

March 22, 2016

**FOR YOUR INFORMATION**

**To:** Mayor and Members of Council

**From:** Harry Black, City Manager **HB**

**Subject:** Performance Management Fiscal Impact Update

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Last month, you received an update on the impact the Office of Performance & Data Analytics (OPDA) has had on improving customer service quality through its work with City departments. Some of the highlights of these achievements include:

- 59% reduction in backlog of open Department of Transportation & Engineering Service Requests
- 75% reduction in backlog of open Department of Public Services Requests
- 7% initial increase in average overall customer satisfaction through the use of feedback from over 1,400 surveys completed

The purpose of this memo is to provide an update on the cumulative impact the OPDA performance management programs have had on operational efficiency and fiscal sustainability. Where possible, in order to quantify the impact of these initiatives, OPDA has conservatively estimated an annual dollar value for each. Combined, these initiatives have an estimated annual impact of \$2.8 million. This amounts to an approximate 7-to-1 return on investment for the City.

While this memo catalogs improvements advanced through OPDA - particularly through the CincyStat and Innovation Lab programs - participating departments should be credited for engaging in the continuous improvement process and making operational changes achieving these results.

Below you will find a more in-depth breakdown including graphical illustrations and the estimated financial impact of various initiatives.

When reviewing the financial impact of quantified initiatives, please note that while some initiatives directly affect the bottom line, much of the impact manifests through enhanced oversight, avoiding increased costs, and saving time through operational efficiency.

**Conclusion**

Since OPDA's inception 18 months ago, our performance management programs have had a significant impact on improving the City's service delivery and overall efficiency. The Administration will continue to utilize OPDA, CincyStat and the Innovation Lab to improve service quality, optimize efficiency, and avoid costs.

None of these outcomes are possible without the continued support and clear direction of the Mayor and City Council. The Administration looks forward to continuing to work with you to achieve our goal of making Cincinnati the best managed city in the country.



Office of Performance & Data Analytics Cumulative Impact Summary\*

Office of Performance & Data Analytics Initiative	Estimated Annual ROI
<b>Cost Reduction &amp; Avoidance</b>	
FireStat- Mitigating OT Expenditures through Staffing Analysis	\$1,404,710
ECCStat- Preventing Redundant Purchases	\$152,400
Innovation Lab- Eliminating Late Fees on Duke Bills	\$133,401
DOTESat - Monitoring Construction Coordination Across Utilities	In Progress
<b>Enhanced Revenue Collection</b>	
FireStat - Increased EMS Revenue Collections Through Improved Monitoring	\$562,462
WaterStat - Enhanced Collections on Active Delinquent Bills	\$177,138
DPSStat - Improved Private Lot Abatement Revenue Collections	In Progress
Innovation Lab & CollectionsStat - Improved Revenue Collections Process	In Progress
<b>Man Hours Saved &amp; In-Kind Services Received</b>	
Innovation Lab & PermitStat - Time Saved via Permit Application Pre-Screening	\$195,191
Data Science for Social Good Fellowship Project on Blight Prevention	\$125,000
PoliceStat- Improving ease of Field Based Reporting	In Progress
Harvard Law School - Body Cameras & Data Governance Policy Research	In Progress
<b>Fiscal Monitoring &amp; Financial Oversight</b>	
BudgetStat-Expenditure Monitoring for All Departments	In Progress
DPSStat - Tracking Staffing in Neighborhood Operations	In Progress
PoliceStat - Overtime Monitoring	In Progress
ECCStat- Overtime Monitoring	In Progress
DOTESat - CAP Monitoring	In Progress
FleetStat - Reducing Total Cost, Increasing Service Levels	In Progress
<b>Total</b>	<b>\$2,750,302</b>

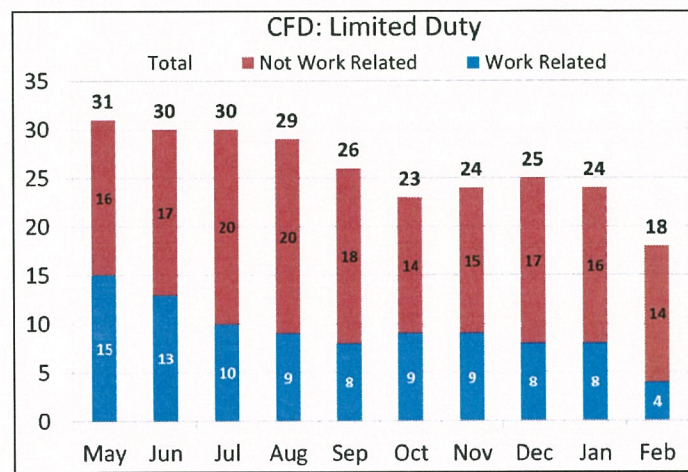
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## Cost Reduction & Avoidance

- FireStat – Mitigating OT Expenditures through Staffing Analysis.** With the addition of two medics to the minimum staffing requirements and increases in retirements, the Fire Department's overtime spending quickly became an issue of focus. Through the process, OPDA built a daily staffing model (below) to clearly identify drivers of overtime. The team identified limited duty assignments as a potential area for improvement. The chart on the right shows there has been a net reduction of 13 members on light/limited duty. The estimated annual impact of this cost avoidance is \$1.4 million.

