

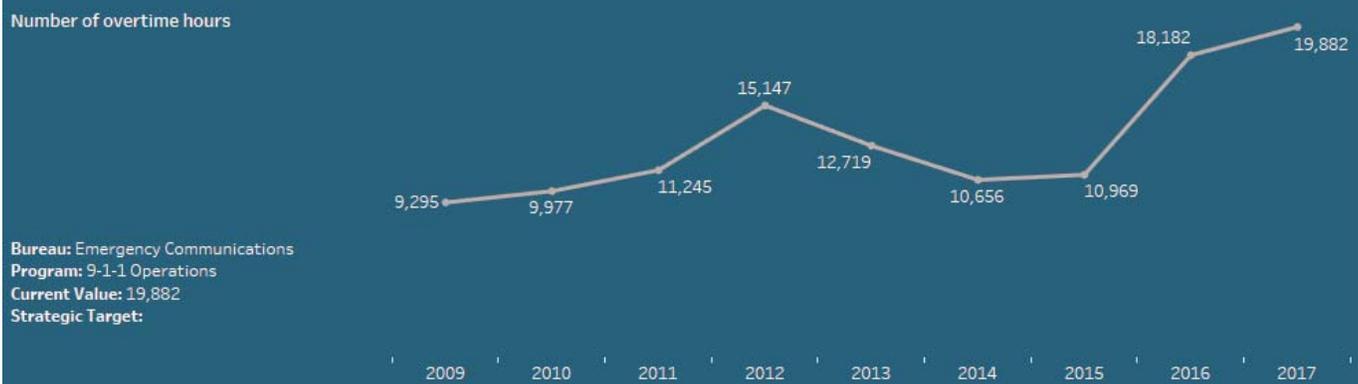
# Bureau of Emergency Communications

Analysis by Yung Ouyang and Robert Cheney

The Bureau of Emergency Communications (BOEC) received substantial resources in FY 2016-17 to continue recruitment of dispatch trainee candidates. However, the bureau did not see a substantial improvement with dispatching performance. BOEC continues to struggle with staff retention, leading to continued reliance on overtime hours to meet staffing demands. The difference between staffed positions and total authorized/funded positions remains high, but the bureau has taken measures to reduce this gap. Two reports issued by the Ombudsman’s Office highlighted significant flaws in the method the bureau used to measure how long it took to answer calls to the 911 system. BOEC worked with the Mayor’s Office and CBO to conduct a Government Accountability Transparency Results (GATR) session to determine which of a Matrix staffing study recommendations to implement, as well as what changes to make to its performance measures.

## Bureau Performance

<b>Emergency Communications</b>	Average time to answer emergency 9-1-1 calls (in seconds)	25
	Number of calls per capita	1.10
	Number of calls per emergency communications operator	11,106
	Number of overtime hours	19,882
	Percent of new hires who graduated from academy	96%
	Percentage of emergency 9-1-1 calls answered within 20 seconds	63.0%
	Percentage of fire “urgent priority” calls dispatched within 60 seconds	69%
	Percentage of medical “priority emergency, one, or two” calls dispatched within 90 seconds	75%
	Percentage of police “emergency priority” calls dispatched within 120 seconds	67%
	Total number of emergency telephone line calls	523,442
	Total number of nonemergency telephone line calls	320,595



While BOEC's Key Performance Measures (KPM) pertaining to time to answer emergency calls and time to dispatch calls should continue to be a focus, the bureau is also paying attention to workload and efficiency measures, as factors affecting these also affect the performance of the bureau's KPMs. The bureau's renewed focus on performance measures has occurred in the context of the Ombudsman's report, bureau leadership changes, and attention from City Council.

### ***Time to Answer Emergency Calls***

Since the discovery of the flaws, BOEC has provided updated and accurate data on its two measures pertaining to call answering time – Percentage of emergency 911 calls answered within 20 seconds (65.0% in FY 2016-17) and Average time to answer emergency 911 calls (25 seconds in FY 2016-17). However, these are not comparable to the prior years' values, which are erroneous and cannot be recalculated. Therefore, comparisons with prior years are not meaningful, and neither are comparisons to FY 2016-17 Adopted Budget targets. For FY 2017-18, the bureau has set the target for percentage of calls answered within 20 seconds to remain at 65.0%, but the average time to answer calls is expected to increase to 30 seconds. The National Emergency Number Association (NENA) has set as industry standard goals of 95% of calls answered in 20 seconds, and 90% of calls answered in 10 seconds.

### ***Dispatch Times***

BOEC measures dispatch times for three types of calls: Police emergency priority, Fire urgent priority, and Medical priority one or two calls. For Police emergency priority calls, the bureau dispatched 67% within 120 seconds in FY 2016-17, which did not meet its Adopted Budget target of 75% and also represents a decline in performance when compared to prior years (70% in both FY 2014-15 and FY 2015-16).

