ACHIEVEMENT AWARDS

APPLICATION FORM

All applications must include the following information. Separate applications must be submitted for each eligible program. **Deadline: June 3, 2019.** Please include this application form with electronic entry.
If you do not receive an email confirming receipt of your entry within 3 days of submission, please contact Gage Harter.

PROGRAM INFORMATION

County: _____

Program Title: _____

Program Category: _____

CONTACT INFORMATION

Name: _____

Title: _____

Department: _____

Telephone: _____ **Website:** _____

Email: _____

SIGNATURE OF COUNTY ADMINISTRATOR OR DEPUTY/ASSISTANT COUNTY ADMINISTRATOR

Name: _____

Title: _____

Signature: _____

Program Title: Medallion

Executive Summary

The Medallion Program enhances capital improvement planning and targets service delivery in Health and Human Services (HHS) within Fairfax County. This compilation of web mapping applications provides for the first time, consistent, detailed, sub-county level data for HHS staff to analyze how environmental conditions impact service demands for specified communities. The Medallion Program transforms disparate data into actionable information. It also provides a common dataset to support collaboration and coordination with the Department of Planning and Zoning (DPZ) to foster improvements in the design phase and better define infrastructure needs based on demographic, economic, and other social characteristics.

With the Medallion tool, HHS staff, as well as non-profits and the general public, can view the aggregated data geographically by supervisor district, ZIP Code, or elementary, middle or high school boundaries, helping to quickly answer questions such as:

- Which areas of Fairfax County have a greater concentration of pre-Kindergarten students that may need additional early childhood education services?

- Do the locations of existing senior centers align with where county citizens aged 65 and older live?

As a result, the detailed data enables more targeted and granular decision-making to better use limited resources. The Medallion web mapping applications can be viewed at:

https://www.fairfaxcounty.gov/health-humanservices/medallion.

Program Overview

The Office of Strategy Management for Health & Human Services (OSM) has increased use of data for planning and decision-making by county staff in the past year. The Medallion Program, a compilation of interactive web mapping applications, furthers this cause by providing the users, including the public, with tools designed to filter and visualize demographic variables in Fairfax County. The assortment of data within the applications provides a good snapshot of neighborhoods and other logical delivery areas for a wide variety of human services, making it is easier to make better informed decisions for Fairfax County as a whole. With the Medallion tool, HHS staff, as well as non-profits and the general public, can view the aggregated data geographically and quickly answer questions such as:

> Which areas of Fairfax County have a greater concentration of pre-Kindergarten students that may need additional early childhood education services?

The data contained in the Medallion applications was created using Esri's Business Analyst Desktop. The data comes from Esri's Updated Demographics, the American Community Survey (ACS) 5-year estimates, and the Virginia Department of Education. The Medallion mapping applications are organized into three primary categories: Demographics, Income, and Health. The Demographics applications contain variables related to age (0-4 years, 5-19 years and 65+ years) and race (White, Black/African American, Asian, Multiple Race/Other and Hispanic). The Income applications contain variables related to income, free and reduced price lunch, food stamps/SNAP recipients, and burdened renters (rent more than 30% of monthly income). The Health applications contain variables related to households with a disability and people without health insurance.

Esri's Business Analyst software has the capability of aggregating data to custom geographies, allowing data to be more specific and tailored for planning purposes. All variables, except for free and reduced price lunch, were aggregated to five different county specific geographies: elementary school

attendance area, middle school attendance area, high school attendance area, ZIP Codes, and supervisor districts. The free and reduced price lunch variable is available by the school attendance areas for elementary school, middle school, and high school.

The objective of the Medallion Program is to make highly detailed demographic data readily available at the sub-county level, create custom geographies that inform other planning efforts to include Fairfax County districts and school boundaries, inform capital improvement efforts for greatest effect, and provide an interactive mapping component to create an agile tool available to the public.

The Problem or Need for the Program

Fairfax County HHS faces the growing challenge of delivering more services with limited funds. The ability to provide detailed data for planning and decision-making to guide the allocation of limited resources is critical in a highly diverse and dynamic jurisdiction like Fairfax County. Data must be used across a range of programs and thus be in a readily usable standard format with sufficient granularity to analyze a range of geographic and social needs. Historically, time consuming, ad-hoc data research and analysis efforts were required, hindering the timely inclusion of strategic information from HHS. Medallion uses demographic, health, and income data to create information and better align critical service investments in communities with the greatest need.

