Analysis By: Ryan Kinsella

# BUREAU OF EMERGENCY COMMUNICATIONS

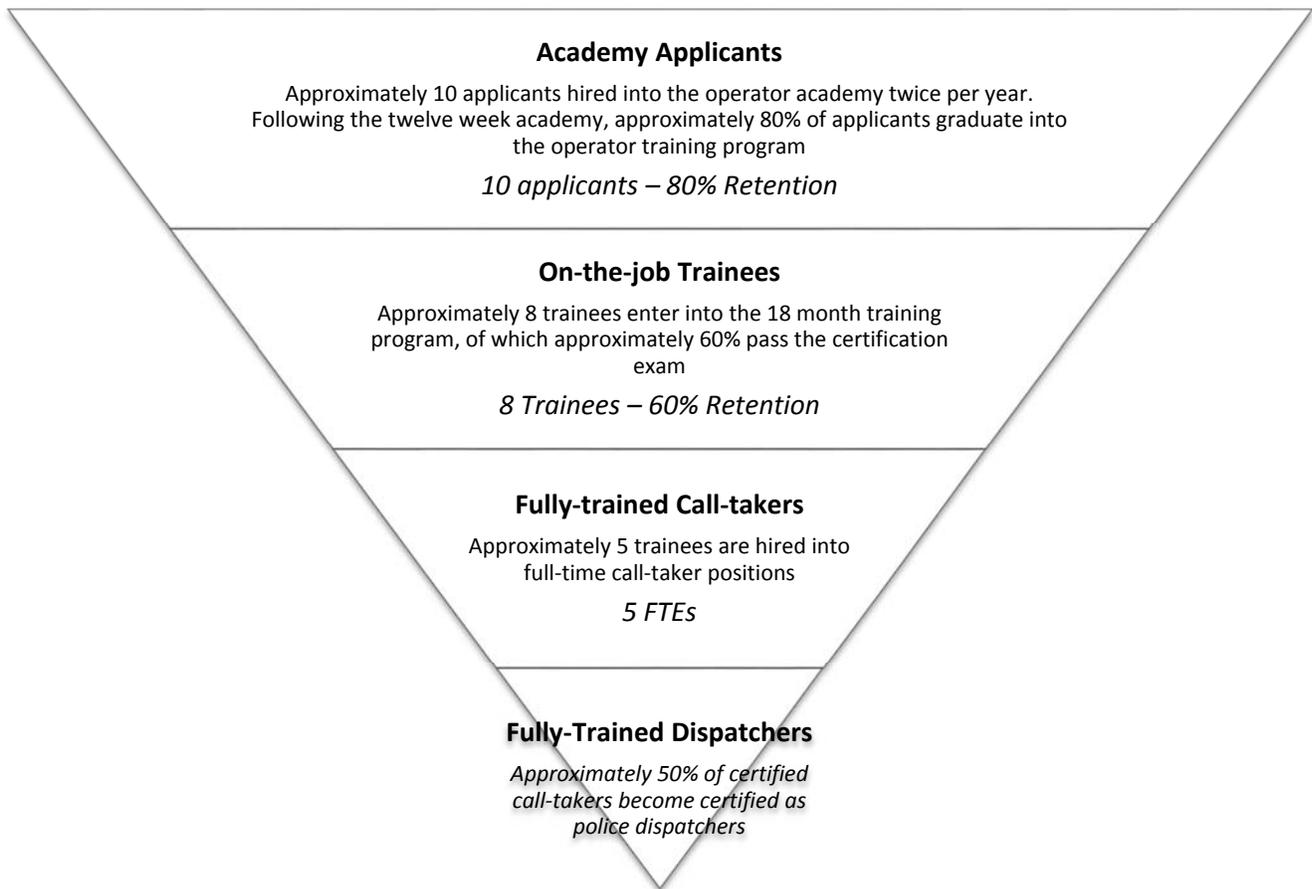| All Funds Budget Summary | Adopted FY 2013-14 | Request Base FY 2014-15 | Decision Pkgs FY 2014-15 | Request Total FY 2014-15 | Percent Change |
|---|---|---|---|---|---|
| **Resources** | | | | | |
| Budgeted Beginning Fund Balar | $2,481,067 | $1,715,000 | $0 | $1,715,000 | -30.9% |
| Charges for Services | 285,950 | 300,000 | 0 | 300,000 | 4.9% |
| Intergovernmental Revenues | 7,098,830 | 7,267,977 | 229,697 | 7,497,674 | 5.6% |
| Fund Transfers - Revenue | 13,307,197 | 13,464,334 | 1,745,671 | 15,210,005 | 14.3% |
| Miscellaneous Sources | 50,000 | 15,000 | 0 | 15,000 | -70.0% |
| **Total Resources** | **$23,223,044** | **$22,762,311** | **$1,975,368** | **$24,737,679** | **6.5%** |
| | | | | | |
| **Expenditures** | | | | | |
| Personnel Services | $13,687,772 | $14,171,169 | $1,075,368 | $15,246,537 | 11.4% |
| External Materials and Services | 1,042,031 | 891,501 | 900,000 | 1,791,501 | 71.9% |
| Internal Materials and Services | 3,735,073 | 3,903,954 | 0 | 3,903,954 | 4.5% |
| Debt Service | 1,357,746 | 1,371,594 | 0 | 1,371,594 | 1.0% |
| Fund Transfers - Expense | 897,991 | 694,093 | 0 | 694,093 | -22.7% |
| Contingency | 2,502,431 | 1,730,000 | 0 | 1,730,000 | -30.9% |
| **Total Requirements** | **$23,223,044** | **$22,762,311** | **$1,975,368** | **$24,737,679** | **6.5%** |
| | | | | | |
| **Total Bureau FTE** | **138.00** | **138.00** | **10.00** | **148.00** | **7.2%** |

