

Department of Neighborhood and Community Services

LOB #165:

DEMOGRAPHICS

Purpose

Demographics conducts quantitative economic and demographic research, analysis and modeling and produces Fairfax County's official small-area estimates and forecasts of population, households and housing units. It is a countywide function serving and working with every County department and authority, as well as Fairfax County Public Schools, Metropolitan Washington Council of Governments (MWCOC), Northern Virginia Regional Commission and the U.S. Census Bureau. The data and analyses produced by Demographics are used for program planning, Capital Improvement Program (CIP) planning, policy initiatives, grant writing, budgeting, revenue forecasting, performance measurement, and to help decision-makers leverage resources and align policies and programs to the County's changing needs.

Description

Demographics is a business unit in the Countywide Service Integration and Planning Management (CSIPM) division. The Demographics unit updates, maintains and runs the Integrated Life-Cycle Parcel Information System (IPLS). IPLS is a data warehouse and business intelligence tool used to integrate and summarize land use information, and generate the County's official estimates and forecasts of population, households and housing units. The information generated from IPLS is produced at the land parcel level and updated annually. The annual information produced using IPLS is summarized in the annual *Demographic Reports*. During the past year, the Demographics unit developed an existing land use application for IPLS that generates an automated existing land use layer and map. In the past existing land use maps were manually prepared taking weeks of staff time; with the IPLS application, an existing land use layer can be created in a manner of minutes. In addition, the Demographics unit produces annual information on the County's rental complex housing market and collects and summarizes local, state and federal data on Fairfax County.

The Demographics unit also conducts ad hoc economic, statistical and demographic research and analyses to support and inform County initiatives and provides technical expertise to County agencies conducting analyses. Examples of recent special studies produced by the Demographics unit include *Economic Need in Fairfax County* which was produced at the request of the County Executive's Office; and *Taking Measure of Children in Fairfax-Falls Church Families* which looks at sixteen categories that measure the well-being of the County's children. Examples of recent data visualizations and infographics produced by the Demographics unit are *For Rent*, an analysis of rental complex costs and affordability; *Housing and Population through the Decades in Fairfax County* which looks at residential growth and development since 1960; and *Household Internet Accessibility*.

Finally, the Demographics unit maintains and updates several primary venues for disseminating economic and demographic data including webpages on the County's public website, spatial layers in the GIS Fairfax DataLoader, and an ArcGIS extension application that allows users to summarize data by custom geographies. In addition, Demographics staff responds to hundreds of direct requests for information from County staff, citizens and businesses; provides economic and demographic presentations; and works as a liaison with the U.S. Census Bureau and the MWCOC Cooperative Forecasting Committee.

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Benefits

Data-driven decision making: The Demographics unit provides information that enables data driven decisions that result in informed, efficient and effective public services. The land use information and small-area estimates and forecasts produced by the Demographics unit are geographically flexible and cannot be obtained through any other source. These small-area estimates and forecasts are used as inputs in the major planning and service models.

Open data initiatives: In addition, the Demographics unit has been a leader in introducing big data and open data initiatives, making many of these initiatives available publicly through the demographic webpages. The Demographics unit's efforts in these areas were recently recognized by the National Association of Counties (NACO) when they awarded Fairfax County a first place 2015 Digital Counties Survey award.

Technical expertise: The Demographics staff serves as in-house advanced technical specialists for conducting economic, demographic and statistical research. The unit's staff is often asked to consult with other County departments and local governments conducting research, analysis and performance evaluation.

Mandates

This Line of Business is not mandated.

Trends and Challenges

Requests for data analysis: The Demographics unit continues to respond to increased demands for more sophisticated Countywide and small geographic area information requests from County planners, program grant-seekers, County officials, residents and businesses. Between FY 2013 and FY 2014, the Demographics unit was able to reduce the number of persons seeking information and/or technical assistance through direct contact with Demographics staff by 39 percent. This was accomplished by redesigning the demographics webpages, by conducting training on tools for obtaining and analyzing data, and by introducing open data tools on the public website. However between FY 2014 and FY 2015, direct contacts for help increased 12.6 percent as the Demographics staff responded directly to 170 requests for information and analysis help. In FY 2015, 78 percent of those requests came from Fairfax County staff or Fairfax County Public School staff. Continued increase in requests for data analysis may be linked to the County's continued emphasis on using data for program planning and evaluation.

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Resources

Category	FY 2014 Actual	FY 2015 Actual	FY 2016 Adopted
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FUNDING			
<u>Expenditures:</u>			
Compensation	\$306,644	\$309,823	\$292,432
Operating Expenses	61,636	43,195	26,500
Total Expenditures	\$368,280	\$353,018	\$318,932
General Fund Revenue	\$0	\$0	\$0
Net Cost/(Savings) to General Fund	\$368,280	\$353,018	\$318,932
POSITIONS			
Authorized Positions/Full-Time Equivalents (FTEs)			
<u>Positions:</u>			
Regular	3 / 3	3 / 3	3 / 3
Total Positions	3 / 3	3 / 3	3 / 3

Metrics

Metric Indicator	FY 2013 Actual	FY 2014 Actual	FY 2015 Actual	FY 2016 Estimate	FY 2017 Estimate
Number of housing units processed	409,072	409,979	411,963	414,028	417,071
Accuracy of five-year population forecast measured as absolute percent error from estimate	3.2%	3.5%	1.6%	5.0%	5.0%

The accuracy of the Demographics unit's population forecasting assumptions, methodology and model is important because the forecasts are used to plan for future facilities and programs. The Demographics unit had chosen a very aggressive stretch goal of producing five-year horizon population forecasts that fall within +/- 3 percent accuracy. For FY 2015, Demographics unit met their stretch goal. The population forecasts made in 2010 for 2015 were only 1.6 percent different than the FY 2015 population. While there are no industry standards for an acceptable error level for population forecasting, research published in 2011 by the Bureau of Economic and Business Research at Warrington College of Business Administration concluded that County-level population forecast errors of +/- 5.5 percent or less for a five-year horizon forecast could be considered a "good record of forecast accuracy." The Demographics unit will use +/- 5 percent for current and future years.