CITY AND COUNTY OF SAN FRANCISCO OFFICE OF THE CONTROLLER

Ben Rosenfield
Controller

Monique Zmuda
Deputy Controller

MEMORANDUM

TO: Mayor Edwin Lee
Members of the Board of Supervisors

FROM: Ben Rosenfield, Controller

DATE: April 15, 2011

SUBJECT: Analysis of the Deferred Retirement Option Program's Cost Neutrality and Achievement of the Program's Goals

I am providing with this memo background information and findings concerning the City's Deferred Retirement Option Program (DROP or the Program). The memo provides the Controller's Office analysis of the Program and includes an attached report with actuarial and analytical work as required on this subject from Cheiron, Inc., the Retirement System's consulting actuary.

In 2008 voters approved Proposition B, which created a voluntary Deferred Retirement Option Program for an initial three-year period. The DROP is intended to provide incentives to encourage Police Officers to continue working beyond the date they would have retired and thereby reduce the need to recruit, hire and train new officers to meet staffing requirements. The Program is intended to be "cost neutral" to the City. To this end, the Controller's Office and the San Francisco Retirement System's (SFERS) consulting actuary are required to report on the cost effects of the Program. On the basis of these reports, the Board of Supervisors may act to continue the Program for an additional period of time, but in no event beyond an additional three years, or the Board may let the program sunset on June 30, 2011.

Summary Findings

In summary, Cheiron's actuarial work and our analysis show that:

- The net increase or decrease in City costs attributable to the DROP over its first three years is difficult to state with certainty. This is due largely to difficulty in quantifying DROP's impact, in isolation from all other changes, on police officers' retirement behavior.

- Although only a limited number of people have been eligible, and retirement decisions are influenced by a myriad of factors, since DROP was instituted an officer is likely to enter DROP earlier than they would have otherwise retired;

- Overall, the Retirement System's accrued liability has likely increased under the DROP because of this change in retirement behavior;

- In particular, Cheiron forecast the current observed retirement rates and existing conditions of the DROP and found that if the Program is continued under current conditions, the City would expect a resulting accrued liability of $52 million in retirement costs. Amortizing this liability over 20 years as is SFERS' current practice for benefit changes would add approximately 0.25 percent of payroll (or approximately $6 million annually) to the current employer contribution rate;

- While the City does save some operating costs by not having to replace an officer during their DROP period, those savings are less than the change in the expected value of that officer's retirement benefits and the overall cost to SFERS.

<u>Description of the DROP</u>

The Program became available to San Francisco police officers on July 1, 2008. To be eligible to participate in DROP, a police officer must have at least 25 years of service as a sworn member of the Police Department, be at least 50 years of age, be a full-duty officer and agree to retire at the conclusion of his or her service in DROP.

Participants in DROP:

- Continue working for a specified period of time, not longer than three years;
- May elect to leave the Program at any time prior to end of their eligibility period;
- Continue to receive their regular pay and benefits;
- Continue to make contributions to the Retirement System from their regular pay;
- Do not directly receive retirement pay and benefits. Retirement benefits are "frozen" at the level that the officer had earned upon entry into DROP;
- The officer's retirement payments, with cost of living adjustments, are placed in a tax- deferred account maintained by the SFERS with a set four percent interest rate;
- At the end of the DROP period, officers retire, leave service, stop receiving regular pay and benefits and begin receiving their regular retirement payments;
- At the end of the DROP period, officers receive a lump sum payment of the retirement benefits, plus interest, accumulated in their DROP account.

Savings and Costs with the DROP

Overall, the Program could save the City money if the officer had planned to retire and the DROP causes that officer to work more years than originally intended. Conversely, the Program could cost the City money if the officer does not work past their planned retirement date, or retires earlier than they would have otherwise.

Savings could come in three primary ways—avoided retiree health benefit costs, recruitment and training costs, and savings in the retirement trust fund.

A working DROP officer means that instead of the City paying for health benefits for two individuals (a retiree and a replacement hire), the City only has to pay for the DROP Officer during that period. In particular, the period of time between an individual's retirement and their eligibility for Medicare at age 65 is the highest cost period for City retiree health benefits and savings per person during those years could be significant.

Second, during the DROP period, the City can defer the cost of recruiting, hiring and training an additional officer.

Finally, under the City's Program design, while an officer is enrolled in the DROP they continue to make a required contribution of 7.5 percent of pay to the Retirement System, but do not accrue additional retirement benefits.

To illustrate, the DROP would save money if the officer intended to retire at age 55 but instead joined the DROP at age 55 and worked another three years to age 58. Conversely, the DROP costs money if the officer joins the Program at age 52 and then retires at age 55 when they had planned to retire anyway. In that instance, they are effectively taking a cash payout with their DROP account instead of a somewhat increased retirement payment under the City's defined benefit formula that would have accrued during those DROP years. They are not working any longer than originally anticipated; there is no offset from saved health insurance premiums or deferred training costs. Instead, there are increased costs to the Retirement System due to their beginning to draw benefits sooner and reduced retirement contributions, on a net basis, with the four percent that they earn on retirement payments to their DROP account.

Demographics and Retirement Behavior under the DROP

The data provided by Cheiron and SFERS shows that relative to retirement experience prior to DROP, the actual DROP entry date is not the date at which officers would likely have retired if DROP had not existed (See Table 1).

Over a long period of time, the demographics of SFERS' Police members show that prior to DROP, approximately 12 percent of officers age 55 with 25 or more years of service would have been expected to retire. Since DROP, 33 percent of these officers have elected to retire or enter DROP. With an adjustment for the initial rush of entrants at the beginning of DROP, in summer of 2008, 21 percent of these officers have elected to retire or enter DROP.