How the Program Fulfilled Awards Criteria

The Medallion Program meets all three of the outlined criteria by offering an innovative solution to the need for data in order to make informed decisions regarding planning and the allocation of limited resources, promoting intergovernmental cooperation, collaboration, and coordination in addressing shared problems, as well as providing a model that other local governments can learn from or implement in their localities.

Prior to the creation of this program, Fairfax County did not have data to support sub-county community analysis from a HHS perspective using relevant local geographies to optimize planning efforts. Medallion fills a critical gap in the availability of data to support the delivery of HHS services, and the value of the data from Medallion has been quickly realized. As a result, staff are actively identifying ways to standardize and incorporate the use of the customized data in upcoming projects.

The existence of Medallion has benefitted all partners, not only as a planning tool, but as a catalyst in the creation of opportunities to collaborate and improve outcomes in other areas of work, including planning and construction. Increased cross-agency engagement strengthened the relationship among many agencies, including DPZ, the Department of Neighborhood & Community Services (NCS), and the Department of Family Services (DFS). In addition, a better understanding of each other's work has increased collaboration between OSM and the county's GIS division to improve the depiction of community trends and challenges and better demonstrate the use of disaggregated data. Furthermore, public engagement using this data will increase the effectiveness of public policy making by providing deeper understanding of needs and challenges to policy makers and residents as well as increasing opportunity to inform how resources will be used.

The Medallion Program can also serve as a model for other jurisdictions, as it is easily replicable, is applicable to all localities, and all components are public facing and sourced.

How the Program Was Carried Out

The planning for Medallion began in late 2016 with discussions between the Division of Countywide Service Integration and Planning Management (CSIPM, now the Data Analytics unit of OSM) and the Department of Information Technology's GIS Division (GIS). CSIPM identified an initial set of data indicators to be used and worked with GIS to formulate a plan to customize the mapping of the data according to Fairfax County-specific geographies using Esri's Business Analyst software. By 2017, the

data and mapping elements had been established and finalized, and project staff began work on a public-facing application to eventually make the program available to a wider audience.

Using Esri's Business Analyst, GIS aggregated census-based data related to demographics and income as well as other variables of interest to HHS. From a HHS perspective, census data at the census tract, or ZIP Code level, commonly used by HHS staff, lacked an "apples to apples" comparison with other data often used by HHS staff, such as the free and reduced price lunch data. Therefore, the data were aggregated to each of the following geographies:

- Supervisor Districts

- ZIP Codes

- Elementary School Attendance Areas

- High School Attendance Areas

- Middle School Attendance Areas

The Medallion Program mapping applications are organized into three primary categories with associated variables:

- Demographics: Age, race/ethnicity

- Income: Income, free and reduced price lunch, food Stamp/SNAP recipients, and burdened renters

- Health: Households with at least one person with a disability and population (age 18-64) without health insurance

Each of the three primary categories has its own interactive map gallery where each individual variable has its own mapping application. Each application includes certain tools to increase functionality, including layers, pop-up window, attribute table, filter and print. Layers allow the user to turn on and off the data they want to visually see on the map, such as the Percent Asian Population by geography. The

pop-up window displays additional information specific to the selected geography, such as the Asian population in a certain ZIP Code. The attribute table allows the user to see the data in a table at the bottom of the screen. There is also a feature to export the selected data set in the attribute table to a comma-separated values (CSV) file. The filter function allows the user to filter the data in the application based on chosen criteria, for example, the population age 0-4 by elementary school that is greater than 8%. Users can filter based on one or multiple variables. The print function allows the user to create a PDF, JPG or PNG file and print the map they create, including a legend and customized map title. The exported or printed maps could then be used to support planning efforts such as a supplement in reports, presentations or grant applications.

In addition to the individual variable mapping applications, there is also one mapping application per primary category that brings together all the individual variables within that category. For example, 2018 Demographics includes data for all eight of the demographic variables. This allows for the use of another tool, query. The query tool creates a new layer in the map based on the variable selections made by the user. For example, the user could have a base layer of the free and reduced price lunch by elementary school turned on, and overlay the percent burdened renter households greater than 50% by elementary school. In this way the relationship between two variables can be explored simultaneously on one map.

Like many jurisdictions across the country, Fairfax County experienced restricted budgets following the Great Recession that began in December 2007. Balancing resource constraints with the increasing need for sub-county data, Medallion was developed with internal resources and by leveraging existing partnerships. Fairfax County staff fully implemented the program with CSIPM/OSM serving as the primary project manager and GIS as the principle partner. There was no state, federal, or outside consultation support involved.