**Percent Change is the change from FY 2013-14 Adopted Budget to FY 2014-15 Total Requested Budget.**

## Key Issues

The Bureau of Emergency Communications submitted a base budget of $22.7 million, including a transfer of $13.5 million in General Fund Discretionary resources. The bureau also submitted five decision packages that include a total of 10.00 FTE and $900,000 in funding for work station replacements. Discussed below are several key issues that warrant Council's attention, including: (1) hiring and staff retention, (2) bureau performance and (3) overtime budget.

**Hiring and Staff Retention**
On average the bureau hires 8-10 applicants per academy (twice per year), which eventually yields 4-5 certified operators every 18 months. To the degree that trainees-turned-certified operators exceeds staff attrition, fewer applicants are needed to be hired into the training academies. The diagram below illustrates the attrition during the training of operators over the 18 month certification process.

**Academy Applicants**

Approximately 10 applicants hired into the operator academy twice per year.
Following the twelve week academy, approximately 80% of applicants graduate into the operator training program

*10 applicants – 80% Retention*

**On-the-job Trainees**

Approximately 8 trainees enter into the 18 month training program, of which approximately 60% pass the certification exam

*8 Trainees – 60% Retention*

**Fully-trained Call-takers**

Approximately 5 trainees are hired into full-time call-taker positions

*5 FTEs*

**Fully-Trained Dispatchers**

*Approximately 50% of certified call-takers become certified as police dispatchers*

Attrition of operator trainees and the retention of staff is problematic in several ways:

- **Training is costly.** Approximately, 50% of hired applicants become certified call-takers, meaning that the bureau invested resources in training applicants who do not become employees. (The bureau notes that 50% retention rate is comparable to other emergency communication organizations.) CBO estimates the sunk personnel costs to be approximately $200,000 per year.
- **Training takes time.** Because of the training time to become an emergency operator, the bureau cannot immediately hire into vacated positions. As such, the bureau must anticipate staffing changes to normal staffing retention with enough time to increase or decrease the number of hires – at least 18 months in advance.
- **A large number of current staff may retire.** The bureau is also anticipating higher staff attrition over the next four years as 24 operators become eligible for retirement – or approximately, the additional attrition of 5 staff members per year.
- **The career length of an operator is relatively short compared to training time.** The average career length for operators hired in the last 10 years is 3.3 years per operator; however, the average career length over the last five years is only three years per operator. This means that, on average, operators remain for 18 months after certification --- an equal amount of time invested in training the operator.