For dispatches that are ultimately handled by Portland Fire & Rescue (PF&R), BOEC performed better. At 69%, while it was not able to meet the Adopted Budget target of 70%, the bureau managed to retain the same level of performance as in FY 2015-16 for the Percentage of fire urgent priority calls dispatched in 60 seconds. In addition, year-over-year improvements were realized for the Percentage of medical priority one and two calls, which was 75% last fiscal year. BOEC also met its Adopted Budget target for this measure in FY 2016-17. Please see the Performance Measure section below for a short discussion of the bureau's future plans for its dispatch measures.

### ***Staffing, Overtime, and Attrition***

Staffing continues to be an issue at BOEC and the problem may be affecting the bureau's call answering and call dispatching performance. Depleted staff levels and high attrition rates have resulted in an increase in overtime hours to fill in the delta between staff hours needed and staff available. While the bureau is fortunate that overtime is a deployable tool to meet this demand, reliance on it is not sustainable. Overtime hours reached 19,882 in FY 2016-17, a 9.3% increase over the 18,182 figure of FY 2015-16, and 32.5% higher than the Adopted Budget target of 15,000. While the growth between FY 2015-16 and FY 2016-17 is significantly less than the growth between FY 2014-15 and FY 2015-16, the 9.3% increase is still a significant concern. The connection between high levels of overtime and low morale and low staff retention is well-documented.

Increased recruitment drives and hiring of retirees that do not require training and certification has allowed BOEC to move closer to its staffing goal. BOEC has projected a 3–5 year range for reaching full staffing, citing full capacity in recruitment academies as a signal of future staffing success. However, because the certification process takes up to 18 months, increases in staffing are not reflected in annual fiscal year data. It should be noted that while academy students are not certified dispatchers, they do begin call-taking duties while in training, increasing the number of individuals available for work despite their contributions not being accounted by the bureau’s FTE totals.

In the past, the bureau has managed by augmenting its budget for overtime pay with salary savings resulting from vacancies. In particular, last year, BOEC received \$1.1 million in additional resources for the equivalent of 13 dispatch positions, but without position authority. These additional resources enabled the bureau to absorb its high overtime costs. CBO recommends that Council pay close attention to the bureau’s continuing increases in overtime usage, including their ultimate causes, effects on staff morale/retention, as well as their effects on the bureau’s financial condition. BOEC has indicated that it would also like to change how overtime usage is measured by differentiating between whether the overtime usage is for adequate operations, for mandated trainings, or for all other uses. CBO recommends this change as it better enables the bureau to address the root causes of excessive overtime usage.

## Performance Measures

### ***Changes in Measurement Methodologies***

Concerning the percentage of emergency calls answered within 20 seconds, after the Staffing Study conducted by Matrix Consulting and the GATR session, BOEC plans to adopt the NENA standards. As for measures related to dispatch times, the bureau would like to focus on measuring efforts that it is responsible for and that are within its control. Specifically, the bureau states that the current measures also include time when a responder is not available, and BOEC would like to adjust the measures so that the time measurement ends when the BOEC dispatchers’ duties are completed. Although this approach is not necessarily endorsed by either NENA or the Association of Public-Safety Communications Officials (APCO), CBO does recommend measures that more accurately reflect the bureau’s efforts, with additional scrutiny on whether the Police Bureau and PF&R’s response times measures are also accurate and effective in assessing those bureaus’ efforts.

One measure which the bureau has changed its methodology in data calculation is the number of calls per emergency communications operator. BOEC states that previously, the call volume was simply divided by the allocated FTE to derive the data. For reporting on FY 2016-17, the bureau has changed the denominator to the number of certified staff it had at the most recent sign-up prior to reporting to CBO. As a result, the year-end actual for this figure was 11,106, significantly higher than the Adopted Budget target of 8,000 and prior years’ actuals of 7,502 in FY 2014-15 and 7,937 in FY

2015-16. Thus, comparisons to the target and prior years are also not meaningful for this measure, and CBO recommends that BOEC create a new measure in the budgeting system to avoid confusion.