Fire Department - Daily Strength & OT Tracker	
Sworn Strength	13-Sep
Total Sworn Strength	832
Total Admin staff	48
Total Detailed	0
Response/Suppression: Total	784
Availability	
# of firefighters assigned to shift (total)	263
# of Kelly Days	37
# of firefighters: holiday leave (pre-scheduled)	6
# of firefighters: vacation leave (pre-scheduled)	11
<b>total # of firefighters: pre-scheduled leave</b>	<b>54</b>
# of firefighters: holiday leave (additional)	6
# of firefighters: vacation leave (additional)	6
# of firefighters: light/limited duty assignment	7
# of firefighters: Union Leave	0
# of firefighters: military leave	2
# of firefighters: Jury Duty	0
# of firefighters: Comp Time	0
# of firefighters: Injury with pay	0
# of firefighters: Suspension	0
# of firefighters: sick with pay	8
# of firefighters: Miscellaneous	0
<b># of firefighters sick/mil/AV/AH/CT/UN/IUP/ML</b>	<b>29</b>
<b># of firefighters available</b>	<b>180</b>
<b>minimum staffing requirement</b>	<b>193</b>
<b># of firefighters called for OT</b>	<b>14</b>
<b># of OT hours used</b>	<b>336</b>

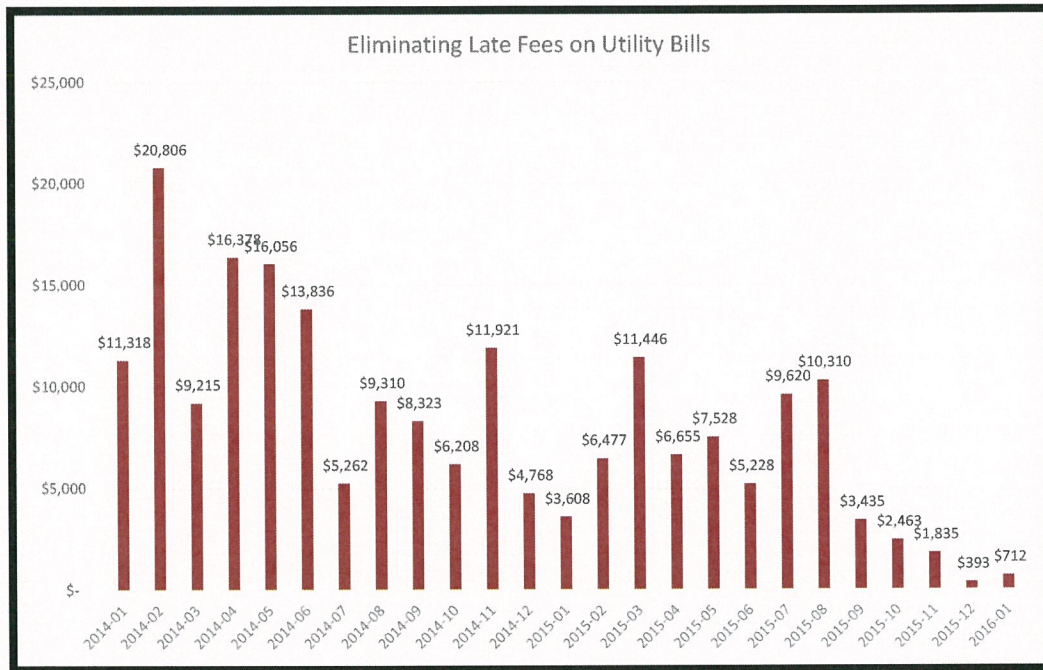


- ECCStat – Preventing Redundant Purchases.** The Emergency Communications Center (ECC) and the Fire Department identified a software tool for the CAD system to use for developing performance reports on Fire Department response times. The projected cost of implementing this tool was \$152,400. Through the CincyStat process, the team identified existing resources in CAGIS and the Office of Performance & Data Analytics that could accomplish the same goal without requiring the City to incur any additional costs.
- Innovation Lab – Eliminating Late Fees on Duke Bills.** At the beginning of 2014, the Public Utilities Commission determined Duke Energy should charge the City late fees for bills paid past 21 days, whereas previously the City was not charged these fees. This change in practice proved to be an obstacle for the City when combined with the fact the City receives more than 600 bills across the enterprise and requires a series of sign-offs to

