existing pattern of targeted enforcement directed at the homeless population.

Similar thought needs to be taken into consideration when looking for potential police bias with other populations. As the City of Charleston explores the question of police bias, the intent of the anal-

ysis needs to be carefully balanced with conclusions being shared. We would be working **with** the City to understand **if** patterns exist that suggest bias, and at the same time looking at why those patterns exist. In reviewing citations, it will be important to analyze the citation locations and compare the mapped data against demographic data so that housing and density can be taken into consideration.

Existing data should be gathered to form a baseline of what is known to be true today. Evolving best practices for data collection that help communities understand and identify if bias exists need to be put in place and used as a management tool to help officers police the community in a way that is consistent with community values.

As police departments across the country are taking a hard look at how they are policing their community, there are new trends in what officers are being asked to track in order to understand individual and collective efforts to keep the community safe. Critical data points include tracking demographic information for all traffic stops, regardless of whether or not citations were issued, tracking field interview demographics, and action information for interactions.

In using available data to help the Charleston Police Department understand if bias exists and how it is manifested, it will be important to balance hard data analysis with qualitative information. This may include:

- Identifying a "line" for speeding citations where anything "over"

that line is widely agreed nondiscretionary (for example, anyone would write a ticket for someone going 40 mph in a 25 mph zone) and anything under that "line" is discretionary. We would interview officers and supervisors to understand the community culture around speeding tolerance and identify if there is such a line, then review citation patterns for that discrete group of citations – and compare the geocodes of the citations with demographic patterns city-wide and within the immediate census block.

- Conducting focus groups with community groups who represent the general public as well as members of the Illumination Project Steering Committee
- Conducting focus groups with individuals who have had recent interactions with the department (invite people who have received citations to come and share experiences)
- Conducting focus groups with police officers to understand the pressures they are facing in protecting and serving their community

A holistic look at the "facts" and the "perceptions" will allow the City to identify the best steps forward to build mutually trusting relationships between citizens and police in the Charleston community.

POLICE DEPARTMENT ENGAGEMENTS

The Novak Consulting Group has extensive experience working with police departments across the country. The following is a list of some of the most recent communities within which we have worked.

- Carbondale, IL
- Charlottesville, VA
- Clayton, MO
- Clearcreek Township, OH
- Cleveland Heights, OH
- Edina, MN
- Farrell, PA
- Franklin County, MA
- Hastings, NE
- La Plata County, CO
- Long Beach Transit Authority, CA
- Munster, IN
- Mt. Rainier, MD
- Oberlin, OH
- Pioneer Valley Planning Commission, MA
- St. Marys, PA

KEY TEAM MEMBERS

OUR PROJECT TEAM IS MADE UP OF SENIOR-LEVEL CONSULTANTS WITH DIRECT LOCAL GOVERNMENT EXPERIENCE. WHAT SETS OUR PROJECT TEAM APART IS OUR ABILITY TO EXPLORE AND RELATE TO LOCAL COMMUNITY VALUES WHILE AT THE SAME TIME INVESTIGATING REALISTIC APPROACHES FOR COST-EFFECTIVE SOLUTIONS.



**JULIA
NOVAK**

*Project Director
President, Novak*

Julia has worked in and around local governments for over twenty-five years – 16 years in direct service to local governments and 13 years as a full-time consultant. She founded The Novak Consulting Group in 2009. As a professional consultant she has led engagements in communities of all sizes covering the full spectrum of local government services. She has facilitated more than 100 retreats and strategic planning sessions with elected officials and is an established thought leader in the area of governance and management. During her local government career, she worked in Fort Collins, Colorado; Lexington, Massachusetts; Rockville, Maryland; and was city manager of Rye, New York. Julia earned a bachelor's degree in government and politics from George Mason University and a master's degree in public administration from the University of Kansas. Julia was in the first class of individuals certified by ICMA as Credentialed Local Government Managers and maintains that designation.



**MICHELLE
FERGUSON**

*Project Manager
/ Continuous
Improvement,
Data Analytics,
& Operational
Assessment Teams
Organizational
Assessment Practice
Leader, Novak*

Michelle has over 20 years of local government management experience, both as a consultant and in direct service to some of the leading local governments in the country. As a consultant, Michelle has completed detailed organizational reviews of entire jurisdictions and recommended improvements to structure, staffing, and processes within departments across the country. She has provided customized training in the development and use of performance measures to assist numerous organizations continuously improve service delivery. Additionally, Michelle is also a skilled facilitator, able to bring diverse groups of people together to articulate shared visions and priorities. She has lead strategic planning engagements at the community, organizational, and department levels, and she has facilitated numerous staff and governing body retreats.