**Staffing, Training, and Retention**

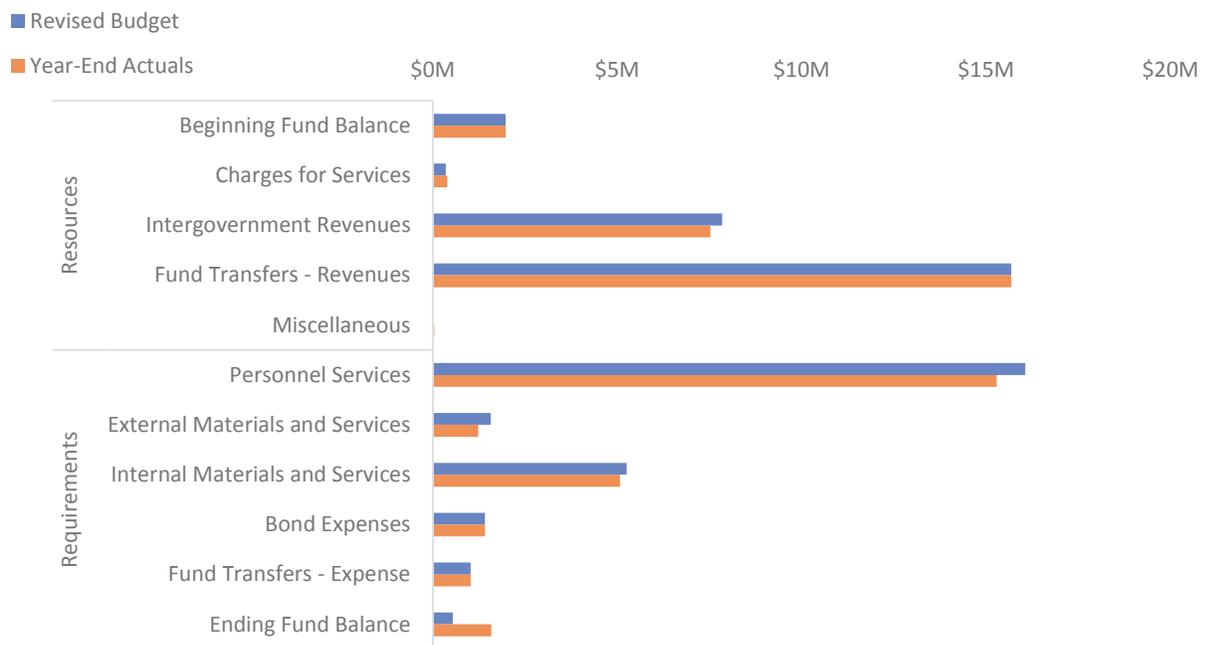
At 96% at FY 2016-17 year-end, BOEC has managed to meet its Adopted Budget target (75%) for the percent of new hires who graduated from its academy. While the measure has displayed a slight decline from FY 2015-16, when 100% of new hires graduated from the academy, the bureau should be commended for meeting its Adopted Budget target considering its staffing issues. However, the bureau’s ability to graduate new hires does not address issues of staff attrition and retention. This problem is a well-known one for the bureau and was further highlighted by the recent Staffing Study conducted by Matrix. CBO recommends that BOEC develop a performance measure specifically for staff retention/attrition so that further attention can be placed on the issue. It should be noted that the Matrix study recommends that the existing training model be revised to reduce the attrition rate.

BOEC states that it is continuing to work with the Mayor’s Office and CBO to refine its performance measures and their yearly targets and long-term goals. The Mayor’s office will be convening a follow-up GATR session in the second quarter of the fiscal year to review the bureau’s progress on implementing action items from the Matrix study and the recent GATR session. This should also include a detailed assessment of BOEC’s performance measures.

**Bureau Finances: Budget-to-Actuals and Key Issues**

**Emergency Communications Fund**

Emergency Communications Fund FY 2016-17 Reconciliation



BOEC ended the year needing only 95% of its Personnel Services budget and was able to transfer \$400,000 out to External Materials & Services (EMS) during the Over-Expenditure Ordinance because of the additional \$1.1 million allocated for the equivalent of 13 dispatch positions. However, CBO notes that most of the underspending was in permanent, full-time salary, with the bureau spending only 69% of the Revised Budget for this line item, while the budget for overtime was overspent by 71%. As discussed above, the bureau was able to spend significantly above budget on overtime due to staffing shortages resulting in salary savings and the additional \$1.1 million in its budget for Personnel Services.

No single factor caused EM&S to be underspent by 21%. BOEC states that two projects concerning classroom enhancements and furniture modifications that were originally expected to be completed in FY 2016-17 are now scheduled to be finished during the current year. Moreover, the CAD Server Refresh Project was also completed with significant under-expenditure. See discussion in the Capital section below.

Ending balance is projected to be almost \$1.6 million. Of this amount, initial estimates indicate that more than \$550,000 would be returned to the General Fund, and more than \$85,000 should be returned to partner jurisdictions. Of the amount to be returned to the General Fund, 43% is from unspent funds for the CAD Refresh Project, out of a total of \$1.4 million initially allocated, while most of the rest is operating surplus from FY 2016-17. \$100,000 of the ending balance is carried forward to the current year to complete the Training Classroom Enhancement project, leaving about \$850,000 in unrestricted contingency. However, 56% of the amount in unrestricted contingency, or \$477,020, is to be made available to fund the City's share of potential additional costs resulting from labor contract changes if needed, leaving only about \$370,000 in unrestricted contingency.

## Capital

BOEC had a single capital project last year – the CAD Server Replacement Project – which began in FY 2015-16 and was substantially completed that year, but was completely finished in FY 2016-17. Of the \$1.4 million that was initially budgeted for the project in FY 2015-16, only \$265,374 was carried over into FY 2016-17. The new servers went live in May 2016, with the decommissioning of the old servers occurring a month later. The FY 2016-17 phase of the project was the final one and consisted of adding environments to assist with training needs. Of the \$265,374 budgeted for the project last year, only 11% was spent by the bureau at year-end, contributing to the significant under-expenditure in BOEC's budget for External Materials & Services.