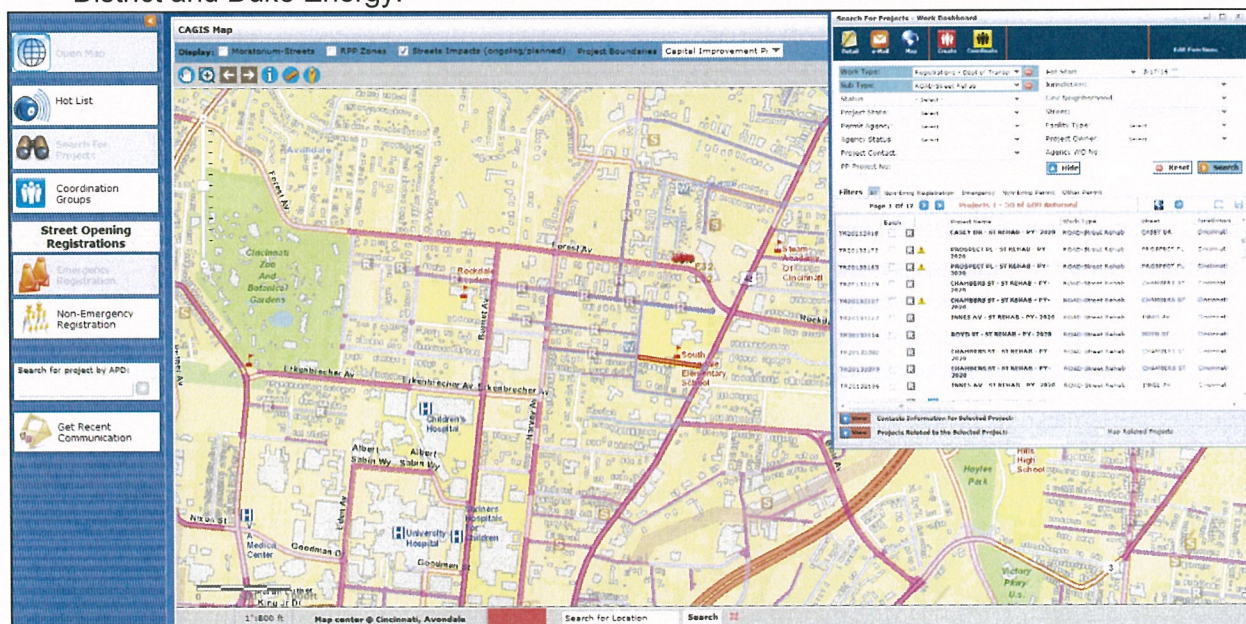


ensure City expenditures are accountable. This resulted in \$134,000 in late fees to the City in CY14.

The Innovation Lab process helped identify steps to reduce the time to get through approval processes and ensure bills are paid on time. This effort has also set the groundwork to make the process digital, which will help prevent payment errors as well as save significant time and resources.



- **DOTStat – Monitoring Construction Coordination Across Utilities.** CAGIS developed a tool several years ago for the Department of Transportation and Engineering to coordinate right-of-way construction with public utilities including Water Works, the Metropolitan Sewer District and Duke Energy.





Used effectively, this tool helps prevent construction conflicts and fosters coordination to ensure utilities “dig once” for non-emergency construction. Proper coordination means the utilities save money by avoiding additional rehabilitation costs, the life of the road is extended, and disruption to residents is minimized. Through DOTESat, the team identified that the various partners have not been using the tool to its fullest extent. Plans have been put in place to ensure all utilities are using the platform.

County Wide Construction Coordination Data Tracking	12/20 - 01/02	1/03 - 1/16	1/17 - 1/30	1/31 - 2/13	2/14 - 2/27
<b>Cuts in Restricted Streets: over 600 sq ft</b>					
<b>Total # cuts in restricted streets</b>		10	8	11	10
<b>Total: could have been caught by CWCC</b>		0	1	0	0
<b>Number of Permits Issued TOTAL (per CWCC User Entity)</b>					
GCWW Distribution	6	68	52	25	9
GCWW Engineering	2	0	2	0	1
Duke Electric	25	8	6	5	6
Duke Gas	59	46	101	73	115
MSD Collections	33	52	44	24	25
MSD Engineering	10	0	0	0	0
Other Street Permit	74	181	147	122	192
<b>Number of Permits with Restricted Street Fees (by Permit Type)</b>					
GCWW Distribution					
GCWW Engineering					
GCWW Emergency		4	2	2	
MSD Collections		1			
MSD Engineering					
MSD Emergency		1	1		
Duke Electric					
Duke Gas Emergency	1				1
Duke Gas	9		4	8	5
Cincinnati Bell		1	1		