Some members who enter DROP earlier than they planned to retire may work for the City longer than they planned to before DROP was offered, but others may be retiring from DROP exactly as they would have if there had been no DROP. It appears from the data that most members enter DROP before they would have retired if no DROP existed. As these members continue to work through their period in DROP they may exit DROP after they would have otherwise retired. There are too few members who have retired from DROP to determine the additional service due to the Program.

Table 1: Retirement Rates for Police Officers age 55 with 25 or more years of Service	
Pre-DROP	12%
Since-DROP	33%
Since-DROP (adjusting for initial rush)	21%
Source: Cheiron Report	

For the period July 1, 2008 to January 1, 2010, the most recent period for which complete data exists, 252 officers retired based on their service (disability retirements also occur but are not included here). Of these, 169 (67 percent) participated in DROP and 83 (33 percent) chose to retire without participating.

The 169 officers who participated in DROP represent 27% of all officers who were eligible to retire via DROP during the period. Of the officers who have elected to retire during the period, Group 2, Inspectors and Sergeants, have the highest DROP enrollment rate at 74 percent, Group 3, Lieutenants and Captains, have the lowest enrollment rate at 53 percent and Group 1, Police Officers, are in the middle at 66 percent. Overall, 67 percent of all officers who retired elected to take advantage of DROP and all Groups have over a 50 percent election rate. (See Table 2)

Table 2. DROP Enrollment vs. Retirement without DROP
July 1, 2008 to January 1, 2011

Rank	**Total Eligible to Retire through DROP**	**Eligible but has not elected to Retire**	**Retired by Entering DROP**	**Retired without DROP**	**Retired for Disability**
Group 1: Police Officers	**278**	149	82	43	4
Group 2: Inspectors and Sergeants	**235**	139	70	25	1
Group3: Lieutenants and Captains	**102**	69	17	15	1
TOTAL	**615 (100%)**	**357 (58%)**	**169 (27%)**	**83 (13%)**	**6 (>1%)**
Source: Retirement System Data					

In the period from July 1, 2008 to January 1, 2011, 169 officers have enrolled in DROP, 114 are currently enrolled and 55 have since retired, either because their eligibility expired or because they left voluntarily.

Group 1—the 82 individuals with the rank of Police Officer that represent approximately 50 percent of total enrollment, are eligible to enroll for up to three years. Eighty percent of these officers are currently enrolled. Group 2—the 70 Inspectors and Sergeants, represent approximately 40 percent of total enrollment and are eligible to enroll for up to two years. Of these 70 participants, 40 are currently enrolled and 30 have retired, of these 30 retirees 11 or 37 percent used over 95 percent of their eligibility prior to retiring. Group 3—the 17 Lieutenants and Captains, represent 10 percent of total enrollment and are eligible to enroll for one year. Of the nine Group 3 participants that have retired, seven or 78 percent used over 95 percent of their eligibility prior to retiring (one used 94 percent and the other used 34 percent) (See Table 3).

Through January 1, 2011, Captains and Lieutenants that entered the Program almost always use their full year of eligibility, Inspectors and Sergeants are much less likely to have used their full two-year term—only 15 percent of these officers have used over 95 percent of their eligibility; however 57 percent are currently enrolled and may still maximize their eligibility. Eighty percent of Group 1 Police Officers who have enrolled are still enrolled and are on track to maximize their three-year eligibility. It is unclear what caused 37 officers (67 percent of all exits to date) to enroll for less than the maximum term—in general it is beneficial to both the member and the System to maximize eligibility.

Table 3. DROP Enrollment
July 1, 2008 to January 1, 2011

Rank	Length of Eligibility	Entered DROP	% Total Enrollment	Currently Enrolled	% Currently Enrolled	Since Retired	Median % Eligibility Used by Retired	% Retiring after using at least 95% of Eligibility
Group 1: Police Officers	3 years	82	**49%**	66	**80%**	16	**37%**	**0%**
Group 2: Inspectors and Sergeants	2 years	70	**41%**	40	**57%**	30	**52%**	**37%**
Group3: Lieutenants and Captains	1 year	17	**10%**	8	**47%**	9	**100%**	**78%**
TOTAL		**169**	**100%**	**114**		**55**		

Source: Retirement System Data

Cost Neutrality Considerations and Findings

The Charter requires the Controller and the consulting actuary of the Retirement System to analyze whether the Program has been cost-neutral and whether, in consideration of its achievement of its goals, it should be continued for an additional period of time as specified by the Board of Supervisors, but in no event beyond an additional three years. In fulfillment of this requirement, the Controller considered savings and costs to both SFERS and the City.

As noted above, the net increase or decrease in City costs attributable to the DROP over its first three years is difficult to state with certainty. In large part this is due to the difficulty of quantifying the impact that DROP, in isolation from all other changes within the Police Department, the City and the overall economy, has had on police officers' retirement behavior and on the City and the Police Department's hiring decisions. In other words: if DROP had not existed what would have happened?

Retirement System Trust Fund Cost/Savings

We asked the actuary to analyze three scenarios. Scenario 1 shows the range of possible net savings and net costs using actual data through January 1, 2011, the latest period for which complete data exists. Scenario 2 shows the range of possible costs expected if DROP sunsets and all 357 officers that are eligible as of January 1, 2011 enroll. Scenario 3 is a projection of what the Program would cost in retirement benefits, or overall liability to the Retirement System, if it were continued for three years with the current DROP design and with the current behavior as experienced to date.

