

Overview and Initial Issues Identification Seattle Police Department

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Expenditures

	2012 Adopted	2013 Proposed	% Change '12 to '13	2014 Proposed	% Change '13 to '14
Expenditures by BCL					
Chief of Police	\$2,630,000	\$3,277,000	24.6%	\$3,370,000	2.8%
Criminal Investigations Administration	\$7,655,000	\$7,888,000	3.0%	\$8,135,000	3.1%
Deputy Chief of Staff	\$25,019,000	\$25,344,000	1.3%	\$26,331,000	3.9%
Deputy Chief Operations	\$2,395,000	\$2,301,000	-3.9%	\$2,333,000	1.4%
East Precinct	\$22,599,000	\$22,727,000	0.6%	\$22,957,000	1.0%
Field Support Administration	\$34,558,000	\$42,730,000	23.6%	\$39,294,000	-8.0%
Narcotics Investigations	\$4,793,000	\$4,699,000	-2.0%	\$4,749,000	1.1%
North Precinct Patrol	\$31,041,000	\$30,680,000	-1.2%	\$31,076,000	1.3%
Office of Professional Accountability	\$1,874,000	\$1,943,000	3.7%	\$1,971,000	1.4%
Patrol Operations Administration	\$1,295,000	\$1,304,000	0.7%	\$1,315,000	0.8%
South Precinct Patrol	\$16,516,000	\$16,582,000	0.4%	\$16,721,000	0.8%
Southwest Precinct Patrol	\$14,979,000	\$15,011,000	0.2%	\$15,101,000	0.6%
Special Investigations	\$4,133,000	\$4,299,000	4.0%	\$4,338,000	0.9%
Special Operations	\$40,733,000	\$47,293,000	16.1%	\$45,773,000	-3.2%
Special Victims	\$6,177,000	\$6,249,000	1.2%	\$6,334,000	1.4%
Violent Crimes Investigations	\$6,799,000	\$7,397,000	8.8%	\$7,466,000	0.9%
West Precinct Patrol	\$29,020,000	\$28,412,000	-2.1%	\$28,710,000	1.0%
Total Expenditures	\$252,217,000	\$268,136,000	6.3%	\$265,974,000	-0.8%
Total FTEs	1935.35	1948.35	0.7%	1948.35	0.0%

Introduction:

The Police Department's presentation to the Budget Committee provided a good overview of the proposed budget. This paper discusses these four issues:

1. How many recruits and trained officers should the Department hire in 2013 and 2014?
2. Should the Department continue the extra violence prevention patrols begun in 2012?
3. Should the Department purchase an acoustic gunshot location system?
4. Should the City cancel the new pay-by-phone system for parking meter payments, due to new information about its likely impact on citation revenue? If so, should it add the proposed eight new Parking Enforcement Officers?

We will also briefly describe the Police Department’s responses to the City Auditor’s reports on the Department’s crime analysis capabilities and its in-car video program and the replacement of Video Mobile Data Terminals in patrol cars.

Identified Issues:

1. How many recruits and trained officers should the Department hire in 2013 and 2014?

To answer this question we first have to understand the effect of the proposed budget on sworn staffing. This requires a little history, because the effect of the proposed budget is mainly to counter the current downward course in staffing.

Bottom line: The proposed budget would not increase positions in service – that is, fully trained officers at work – in 2013. Because the training pipeline has been nearly empty in all of 2011 and most of 2012, the number of positions in service is projected to decline by 31 from mid-2012 to mid-2013. The proposed new funding would allow the Department to hire enough recruits and trained officers to restore the training pipeline and bring the number of positions in service back to the mid-2012 level by mid-2014, after which it appears likely to decline again.

Table 1 shows the actual hiring of recruits and trained officers (a.k.a. lateral hires) and all separations, including retirements and training dropouts, in 2010 and 2011, and projections of these for 2012-2014.

Table 1: Police Hiring & Separations 2010-2014, per 2013-2014 Proposed Budget						
	2010	2011	2012	2013	2014	Total 2010-2014
Recruits hired	15	1	24	68	31	139
Trained officers hired (lateral hires)	6	0	7	17	3	33
Separations	(27)	(41)	(36)	(54)	(55)	(213)
Net change	(6)	(40)	(5)	31	(21)	(41)

The effects of this hiring plan are shown in Figure 1.¹ It shows actual and projected staffing levels quarterly from 2007 through 2014, measured three ways:

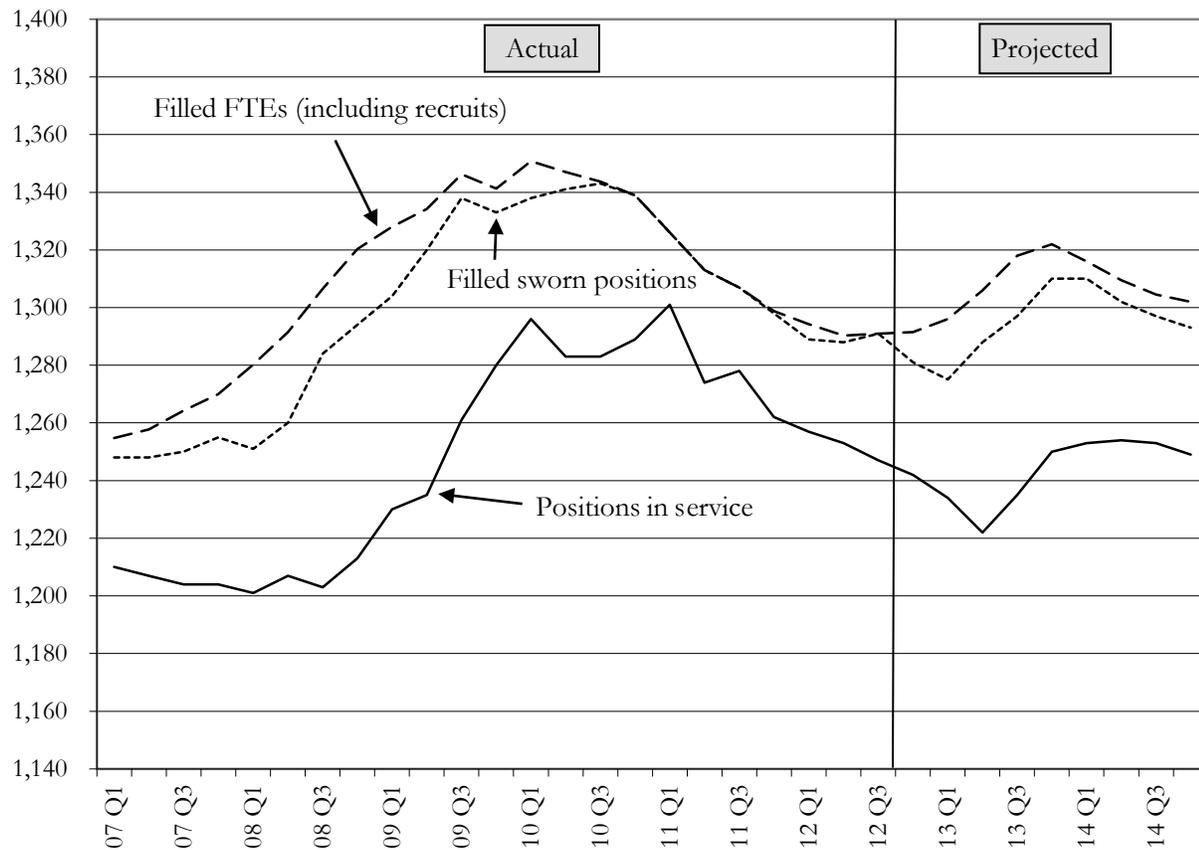
“Positions in service” are fully trained officers not on disability or extended leave. The number of positions in service arguably is the best measure of the effective size of the police force.

“Filled sworn positions” are officers who have completed basic academy training, including those in field training and those on disability or extended leave.

“Filled FTEs” are the total occupied FTEs of officers and recruits. It is the main driver of sworn personnel costs.

¹ Appendix 1 contains the detail behind Figure 1.

Figure 1: Sworn Police Staffing 2007-2014, per 2013-2014 Proposed Budget



Note the following:

- **The number of positions in service has been declining since 2010 and will continue to decline until mid-2013.**² At the end of June 2012, there were 1,253 positions in service. The Department now projects that there will be 1,222 positions in service at the end of June 2013. Midyear is typically when the demand for policing is greatest.
- **The reason for the decline is that the number of recruits and lateral hires has not matched the number of trained officers leaving the force.** In 2012 as a whole the number of recruits and lateral hires will be only five fewer than the number of separations, but most of the separations were in the first half of the year and most of the hiring will be in the second half, so the number of officers entering the training pipeline continues to lag behind the number of officers leaving the force. Only four officers will complete field training in the first half of 2013, while 24 trained officers are projected to leave.
- **The proposed budget includes a surge in hiring in 2013.** The Department plans to hire 68 recruits in 2013, most in the first half of the year. In addition, it plans to hire 17 trained officers, which may be an historic high. These recruits and lateral hires will begin to complete field training in the second half of 2013, leading to a sharp increase in positions in service, reaching a peak of 1,254 in mid-2014, which is one more than in mid-2012.

² The temporary peak in positions in service in the first quarter of 2011 was due to a temporary decline in officers on disability or extended leave. See the page for 2011 in Appendix 1.

- ***In 2014, hiring is again projected to fall below separations.*** The Department expects 48 trained officers to leave. It plans to hire 31 recruits and three trained officers, which, after normal expected training dropouts, would yield 27 officers.³

Why does hiring decline in 2014? The Department must reduce hiring in 2014 to meet the proposed 2014 budget. The average number of projected filled FTEs is 1,310 for both 2013 and 2014, and this is the number funded. Due to the surge in hiring in 2013, there will be 1,322 filled FTEs at the beginning of 2014. Sustaining 1,322 filled FTEs throughout 2014 would require approximately \$1 million more than sustaining 1,310. The plan meets the average of 1,310 and the budget by reducing the number of filled FTEs to 1,302 by the end of 2014.

What would happen in 2015? Notice that change in positions in service follows change in filled FTEs by about nine months, reflecting the nine months required to fully train a recruit. This suggests that the downward course in filled FTEs in 2014 would be followed by a downward course in positions in service for most of 2015.

What would be the impact on patrol? Table 2 shows the total number of officers and sergeants assigned to the five precincts at the end of September.⁴

	Sergeants	Officers
Assigned to 911 response	63	518
Bike & Foot Beats	5	51
Anti-Crime Teams	5	29
Community Police Teams	4	20
Clerks		11
Patrol Wagons		8
Seattle Center	1	5
Other	1	11
Total	79	653

Note in particular the 518 officers assigned to 911 response. This figure is a key number in the Neighborhood Policing Plan, because, for a given volume of 911 calls, it largely determines both the average speed of response to these calls and the amount of proactive time these officers have to address other crime problems in their beats.