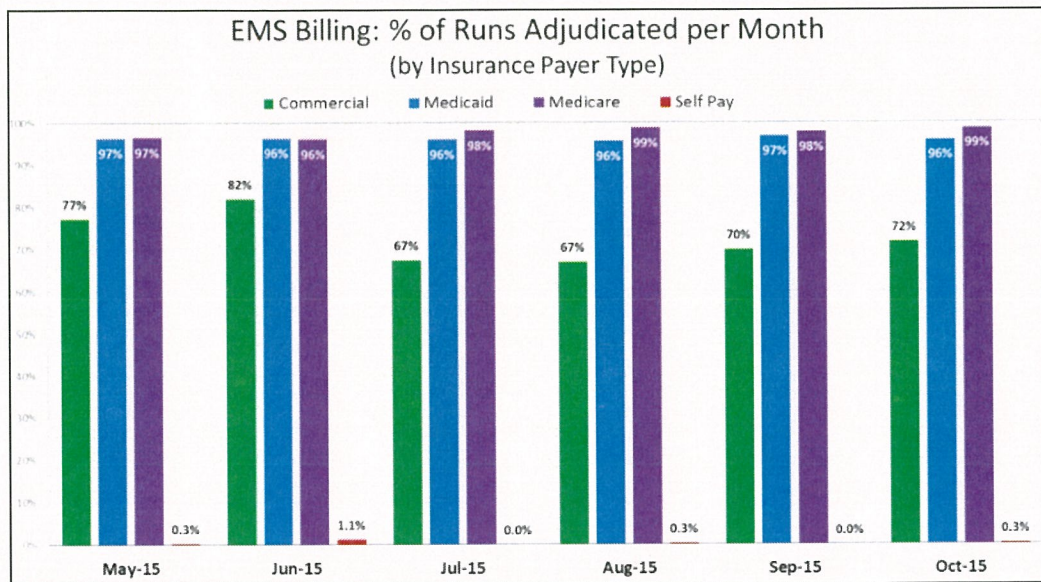
### Increased Revenue

- **FireStat – Increased EMS Revenue Collections Through Improved Monitoring.** Data shows 82% of Fire Department runs are for Emergency Medical Service (EMS). The Department is able to bill for that service. Through the FireStat process, the team identified and implemented several management processes to help maximize the amount of revenue collected from bills sent. This included partnering with the CFO of the Health Department and working with Fire to develop meaningful performance reports to assess the billing vendor’s effectiveness. This helped identify the need for a mechanism to track revenue from co-pays and deductibles for commercially insured patients. The billing vendor is now making an upgrade to their software to achieve this goal.

The team also identified that uninsured patients were being charged several times more than the amount the City ultimately receives for Medicaid and Medicare. Based on this discovery, the Fire Department adjusted its policy for uninsured patients to allow more flexibility in offering payment plan discounts based on financial hardship. The team developed a tracking template for that initiative which is provided below.

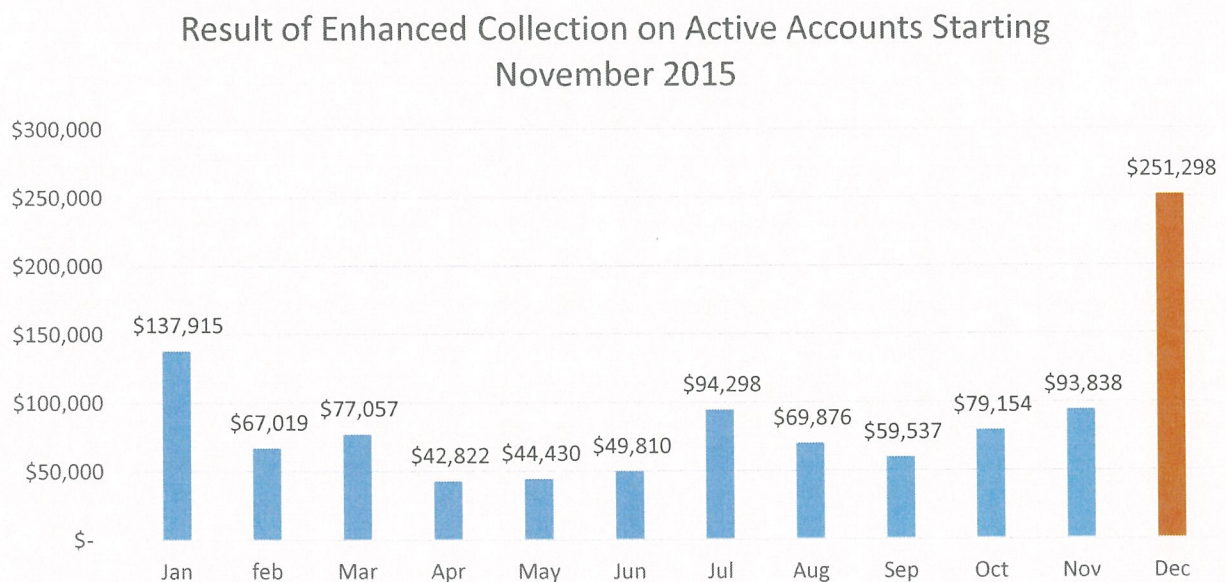
The current estimated annual increase in EMS revenue is \$562,000.