To address these staffing issues, the bureau has several options (1) hire more trainees, (2) increase trainee retention, (3) retain certified operators longer. These options are directly and indirectly reflected in the bureau's FY 2014-15 budget requests: in addition to requesting funding for more operators, the bureau has also requested funding for more supervisors, additional training for current staff, and improvements to the workplace – all of which may increase staff retention.

**Bureau Performance**

A key performance measure for the bureau is the percent of emergency calls answered within 20 seconds. The bureau and its partner jurisdictions, following the targets set by the National Emergency Number Association, have set a goal that 90% of emergency calls be answered in 20 seconds, which the bureau has exceeded over the past five years (even though they underwent budget reductions and a hiring freeze during CAD implementation). The bureau expects to maintain this level of performance over the next two fiscal years. Chart 1: Emergency Calls Answered within 20 Seconds (below) highlights the bureau's ability to maintain high service levels for call-taking since FY 2005-06 (when this data was first reported).

CHART 1: Emergency Calls Answered within 20 seconds
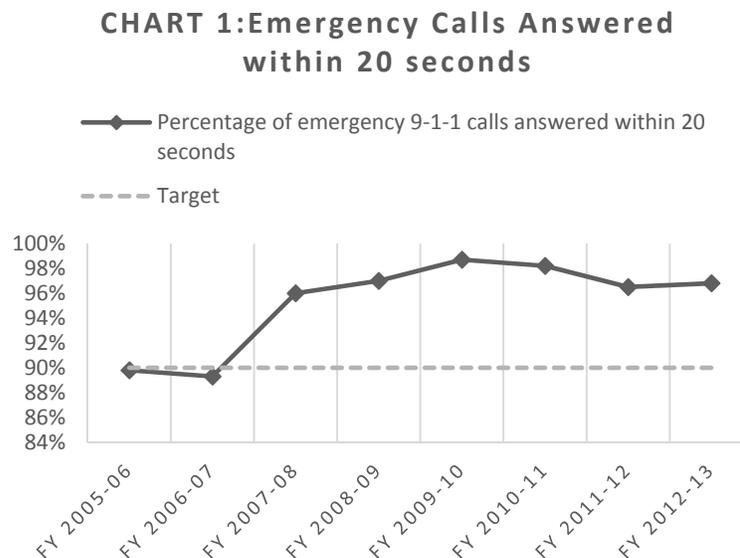


The Auditor's 2013 Community Survey, coupled with emergency call answering metrics, indicate that resident satisfaction of those who called 9-1-1 has not significantly changed over the past five years with 80% of respondents rating 9-1-1 services as either "good" or "very good".