BILL CONNORS

**Operational
Assessment Team**
Police Specialist, Novak

Bill has 35 years of public safety experience, most recently as the police commissioner in Rye, New York from 2001 through 2013. He also served as the city's emergency management coordinator. Prior to Rye, Bill completed a 20-year career with the New York City Police Department. Bill has a unique background that includes high level field and administrative work in both large urban and small suburban agencies. He has provided consulting services for more than twenty municipalities in ten states and is sought after because of his keen insight and outstanding reputation as a public safety professional.



JONATHAN INGRAM

**Operational
Assessment Team**
Associate, Novak

Jon has over eight years of consulting experience and has developed an expertise in operational and staffing analysis. He joined The Novak Consulting Group in January 2012, having most recently served as a budget manager for the City of Cincinnati, Ohio. In addition to providing expert financial analysis, Jon has conducted numerous reviews of organizations while serving as a consultant. He is adept at evaluating business problems with equal consideration given to both cost and quality of service.



HALEY KADISH

Project Support Team
Associate, Novak

Haley has six years of government and consulting experience that inform her work as an analyst. She provides our project teams with a variety of staffing and operations analyses, researches best practices, and develops performance measures at the department, organizational, and community level. Prior to joining The Novak Consulting Group, Haley served as an ICMA Local Government Management Fellow in Catawba County, North Carolina where she improved the talent recruitment and selection process, developed departmental performance measures, assisted in the development and implementation of a community food sustainability plan, and improved operations by researching and analyzing options for special projects throughout the county.



JOSH RAUCH

Project Support Team
Associate, Novak

Josh has seven years of consulting and government experience involving a wide variety of organizational and operational analysis. Prior to joining The Novak Consulting Group in December 2014, he served as deputy economic development administrator for the City of Springfield, Ohio. In addition to his background in economic development, Josh has significant experience in community engagement efforts and property maintenance code enforcement.



KEITH READLING, PE

Data Analytics Team
*Executive Vice
President, RFC*

Keith has 30 years of experience in municipal infrastructure management and civil engineering. Keith has consulted with many of the largest and most complex drainage/stormwater utilities in the U.S. and is one of the foremost authorities in the country regarding management programs, data systems, and business process optimization for local government environmental services. He has provided management and data systems consulting to 41 drainage and stormwater utilities in 14 states and a number of municipal solid waste service organizations. Keith is a data-systems subject matter expert in the areas of non-metered billing and collections with emphasis on connectivity to geographic systems. Keith is a Past President of the North Carolina Chapter of the American Public Works Association and a registered Professional Engineer with a Bachelor of Science Degree in Civil Engineering from North Carolina State University.



CHRIS MCPHEE

Data Analytics Team
*Director of Data
Services, RFC*

Chris is a subject matter expert in the fields of application development and geospatial analysis in support of local government public service delivery analysis. As a data analyst and application developer, he has experience including financial modeling, forensic analysis of spatial data, relational database development, Oracle and SQL Server programming, and desktop/web/mobile application development. His qualifications include specialized training in ESRI ArcGIS analysis and tool development, Microsoft .Net programming in the C# and VB.Net languages, web application programming in the ASP.Net language, and mobile application development for the iOS (iPhone) and Windows Phone platforms. Chris' expertise also includes large data systems integration in support of performance measurement initiatives. Chris holds Master degrees in Forestry and Geosciences.



TOWNSEND COLLINS

**Continuous
Improvement & Data
Analytics Teams**
Consultant, RFC

Townsend has extensive experience leading process improvement, organizational change management, and financial analysis initiatives for municipal utility, environmental, and public works entities. He has formal change management and continuous improvement training and experience working as an internal management consultant with Mecklenburg County Land Use and Environmental Services Agency (LUESA). LUESA provides water quality, stormwater management, building code enforcement, air quality, geo-spatial information systems (GIS), solid waste, and environmental health services. At Raftelis Townsend supports clients with performance metric identification, business analytics and performance management systems implementation. Townsend has an MPA from the University of North Carolina Charlotte and is a certified Six-Sigma Black-belt and Change Management Professional.