Hardship filings	Jan-16	Feb-16
# Requested	13	11
# Granted based on HHS schedule of discounts	10	6
# Granted for uninsured or underinsured based on updated policy	2	2
Additional information required	1	3
Revenue collected from Hardship Decisions -30 days	\$20.00	\$500.00

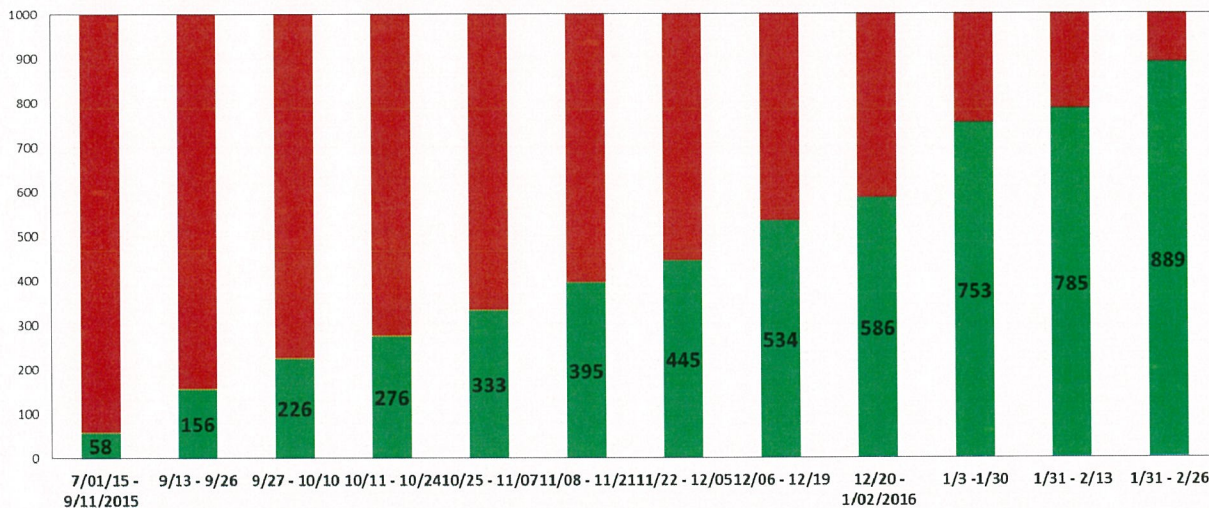
- WaterStat – Enhanced Collections on Active Delinquent Bills.** A focus in WaterStat meetings has been the effectiveness of the Department's collections efforts. Water Works has taken several steps towards improving the effectiveness of its billing and collections operation, including working with the Finance Department to clean up significantly aged accounts receivables. Water Works saw a surge in collections on active accounts as a result of reviewing large active accounts with a significant delinquency in payments. In addition, Water Works will hold an Innovation Lab to improve coordination with the Law Department on collections efforts.



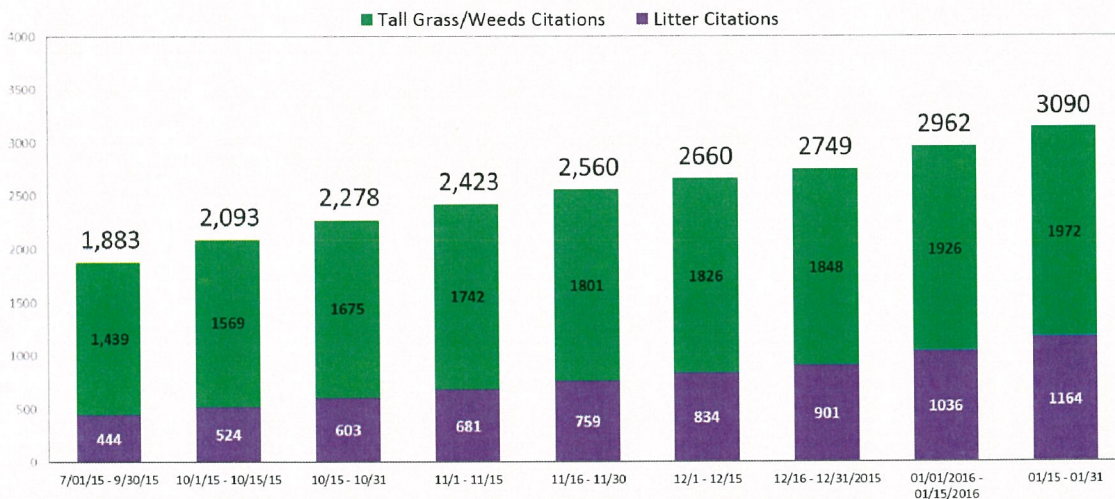


- DPSStat – Improved Private Lot Abatement Revenue Collections.** As a result of the enhanced Private Lot Abatement Program, the Department of Public Services has issued significantly more fines this year in addition to billing property owners when the City abates nuisance. The team has been monitoring revenue collections through DPSStat and identified several coordination issues in the collections process. The team participated in a five-day Innovation Lab event to develop recommendations for improving the process. They are now in the process of implementing those changes.