For Scenario 1, DROP enrollment is frozen as of January 1, 2011. Under this Scenario Cheiron calculates the present value of benefits[1] for the 114 active DROP participants and 55 DROP retirees[2] as of January 1, 2011 to be $300.5 million—that is the net amount the Retirement System Trust Fund (Trust) would be expected to pay these Officers during their DROP enrollment and retirement. Within this Scenario, Cheiron tested two assumptions. Assumption 1 is that Officers would have retired when they entered DROP, (i.e. DROP extended their service), and under that assumption DROP has saved the Trust $5 million. Assumption 2 is that Officers would have retired when they exited DROP (i.e. DROP did not extended their service), and under that assumption DROP has cost the Trust $29.5 million.

For Scenario 2, DROP sunsets as of June 30, 2011 and all eligible members enter the program. Using the same assumptions as above to test what would have occurred if DROP did not exist, Cheiron found that under this Scenario DROP's net cost impact to the Trust would range from net savings of $47.1 to net costs of $47 million.

Table 4. Present Value of Benefits Due to DROP Participants

	(Actual) DROP Participants	Assumption 1: Retire DROP Entry	Assumption 2: Retire DROP Exit
Scenario 1: DROP enrollment frozen as of 1/1/11	$300.5 million	$305.5 million	$271 million
Scenario 1: (Costs)/Saving		**$5 million**	**($29.5 million)**
Scenario 2: DROP Sunsets at 6/30/11 all eligible Officers join	$838.5 million	$885.6 million	$808.1 million
Scenario 2: (Costs)/Savings		**$47.1 million**	**($47 million[3])**
Source: Cheiron Report			

These valuation results, taken together with the actual demographic findings discussed above, present a likelihood that DROP has increased the City's retirement costs because a significant portion of eligible individuals did enter DROP earlier than they would have retired under previous conditions.

[1] Present Value of Benefits is roughly equal to: (monthly pension benefits payments while in DROP+ monthly pension benefits due during retirement) - pension contributions while in DROP.

[2] Officers who have enrolled in DROP and exited either voluntarily or because they have reached their maximum allowable participation.

[3] $47 million assumes eligible Officers that would be made worse off by joining DROP do not join. If these Officers elect to join DROP, even though this is against their own financial interest, the City's projected costs are reduced to approximately $30.4 million.

For Scenario 3, Cheiron modeled the cost to extend DROP as allowed in the Charter under current conditions and with current demographics and behavior. The change in the overall actuarial liability to the Trust under this scenario would be approximately $52 million. Citywide, the employer contribution would need to increase by 0.25 percent of payroll to amortize the $52 million in costs over 20 years and accrue for expected future service DROP costs. Expressed in terms of the FY11-12 budget, that change would mean approximately $6 million in increased retirement contributions required from the City.

Table 5 shows this change in payroll contribution rates not on the citywide basis, but for Police only. If the Police Department alone was required to fund the increased costs, the Department's net employer contribution rate would increase from 28.17 percent of Police payroll to 30.36 percent of Police payroll, an increase of 2.19 percent of payroll.

Table 5. Impact on Employer Contribution Rate for Police (as a Percent of Payroll)

	2010 Valuation without DROP	2010 Valuation with DROP	Change Due to DROP
Employer Normal Cost Rate	18.57%	19.28%	0.71%
Amortization of NET UAL	9.15%	10.63%	1.48%
Expenses	0.45%	0.45%	0.00%
Net Employer Contribution Rate	**28.17%**	**30.36%**	**2.19%**
Source: Cheiron Report			

City and Police Department Operating Costs/Savings

Officers who enter the DROP program effectively allow the San Francisco Police Department (SFPD) to avoid the cost of recruiting, hiring and training a replacement. The salary and fringe benefit cost for a cadet in training at the Police Academy is approximately $98,000. Cost savings from keeping a senior officer at the top of their pay band instead of hiring a new officer have not been included in this analysis.

There have been administrative and operating costs associated with the DROP program as well. The Retirement System estimated it cost approximately $700,000 to set up and administer the DROP through January 1, 2011. In addition, the Police Department, the Department of Human Resources and the Controller's Office have used staff time for this Program, however those costs are considered here as part of the City's operations and not material to this analysis.

As discussed above, if the DROP encourages officers to work longer than they would have without DROP, then the Program's potential for deferred costs are realized. For each entrant to DROP, costs can be deferred for a maximum of three years since they may participate in the Program for a range of only 12 months (Lieutenants and Captains) to 36 months (Police Officers).

Averaged over the aggregate cost of the hiring and training program, the City's costs for a new recruit, outside of the recruit's salary and benefits, include:

•	$4,700	Premium pay to trainers
•	$3,200	Uniform and equipment costs
•	$27,600	Background investigation: third party medical, poly and psych costs
•	$11,600	Background investigations: research by former sworn officers
•	$8,000	Health benefit savings ($15,000 for retiree vs. $7,000 for active employee)
	$55,100	**Minimum Costs Avoided or Delayed per Recruit**

During the first 30 months, 169 officers enrolled in DROP. On average these officers enrolled in DROP for 12 months. On a yearly basis this equates to approximately 68 officers retained due to DROP. If the 169 individuals retired one year later than they would have absent the Program, the City would have deferred operating costs of approximately $3.75 million ($55,100 in deferred costs for 68 officers) during the initial three year pilot period of the Program.

If the Program is extended, the likely increase in employer-paid retirement contributions will exceed these deferred cost savings, even assuming that officers retire later than they actually have during the pilot period.

In summary, the impact to the City's operating budget from the Program to date ranges from incurred costs of $700,000 to potential savings or deferred costs of $3.75 million. With this range, under any scenario, the City's possible savings are exceeded by the Retirement System's liability costs.

With its current design, and with the demographics and behavior of the eligible members to date, it appears that the DROP program represents a net increase in the City's liability and is not cost-neutral. We note that there are other considerations, both programmatic and financial, that may affect the City's review of the Program.