APPENDIX A: KEY PROJECT TEAM RESUMES

JULIA NOVAK

PROJECT DIRECTOR (President, Novak)

Julia established The Novak Consulting Group in September 2009 when she acquired Public Management Partners. From 2003 to 2009, she served as a vice president for a local government consulting firm. Julia has over 25 years of experience working with and for local governments. She is a consultant, trainer, and facilitator who worked with numerous organizations and community groups. During her local government career, she worked in Fort Collins, Colorado; Lexington, Massachusetts; Rockville, Maryland; and was city manager of Rye, New York.

Julia has extensive experience as a facilitator and trainer. She has worked with both elected and appointed officials across the country to conduct goal setting, develop strategic plans, and prioritize service delivery. She has conducted training for elected officials as an individual trainer and through the National League of Cities and a consortium of cities in California. Topics included leadership style and evaluating appointed officials.

Julia has also established herself as a thought leader in the area of governance and administration. In April 2002, Julia was one of 20 practitioners who participated in the ICMA-sponsored symposium on the future of local government administration. Her response to Dr. James Svara's paper, "City Council, Roles, Performance, and the Form of Government," is included in the ICMA-published book, "The Future of Local Government Administration." Public Management Magazine has published multiple articles which she authored and co-authored, including "Preparing Councils for Their Work," co-authored with Dr. John Nalbandian; "Permission to Manage" which discusses the importance of using data to manage local governments; "Dreams That Make a Difference" on the value of community based strategic planning; "Civility" and most recently "Using Data in Police Management." In 2010, Julia served as a trainer for a USAID Initiative in Baghdad, Iraq to develop the capacity of local advisors and councils in Iraq to engage in strategic planning, project management, policy analysis, and policy advocacy.

In 2000, the International City/County Management Association (ICMA) awarded Julia its Assistant's Excellence in Leadership Award for her work in building community and increasing organizational capacity as deputy city manager of Rockville, Maryland.

Julia has been a speaker at national conferences for the ICMA, National League of Cities, and American Society of Public Administrators. She has been a featured speaker/trainer for many state associations, including Ohio, Vermont, Connecticut, New Hampshire, Pennsylvania, North Carolina, the Metropolitan (D.C.) Association of Local Government Administrators and the Illinois Assistant Municipal Managers Association.

Julia earned a bachelor's degree in government and politics from George Mason University and a master's degree in public administration from the University of Kansas. Julia was in the first class of individuals certified by ICMA as Credentialed Local Government Managers, and maintains that designation. Julia is a Master Facilitator of the popular Myers-Briggs Personality Type Indicator, and is certified to administer several other Level B psychological assessments, Apter Motivational Styles Profile, and the Strength Deployment Inventory. She also is trained in popular level-A assessments, including the Thomas-Killman Conflict Modes Inventory and the Human Element-B.

EDUCATION

- » Master of Public Administration, University of Kansas
- » Bachelor of Arts, George Mason University

PROFESSIONAL CERTIFICATIONS

- » Certified Professional Manager, International City/County Management Association
- » Master Facilitator, The Myers-Briggs Personality Type Indicator

INDUSTRY TENURE

- » 29 years
- » Consulting, 13 years
- » Local Government, 16 years

MICHELLE FERGUSON

PROJECT MANAGER / CONTINUOUS IMPROVEMENT, DATA ANALYTICS, & OPERATIONAL ASSESSMENT TEAMS

(Organizational Assessment Practice Leader, Novak)

Michelle has over 20 years of management experience in local government, and she currently serves as the organizational assessment practice leader for The Novak Consulting Group, having been with the firm since its inception.

Michelle began her consulting career in 2005 following 10 years of direct experience in local government management, which included serving as assistant county manager in Arlington County, Virginia.

Michelle excels at helping local governments continuously improve their organizations and enhance service to the public. She is skilled in project management, process improvement strategies, performance measurement, consent building, and public process design.

As organizational assessment practice leader, Michelle has completed detailed organizational reviews of entire jurisdictions and recommended improvements to structure, staffing, and processes within departments across the country. Specific department reviews have included development review, parks and recreation, public works, human services, human resources, capital budgeting, and collections. Additionally, she has provided customized training in the development and use of performance measures to assist numerous organizations continuously improve service delivery.

Michelle is also a skilled facilitator, able to bring diverse groups of people together to articulate shared visions and priorities. She has lead strategic planning engagements at the community, organizational, and department levels, and she has facilitated numerous staff and governing body retreats.