Private Lot Abatement:  
Percent of Target 1,000 Lots Abated Over Time



PLAP Code Enforcement: Citations Issued Over Time  
(cumulative measures)



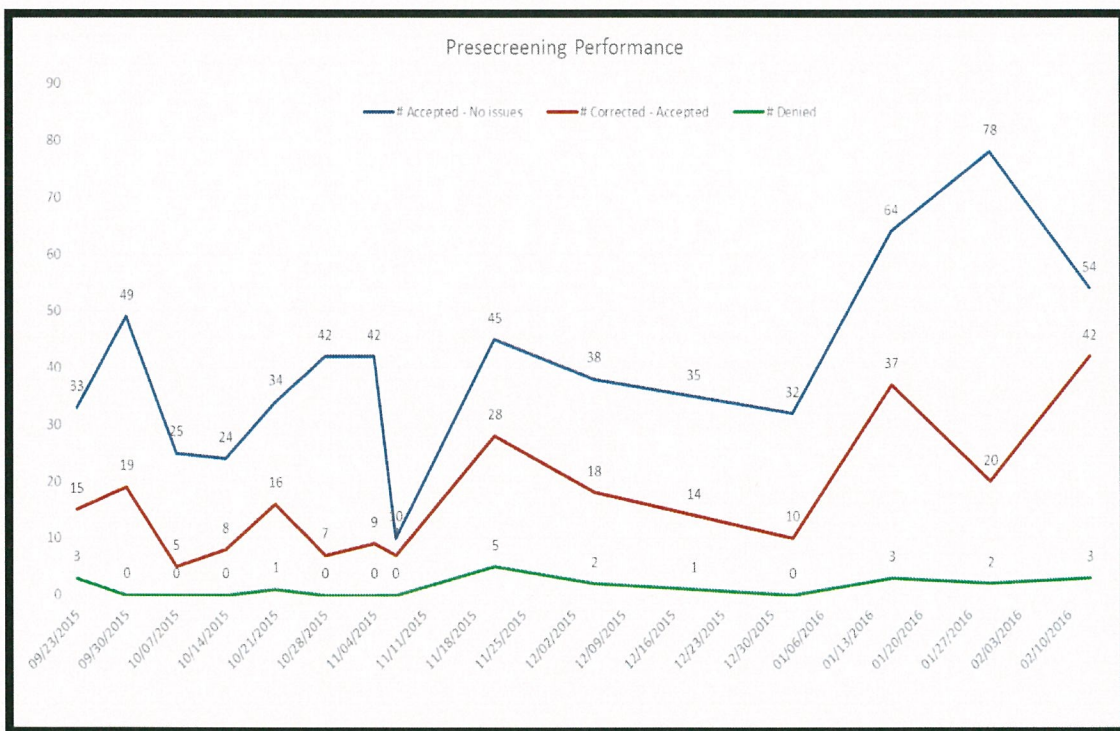
- I-Lab & CollectionStat – Improved Revenue Collections Process.** As a result of the discussions in WaterStat and DPSStat regarding revenue collections, OPDA has started holding Innovation Lab events to develop specific recommendations for improving



collections for various revenue sources. CollectionsStat was recently launched to monitor the implementation of these recommendations and track the results.

#### Time Saved & In-Kind Services Received

- I-Lab and PermitStat – Time Saved via Permit Application Pre-Screening.** An analysis in PermitStat showed that a significant number of permit applications are initially rejected on their first review due to missing information. Every rejection not only adds significant delay for the customer but also costs the Department in time to reprocess, re-route, and re-review the application. The OPDA team used the Innovation Lab to help the customer service representatives who work at the front desk develop a simple pre-screening checklist. The goal was to reduce revisions by 20%. Upon implementation, the front desk has seen a 31% correction rate at the front counter. The estimated annual value of the time saved by catching errors up front is \$195,000.



- Data Science for Social Good UChicago Fellowship Project on Blight Prevention.** The Office of Performance & Data Analytics worked with the Law Department and the Property Maintenance Code Enforcement division to pilot a predictive analytics project with the University of Chicago's fellowship program. The City received approximately \$125,000 in in-kind project management and data science talent for this project. Initial results showed an increase in the proactive inspection rate from 43% to 78%.
- PoliceStat – Improving Ease of Field-Based Reporting.** As part of PoliceStat, the team identified several technical and user interface issues that cause officers to spend more time entering and submitted reports. CPD's Training and IT sections worked with ETS to identify and implement solutions to address these problems. These include retraining, simplification of the interface, and optimization of the server configuration.



- **Harvard Law School – Body Cameras & Data Governance Policy Research.** OPDA partnered with Harvard Law School students to work on two policy and research projects: Enterprise Data Governance and Open Data Policies, and Body Camera Data Policies.