Chart 2: Efficiency of Emergency Dispatch (below) illustrates three additional key performance metrics for in regards to high priority calls: (1) percentage of fire calls dispatched within 60 seconds, (2) percentage of medical calls dispatched within 90 seconds, and (3) percentage of police calls dispatched within 120 seconds. Two points are evident from the chart:
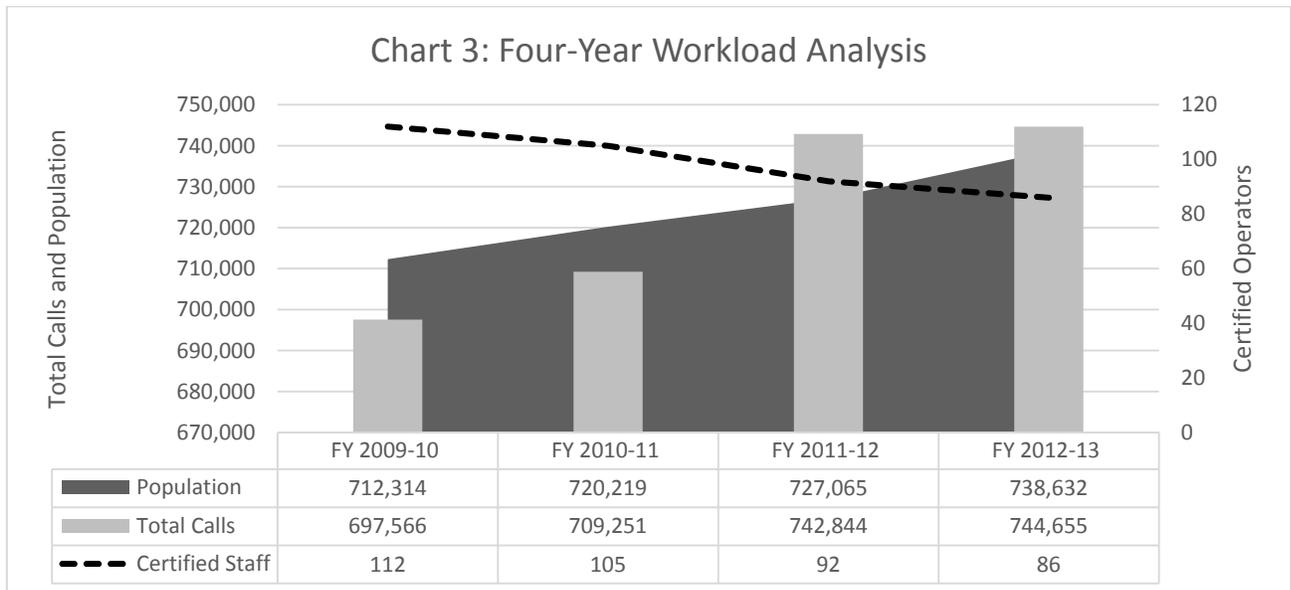
- Targets were hardly ever achieved for dispatch times since the bureau first began reporting the measures in FY 2005-06, suggesting that the target is aspirational but may not be attainable.
- Dispatch times, regardless of emergency type, have declined over the eight year period, likely reflecting both reductions in staffing and increase in dispatch volume

**Chart 2: Efficiency of High Priority Dispatch**



Legend:
- ✕ % of fire calls dispatched within 60 seconds
- ■ % of medical calls dispatched within 90 seconds
- ● % of police calls dispatched within 120 seconds
- •••• Target (90%)
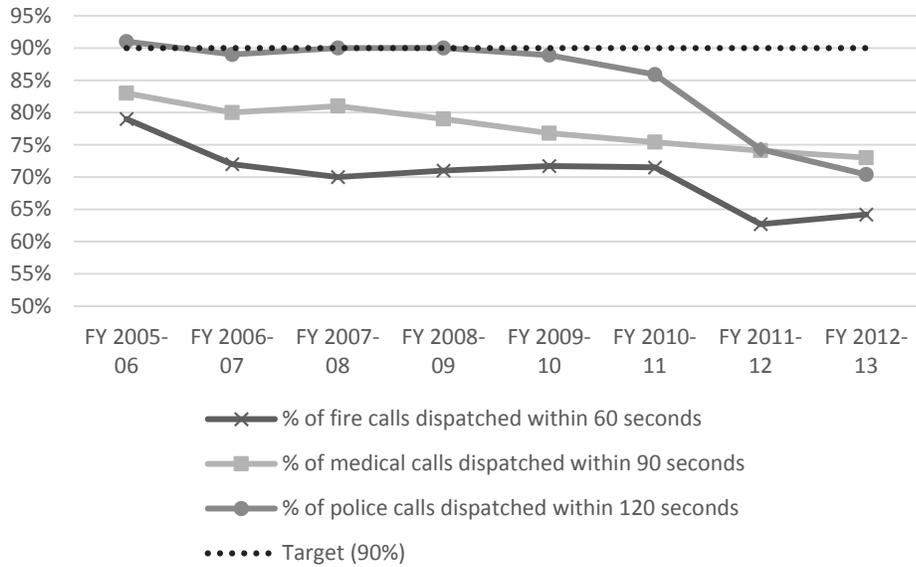
Comparing the call response times (Chart 1) and dispatch efficiencies (Chart 2), as illustrated in the charts, suggest that staffing constraints and call volume increases have impacted the dispatch function more than call-taking. The bureau has some flexibility in call-taking by having supervisors, when needed, answer emergency calls.

Below is a chart that illustrates the changes in the number of certified operators, total number of calls (both emergency and nonemergency), and population base (populations of jurisdictions using BOEC services).