During her tenure with Arlington County, Michelle oversaw the daily management and implementation of the County's capital program. She also led the organization-wide performance measurement initiative establishing their Balanced Scorecard. Prior to Arlington County, Michelle served as assistant city manager in Overland Park, Kansas.

Michelle earned a bachelor's degree in political science from Loyola University-Chicago and a master's degree in public administration from the University of Kansas. She is a member of the International City/County Management Association. She also served as the president of the Metropolitan Association of Local Government Assistants in Washington, D.C and has presented at state and national conferences on topics such as strategic planning, effective governing bodies, and council-staff relations.

EDUCATION

- » Master of Public Administration, University of Kansas
- » Bachelor of Arts, Loyola University - Chicago

INDUSTRY TENURE

- » 20 years
- » Consulting, 11 years

BILL CONNORS

OPERATIONAL ASSESSMENT TEAM

(Public Safety Specialist, Novak)

Bill has more than 33 years of experience in policing, 29 of which have been in supervisory and managerial capacities.

Following a 20-year career with the New York City Police Department, Bill retired from the department at the rank of inspector, assigned as the executive officer of the Office of the First Deputy Commissioner. That office directed the administrative and support functions of the department, including personnel, labor relations, training, discipline, budget, and quality assurance. He served as commanding officer of the 52nd Precinct and the Domestic Violence Unit, as well as in the Office of the Chief of Patrol; the Office of Labor Relations; Patrol Borough Manhattan North; and several precincts.

Most recently, Bill was the police commissioner of the City of Rye, New York from 2001 through 2013. He also served as the city's emergency management coordinator.

As a consultant, Bill has worked on projects with police departments across the nation, in such diverse areas as Reading, Harrisburg, Hazleton, St. Marys, and Ford City Borough, Pennsylvania; Fredericksburg, Virginia; Gilroy, California; Norman, Oklahoma; Cleveland Heights and Oberlin, Ohio; Hastings, Nebraska; Munster, Indiana; Windsor, Connecticut; Williamsburg, Chesterfield, Deerfield, Whately, and Sunderland, Massachusetts.

Bill is a graduate of the Police Management Institute of the Columbia University Graduate School of Business and of the Federal Bureau of Investigation's Law Enforcement Executive Development Seminar. He has served on boards and committees of several community and professional organizations, including the International Association of Chiefs of Police and the Westchester County Association of Chiefs of Police.

Bill received the degree of Juris Doctor from New York Law School and his bachelor's degree from Fordham University. He is admitted to the practice of law in the state and federal courts of New York and New Jersey, as well as the Supreme Court of the United States.

EDUCATION

- » Juris Doctor, New York Law School
- » Bachelor of Arts, Fordham University

INDUSTRY TENURE

- » 35 years
- » Consulting, 10 years
- » Local Government, 33 years

JONATHAN INGRAM

OPERATIONAL ASSESSMENT TEAM

(Associate, Novak)

Jon has over 12 years of experience in management consulting and local government management, most recently as budget manager in the City of Cincinnati, Ohio budget office. Prior to that, Jonathan served as a management consultant and worked in the city manager's office for the City of Highland Park, Illinois.

Jon is a skilled financial analyst in the areas of budget and revenue analysis. Additionally, he has extensive experience as a management and operations consultant to local governments in the United States and abroad.

As a consultant, Jon has completed operations reviews for multiple local governments and has helped to improve service delivery for a broad range of departments – from police to public works. He has developed staffing and deployment plans for city operating departments, analyzed and facilitated intergovernmental consolidations, helped local governments develop custom performance management systems, and facilitated the development of long-term strategic plans.

Jon's expertise is in local government budgeting and finance, operations analysis, project management, public safety staffing analysis, process improvement, and performance measurement. He is adept at evaluating business problems with equal consideration given to both cost and quality of service.

During his tenure with the City of Cincinnati, Jon managed the development and administration of a \$1 billion operating budget. In addition, he conducted special analysis projects, served on the City's collective bargaining team, and co-managed the implementation of an enterprise budget system.

Jon earned a bachelor's degree in political science from Aurora University and a master's degree in public administration from Northern Illinois University. He is a member of the International City/County Management Association and the Ohio City/County Management Association.