The 518 officers assigned to 911 response at the end of September are 13 fewer than the 531 assigned at the end of 2011 and 35 fewer than the 553 assigned at the end of 2010. Leaving aside whether the goals of the Neighborhood Policing Plan are in fact being achieved,⁵ over this same period the Department has been attempting to increase the number of officers assigned to 911 response, or at least mitigate the decline, by transferring officers from other functions. This has

³ See the page for 2014 in Appendix 1.

⁴ For details by precinct, see Appendix 2.

⁵ The proposed budget says the Department is achieving NPP goals with average priority 1 response times of less than seven minutes and an average of 30% proactive time citywide, but the plan itself calls for seven minute response times “everywhere, anytime,” and for proactive time to be available in manageable blocks when and where it is most useful.

proven more difficult than anticipated. Even relatively low priority functions such as the mounted patrol and precinct desk clerks are demanded by constituents.

In the Department's October 3 presentation, the Budget Director said the 2013 budget would allow the Department to add 10 officers to patrol next year. Officers assigned to 911 response must be fully trained, so adding officers to patrol requires adding positions in service overall or transferring officers into patrol from other functions. It is not clear what the year-to-year start and end points are for this comparison, but at the extreme, if we compare midyear to midyear, when demand for policing is typically greatest, adding 10 officers to patrol would require losing 41 elsewhere, because there will be 31 fewer positions in service overall at mid-2013 than at mid-2012.

Options

The first two options are alternative ways of solving the problem of beginning 2014 with more filled FTEs than the proposed 2014 budget can sustain. The third option would add more officers yet.

1. Reduce 2013 hiring to a level that yields 1,310 filled FTEs at the end of the year, rather than 1,322.

A rough estimate of the savings in 2013 would be \$330,000. The exact amount would depend on the hiring scenario the Department develops to accomplish this.

2. Increase hiring in 2014 to a level that sustains 1,322 filled FTEs.

A very rough estimate of the cost would be \$1 million in 2014 and \$1.3 million in 2015 and beyond. Again the exact amounts would depend on the hiring scenario. The goal would be to support an average of approximately 1,250 positions in service once hiring and training stabilizes.

3. Increase hiring in 2013, if feasible, and in 2014, to set a course for filled FTEs greater than 1,322 and positions in service greater than 1,250.

"If feasible" because it is unclear whether the Department would be able to hire and train significantly more than the 68 recruits and 17 lateral hires currently proposed for 2013 and still maintain quality. Initial reports from the Department suggest that this would be difficult. "Set a course" because the best practice is to change the size of the sworn force slowly and steadily. The cost would depend on the short and long term targets.

4. Approve the proposed budget.

2. Should the Department continue the extra violence prevention patrols begun in 2012?

In early 2012, in response to the increase in shootings early in the year and to Executive direction and community demands, the Department created and deployed designated Violence Prevention Emphasis Patrols, and also augmented regular patrols and extended patrol shifts to address violence, especially on Thursday, Friday and Saturday nights. The patrols have been deployed in all five precincts, and more than 90% of staffing has been supplied by officers in the precincts.

The extra patrols are funded almost entirely by \$4 million of overtime. This new overtime expense is the main reason the Department will exceed its 2012 overtime budget by approximately \$5.6 million. As of this writing, the Executive has not determined exactly how the excess will be covered, but most will not be covered within the Department's 2012 budget.

The total 2012 budget for overtime is \$12.8 million. The proposed 2013 budget for overtime is also \$12.8 million. Assuming other demands for overtime remain more or less the same, this implies three basic choices: Either the Department ceases or greatly reduces the extra violence prevention patrols in 2013, or the City increases the Department's overtime budget, or the Department will again exceed its overtime budget by as much as \$4 million or more.

Will these patrols be needed in 2013?

This is a difficult question, and not one we can fully answer here. A full answer would first require a prediction of the level of violence. The Department reports that violence subsequently declined in some of the beats where the patrols have been deployed but not in others. Based on what we know now, we have no reason to assume either that the level of street violence in 2012 is a fluke or that it is the beginning of a trend.

Second, it would require knowing whether the emphasis patrols are effective. These patrols are a form of proactive hot spot policing, and there is good evidence that hot spot policing can be very effective in reducing crime – more effective, for example, than such standard elements of policing as fast responses to 911 calls, follow-up investigations, and random patrol, including bicycle and foot patrols.⁶ A variety of specific policing activities fit under this general label, however, and the effectiveness of these different activities is both highly situational and not yet thoroughly understood.⁷

Third, it would require knowing whether the Department can effectively address the same kind of violence by other means – specifically, by other means within the proposed budget. This also is uncertain. The means will not include additional positions in service overall, because positions in service will decline in 2013. They could include additional positions in patrol, but this would require greater losses in other sworn functions. For reasons described in the next section, we should not rely on the automated gunfire locator system to be the answer. It would be convenient but superficial to assume that the Department could simply work smarter based on what it has learned in 2012. The street violence of 2012 may have been higher than in recent years, but it is not an entirely new phenomenon.

Does it make sense to use overtime for these patrols?