**Chart 3: Four-Year Workload Analysis**



| | FY 2009-10 | FY 2010-11 | FY 2011-12 | FY 2012-13 |
|---|---|---|---|---|
| Population | 712,314 | 720,219 | 727,065 | 738,632 |
| Total Calls | 697,566 | 709,251 | 742,844 | 744,655 |
| Certified Staff | 112 | 105 | 92 | 86 |

Illustrated in this chart are several points:

- Population base and total number of calls have increased, while staffing levels have decreased;
- Call increases have exceeded population base increase over the past two years, signaling that a greater portion of residents are calling 9-1-1. Changes to policing practices and other factors may explain this proportional increase in calls.

CBO believes that bureau performance may be negatively impacted by not adding new staff: longer average response to nonemergency calls, increase in overtime hours, and fewer hours dedicated to training. These performance measures also indicate that the bureau succeeds in the key performance areas of answering calls and maintaining customer satisfaction. These measures also signal a decrease in dispatch service; however, the degree to which these longer dispatch times reduces the safety of Portland residents is unknown. Dispatch times could be shortened by investing more resources, possibly allowing the bureau to achieve its performance targets. As noted in this discussion, call response times and resident satisfaction seem stable, and so with limited resources to invest in public safety response, Council must decide whether investing in quicker dispatch best improves resident safety in comparison to the many other needs in the police and fire bureaus.

**Overtime Budget**

Previous CBO analyses have noted that overtime continues to be a concern for the Bureau of Emergency Communications, particularly in light of prior budget reductions. In the FY 2012-13 Adopted Budget, the bureau's budget was reduced by 6% or $985,000, of which $750,000 was a reduction to overtime, leaving a total adopted overtime budget of $75,000. Despite increasing its overtime budget to $180,000 as part of midyear budget adjustments, overtime was overspent by $480,000 by year end. (Savings from vacant positions resulted in underspending of $710,000, which provided the necessary funding to cover overtime costs.) Similarly, in FY 2013-14, $130,000 was budgeted for overtime, and CBO currently projects overspending by approximately $400,000 by year end.

For its FY 2014-15 requested budget, the bureau has increased its overtime budget by $305,000 from the current year to a total of $465,000. Savings in the bureau's FY 2014-15 BTS interagency costs and the bureau's General Fund Overhead requirements were used to offset this increase.

CBO believes that the requested overtime budget for FY 2014-15 will be slightly less than the needed amounts, based on current staffing levels and projected call volume increases, but the bureau is likely to have sufficient underspending in other budget items to cover costs.

**Future BOEC Issues**

The introduction of Next Generation 9-1-1 ("NextGen9-1-1") and the possible implementation of a 311 Call Center may significantly impact bureau operations over the next five years. In addition, the bureau may receive revenue from a state tax on prepaid cellphones. Noted below are the possible fiscal implications of these changes:

- NextGen 9-1-1: the State of Oregon 9-1-1 Office is finalizing an RFP to determine the costs of NextGen9-1-1 infrastructure and implementation. The projected volume and impact of "text" and video capability is uncertain, and so the bureau has not yet estimated any changes to staffing.
- Prepaid Phone Revenues. Recently HB 4055 passed the Oregon State's House of Representatives, which would allow the state to collect 9-1-1 fees on prepaid cellphones. If this legislation is signed into law, the Department of Revenue has projected that BOEC would receive an additional $63,000 in FY 2014-15, $112,500 in FY 2015-16, $97,000 in FY 2016-17.
- 311 Call Center: Currently the bureau has $200,000 of funding for Phase 1 only of a three phase implementation; the remaining two phases are likely to have substantial one-time costs, followed by significant ongoing costs. Phase 2 is estimated at $221,000. By providing 311 services to neighboring jurisdictions, additional IGA revenues are possible. Currently there are no revenue estimates for these IGA amounts or estimates of possible IA increases.

## Decision Package Analysis & Recommendations

None of the bureau's requests expand services, but rather, restore budget for items eliminated or deferred due to budget cuts in recent years. To this end, CBO supports the bureau's requests. Within the context of stabilization budgets and the scarcity of General Fund resources, however, CBO does not recommend any of the bureau's requests.