The Controller's Office is available to answer your questions on this analysis and to work with the Retirement System and the consulting actuary as appropriate.

cc: Department Heads
Labor Organizations

City and County of San Francisco Employees' Retirement System

Deferred Retirement Option Program Analysis

Produced by Cheiron

April 2011

CHEIRON Classic Values, Innovative Advice

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April 15, 2011

Mr. Gary Amelio
Executive Director
City and County of San Francisco Employees' Retirement System
30 Van Ness Avenue, Suite 3000
San Francisco, CA 94102

Re: Deferred Retirement Option Program Analysis

Dear Mr. Amelio:

As requested, we have analyzed the cost impact of the Deferred Retirement Option Program (DROP) on the City and County of San Francisco Employees' Retirement System (SFERS) as the actuary's portion of the cost impact study being prepared by the City Controller's office. It is our understanding that the Charter requires a cost analysis (joint report from the Controller and the SFERS actuary) no later than April 15, 2011. This report represents Cheiron's response to that requirement.

We have analyzed the cost impact under three different scenarios as requested by the City Controller:

1. The DROP program sunsets on June 30, 2011, and there are no new DROP participants after December 31, 2010.
2. The DROP program sunsets on June 30, 2011, and all eligible members enter DROP before it sunsets.
3. The DROP program is made permanent (ongoing 3-year renewals), and funding for DROP is anticipated in the annual actuarial valuation.

The cost impact of these scenarios depend on the retirement decisions of members assuming there was no DROP provision compared to their decisions with the DROP. Because we cannot know what retirement decisions members would have made if there had been no DROP we have developed a range for the cost impact.

This report was prepared exclusively for the City and County of San Francisco for a specific and limited purpose. It is not for the use or benefit of any third party for any purpose. Any third party recipient of Cheiron's work product who desires professional guidance should not rely upon Cheiron's work product, but should engage qualified professionals for advice appropriate to its own specific needs.

This report does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice. In preparing our report, we relied, without audit, on information supplied by SFERS' staff. This information includes, but is not limited to, plan provisions, employee data, and financial information.

We hereby certify that, to the best of our knowledge, this report and its contents, which are work products of Cheiron, Inc., are complete and accurate and have been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report.

Sincerely,
Cheiron

William R. Hallmark

William R. Hallmark, ASA, FCA, EA, MAAA
Consulting Actuary

Kenneth G. Kent

Kenneth Kent, FSA, FCA, EA, MAAA
Principal Consulting Actuary

EXECUTIVE SUMMARY

Assessing the impact on City contributions to the City and County of San Francisco Employees' Retirement System (SFERS) of the adoption of the Deferred Retirement Option Program (DROP) effective July 1, 2008 requires some judgment. We know what members elected DROP and what their benefits cost under DROP, but there is no way to know for sure when these same members would have retired had there been no DROP available to them.

It is reasonable to assume that without DROP, members would have retired somewhere between the time they entered DROP and the time they exited DROP and began receiving benefits. Consequently, our analysis determines a range of cost impacts based on the two ends of this spectrum of member retirement decisions if there had been no DROP.

The table below summarizes the range of the cost impact for DROP since its effective date using both members who had entered DROP by December 31, 2010 and assuming all members eligible for DROP enter the program before June 30, 2011. These estimates assume DROP sunsets on June 30, 2011.

Net (Cost) or Savings if DROP Sunsets June 30, 2011		
	Retire on DROP Entry Date	**Retire on DROP Exit Date**
DROP enrollment frozen as of 1/1/2011	$ 5.0	$ (29.5)
DROP Sunsets at 6/30/11: all eligible enter DROP	$ 47.1	$ (30.4)

Dollar amounts in millions

The breadth of the cost impact range shown in the table is substantial, but doesn't capture the highest cost scenario. The highest cost scenario assumes that all eligible members who are financially advantaged enter DROP before it sunsets. Under this scenario, the cost impact would be a net cost of approximately $47 million.

As of July 1, 2011, the estimated range of the impact on City contribution rates is shown in the table below.

Amortization of Net (Cost) or Savings if DROP Sunsets June 30, 2011		
	Retire on DROP Entry Date	**Retire on DROP Exit Date**
DROP enrollment frozen as of 1/1/2011	(0.02)%	0.10%
DROP Sunsets at 6/30/11 all eligible enter DROP	(0.16)%	0.10%

If DROP is renewed and becomes a permanent part of SFERS, the expected cost of DROP would become embedded in the cost of SFERS. The data gathered after just two and one half years of experience is not sufficient to determine long-term changes in retirement behavior due to DROP with a high degree of certainty. Nevertheless, we would need to make an initial estimate, and we would update our assumptions with each experience study to refine the initial estimate. Based on the current data available, our estimate indicates an increase in the net employer contribution rate for Police of about 2.19% of payroll. On a composite basis (including Miscellaneous and Fire), the increase is about 0.25% of payroll.

EXECUTIVE SUMMARY

The experience data indicates that most members who enter DROP have reached the maximum percentage of final compensation they can receive from SFERS. Whether or not DROP is cost neutral with respect to SFERS depends on whether these members would have retired immediately if DROP did not exist or if they would have continued working and DROP provides an option for them to maximize their benefits. It appears from the data that most enter DROP before they would have retired if no DROP had existed. However, as these members continue to work through their period in DROP, on average, we expect that they will exit DROP after they would have otherwise retired. There are too few members who have retired from DROP for us to determine the additional service due to DROP.