The first thing to know about sworn overtime is that it is less expensive than the regular time purchased by adding an officer. Appendix 3 is an updated comparison between the cost of an overtime hour for a patrol officer with ten years' experience, and the cost of a regular productive

⁶ National Research Council, Skogan and Frydl (eds.), *Fairness and Effectiveness in Policing: The Evidence*, National Academies Press, 2004.

⁷ E. Groff and J. Ratcliffe, "Does What Police Do at Violent Crime Hot Spots Matter?" Annual Symposium of the Center for Evidence-Based Crime Policy, August 2012.

hour when the benefits, time off and training overhead of the position are considered. It shows that an overtime hour is 8% less expensive than a productive regular hour for such an officer.

Overtime also is more flexible than regular time. Day-to-day it is more flexible because it can be used when and where it is needed, rather than being constrained by a shift structure. Over longer periods it is more flexible because it can be increased or decreased quickly depending on need and resources within the year.

Doesn't the Department often exceed its overtime budget?

Yes. Between 2000 and 2011 the Department's total overtime budget increased from \$7.7 million to \$12.7 million. On average over these years it exceeded the overtime budget by \$2 million, or 22%. In 2011, the overtime excess of \$1.7 million was 0.7% of the total Department budget. In recent years the Department has covered these excesses within its budget, in part by holding vacancies open and capturing the salary savings. The 2012 excess is unusually large.

Options:

No good clear options are apparent. It would not be prudent to simply add millions of dollars to the Department's budget based on the possibility of continued high levels of violence. Nor would it be prudent to assume that in 2013 the city will not again see high levels of street violence and want an increased police response. Nor is it good budgeting policy to set a budget with the understanding that if the Department exceeds budget, the City will automatically fill the hole.

If the Council reduces the proposed 2013 budget for the Police Department for any other reason, some or all of the savings could be left within the Department or held in Finance General to hedge against a possible need for sworn overtime in excess of the Department's budget. This would not resolve any of the policy issues above, but would potentially mitigate the problem somewhat without requiring reductions elsewhere in the General Subfund.

In any event, it would be good for the Council to develop a better understanding than we have today of what the City bought with the \$4 million in overtime for these emphasis patrols and what it would be buying if the need for them appears again. This would include understanding not only the size, frequency, location and specific activities of the patrols, the problems they are intended to address, and their likely or measured effectiveness, but also the degree to which the same problems might be addressed with the 30% proactive time that already exists in patrol. It would also be good to ask the Department to notify the Council early and often if it plans to begin patrols that may create excess overtime costs.

3. Should the Department purchase an acoustic gunshot location system?

Acoustic Gunshot Location System (AGLS) Proposed Add

SPD's 2013-14 Proposed Budget contains \$750,000 in 2013 to purchase an Acoustic Gunshot Location System (AGLS). AGLS can identify the location of random gunshots fired *outside* by triangulating acoustic waves generated from the gunfire. AGLS technology can transmit fairly precise location data indicating where the shot originated. AGLS systems can also be paired with surveillance cameras. SPD says it will select a system that includes cameras capable of "ongoing

recording” in order to capture scenes both before and after a shot is fired. Cameras would be used to monitor “public areas, roadways, sidewalks, parking lots that are open to public view...”

The proposed funding includes approximately \$550,000 in capital costs and \$200,000 in on-going operating costs, including an IT position to help implement and manage the system. The capital funding would pay for 42- 52 AGLS units capable of covering an area of the city with a 2-mile radius^[1] An AGLS system can be leased or purchased; SPD indicates it favors purchasing, though a final decision would not be made until a vendor is selected.

Impact of AGLS technology

Vendors selling AGLS technology claim it acts as a deterrent to random gunfire and gun crimes, primarily by decreasing response times. The idea is that faster police response times will increase the chances of apprehending a shooter and thus, potential shooters will be deterred since they are more likely to be captured. But the starting premise—faster response times—appears questionable, at least to the extent that it will make a difference in policing outcomes.

According to SPD, AGLS units can potentially decrease *dispatch* times for gunfire follow up if AGLS units transmit gunfire reports more quickly than a citizen calling it in. In cities where citizen reports of gunshots are variable, AGLS notification may be more reliable and faster. In Seattle, the difference in time between citizen reports and AGLS notification may not be as discernable since SPD reports “Seattle has active citizens who call”.^[2]

Assuming, however, that AGLS technology results in faster notification times of shots fired in Seattle neighborhoods where the equipment is installed, it cannot be assumed that this will translate into faster overall response times. Thus, SPD is unwilling to speculate on the extent to which response times might decrease since “response times will still be based on a variety of circumstances, such as location at time of notification, traffic flow, weather, etc.” AGLS technology, does, however, reduce the time needed to conduct “area checks” to pinpoint the location of the gunfire.

Results of Independent Research

Evidence-based research confirming the benefits of AGLS technology is difficult to come by. Anecdotal information suggests mixed reviews of AGLS technology. Various cities across the country have implemented AGLS technology in neighborhoods experiencing excessive random gunfire (e.g. Washington D.C., Dallas). Other cities have questioned its value and opted not to adopt the technology (St. Louis, San Francisco), or abandoned it once adopted (Chicago).

To date, it appears only one independent peer-reviewed study has been conducted that specifically examines AGLS’ effectiveness in reducing gunshots and gun-related crime. The study compared two high crime St. Louis neighborhoods where AGLS was implemented to neighborhoods where it was not. It controlled for other factors likely to affect gun violence, such as directed patrols. The study found the following:

^[1] SPD also put forth options that would cover a 1 mile radius (\$500,000 in initial year) and a 3 mile radius (\$1 million in initial year).