**Add EC Dispatchers, Sr., EC_01, $588,168, 6.00 FTE**
The bureau has requested six additional Senior Emergency Communication Dispatchers ("operators"). These positions answer and dispatch calls, and currently, the bureau has 88 positions in this classification, of which 9 are certified for call-taking but not dispatch. The bureau requests these positions in light of prior staffing reductions due to budget cuts and hiring freezes during the CAD implementation --- the addition of these positions would restore nearly all of the positions eliminated as a result of budget cuts over the past two years.

The number of required certified staff is not solely a function of population and call volume; other factors also impact the need for staff, such as changes to call-taking and dispatch protocol, coverage needs during staff trainings, changes to practices policing, medical and fire responses.

The request does not only address current call response and dispatch times. Rather, the bureau faces long-term staffing challenges, central to which is maintaining an adequate number of certified staff in light of future retirements and typical staff attrition. The bureau's request for additional staff may be less costly than use of overtime and may address long-term staffing issues; however, CBO believes that in light of current performance expectations and given the very limited General Fund resources available in FY 2014-15, filling these positions is not urgent. Therefore, CBO does not recommend the bureau's request but strongly encourages Council to consider adding six certified positions over the next four years.

As noted in the Key Issues section, several unresolved issues may impact target staffing levels (e.g., 311 implementation, NextGen9-1-1). Future requests for staffing will need to account for the impacts of these issues.

**Add EC Supervisor assigned to training, EC_02, $121,800, 1.00 FTE**

Following the City Auditor's 2013 audit of training, the bureau has requested ongoing funding for 1.00 FTE Training Supervisor position to address training needs of certified staff. The audit finds that "the bureau does not ensure that operators understand and correctly apply new [Standard Operating Procedures]." The audit is conclusive as to whether operators currently have sufficient time for training, but it does prescribe additional training. (Operators and management staff disagree as to whether operators have sufficient time for training.) Thus, the requested training supervisor may help to address whether operators understand procedures; however, the position will not address whether there is sufficient time for new trainings.

The main duties of the requested position would be to develop lesson plans, curriculum and simulation exercises. In addition, the training supervisor would administer the system used to track ongoing trainings, recently implemented in response to the audit.

CBO also notes that an additional trainer may address training and staff attrition. To the degree that training and professional development contribute to employee satisfaction, operator retention may increase. Moreover, by adding an additional trainer, the current trainer will have additional time to focus on employees who are working towards certification. To the degree that more employees reach certification, fewer candidates will need to be hired into the academy, freeing up some bureau resources.

Despite the need for this position, CBO does not recommend this request due to a scarcity of General Fund resources.

*CBO Recommendation: $0, 0.00 FTE*


**Add CAD Coordinator, EC_03, $121,800, 1.00 FTE**

The bureau's top priority, amongst its five requests, is $121,800 for 1.00 FTE CAD Coordinator position.

Currently two CAD coordinators maintain the system when not addressing CAD incidents --- a workload appropriate for two FTEs. The primary reason for this request is to provide additional coverage, as there is no back-up for the current two CAD coordinators. An additional CAD Coordinator position would also expedite timelines on several projects, improve responsiveness when troubleshooting problems with interfacing applications and increase operator CAD training; however, the bureau is not currently experiencing a backlog in system maintenance needs.

Outsourcing coverage to a third-party vendor is not an efficient or realistic alternative. CAD, as configured for BOEC, interfaces with various mobile data terminal, paging and mapping systems that are unique to Portland and partner jurisdictions. Moreover, the current CAD Coordinators are familiar with bureau policies and procedures, as well as policies governed by Criminal Justice Information Services and the State of Oregon, having been previously trained as operators.

Long-term cross training in the bureau's CAD system is also an issue at hand. Although all operations staff know how to use the CAD operationally, none are trained on CAD administrative functions. If a current CAD coordinator leaves, the bureau will need at least nine months to train a current operator on administrative and IT functions and procedures. Conversely, the bureau could hire an outside replacement with CAD system experience, but would need to learn BOEC CAD processes and procedures. For either option, there will be a lag due to training.

CBO agrees that current staffing does not provide sufficient coverage, but due to a scarcity of General Fund resources, CBO does not recommend this request at this time.