EDUCATION

- » Master of Public Administration, Northern Illinois University
- » Bachelor of Art, Aurora University

INDUSTRY TENURE

- » 12 years
- » Consulting, 8 years
- » Local Government, 4 years

HALEY KADISH

PROJECT SUPPORT TEAM

(Analyst, Novak)

Haley has six years of government and consulting experience that inform her work as an analyst. She provides our project teams with a variety of staffing and operations analyses, including workload and scheduling evaluations as well as staffing assessments. She also researches best practices and develops performance measures at the department, organizational, and community level.

Prior to joining The Novak Consulting Group, Haley served as an ICMA Local Government Management Fellow in Catawba County, North Carolina. As a Fellow, she improved the talent recruitment and selection process and developed departmental performance measures. She also assisted in the development and implementation of a community food sustainability plan and improved operations by researching and analyzing options for special projects throughout the County.

Haley started her career in the private sector as a virtual solutions subject matter expert for Procter & Gamble. During her tenure, she led a global team and launched and managed virtual consumer research services in multiple product categories.

While in graduate school at The Ohio State University, Haley served the Franklin County, Ohio Child Support Enforcement Agency as a program analysis intern. She also served as a public affairs intern for the U.S. State Department in Zambia.

Haley earned a bachelor's degree in business administration from University of Texas at Austin and a master's degree in public administration from Ohio State University. She is a member of the International City/County Management Association. Haley is an accomplished artist whose analytic and technical skills are complemented by her design skills.

EDUCATION

- » Master of Public Administration, Ohio State University
- » Bachelor of Art, University of Texas, Austin

INDUSTRY TENURE

- » Consulting, 3 years
- » Local Government, 3 years

JOSH RAUCH

PROJECT SUPPORT TEAM

(Analyst, Novak)

Josh has experience in several local government settings, most recently with the Economic Development Division of the City of Springfield, Ohio. While there, he assisted with business retention and expansion activities, provided staff support for tax incentive negotiations and reporting, and helped develop the City's marketing strategy.

Josh began his career as an undergraduate intern with the City of Dayton, Ohio. He organized community engagement events for young adults working in Dayton over the summer months. He built on this experience during graduate school when he began working for the City of Mission, Kansas. There he helped coordinate a variety of community events, including public budget hearings, community input sessions, and a successful attempt to set the Guinness World Record for the Largest Painting Made with Footprints. He also managed the City's property maintenance code enforcement program and neighborhood assistance programs.

Aside from community engagement activities, Josh has helped formulate, implement, and administer new policies and programs related to transportation funding, social media engagement, code enforcement and neighborhood assistance, information technology, sustainability planning, and performance measurement.

As a consultant, Josh has provided analytical support for organizational and operational reviews involving a wide array of functions, including fire staffing, human resources, economic development, public works, information technology, and administration.

Josh earned a bachelor's degree from the University of Dayton and a master's degree in public administration from the University of Kansas. He is a member of the International City/County Management Association.

EDUCATION

- » Master of Public Administration, University of Kansas
- » Bachelor of Arts, Political Science, University of Dayton

INDUSTRY TENURE

- » Consulting, 1 year
- » Local Government, 6 years

KEITH READLING, PE

DATA ANALYTICS TEAM

(Executive Vice President, RFC)

Keith has 31 years of experience in municipal infrastructure management and civil engineering.

As an executive and the leader of RFC's Stormwater Management Consulting Division, Keith has broad responsibilities for service delivery to clients across the U.S., with a particular focus on program and financial planning, stormwater utility, and enterprise fund data and systems development for local governments.

Keith has consulted with many of the largest and most complex drainage/stormwater utilities in the U.S. and is one of the foremost authorities in the country regarding management programs, data systems, and business process optimization for local government environmental services. He has provided management and data systems consulting to 41 drainage and stormwater utilities in 14 states, as well as to a number of municipal solid waste service organizations. Keith is a data-systems subject matter expert in the areas of non-metered billing and collections with emphasis on connectivity to geographic systems.

Keith's other technical expertise includes water resources and civil engineering planning, analysis, graphical and non-graphical database development and management, and environmental and regulatory compliance efforts. He is experienced in all aspects of implementing municipal stormwater management programs, from strategic planning and regulatory compliance services, to database architecture and customer service support systems. As a consultant, Keith has worked in diverse communities across the country, including Charlotte, NC, New Orleans, LA, Philadelphia, PA, Dallas, TX, Beaufort County, SC, and Atlanta, GA.