^[2] All SPD quotes in this paper are from written responses to Central Staff questions as part of budget Q&A.

- AGLS has “no appreciable effect” on gun crimes. Out of the almost 900 reports of gunfire during the 14 month study period, only 17 were identified as associated with a violent crime (1.9%) and only one case of arrest was made (.1%).
- AGLS may have some impact on a reduction of citizen *reports* of shots fired, but this is not the same thing as a reduction in actual shots fired.
- Problem-oriented policing strategies, such as directed patrol, are likely more effective for reducing crime.
- The study authors think AGLS is “a useful and objective tool for understanding patterns in gun violence and by linking ballistic evidence recovered from gun-crime scenes.”

Options:

- 1) Approve funding to purchase AGLS technology as proposed (\$750k in 2013; \$200k in 2014).
- 2) Proviso funds until more convincing information is provided that demonstrates the benefits of AGLS technology. Moreover, this information should be provided in the context of Seattle’s violent crime patterns and specifically address how AGLS could be useful in this context (as opposed to anecdotal speculation). SPD should also provide more data about the nature of Seattle’s random gunfire (where, when, frequency, concentration, comparison to other cities, number that are crime related, etc) and various strategies, in addition to AGLS, for dealing with it.
- 3) Do not approve funding to purchase AGLS technology at this time.

4. Should the City cancel the new pay-by-phone system for parking meter payments, due to new information about its likely impact on citation revenue? If so, should it add the proposed eight new Parking Enforcement Officers?

The new pay-by-phone system, budgeted for 2012 but not yet implemented, will increase the time required for Parking Enforcement Officers (PEOs) to verify payments and thus reduce General Subfund citation revenue by \$1.26 million in 2013 and \$845,000 in 2014. The estimated impact declines because new hand-held ticketing devices the Department plans to have deployed by 2014 will reduce but not eliminate the extra time required.

The proposed budget compensates for this reduction in enforcement activity by adding eight PEOs and one Parking Enforcement Supervisor. Table 3 shows the estimated combined effect of the pay-by-phone system and the additional PEOs.

Table 3: Combined effect of Pay-by-Phone and new Parking Enforcement Officers				
	effect of PBP on citation revenue	effect of eight PEOs and Supervisor		combined effect of PBP and PEOs
		cost of PEOs	revenue from PEOs	
2013	(\$1,259,000)	(\$1,288,229)	\$1,478,073	(\$1,069,156)
2014	(\$845,000)	(\$779,663)	\$1,937,168	\$312,505

The first year costs of the new PEOs are higher than the ongoing costs because additional PEOs require additional equipment. The first year revenue from the additional PEOs is lower than the second year revenue because of the training required in the first year.

Options:

1. Eliminate the pay-by-phone program and do not add the eight PEOs and one Parking Enforcement Supervisor.

This would increase the General Subfund balance by \$1,069,156 in 2013 and reduce it by \$312,505 in 2014.

2. Eliminate the pay-by-phone program and add the eight PEOs and one Parking Enforcement Supervisor as proposed.

This would increase the General Subfund balance by \$1,259,000 in 2013 and \$845,000 in 2014. This assumes the new PEOs would find the same number of violations without the loss of overall parking enforcement efficiency created by the pay-by-phone system.

3. Approve the proposed budget.

Other Changes that Do Not Warrant Analysis as “Issues”:

How has the Department responded to the City Auditor’s report on its crime analysis capabilities?

The Auditor made four main recommendations to improve the Department’s crime analysis capabilities: (a) make better use of existing data from within and outside the Department in order to develop and evaluate policing strategies; (b) develop and maintain more expertise for strategic crime analysis; (c) make better use of software tools; and (d) automate routine reports.

To respond to the Auditor, the proposed budget adds an Information Technology (IT) Professional and a Strategic Advisor to support crime analysis. The IT Professional would organize the data and tools for strategic crime analysis. The Strategic Advisor would bring additional expertise for the analysis and would lead other analysts in this work. The Department argues that the new positions are needed for this because existing crime analysis staff are fully occupied with day-to-day tactical crime analyses and ad hoc reports, and existing IT staff are fully occupied with existing and new IT systems, including but not limited to those for computer aided dispatch, records management, crime information for the public, video and digital evidence management, and the new information needed to meet the requirements of the agreements with the Department of Justice. The Executive proposes to create the new positions in the 2012 4th quarter supplemental appropriation, so the proposed budget does not add position authority.

These new positions and the Department’s detailed description of their tasks and their relationships to others in the Department appear responsive to the Auditor’s recommendations. The proof will be in performance over the next year or two. These are complex activities, and the new positions and

new focus given to this work by the Department should not be expected to result in instantly apparent change.

How has the Department responded to the City Auditor’s recommendations on the in-car video program?

Both the City Auditor and Office of Professional Accountability (OPA) Auditor recommended that the Department make several changes to improve the management and implementation of its video camera program. The proposed budget responds to one aspect of the City Auditor’s recommendations by adding a Video Specialist at a cost of \$115,000 in 2013 and \$108,000 in 2014. The Executive proposes to create the new position in the 2012 4th quarter supplemental appropriation, so the proposed budget does not add position authority.

