

**ACTUARIAL ANALYSIS OF RETIREE  
HEALTH BENEFITS  
NOVATO UNIFIED  
SCHOOL DISTRICT  
AS OF JULY 1, 2008**

**Prepared by:  
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**November 18, 2009**

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November 18, 2009

Novato Unified School District  
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Enclosed is my actuarial valuation of the retiree health program for District employees as of July 1, 2008. The report is based on assumptions stated in the appendix, and on data provided by the District's staff, which I have limited ability to verify. Summaries of the data are included in appendices.

The valuation results are also based on my understanding of the existing benefit design, which is summarized in Appendix F. Only the benefits paid by the District (or proposed to be paid by the District) are included in the valuation.

On the basis of the foregoing, I certify that, to the best of my knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted principles and practices which are consistent with the applicable standards of practice of the Actuarial Standards Board. To the extent that future actuarial experience varies from the assumptions used in this report, the actual costs in future years will vary from those presented herein.

Sincerely,

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Enrolled Actuary

Encl.

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## **SUMMARY OF ACTUARIAL ANALYSIS OF RETIREE HEALTH PROGRAM**

Novato Unified School District provides health insurance benefits to certain retirees. Certificated and Management/Confidential employees who retire after age 55 with 10 years of service receive \$200 monthly. Classified employees need 15 years of service for the same benefit. Those with five or more years of District employment get a prorated amount, as do those who retire from less than full-time employment. District payment ends at age 65. Appendix F gives summaries of the provisions of the program by representation unit.

The Governmental Accounting Standards Board published Statements 43 and 45 in 2004. Statement No. 43 requires disclosures by the retiree health benefits trust fund; Statement No. 45 sets rules for computing the employer's expense for retiree benefits other than pensions (called OPEBs). The expense, called the Annual OPEB Cost, is determined similarly to pensions. The Annual Required Contribution (ARC) includes a component for the value of benefits accruing to employees this year. There is also a payment to amortize the value of benefits attributed to the past for employees and retirees. Agency contributions include benefits paid directly by the employer. When an agency contributes more than the ARC, there is a Net OPEB Asset; when the contribution is less, a Net OPEB Obligation (NOO) results. After the first year, the expense includes adjustments for interest and amortization of the NOO. There is a Net OPEB Asset of \$92,000 as of June 30, 2009.

The UAAL and NOO are amortized over 29 years as a level percentage of covered payroll, which has been assumed to rise 3.5% per annum.

Two alternative valuations were done. The current plan of benefits is evaluated in Scenario 1. Scenario 2 has the District joining the California Public Employees'

Retirement System (PERS) health plan on the 20-year phase in basis. The same assumptions were used in each scenario. The key results are:

- Scenario 1, current plan: The expense is 0.25% of covered payroll. This is estimated to be \$108,000 for 2009-10. The expense is below the pay-as-you-go cost for that year. The UAAL is \$940,000 which is 2.26% of covered payroll.
- Scenario 2, join PERS: The expense is 1.35% of covered payroll. This is estimated to be \$582,000 for 2009-10. The UAAL is \$4,244,000 which is 10.22% of covered payroll.

There were 44 retirees receiving health benefits at an average District payment of \$196 monthly as of July 1, 2008. There were 531 employees in the current census; covered payroll for 2008-09 is \$41,537,000. The census as of July 1, 2006 valuation included 57 retirees and 552 employees.

This actuarial valuation used the rates of mortality, retirement, disability and other withdrawal that are used by the California State Teachers' Retirement System (STRS) and the California Public Employees' Retirement System (PERS) in the valuations of their pension plans. Other assumptions used include an interest rate of 5% (to discount future payments to present value), 3.5% annual growth in covered payroll, and family composition assumptions. See Appendices B and C for detailed assumptions.

## INTRODUCTION

This report gives the results of actuarial valuations of Novato Unified School District's current retiree health benefit plan and proposed improvements to the program.

There had been no legal or accounting requirement to fund a retiree health benefit plan using traditional pension methods. In 2004, however, the GASB issued Statements Numbers 43 and 45 for such rules in public agencies. GASB 43 requires actuarial reporting by the retiree health benefit Trust Fund. GASB 45 requires that an employer's expense be determined using actuarial methods so that costs accrue over the employees' working lifetimes. More discussion of these accounting considerations is given in the next section (see page 4) and in the glossary.

The actuarial calculations are summarized in the Valuation Results section (page 5). The Experience Review section (page 10) compares what was projected in year 2006 with what actually occurred in the plan. The Participant Data section (page 12) shows the ways the current employees are expected to leave the workforce and data on the current retirees.

Appendix A (page 13) is a glossary of actuarial terms used in this report. The actuarial assumptions and methods are shown in detail in Appendices B (Classified, page 15) and C (Certificated, page 19). They include rates of retiree mortality and rates at which the employees leave the work force for retirement, death, and other turnover. The Projected Unit Credit actuarial method has been used. Appendices D (page 23) and E (page 27) are distributions of the eligible employees and retirees, respectively. Appendix F (page 28) is the summary of benefit provisions. Only the retiree health benefits paid by the District are included in the actuarial projections and the summary.

## ACCOUNTING STANDARDS

Accounting rules for public employers are promulgated by the Governmental Accounting Standards Board (GASB). *Statement Number 43* on Trust Fund reporting was released in April, 2004; *Statement Number 45* on Employer expense was published in June, 2004.