#### Fiscal Monitoring & Financial Oversight

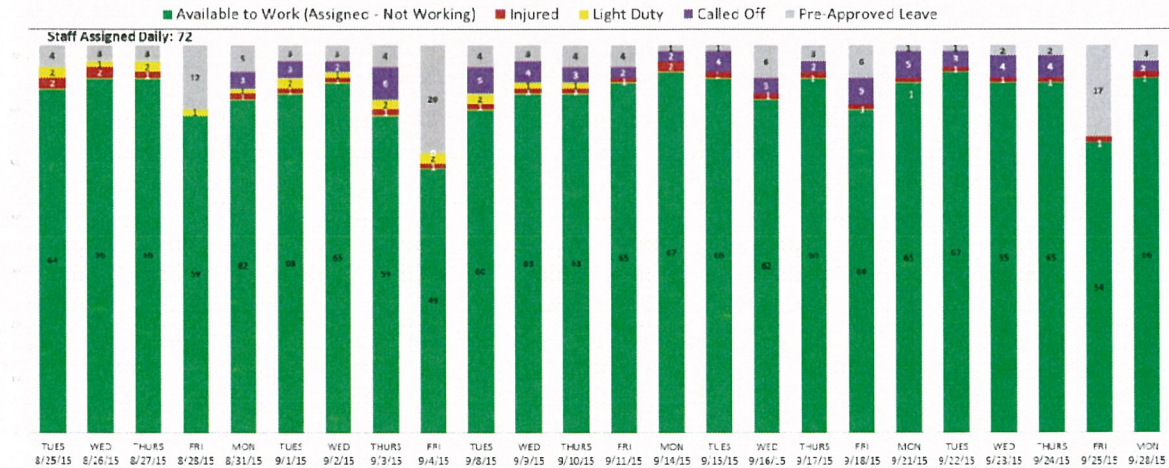
- **BudgetStat – Expenditure Monitoring for All Departments.** In order to standardize the process for financial monitoring, regular discussion and enhanced oversight, OPDA worked with the Budget Office to create BudgetStat reports. These reports break down Department spending to varying degrees (there are four tiers of reports with increasing levels of granularity) in order to identify and, when possible, preempt potential agency budget issues.

Summary by Fund & Agency						
Period Ending December 31, 2015						
FUND	DEPT	CURRENT BUDGET	PRI YR EXPENDED	ESTIMATED AMOUNT	EXPENDED	VARIANCE
050	231	696,880.00	361,825.06	330,392.25	320,983.93	9,408.32
302	231	657,690.00	310,933.16	308,058.86	302,387.83	5,671.03
759	231	52,190.00	.00	24,302.45	.00	24,302.45
050	232	1,547,460.00	11,728.94	772,859.19	345,510.95	427,348.24
302	232	217,590.00	36,763.50	101,992.95	48,242.07	53,750.88
759	232	155,530.00	13,271.17	76,271.13	13,664.60	62,606.53
050	233	278,520.00	196,684.27	131,032.36	119,584.30	11,448.06
302	233	2,299,570.00	764,585.97	1,088,547.30	970,890.75	117,656.55
104	234	1,791,140.00	735,989.99	861,773.86	703,784.95	157,988.91
050	239	2,549,200.00	1,939,127.72	1,272,050.55	1,174,770.14	97,280.41
302	239	1,988,970.00	755,149.52	935,339.87	792,661.85	142,678.02
<b>TOTAL</b>		<b>12,234,740.00</b>	<b>5,126,059.30</b>	<b>5,902,620.77</b>	<b>4,792,481.37</b>	<b>1,110,139.40</b>