The Department reports, however, that it is in the process of implementing all the City Auditor’s recommendations, though implementation of some recommendations is contingent upon the replacement of the Video Mobile Data Terminals proposed in the budget. The Department says it has also drafted new policies that address the OPA Auditor’s recommendations, including clarification of when officers must use in-car video cameras. If Council is interested, it could request a report back (via a Statement of Legislative Intent) on the specifics of the changes the Department is making on these fronts during the first quarter of 2013.

Why must the Video Mobile Data Terminals be replaced in 2013?

The proposed budget includes \$4.9 million in 2013 and \$436,000 in 2014 for the replacement of Video Mobile Data Terminals (VMDTs) in all patrol cars. VMDTs are used by the Computer Aided Dispatch System to dispatch officers to 911 calls, and are also used to operate the in-car video system. They allow officers to write reports in the car rather than drive to the precinct to write them there, and give officers access to confidential information from the FBI’s National Crime Information Center (NCIC).

The VMDTs are at the end of their useful life. The existing system was purchased in 2007 and scheduled for replacement in 2012. Reserves that were collected for the replacements in the intervening years were instead used to help balance the General Subfund. Maintenance costs and downtime are increasing because equipment failures are increasing and parts are becoming hard to find. Further, new NCIC encryption requirements cannot be met by the existing equipment.

Because officers use different cars from day to day and because the VMDT system must be integrated with other automated systems, it would be impractical to replace only some of them.

Appendix 1: Sworn Police Staffing 2010-2014 per 2013-2014 Proposed Budget

2010						
	Q1	Q2	Q3	Q4	total	monthly average
1. Positions in service at start of quarter	1,280	1,296	1,283	1,283		
Officers rehired, no training required	1	0	0	0	1	
Separations in quarter	(6)	(10)	(4)	(5)	(25)	
Change in officers on disability or extended leave	9	(4)	(6)	(4)		
Officers from field training	12	1	10	11		
Positions in service at end of quarter	1,296	1,283	1,283	1,289		1,289
2. Recruits in Academy at start of quarter	11	17	8	1		
Recruits entering Academy	15	0	0	0	15	
Recruit separations	0	0	0	(1)	(1)	
Recruits completing Academy	(9)	(9)	(7)	0		
Recruits in Academy at end of quarter	17	8	1	0		7
3. Lateral hires in training at start of quarter	0	0	0	0		
Lateral hires entering training	1	4	0	0	5	
Lateral hire separations	0	0	0	0	0	
Lateral hires completing training	(1)	(4)	0	0		
Lateral hires in training at end of quarter	0	0	0	0		
4. Officers in field training at start of quarter	17	15	27	23		
Academy graduates entering field training	9	9	7	0		
Lateral hires entering field training	1	4	0	0		
Field training officer separations	0	0	(1)	0	(1)	
Officers completing field training	(12)	(1)	(10)	(11)		
Officers in field training at end of quarter	15	27	23	9		18
5. Positions in service at end of quarter	1,296	1,283	1,283	1,289		1,289
Officers on disability or extended leave	27	31	37	41		33
Field training officers + lateral hires in training	15	27	23	9		18
Filled sworn positions at end of quarter	1,338	1,341	1,343	1,339		1,340
6. Sworn position authority at end of quarter	1,350	1,350	1,329	1,329		1,340
Filled sworn positions at end of quarter	(1,338)	(1,341)	(1,343)	(1,339)		(1,340)
Sworn position vacancies at end of quarter	12	9	(14)	(10)		(1)
7 Filled FTE (sworn @ 1.0, recruits @ .75)	1,351	1,347	1,344	1,339		1,345

Appendix 1: Sworn Police Staffing 2010-2014 per 2013-2014 Proposed Budget

2011						
	Q1	Q2	Q3	Q4	total	monthly average
1. Positions in service at start of quarter	1,289	1,301	1,274	1,278		
Officers rehired, no training required	0	0	0	0	0	
Separations in quarter	(11)	(13)	(6)	(9)	(39)	
Change in officers on disability or extended leave	16	(14)	10	(7)		
Officers from field training	7	0	0	0		
Positions in service at end of quarter	1,301	1,274	1,278	1,262		1,283
2. Recruits in Academy at start of quarter	0	0	0	0		
Recruits entering Academy	0	0	0	1	1	
Recruit separations	0	0	0	0	0	
Recruits completing Academy	0	0	0	0		
Recruits in Academy at end of quarter	0	0	0	1		0
3. Lateral hires in training at start of quarter	0	0	0	0		
Lateral hires entering training	0	0	0	0	0	
Lateral hire separations	0	0	0	0	0	
Lateral hires completing training	0	0	0	0		
Lateral hires in training at end of quarter	0	0	0	0		
4. Officers in field training at start of quarter	9	0	0	0		
Academy graduates entering field training	0	0	0	0		
Lateral hires entering field training	0	0	0	0		
Field training officer separations	(2)	0	0	0	(2)	
Officers completing field training	(7)	0	0	0		
Officers in field training at end of quarter	0	0	0	0		1
5. Positions in service at end of quarter	1,301	1,274	1,278	1,262		1,283
Officers on disability or extended leave	25	39	29	36		32
Field training officers + lateral hires in training	0	0	0	0		1
Filled sworn positions at end of quarter	1,326	1,313	1,307	1,298		1,316
6. Sworn position authority at end of quarter	1,327	1,327	1,327	1,327		1,327
Filled sworn positions at end of quarter	(1,326)	(1,313)	(1,307)	(1,298)		(1,316)
Sworn position vacancies at end of quarter	1	14	20	29		11
7 Filled FTE (sworn @ 1.0, recruits @ .75)	1,326	1,313	1,307	1,299		1,316