INTRODUCTION

To address recruitment and retention, a Deferred Retirement Option Program (DROP) was established under the City Charter for Police members of the City and County of San Francisco Employees' Retirement System (SFERS) effective July 1, 2008. The Charter provision specifically stated that the intent was for the DROP to be "cost neutral" to the City. The Charter established an automatic sunset for the DROP as of June 30, 2011, a requirement for a cost analysis, and an option for the Board of Supervisors to renew the program for another three years. This process could be repeated every three years.

The determination of cost neutrality is defined in the Charter to *"take into account the costs associated with payroll, the expenditures associated with the recruitment and training of Police Officers, the costs of conducting academies for such recruits and trainees, the Field Training Officer costs, the retirement contributions made by members participating in the DROP, and the City, and the City's share of the return on the investment of the DROP funds, along with any other cost or savings elements related to the implementation of the Program."* Much of this analysis must be performed by the City Controller. This report only addresses the cost impact on City contributions to SFERS.

The cost impact of DROP depends in part on whether members who are eligible for the program actually elect to participate. When the DROP became effective on July 1, 2008, a number of members elected to participate in the program within the first month having anticipated the option to join. After the first month, the rate of participation dropped significantly. If DROP is allowed to sunset on June 30, 2011, there may be a similar surge in participation before the program ends. However, if DROP is renewed well in advance of the sunset date, we would not expect a similar surge in participation.

Consequently, this report analyzes the cost impact using actual DROP participation through December 31, 2010 (the latest date for which data was available) assuming both no new DROP participation and all eligible members elect to participate in DROP by June 30, 2011. These two scenarios provide the potential range of costs if the DROP program is not renewed.

Under the current actuarial valuation, no explicit adjustment has been made to the assumptions for the DROP. As we noted in the recent demographic experience study, with the combination of limited data and a sunset date, we recommended deferring the adoption of specific DROP assumptions unless the program was renewed by the Board of Supervisors. If DROP becomes permanent (renewed every three years), assumptions will need to be considered for the annual actuarial valuation, and these assumptions will be revisited with each demographic experience study to ensure that the costs of the DROP program are funded in advance. For this report, we used a set of DROP assumptions, to evaluate the cost impact of making DROP permanent, which are described at the end of this report.

ANALYSIS RESULTS

This section provides the full analysis for each of these three scenarios:

1. DROP sunsets -- No new DROP participants,
2. DROP sunsets -- All eligible members enter DROP, and
3. DROP is renewed every three years.

DROP Sunsets -- No New DROP Participants

Under this scenario, the DROP program is not renewed and there are no new DROP participants after December 31, 2010. Consequently, the cost of the DROP program is based on those members who entered DROP between July 1, 2008 and January 1, 2011.

The cost impact of DROP is equal to the difference between the present value of benefits in DROP and the present value of benefits assuming there was no DROP program. To estimate the benefits assuming there was no DROP program, however, requires an assumption as to when members would have retired if there had been no DROP program. We have calculated the value of the benefits under two assumptions that represent the range of likely behavior and the range of the cost impact: (1) assuming the member would have actually retired when they chose to enter DROP and (2) assuming the member would have actually retired when they exited DROP (or are anticipated to exit DROP). The table below summarizes these calculations.

DROP Members as of January 1, 2011
Present Value of Benefits

		DROP	Assuming No DROP	
Status	**Count**	**Current Participant**	**Retire on DROP Entry Date**	**Retire on DROP Exit Date**
Active	114	$ 197.8	$ 200.3	$ 172.1
Retired	55	102.7	105.2	98.9
Total	**169**	**$ 300.5**	**$ 305.5**	**$ 271.0**
Difference (Cost)/Savings			$ 5.0	$ (29.5)

Dollar amounts in millions

The potential cost impact for this scenario ranges from a **net savings of $5.0 million to a net cost of $29.5 million** before consideration of any of the City and County cost savings outside SFERS. This difference would have been recognized as an experience gain or loss in the July 1, 2009, July 1, 2010, and July 1, 2011 actuarial valuations. The estimated impact on City contribution rates in each of those valuations is shown in the table below.

Estimated Impact on City Contribution Rates

Actuarial Valuation Date	**Retire on DROP Entry Date**	**Retire on DROP Exit Date**
July 1, 2009	(0.01)%	0.03%
July 1, 2010	(0.02)%	0.10%
July 1, 2011	(0.02)%	0.10%

ANALYSIS RESULTS

The increase in contribution rate as of the July 1, 2011 actuarial valuation is expected to decrease as a percentage of pay over time following the rolling 15-year amortization method for actuarial gains and losses.

Explanation

The present value of benefits for members who participated in DROP, but are now retired is equal to the accumulated value of all benefits paid prior to January 1, 2011 (including the DROP account balance) plus the present value of all benefits expected to be paid in the future less the accumulated value of any employee contributions paid while the member was in DROP.

For DROP members who are still active employees, the present value of benefits equals the present value of all benefits expected to be paid on or after January 1, 2011 (including the DROP account balance) less the accumulated value of employee contributions paid while the member was in DROP prior to January 1, 2011 and less the present value of expected future employee contributions while in DROP. For DROP members who are still active employees, it is assumed that they will remain active employees until the maximum DROP period expires.

For the assumption that members would have retired when they entered DROP, the present value of benefits is calculated based upon the retirement benefit commencing immediately upon entering DROP. In addition, there is an offset for the accrual of benefits of a replacement employee during the DROP period. This amount is calculated as the employer normal cost rate multiplied by the member's pay during the period the member was in DROP.

For the assumption that members would have retired when they exited DROP, the member's pay and service and age specific benefit accrual during their DROP participation is used to calculate what their benefit would have been had they actually retired at the later date. Then, the present value of benefits is calculated as before using the hypothetical benefit amounts and commencement date.