*CBO Recommendation: $0, 0.00 FTE*


**Replace Operation Workstations, EC_04, $900,000, 0.00 FTE.**

The bureau requests funding to replace 50 workstations at a cost of $15,000 per work station, in addition to $150,000 for installation costs. At current staffing levels, the bureau requires a total of 32 workstations for operators and approximately 10 training workstations. During a large-scale emergency, the training workstations can be used as "live" operations workstations.

CBO recognizes that the bureau will eventually need to replace workstations for both call-takers and dispatchers. However, CBO does not recommend this request. Rather, CBO recommends that the bureau prepare a request for a future budget that reflects competitive pricing and projected staffing needs.

*CBO Recommendation: $0, 0.00 FTE*


**Add 2 EC Supervisors for Operations, EC_05, $243,600, 2.00 FTE**
The bureau requests ongoing funding for two operation supervisors.

Currently, each shift is staffed by two supervisors who provide floor support to two fire dispatchers, five police dispatchers and up to 10 call-takers during a normal shift. In addition, each supervisor is assigned typical supervisory responsibilities, including performance evaluation, timesheet sign-off and employee training for 10 operators. The bureau cites that span of control ratio of 1:7 is appropriate, based upon FEMA recommendations for on-scene, all-hazards incident management. Currently, bureau operations span of control is 1:9, and the addition of two supervisors would lower this ratio closer to 1:8. In addition, the bureau believes that two additional supervisors are needed in order to provide adequate staff support, including employee training and feedback.

At current staffing levels, the bureau must schedule supervisors for overtime when a supervisor is absent. As a result, supervisors worked approximately the full-time equivalent in overtime hours in FY 2012-13. Due to added cost of overtime, the bureau believes that one of two requested positions could be funded by a reduction of overtime budget --- or, approximately, $120,000. However, due to the bureau's shift structure, the bureau believes that adding only one supervisor would be logistically burdensome.

Similar in value to improved training, additional supervisors may improve staff attrition, according to the Association of Public Safety Communications Officials, which finds that adequate supervision is an important factor in predicting employee retention.

CBO agrees that current staffing does not provide sufficient coverage and that two new supervisors would improve span of control, leading to a more effective workforce. Due to a scarcity of General Fund resources, CBO does not recommend this request at this time.

*CBO Recommendation: $0, 0.00 FTE*

# City of Portland
## Decision Package Recommendations
### (Includes Contingency and Ending Balance)

| | Bureau Priority | Bureau Requested | | | | | CBO Analyst Recommendations | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | FTE | Gen Fund Ongoing | Gen Fund 1-Time | Other Revenues | Total Expenses | FTE | Gen Fund Ongoing | Gen Fund 1-Time | Other Revenues | Total Expenses |
| **Bureau of Emergency Communications** | | | | | | | | | | | |
| *Key Priorities* | | | | | | | | | | | |
| EC_03 - BOEC - Add CAD Coordinator | 01 | 1.00 | 95,784 | 0 | 26,016 | 121,800 | 0.00 | 0 | 0 | 0 | 0 |
| EC_02 - BOEC - Add EC Supervisor assigned to Train | 02 | 1.00 | 95,784 | 0 | 26,016 | 121,800 | 0.00 | 0 | 0 | 0 | 0 |
| EC_05 - BOEC - ECS assigned to Operations | 03 | 2.00 | 191,568 | 0 | 52,032 | 243,600 | 0.00 | 0 | 0 | 0 | 0 |
| EC_01 - BOEC- Add EC Dispatcher, Sr | 04 | 6.00 | 462,535 | 0 | 125,633 | 588,168 | 0.00 | 0 | 0 | 0 | 0 |
| EC_04 - BOEC- Replace Operations Workstations | 05 | 0.00 | 0 | 900,000 | 0 | 900,000 | 0.00 | 0 | 0 | 0 | 0 |
| *Total Key Priorities* | | *10.00* | *845,671* | *900,000* | *229,697* | *1,975,368* | *0.00* | *0* | *0* | *0* | *0* |
| **Total Bureau of Emergency Communications** | | **10.00** | **845,671** | **900,000** | **229,697** | **1,975,368** | **0.00** | **0** | **0** | **0** | **0** |