Appendix 1: Sworn Police Staffing 2010-2014 per 2013-2014 Proposed Budget

2012						
	Q1	Q2	Q3	Q4 (est.)	total	monthly average
1. Positions in service at start of quarter	1,262	1,257	1,253	1,247		
Officers rehired, no training required	1	0	0	0	1	
Separations in quarter	(12)	(9)	(5)	(9)	(35)	
Change in officers on disability or extended leave	6	4	(2)	(7)		
Officers from field training	0	1	1	11		
Positions in service at end of quarter	1,257	1,253	1,247	1,242		1,250
2. Recruits in Academy at start of quarter	1	7	3	0		
Recruits entering Academy	7	3	0	14	24	
Recruit separations	0	0	0	0	0	
Recruits completing Academy	(1)	(7)	(3)	0		
Recruits in Academy at end of quarter	7	3	0	14		5
3. Lateral hires in training at start of quarter	0	1	1	1		
Lateral hires entering training	1	1	5	0	7	
Lateral hire separations	0	0	0	0	0	
Lateral hires completing training	0	(1)	(5)	(1)		
Lateral hires in training at end of quarter	1	1	1	0		
4. Officers in field training at start of quarter	0	1	8	15		
Academy graduates entering field training	1	7	3	0		
Lateral hires entering field training	0	1	5	1		
Field training officer separations	0	0	0	(1)	(1)	
Officers completing field training	0	(1)	(1)	(11)		
Officers in field training at end of quarter	1	8	15	4		5
5. Positions in service at end of quarter	1,257	1,253	1,247	1,242		1,250
Officers on disability or extended leave	30	26	28	35		32
Field training officers + lateral hires in training	2	9	16	4		6
Filled sworn positions at end of quarter	1,289	1,288	1,291	1,281		1,288
6. Sworn position authority at end of quarter	1,300	1,300	1,300	1,300		1,300
Filled sworn positions at end of quarter	(1,289)	(1,288)	(1,291)	(1,281)		(1,288)
Sworn position vacancies at end of quarter	11	12	9	19		12
7 Filled FTE (sworn @ 1.0, recruits @ .75)	1,294	1,290	1,291	1,292		1,292

Appendix 1: Sworn Police Staffing 2010-2014 per 2013-2014 Proposed Budget

2013						
	Q1 (est.)	Q2 (est.)	Q3 (est.)	Q4 (est.)	total	monthly average
1. Positions in service at start of quarter	1,242	1,234	1,222	1,235		
Officers rehired, no training required	0	0	0	0	0	
Separations in quarter	(12)	(12)	(9)	(9)	(42)	
Change in officers on disability or extended leave	0	0	0	0		
Officers from field training	4	0	22	24		
Positions in service at end of quarter	1,234	1,222	1,235	1,250		1,234
2. Recruits in Academy at start of quarter	14	28	24	28		
Recruits entering Academy	21	17	21	9	68	
Recruit separations	(1)	(2)	(1)	(2)	(6)	
Recruits completing Academy	(6)	(19)	(16)	(19)		
Recruits in Academy at end of quarter	28	24	28	16		24
3. Lateral hires in training at start of quarter	0	0	0	0		
Lateral hires entering training	0	6	6	5	17	
Lateral hire separations	0	0	(1)	(1)	(2)	
Lateral hires completing training	0	(6)	(5)	(4)		
Lateral hires in training at end of quarter	0	0	0	0		
4. Officers in field training at start of quarter	4	6	31	27		
Academy graduates entering field training	6	19	16	19		
Lateral hires entering field training	0	6	5	4		
Field training officer separations	0	0	(3)	(1)	(4)	
Officers completing field training	(4)	0	(22)	(24)		
Officers in field training at end of quarter	6	31	27	25		20
5. Positions in service at end of quarter	1,234	1,222	1,235	1,250		1,234
Officers on disability or extended leave	35	35	35	35		35
Field training officers + lateral hires in training	6	31	27	25		23
Filled sworn positions at end of quarter	1,275	1,288	1,297	1,310		1,292
6. Sworn position authority at end of quarter	1,310	1,310	1,310	1,310		1,310
Filled sworn positions at end of quarter	(1,275)	(1,288)	(1,297)	(1,310)		(1,292)
Sworn position vacancies at end of quarter	35	22	13	0		18
7 Filled FTE (sworn @ 1.0, recruits @ .75)	1,296	1,306	1,318	1,322		1,310

