

Memorandum

TO: HONORABLE MAYOR AND
CITY COUNCIL

FROM: Jennifer A. Maguire

SUBJECT: DATA ANALYTICS EFFORTS

DATE: April 19, 2016

Approved:

D. D. S. L.

Date:

4/21/16

INFORMATION

As an accompaniment to the passage of the Smart City Vision on March 29, 2016 and the Open Data Policy on April 5, 2016, this memorandum provides additional information and context regarding the City's recent actions to leverage data in new ways to increase transparency and improve public service delivery.

BACKGROUND

As approved by the City Council, the Mayor's June Budget Message for Fiscal Year 2014-2015 established a two-person Data Analytics Team in the City Manager's Budget Office to: "(1) execute data analysis projects directly, independent from City departments; and (2) undertake a review of all City departments and their existing analytic capability." The Message also added a new staff member to the Information Technology Department to serve as the City's Open Data Architect to help link information from the City's various internal databases to the Open Data Portal (data.sanjoseca.gov) as part of the Open Data Initiative. This information memorandum briefly highlights the accomplishments and work in progress of the City Manager's Budget Office Data Analytics Team (DAT), brought onboard in May 2015, and the Information Technology Department Open Data Architect hired in January 2016.

ANALYSIS

Since May 2015, on behalf of the City Manager's Office, DAT has worked with departments to advance the City's capacity to conduct data analytics for the purposes of improving operational efficiency and public service delivery. One of the foundational elements for this goal is the City-wide inventory of data sets and the ultimate posting of those datasets to the Open Data Portal (data.sanjoseca.gov). This process not only makes the City's information more transparent to the public, it facilitates the use of data within and across departments which can help drive performance improvements. In addition, the Team is facilitating a substantial share of the implementation of the Open Data Initiative and is the lead facilitator for the City's participation in the Bloomberg Philanthropies What Works Cities Initiative (whatworkscities.bloomberg.org).

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By leveraging the City's data, the expertise of the What Works Cities partners, and the knowledge base within departments, the Team has completed projects related to code enforcement, traffic safety analyses related to Vision Zero, illegal dumping, and park maintenance. The Team has positively impacted numerous other departmental and city-wide projects and initiatives by providing advice and support on data and analytics related issues. Key contributions from the Team are discussed in further detail below.

Data Inventory and Open Data Initiative

Working with departments, DAT recently completed a City-wide inventory of all existing data sources and associated datasets, giving the Administration a comprehensive understanding of its available information assets. This will be a critical resource for the City in its endeavor to enhance data analytics capabilities and increase information sharing across departments and with the community. The Team also assisted in the development of the City's Open Data Policy, which was adopted by Council on April 5, 2016. While the Team has worked with different departments in training them and posting some data on the [Open Data Portal](#), staff anticipates that the amount will increase as the Open Data Architect continues to involve more data coordinators from each department to schedule the posting and refreshing of their respective data. Community engagement has been a key piece of the City's strategy surrounding open data, and the Team continues to work collaboratively to ensure the community has greater access to public data. DAT will continue to coordinate much of the Open Data Initiative going forward in partnership with the Open Data Architect and each department's data coordinator.

What Works Cities Initiative

In November 2015, the City Manager executed an agreement to participate in the nationwide What Works Cities Initiative (What Works Cities), sponsored by Bloomberg Philanthropies, which has a goal to "rapidly increase the use of data and evidence" in 100 cities across the country. DAT is leading this effort through the implementation of two work plans. First, What Works Cities partner organizations [Sunlight Foundation](#) and the [Johns Hopkins Center for Government Excellence](#) are assisting the City with its Open Data Initiative, particularly with regard to the development and implementation of its Open Data Policy. Second, DAT is working with the [Behavioral Insights Team](#), a program evaluation firm based in the United Kingdom, to implement three program evaluations with the goal of institutionalizing this process in the City of San José. Programs receiving an evaluation include ESD's bulky item collection program aimed at reducing illegal dumping, Clipper Card usage by City staff, and police hiring. The Administration anticipates reporting on the results of these evaluations later this year to the Smart City & Continuous Improvement City Council Committee, established by adoption of the [Smart City Vision for the City of San José](#).

Code Enforcement

As part of the new Multiple Housing Tiered Inspection program, DAT worked with Planning, Building and Code Enforcement staff to devise a strategy to improve the caseload allocation among code inspectors using geospatial analysis and data analytics. DAT has provided Code Enforcement staff with the tools and methodology used to conduct this analysis for future use. DAT is currently working on a predictive model to explain the key variables associated with enhanced code enforcement violations, allowing inspectors to more effectively prioritize

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property inspections based on key risk factors. In the future, this analysis may also inform the process by which Multiple Housing properties are allocated to inspection tiers.

Vision Zero

In support of the City's Vision Zero traffic safety initiative, DAT conducted an analysis of five years of traffic collision data to help the Transportation Department and the Police Department (SJPD) focus their engineering, education, and enforcement efforts where they are most needed. The Team presented its findings to department stakeholders in February, which focused on the critical importance of pedestrian safety in their effort to reduce traffic fatalities to zero. As a result of this analysis, DAT agreed to take on additional Vision Zero analytic work for SJPD and briefed their Traffic Enforcement Unit on how to redeploy their limited staffing complement to reduce traffic collisions based on past trends.

Illegal Dumping

DAT is providing ongoing support to the Illegal Dumping Task Force headed by the Environmental Services Department. The Team worked with the Task Force to use past service request data to identify three geographic hotspots that will receive additional resources and several pilot programs to reduce illegally dumped material. The Team continues to attend Task Force meetings in an advisory capacity and remains committed to providing recommendations on future data collection efforts to ensure accurate and timely information is available for decision makers.

Park Maintenance

In collaboration with an Innovation Fellow in the Mayor's Office, DAT provided support to the Parks, Recreation and Neighborhood Services (PRNS) Department's effort to bolster its business intelligence capabilities regarding the deployment of park maintenance activities and personnel. In late 2015, the Fellow presented the results of her analysis of the business intelligence data to key stakeholders in the PRNS Department, as well as DAT, which oversaw and advised on the work. DAT will continue to support PRNS's business intelligence efforts.

CONCLUSION

The City Manager's Office very much appreciates the efforts of departmental and appointee staff, as well as the leadership from the Mayor and City Council, to make City of San José a more data driven and transparent organization in its mission to serve the community. As DAT takes on additional projects, periodic updates to the City Council will be given via future Information Memoranda.



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