DROP Sunsets -- All Eligible Members Enter DROP

Under this scenario, the DROP is not renewed, and all eligible members enter DROP before it sunsets. Again we have calculated the value of the benefits under two assumptions that represent the range of likely behavior and the range of the cost impact: (1) assuming the member would have actually retired when they chose to enter DROP and (2) assuming the member would have actually retired when they exited DROP (or are anticipated to exit DROP). The table below summarizes these calculations.

ANALYSIS RESULTS

DROP Members as of January 1, 2011 Present Value of Benefits				
		DROP	Assuming No DROP	
Status	Count	Current Participant	Retire on DROP Entry Date	Retire on DROP Exit Date
Eligible	357	$ 538.0	$ 580.1	$ 537.1
Active	114	197.8	200.3	172.1
Retired	55	102.7	105.2	98.9
Total	**526**	**$ 838.5**	**$ 885.6**	**$ 808.1**
Difference (Cost)/Savings			**$ 47.1**	**$ (30.4)**

Dollar amounts in millions

The potential cost impact for this scenario ranges from a **net savings of $47.1 million to a net cost of $30.4 million** before consideration of any of the City and County cost savings outside SFERS. This difference would have been recognized as an experience gain or loss in the July 1, 2009, July 1, 2010, and July 1, 2011 actuarial valuations. The estimated impact on City contribution rates in each of those valuations is shown in the table below.

Estimated Impact on City Contribution Rates		
Actuarial Valuation Date	Retire on DROP Entry Date	Retire on DROP Exit Date
July 1, 2009	(0.01)%	0.03%
July 1, 2010	(0.02)%	0.10%
July 1, 2011	(0.16)%	0.10%

The increase in contribution rate as of the July 1, 2011 actuarial valuation is expected to decrease as a percentage of pay over time following the rolling 15-year amortization method for actuarial gains and losses.

However, it should be noted that some members who are eligible for DROP are not advantaged by entering DROP by June 30, 2011 even if they were planning to retire by the time they would have to exit DROP. The value of additional accruals for these members is greater than the value of accumulating a year of pension payments in a DROP account. If these members did not elect DROP, but all others did (i.e., assume the maximum impact of what is referred to as anti-selection), the cost of DROP assuming DROP members would have retired on their DROP exit date would increase by approximately $17 million, increasing the City contribution rate to SFERS in the July 1, 2011 valuation by an additional 0.06% (0.16% total increase).

Explanation

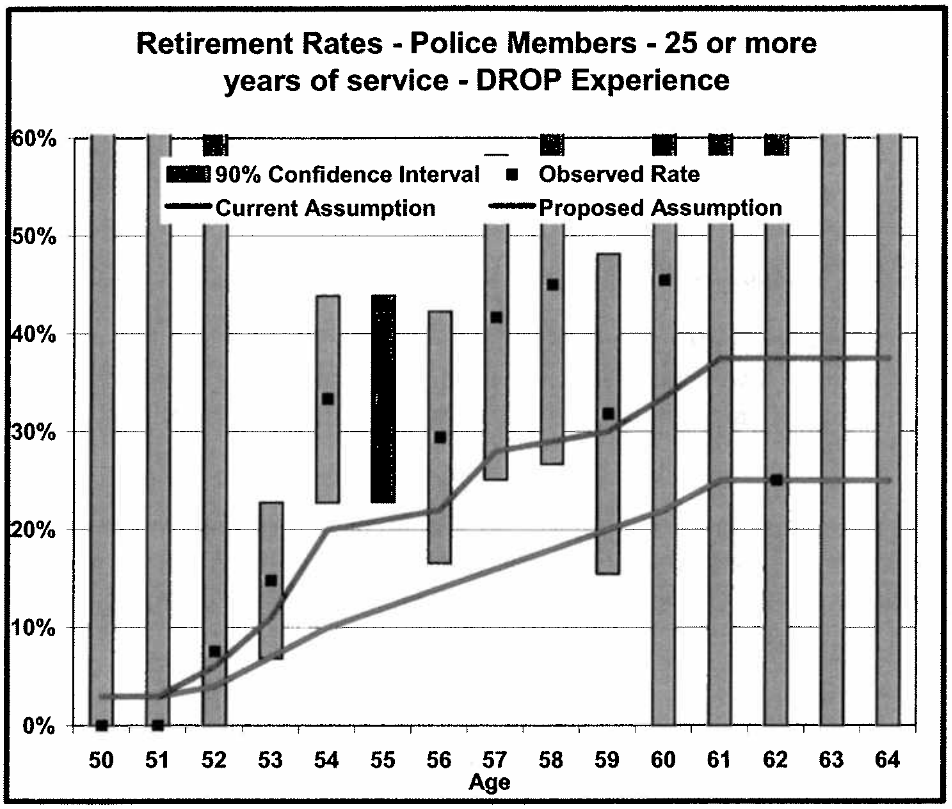
For members who are eligible, but have not entered DROP yet, we assumed that they all entered on June 30, 2011 and remained in DROP for the maximum period permitted. The present value of benefits for these members equals the present value of all benefits expected to be paid on or after July 1, 2011 (including the projected DROP account balance) less the present value of expected future employee contributions while projected to be in DROP.

ANALYSIS RESULTS

DROP is Renewed Every Three Years

Under the current actuarial valuation, no adjustment has been made to the assumptions for the DROP program. As noted in the recent demographic experience study, with the combination of limited data and a sunset date, we recommended deferring the adoption of specific DROP assumptions unless the program was renewed by the Board of Supervisors. If DROP becomes permanent (renewed every three years), assumptions will need to be incorporated into the annual actuarial valuation, and these assumptions will be revisited with each demographic experience study to ensure that the costs of the DROP program are funded in advance.