Appendix 1: Sworn Police Staffing 2010-2014 per 2013-2014 Proposed Budget

2014						
	Q1 (est.)	Q2 (est.)	Q3 (est.)	Q4 (est.)	total	monthly average
1. Positions in service at start of quarter	1,250	1,253	1,254	1,253		
Officers rehired, no training required	0	0	0	0	0	
Separations in quarter	(13)	(13)	(11)	(11)	(48)	
Change in officers on disability or extended leave	0	0	0	0		
Officers from field training	16	14	10	7		
Positions in service at end of quarter	1,253	1,254	1,253	1,249		1,253
2. Recruits in Academy at start of quarter	16	8	10	10		
Recruits entering Academy	7	8	7	9	31	
Recruit separations	0	(1)	(1)	(1)	(3)	
Recruits completing Academy	(15)	(5)	(6)	(6)		
Recruits in Academy at end of quarter	8	10	10	12		10
3. Lateral hires in training at start of quarter	0	0	0	0		
Lateral hires entering training	0	1	0	2	3	
Lateral hire separations	0	0	0	0	0	
Lateral hires completing training	0	(1)	0	(2)		
Lateral hires in training at end of quarter	0	0	0	0		
4. Officers in field training at start of quarter	25	22	13	9		
Academy graduates entering field training	15	5	6	6		
Lateral hires entering field training	0	1	0	2		
Field training officer separations	(2)	(1)	0	(1)	(4)	
Officers completing field training	(16)	(14)	(10)	(7)		
Officers in field training at end of quarter	22	13	9	9		14
5. Positions in service at end of quarter	1,253	1,254	1,253	1,249		1,253
Officers on disability or extended leave	35	35	35	35		35
Field training officers + lateral hires in training	22	13	9	9		15
Filled sworn positions at end of quarter	1,310	1,302	1,297	1,293		1,303
6. Sworn position authority at end of quarter	1,310	1,310	1,310	1,310		1,310
Filled sworn positions at end of quarter	(1,310)	(1,302)	(1,297)	(1,293)		(1,303)
Sworn position vacancies at end of quarter	0	8	13	17		7
7 Filled FTE (sworn @ 1.0, recruits @ .75)	1,316	1,310	1,305	1,302		1,310

Appendix 2: Officers and Sergeants in Precincts in 3rd Quarter of 2012

Precinct	East		North		South		Southwest		West		Total	
% of total 911 call hours	18%		32%		17%		12%		21%		100%	
Officers and Sergeants	Sgt.	Off.	Sgt.	Off.	Sgt.	Off.	Sgt.	Off.	Sgt.	Off.	Sgt.	Off.
Assigned to 911 response	10	86	19	162	12	93	8	68	14	109	63	518
% of total assigned to 911	16%	17%	30%	31%	19%	18%	13%	13%	22%	21%	100%	100%
Clerks		3		2		2		2		2		11
Patrol Wagons				3		1		1		3		8
Seattle Center									1	5	1	5
Bike & Foot Beats	1	5		3					4	43	5	51
Anti-Crime Teams	1	6	1	5	1	5	1	7	1	6	5	29
Community Police Teams	1	4	1	6	1	2		3	1	5	4	20
Other		2		1		3			1	5	1	11
Total	13	106	21	182	14	106	9	81	22	178	79	653
"Other" includes Neighborhood Corrections Initiative teams, stationmasters, quartermasters and the mounted patrol.												
The table includes:												
(a) officers and sergeants unavailable due to vacation, training, limited duty, illness or injury; and												
(b) officers on short term loan to specialty units for training and evaluation.												
The table excludes:												
(a) student officers in field training;												
(b) officers on long term loan to other units;												
(c) officers on military leave; and												
(d) precinct detectives.												

Appendix 3

Cost of Police Officer Overtime vs. Regular Working Hour			
A Regular pay and overtime pay			
1	Officer salary	\$90,514	Patrol officer with 10 years seniority
2	Officer benefits	\$24,992	
3	Officer salary & benefits	\$115,506	
4	Paid hours per year	2088	
5	Regular pay per hour	\$43.35	= \$90,514/2088
6	Overtime pay per hour	\$65.02	= \$43.35*150%
B Productive regular hours			
7	Paid hours per year	2088	
8	Less vacation, holidays, sick leave and training	(404)	Patrol staffing analysis
9	Productive regular hours	1684	
10	Cost of productive regular hour before other adjustments	\$68.59	= \$115,506/1684
C Adjustments for disability, extended leave, recruits and student officers			
11	Fully trained officers	1282	Average for 2012
12	Less officers on disability or extended leave	(32)	Average for 2012
13	Fully trained officers in service	1250	
14	% of fully trained officers that are in service	97.5%	= 1278/1300
15	Productive regular hours per fully trained officer	1642.0	= 1684 * 97.5%
16	Recruit salary & benefits per month	\$5,228.66	
17	Cost of one filled recruit position per year	\$62,744	= \$5228.66*12
18	Monthly average recruits in training	2.78	See footnote
19	Recruits per month per fully trained officer	0.00217	= 2.78/1282
20	Cost of recruits per fully trained officer	\$136	= .00217*\$62,744
21	Student officer salary & benefits per month	\$7,751.06	
22	Cost of one filled student officer position per year	\$93,013	= \$7751.06*12
23	Monthly average student officers	2.23	See footnote
24	Student officers per month per fully trained officer	0.00174	= 2.23/1282
25	Cost of student officers per fully trained officer	\$161	= .00174*\$93,013
26	Fully trained officer salary and benefits	\$115,506	line 3
27	Cost of recruits per fully trained officer	\$136	line 20
28	Cost of student officers per fully trained officer	\$161	line 25
29	Total cost per fully trained officer	\$115,804	

Appendix 3

D	Difference between cost of productive regular hour and overtime hour		
30	Productive regular hours per fully trained officer	1642.0	line 15
31	Cost per productive regular hour	\$70.53	= \$115,804/1642
32	Cost of overtime hour	\$65.02	line 6
33	Difference	\$5.50	
34	Percentage difference	-8%	=-\$5.50/\$70.53

Note on recruits and student officers: These estimates reflect the number of recruits and student officers needed to replace trained officers assuming that trained officers have an average tenure of 20 years and that the dropout rate of recruits and student officers is 20%.