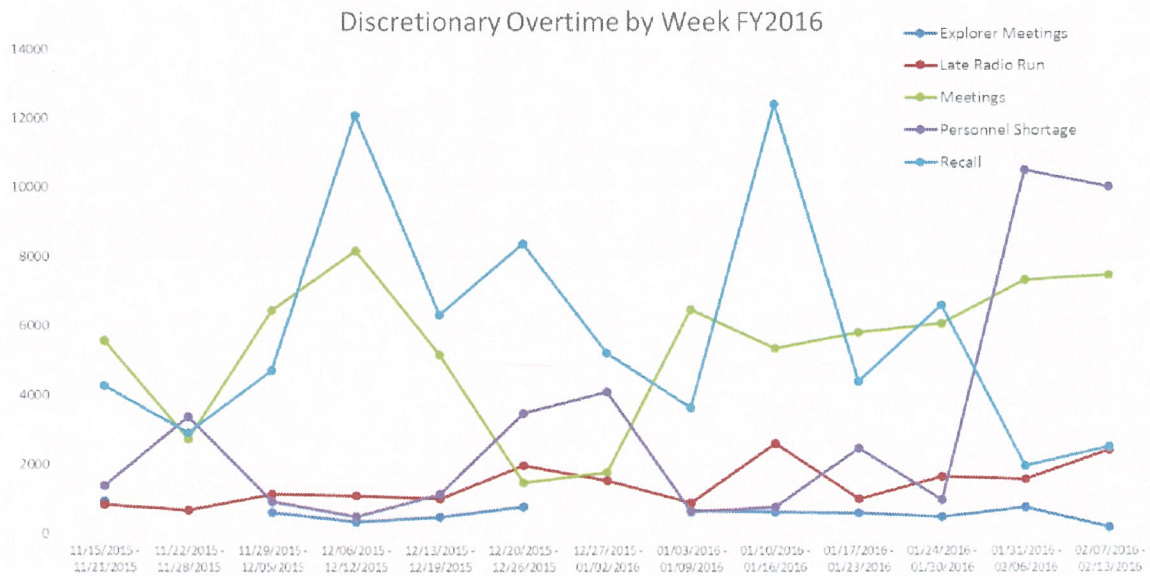
- **DPSStat – Tracking Staffing in Neighborhood Operations.** While discussing the quality of customer services delivered by the Neighborhood Operations Division, Public Services identified staffing enforcement and availability as a relevant factor in service delivery. OPDA created a daily staffing level tracker to monitor staffing levels. The tracker looks at areas such as what kind of leave is most prominent and when available staffing levels are the lowest. In addition to improving customer service, ensuring higher staffing availability also contributes to reduced overtime spending for the Department.



### Neighborhood Operations: Solid Waste Collection Staffing Daily Staff Availability & Leave Rate over 1 Month



- **PoliceStat – Overtime Monitoring.** In PoliceStat, the OPDA team regularly monitors overtime expenditure levels.





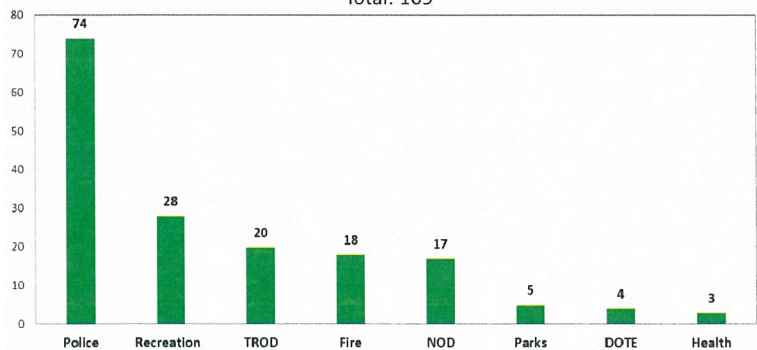
- **DOTESat – Capital Acceleration Program (CAP) Monitoring.** With the increased funding for road rehabilitation and preventive maintenance, the OPDA team has been regularly monitoring the progress of the project planning and implementation.

Timeline: Street Rehab RFP	12/31/2015	1/03 - 1/16	1/17 - 1/31	2/01 - 2/29	3/01 - 3/31	4/01 - 4/30	5/01 - 5/31	[June - September 2016]	10/01 - 10/31
First Draft of RFP									
Submit Availability Worksheets (bid tab)									
Submit Form 217 to DEI									
Determination of Inclusion									
Final RFP sent to Purchasing									
Advertise									
Pre-Bid meeting									
Proposals Due									
Evaluation & Negotiation									
Contract Execution									
Notice to Proceed									
Contract: In Progress									
Contract Completion									

- **FleetStat – Reducing Total Cost, Increasing Service Levels.** The City has invested significant CAP Fund dollars into replacing and rightsizing the City's Fleet. OPDA has been monitoring the procurement and ongoing maintenance processes to ensure overall maintenance costs savings, while optimizing the value of Fleet vehicles.

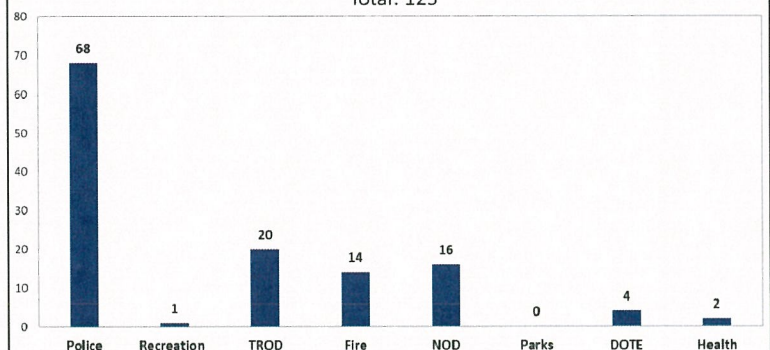
#### Fleet Procurement:

Vehicles/Equipment Planned for Purchase (by Agency)  
Total: 169



#### Fleet Procurement:

Vehicles/Equipment Purchased (by Agency)  
Total: 125



#### Maintenance Costs per Month