To develop initial DROP assumptions, we examined the rates of retirement or entry into DROP for those members eligible to enter DROP since July 1, 2008. The chart below summarizes the data and the proposed assumption. The current assumption is the retirement assumption used in the July 1, 2010 actuarial valuation.



Age	Current	Proposed
50	3.00%	3.00%
51	3.00%	3.00%
52	4.00%	6.00%
53	7.00%	11.00%
54	10.00%	20.00%
55	12.00%	21.00%
56	14.00%	22.00%
57	16.00%	28.00%
58	18.00%	29.00%
59	20.00%	30.00%
60	22.00%	33.50%
61	25.00%	37.50%
62	25.00%	37.50%
63	25.00%	37.50%
64	25.00%	37.50%

Current A/E Ratio: 2.262 Proposed A/E Ratio: 1.398

The black squares represent the observed rate of retirement or DROP entry during the period, and the gray bars represent the 90% confidence interval around the observed rate. The larger confidence intervals indicate that there is less data so there is less credibility in predicting the long-term rate.

ANALYSIS RESULTS

The relatively large gray bars indicate that the amount of data after just two and one half years of experience is not sufficient to discern behavior changes with a high degree of confidence. But clearly, the retirement rates are higher with the DROP than without it. However, some of this difference is due to the relatively large proportion of DROP retirements in the first month after DROP became effective. Consequently, the proposed assumption adjusts for the higher rates in the first month. Because the data is limited, it should be anticipated that additional adjustments to this assumption will be needed over time as more data on rates of retirement and DROP entry become available. Such adjustment will modify the implications of cost neutrality of the DROP as it relates to SFERS component of the program impact. It is also important to note that before these retirement rates could be used in an actuarial valuation, they would need to be presented to the Retirement Board and adopted.

The table below shows the impact on the July 1, 2010 valuation results of applying the proposed retirement rates above to Police members.

Impact on Employer Contribution Rate for Police			
	2010 Valuation w/o DROP	**2010 Valuation w/ DROP**	**Change Due to DROP**
Employer Normal Cost Rate	18.57%	19.28%	0.71%
Amortization of Net UAL	9.15%	10.63%	1.48%
Expenses	0.45%	0.45%	0.00%
Net Employer Contribution Rate	**28.17%**	**30.36%**	**2.19%**

The change in the composite employer contribution rate (includes Miscellaneous and Fire) would be approximately 0.25% of payroll. The change in actuarial liability under this scenario would be approximately $52 million and the rates shown above assume the change is treated as a plan change and amortized over 20 years.

In addition to adjusting the retirement rates, the impact on employer contribution rates shown above includes an adjustment for the continued employee contributions while in DROP and for the difference between crediting the DROP account with 4.0% interest and the discount rate of 7.75%.

MEMBER DATA

The following tables summarize key aspects of the census data for members who have participated in DROP or are currently eligible for DROP.

DROP Participation		
Year	**Entered DROP**	**Exited DROP**
7/1/2008 – 6/30/2009	59	3
7/1/2009 – 6/30/2010	92	26
7/1/2010 – 12/31/2010	18	26

DROP Membership Statistics		
	Active DROP	**Retired DROP**
Count	114	55
Averages		
Age at DROP Entry	57.3	56.5
Service at DROP Entry	31.2	30.6
Months in DROP as of 1/1/2011	12	13
DROP Account Balance	$ 118,711	$ 124,616
Monthly Benefit as of 1/1/2011	$ 9,544	$ 9,520

The maximum benefit payable to a police officer is 90% of final compensation. While final compensation may continue to increase with additional service, the 90% limit is reached with 30 years of service at age 55 or older. This limit corresponds fairly close with the average age and service for members entering DROP as shown in the tables above.

Whether or not DROP is cost neutral with respect to the pension plan largely depends on whether these members who had reached the 90% limit would have retired immediately if DROP did not exist or if they would have continued working and DROP provides an option for them to maximize their benefits. Based on retirement experience prior to the effective date of DROP, approximately 12% of police members age 55 with 25 or more years of service retired. After the effective date of DROP, the observed experience (including entry into DROP) for police members age 55 with 25 or more years of service was 33% and after adjusting for the initial rush of DROP members, the proposed assumption was 21%. This experience indicates that a significant portion of the members entering DROP probably would not have retired at that date if DROP didn't exist. Some of these DROP members may exit DROP after they would have otherwise retired, but others may exit DROP at the same time they would have otherwise retired. However, given the short period of experience, other factors could also play a role in the change in retirement rates.

ADDITIONAL CONSIDERATION

The estimates provided in this report reflect the range of cost impacts on the retirement system of the DROP, and do not include any cost impact such as training or recruitment costs that are outside of the retirement system.

In examining the cost impact of the first three years of the DROP, we have only identified a range because it is uncertain what the long term retirement behavior would have been had there been no DROP.

In determining the cost if the DROP becomes permanent, we have estimated the change in retirement behavior based on a comparison of retirement behavior since DROP became effective to retirement behavior for similar employees prior to DROP becoming effective. These initial estimates of retirement rates are likely to change as a longer period of data becomes available.

The retirement behavior over the short period since the DROP was available has been influenced by pent up demand, concern of future availability given the sunset provisions as well as a challenging economic environment. As cost/saving in terms of SFERS is associated primarily with the change in retirement behavior, the value of the DROP to the City and County of San Francisco should be anticipated to change over time if the DROP is continued.