Keith is a Past President of the North Carolina Chapter of the American Public Works Association and a registered Professional Engineer with a Bachelor of Science Degree in Civil Engineering from North Carolina State University.

EDUCATION

» Bachelor of Science in Civil Engineering, North Carolina State University

INDUSTRY TENURE

» Consulting, 32 years

CHRIS MCPHEE

DATA ANALYTICS TEAM

(Director of Data Services, RFC)

Chris has nine years of expertise, and is a subject matter expert in the fields of application development and geospatial analysis in support of local government public service delivery analysis.

As a data analyst and application developer, Chris has experience including financial modeling, forensic analysis of spatial data, relational database development, Oracle and SQL Server programming, and desktop/web/mobile application development. His qualifications include specialized training in ESRI ArcGIS analysis and tool development, Microsoft .Net programming in the C# and VB.Net languages, web application programming in the ASP.Net language, and mobile application development for the iOS (iPhone) and Windows Phone platforms. Chris' expertise also includes large data systems integration in support of performance measurement initiatives.

Chris is well versed in the entire lifecycle of stormwater utility development including feasibility studies, implementation, customer service, data maintenance, and process improvement. He is also familiar with water, wastewater, and solid waste financial modeling including cost of service studies, rate structure design, affordability and impact analyses, and billing system best management practices.

Chris' data analytic and application development skills have been fully utilized in support of projects in Baltimore, MD, Philadelphia, PA, Dallas, TX, New York City, NY, Washington DC, New Orleans, LA, and Jackson, MS.

Chris holds a bachelor's of arts in environmental studies from Yale University and master's degrees in Forestry and Geosciences from Duke University and the University of Arizona, respectively.

EDUCATION

- » Master of Forestry, Duke University
- » Master of Science, University of Arizona
- » Bachelor of Arts, Yale University

INDUSTRY TENURE

- » Consulting, 8 years

TOWNSEND COLLINS

CONTINUOUS IMPROVEMENT AND DATA ANALYTICS TEAMS (Consultant, RFC)

Mr. Collins has 8 years of experience leading process improvement, organizational change management, and financial analysis initiatives for municipal utility, environmental, and public works entities. He combines extensive experience working with Mecklenburg County Land Use and Environmental Services Agency (LUESA), an organization that provides water quality, stormwater management, building code enforcement, air quality, geo-spatial information systems (GIS), solid waste, and environmental health services, as an internal management consultant, and more recent experience as a management consultant with Raftelis Financial Consultants, to provide clients with a compelling blend of organizational understanding and analytical expertise.

Examples of Mr. Collins' background and experience, as well examples of his most significant organizational and client successes include:

- Successfully facilitated creation, formalization, and implementation of an intentional performance management program for Montgomery County Environmental Services, where prior to collaboration with RFC, performance management was decentralized.
- Managed all ongoing and annual performance management initiatives for LUESA, a fee-funded agency with a \$50 million budget serving a population of over 1,00,000 people, and successfully transitioned LUESA from a Balanced Scorecard performance management framework to a novel, County-developed performance management and service evaluation structure.
- Facilitated and implemented numerous data driven process improvement projects on behalf of LUESA and County leadership to meet strategic objectives and improve operational efficiency. Project outcomes yielded streamlined processes, improved employee buy-in, and increased customer satisfaction.

Mr. Collins seeks client engagements where real opportunities exist for organizational continuous improvement. Improvement opportunities with municipal partners provide Mr. Collins an environment where he can apply a dynamic mixture of education, training, and experience in public administration and continuous improvement with effective analytical skills and a keen understanding of how municipal organizations truly operate. Mr. Collins' dynamic specialties include: performance indicators, program and service evaluation, process improvement, benchmarking, data analytics, and modelling and forecasting.

EDUCATION

- » Master of Public Administration, Urban Management and Policy concentration and Emergency Management concentration – University of North Carolina at Charlotte (2010); Bachelor of Arts in Political Science – University of Tennessee (2008)

PROFESSIONAL CERTIFICATIONS

- » Certified Lean Six Sigma Black Belt (2016)
- » Prosci® Change Management Certification (2014)
- » Certified Six Sigma Green Belt (2012)
- » Certified Lean Six Sigma Yellow Belt (2012)

INDUSTRY TENURE

- » Consulting, 3 years
- » Local Government, 4 years