The development of Medallion utilized existing software investments by other county agencies and staff expertise within these departments. Data are stored on the county's existing internal cloud. As a result, no capital costs were incurred. The software and related data is available from Esri, a ubiquitous GIS resource across counties. The demographics tool that the county used, Esri's Business Analyst, is approximately $16,000 each year and includes both software and annually updated data.

Jurisdictions wishing to implement a similar program would need experienced mid- to senior-level GIS staff and management analyst staff comfortable working with large, complex datasets and knowledgeable about organizational challenges.

Program Results

Overall, the Medallion Program is instrumental in addressing budget constraints by streamlining practices, better informing decision-making, broadening the availability of the key data, and more efficiently using limited resources. Medallion has successfully met the needs and informed the work of other agencies and upcoming initiatives. For example, several capital improvement projects were informed, refined, and improved by integrating the data.

- Redevelopment of Northern Virginia Training Center (NVTC) site: There is a Comprehensive Plan process underway to redevelop the 78-acre former site for NVTC as a joint venture, with an eye for public use, housing opportunities, and impact to the community. Similar projects involving Original Mount Vernon High School and master planning of the county's courthouse complex are underway to leverage resources that Fairfax County already owns.

- Braddock Glen: There is space in a county-owned building that is currently unutilized. Demographics in the immediate vicinity as well as the larger general area were analyzed to identify current and future needs that could be met within the existing space.

- Alternative East County Locations: County staff are in the process of identifying permanent locations for human services provided in the eastern portion of the county that is currently in leased space. One way the data were used included comparing demographics of the current service location against the top ZIP Codes of clients utilizing services as well as identifying areas of future growth for specific sub-populations, such as seniors, to develop and refine selection criteria.

Currently, Fairfax County is undergoing a strategic planning process in which County priorities will be defined. The Medallion Program will enhance this endeavor, providing data to develop indicators and inform strategies to achieve targets. By providing this critical analysis of the county's population, this tool will also inform the work of the upcoming Health and Human Services Needs Assessment currently in development and scheduled for release in the summer of 2019.

In November of 2018, the Medallion Program was presented at the Fairfax County Health and Human Services Fall Forum to further increase the awareness and use of the applications across the county. Feedback was extremely positive, with staff from various agencies expressing an interest in immediate use of the tool for planning and program development. Due to the level of interest following this event, OSM is now in the process of developing curriculum for an in-person training for county staff in order to provide additional expertise on the full functionality and use of the interactive web mapping applications.

Additionally, this tool has successfully served several other functions since implementation. The mapping applications have increased operational efficiency by allowing county staff members and the community to access data on their own, as well as streamlined the ability of county staff to respond to specific data requests directly.

Overall, developing GIS tools to provide tailored data has allowed OSM to gain insights into available data, aid in the strategic planning for Fairfax County, and ultimately advance county operations. In each of the projects above, and others underway or in the pipeline, understanding key characteristics of the residents of the immediate neighborhood and surrounding community are critical to identify gaps and needs. By integrating the customized data, county staff can optimize service delivery and anticipate necessary changes and enhancements to best serve county residents.

MEDALLION

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Which areas of Fairfax County have a greater concentration of pre-Kindergarten students that may need additional early childhood education services (answer shown in the maps below)?

The data contained in the Medallion applications was created using Esri's Business Analyst Desktop. The data comes from Esri's Updated Demographics, the American Community Survey (ACS) 5-year estimates, and the Virginia Department of Education. The Medallion mapping applications are organized into three primary categories: Demographics, Income, and Health, each with its own set of variables, shown below. Esri's Business Analyst software has the capability of aggregating data to custom geographies, allowing data to be more specific and tailored for planning purposes. All variables, except for Free and Reduced Price Lunch, were aggregated to five different county specific geographies: elementary school attendance area, middle school attendance area, high school attendance area, ZIP codes, and supervisor districts. The Free and Reduced Price Lunch variable is available by the school attendance areas for elementary school, middle school, and high school.