APPENDIX A
AGE-SERVICE EXHIBITS

Age – Service Distribution – Retired DROP Members

	Service			
Age	**25 – 29**	**30 – 34**	**35 +**	**Total**
50 – 54	1	0	0	1
55 – 59	8	31	1	40
60 – 64	4	5	3	12
65 +	0	0	2	2
Total	13	36	6	55

Age – Service Distribution – Active DROP Members

	Service			
Age	**25 – 29**	**30 – 34**	**35 +**	**Total**
50 – 54	2	3	0	5
55 – 59	14	60	4	78
60 – 64	7	13	6	26
65 +	0	2	3	5
Total	23	78	13	114

Age – Service Distribution – Active Members Eligible for DROP

	Service			
Age	**25 – 29**	**30 – 34**	**35 +**	**Total**
50 – 54	120	106	0	226
55 – 59	46	54	4	104
60 – 64	9	8	8	25
65 +	0	0	2	2
Total	175	168	14	357

APPENDIX B
SUMMARY OF DROP PLAN PROVISIONS

Effective Date – July 1, 2008 through June 30, 2011

Section A8.900 – effective July 1, 2008 through June 30, 2011. DROP sunsets on June 30, 2011 unless the Board of Supervisors votes to renew for up to three more years.

1. Membership Requirement

Active, full duty sworn officers occupying one of the eligible ranks; Police Officer, Sergeant, Inspector, Lieutenant, or Captain.

2. Eligibility

Age 50 with 25 years of credited service as a sworn member, including any service as a member of the San Francisco Airport Police. To participate, the member must agree to terminate employment through retirement at the end of their participation in DROP. No member shall be eligible for a promotion during their participant in DROP.

3. Length of DROP period

Once a member enters DROP, participation continues until either termination of employment or the maximum DROP participation period has been reached.

Rank	Maximum DROP Period
Police Officer	36 months
Sergeant/Inspector	24 months
Lieutenant/Captain	12 months

4. DROP Benefit

DROP Account Balance
The service pension, which is calculated based on age, compensation and length of service as of their date of entry into the Program, is credited monthly into a DROP Account including any Basic or Supplemental Cost of Living Adjustments. The DROP Account is also credited on a monthly basis with interest at an annual effective rate of 4% throughout the member's DROP period.

Retirement Benefit
At the end of the DROP period, a lump sum distribution of the DROP Account Balance will be made and monthly retirement benefits will commence based on the initial DROP benefit calculated based on age, compensation and service at the date of entry into DROP including any cost of living adjustments to which the member would otherwise be entitled.

APPENDIX B
SUMMARY OF DROP PLAN PROVISIONS

5. **Employee Contributions while in DROP**

   The member still makes employee contributions into the retirement system which are deemed contributions to the general assets of SFERS, and shall not be part of the member's DROP Account.

6. **Effect of Disability on DROP participation**

   Duty Related Disability
   The Member will receive an industrial disability benefit as though the participant was never enrolled in DROP. Service, compensation, and age at the time of disability will be used to calculate the disability benefit. The DROP Account will be waived.

   Non-Duty Related Disability
   Member will terminate participation in DROP and is paid the balance in their DROP Account. They will begin receiving a monthly payment equal to the service retirement benefit determined as of the DROP entry date including any cost of living adjustments to which the member would otherwise be entitled.

7. **Effect of Member Death on DROP participation**

   Duty Related Death
   The member's qualified surviving spouse, domestic partner or other qualified dependent will receive a death allowance as though the participant was never enrolled in DROP. Service, compensation, and age at the time of death will be used to calculate the benefit. The DROP Account will be waived. The qualified spouse, domestic partner or qualified dependent may elect to receive a non-work related death benefit specific below instead.

   Non-Duty Related Death
   Participation in DROP is terminated and the balance in the Member's DROP Account is paid to the Member's beneficiary. In addition, any qualified survivor will begin receiving a post-retirement continuation allowance determined on the basis of beneficiary elections made by the member at the time of entry into DROP including any cost of living adjustments to which the Member would otherwise be entitled.

APPENDIX C
SUMMARY OF STUDY ASSUMPTIONS AND METHODS

The assumptions and methods used in this study are identical to those used in the July 1, 2010 actuarial valuation issued in January, 2011, except as noted below.

1. Active Members Eligible for DROP

   - Assumed members' pay would increase annually by 5.5% (4.0% + 1.5%) for FYE 6/30/12, 6/30/13, and 6/30/14.
   - Future COLA's on benefits will be 2% for new police and 4% for old police.
   - Miscellaneous benefits were not included in this analysis.
   - Maximum length in DROP based on Job code was assumed.
   - Pay as of 1/28/2011 provided in data was annualized for FYE 6/30/2011.

2. Active Members In DROP

   - Assumed members' pay would increase annually by 5.5% (4.0% + 1.5%) for FYE 6/30/12, 6/30/13, and 6/30/14.
   - Pay as of 1/28/2011 provided in data was annualized for FYE 6/30/2011.
   - Future COLA's on benefits will be 2% for new police and 4% for old police.
   - Miscellaneous benefits were included in this analysis.
   - Assumed that actual DROP exit is equal to expected DROP exit date provided in the data.
   - The DROP Account Balance given as of 1/31/2011 was adjusted to 1/1/2011.
   - Assumed retirement benefits accumulated are equal to the DROP Account Balances provided in the data adjusted for the difference between the 7.75% discount rate and the 4.0% DROP crediting rate.
   - The recently granted Supplemental COLA was added to the benefit amounts provided in the data.

3. Retired Members Who Participated in DROP

   - Future COLA's on benefits will be 2% for new police and 4% for old police.
   - Miscellaneous benefits were included in this analysis.
   - No adjustment was made for the recently granted Supplemental COLA as it would have an identical impact on all scenarios studied.