Demographics
· Population Age 0-4 · Population Age 5-19 · Population Age 65+ · White Population · Black/African American Population · Asian Population · Multiple/Other Race Population · Hispanic Population ·

Health
· Households with 1+ Persons with a Disability · Age 18-64 without Health Insurance ·

Income
· Median Household Income · Households with Income under $50,000 · Households Receiving Food Stamps/SNAP · Households Below Poverty Level · Burdened Renters · Free and Reduced Price Lunch ·

Each of the three primary categories above has its own interactive map gallery where each individual variable has its own mapping application. Each application includes certain tools to increase functionality, including layers, pop up window, attribute table, filter and print. Layers allow the user to turn on and off the data they want to visually see on the map, such as the Percent Asian Population by supervisor district. The pop-up window displays additional information specific to the selected geography, such as the percent of the population age 0-4 in the Coates Elementary School attendance area shown below. The attribute table (also shown below) allows the user to see the data in a table at the bottom of the screen. There is also a feature to export the selected data set in the attribute table to a CSV file.
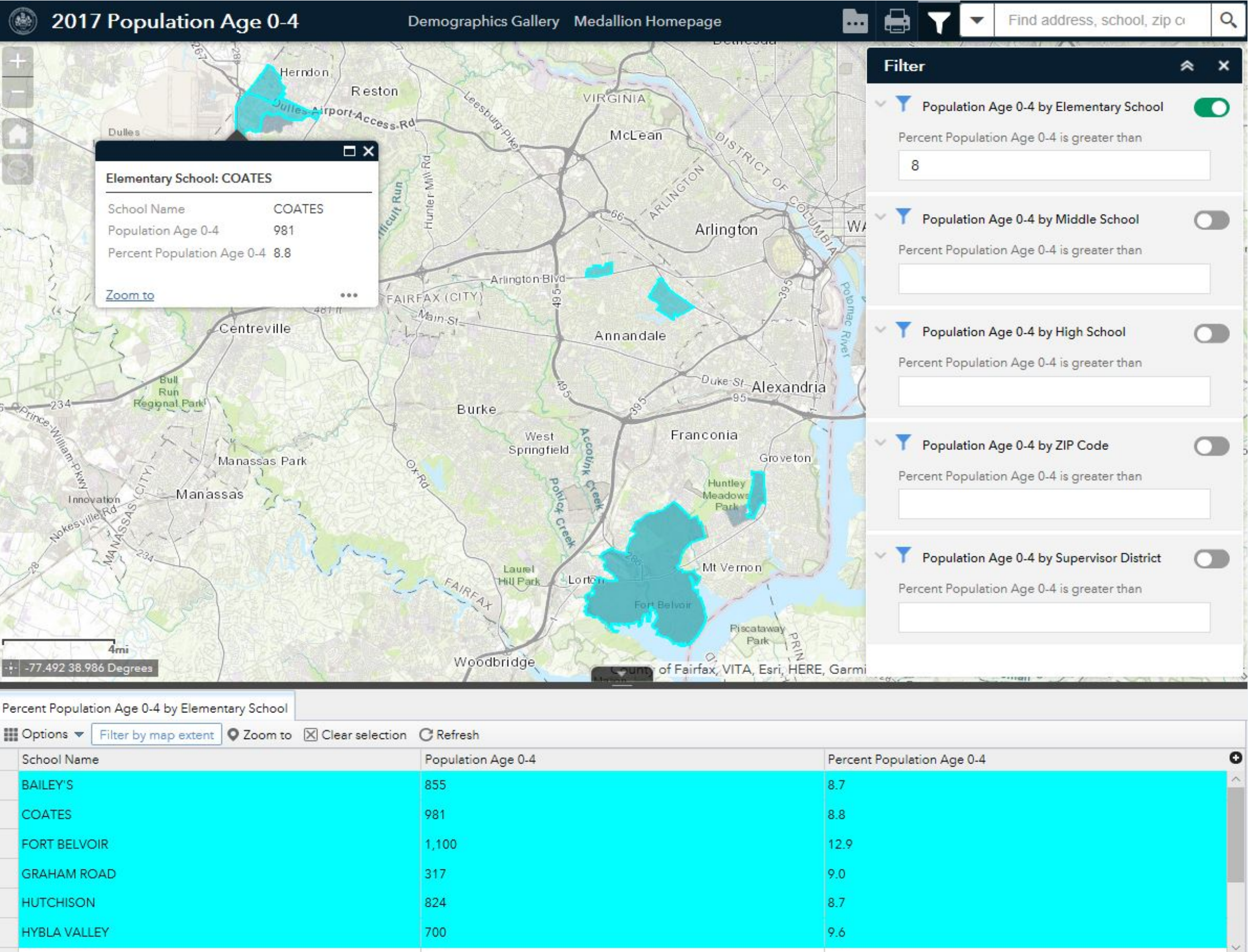
The filter function allows the user to filter the data in the application based on chosen criteria, for example, the population age 0-4 by elementary school that is greater than 8% (shown to the left). Users can filter based on one or multiple variables. The print function allows the user to create a PDF, JPG or PNG and print the map they create, including a legend and customized map title.
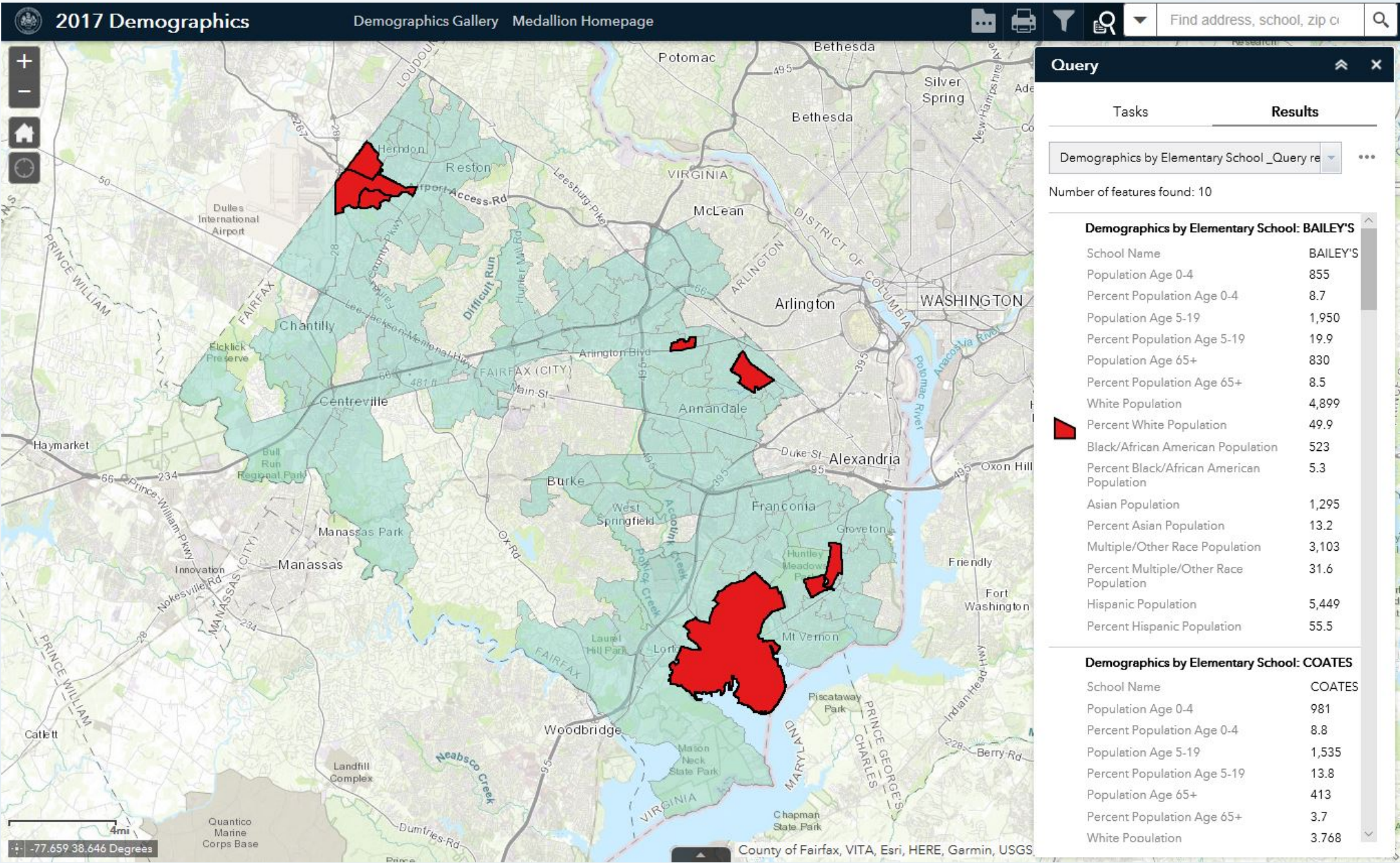
In addition to the individual variable mapping applications, there is also one mapping application per primary category that brings together all the individual variables within that category. For example, 2017 Demographics, shown in the map to the right above, which includes data for all eight of the demographic variables. This allows for the use of another tool, the query. The query tool creates a new layer in the map based on the variable selections made by the user. In the query shown in the map to the right above, the query of the percent of the population age 0-4 by elementary school attendance area that is greater than 8% is shown in red, overlaid on top of the filter of the population age 0-4 by elementary school attendance area that is greater than 5%.

https://www.fairfaxcounty.gov/health-humanservices/medallion