The accounting rules require that expense be computed using one of six actuarial cost methods, including Projected Unit Credit which was used here. The Annual Required Contribution (ARC) is Normal Cost plus amortization of Unfunded Actuarial Accrued Liability (UAAL) over at most 30 years. The Normal Cost is the cost of the benefits accruing this year for the current employees. The UAAL is the present value of benefits for current retirees plus the part of the present value of employees' benefits attributable to past service, minus the actuarial value of assets held in trust funds. The amortization is done as a level percentage of increasing covered payroll. The ARC is expressed in dollars and as a percentage of covered payroll. The expense and the employer contribution include the benefits paid to current retirees this year. See Appendix A for an explanation of terms.

GASB 45 first applied to Novato Unified for year 2008-09. The benefits paid to current retirees exceeded the ARC, so the Net OPEB Obligation (NOO) at the end of that year was actually a credit (the NOO is negative) of \$92,000. After the first year, the expense (called Annual OPEB Cost) is the ARC plus adjustments for interest and amortization of the Net OPEB Obligation. The District's amortization is over 30 years from July 1, 2008; 29 years remain for this valuation since it will be used for expense in 2009-10.

Public employers with 200 or more participants (employees plus retirees) are required to have actuarial studies to determine this expense every two years. In the non-valuation years, the ARC is set to be the same percentage of covered payroll as the prior valuation.

## VALUATION RESULTS

Governmental Accounting Standards Board Statement 45 was effective in 2008-09 for Novato Unified. Because the District paid more in monthly benefits to current retirees than the GASB 45 expense, the Net OPEB Obligation (NOO) was actually a credit of \$92,000 as of June 30, 2009. This valuation as of July 1, 2008 will be used for expense for fiscal years beginning in 2009 and 2010.

The Annual OPEB Cost (AOC) and Unfunded Actuarial Accrued Liability (UAAL) are shown in dollars as of July 1, 2008 and as percentages of covered payroll. Covered payroll is \$41,537,000 for this report.

To count as an offset to GASB 45 liabilities, reserves must be in a Trust Fund. There are no such assets. This means the plan shows as 0.00% funded in these valuations. The UAAL is equal to the actuarial accrued liability (AAL) because there are no assets.

### Scenario 1 Current Plan

The Annual OPEB Cost for 2008-09 is \$104,000. This amount is 0.25% of covered payroll. Therefore, for the fiscal year beginning July 1, 2009, the AOC will be 0.25% of covered payroll. As of July 1, 2008 the UAAL is \$940,000, which is 2.26% of covered payroll. The AAL is 0% funded. These results are items for disclosure under GASB Statement 45. The results are as follows as of July 1, 2008:

1) Actuarial Accrued Liability		
a) Current Retirees	\$238,000	
b) Current Employees	<u>702,000</u>	
c) Total		\$940,000
2) Actuarial Value of Assets		0
3) Unfunded Actuarial Accrued Liability		940,000
4) Payment to Amortize UAAL		40,000
5) Actuarial Normal Cost for 2008-09		65,000
6) Total ARC = 4) + 5)		105,000
7) Adjustment to ARC		(1,000)
8) Annual OPEB Cost = 6) + 7)		104,000



The attached Table 1 is the 15-year projection of number of retirees, benefit payments, and District expense. This projection presumes continuation of the pay-as-you-go financing method. The District will pay monthly benefits and show a Net OPEB Obligation (NOO) on yearend financial statements. The expense includes amortizing the NOO, which is currently a credit. The ARC is projected to rise 3.5% per year, the same rate at which covered payroll is assumed to rise.

The number of retirees decreases over this projection because no future employees are included. There are also many employees near or at the eligible retirement ages who are projected to retire soon. The Table includes 44 current retirees plus 16 expected to retire in 2008-09. Annual benefits are projected to be \$121,000 in 2009-10, which will exceed the GASB 45 expense. As projected, the benefits will decrease to less than the expense and the NOO will become positive, exceeding \$500,000 in 2023. All projections are re-done with biennial valuations.

The change in STRS assumptions had only minor effects on Novato Unified. The new assumptions of greater retiree longevity have minimal impact on your program because very little mortality occurs between retirement and age 65; the slightly later retirement assumptions offset this. The AAL decreased by \$19,000 and the ARC decreased by \$3,000 from assumption changes.

This valuation using 5% interest is appropriate if the District will not fund the ARC, or will fund using an investment mix with minimal equity exposure.

### **Scenario 2 Join PERS Health Program**

The Annual OPEB Cost for 2008-09 is \$562,000. This is 1.35% of covered payroll. For the fiscal year beginning July 1, 2009, the AOC would be 1.35% of covered payroll if this proposal is adopted. As of July 1, 2008 the UAAL is \$4,244,000, which is 10.22% of covered payroll. The AAL is 0% funded. These results are items for disclosure under GASB Statement 45. The results as of July 1, 2008 are on the next page.

1) Actuarial Accrued Liability		
a) Current Retirees	\$921,000	
b) Current Employees	<u>3,323,000</u>	
c) Total		\$4,244,000
2) Actuarial Value of Assets		0
3) Unfunded Actuarial Accrued Liability		4,244,000
4) Payment to Amortize UAAL		180,000
5) Actuarial Normal Cost for 2008-09		383,000
6) Total ARC = 4) + 5)		563,000
7) Adjustment to ARC		(1,000)
8) Annual OPEB Cost = 6) + 7)		562,000

The attached Table 2 is the 15-year projection on this basis. Estimating 2009-10 covered payroll as 3.5% above 2008-09 results in an estimated expense for next year of \$582,000. This is about 4.6 times the expected benefit payments of \$126,000. By the end of the projection there are 257 retirees receiving over \$400,000 in benefits. The District expense (AOC) is below 2.3 times expected benefits in the 15<sup>th</sup> year.

It is not known what percentage of current and future retirees will decline the benefits after age 65. Especially in the next 10 years, the District payment towards premiums is low. It is also possible that the District will have to pay Minimum benefits for retirees who are currently over 65 and not included in the data. In these calculations it was assumed that no retiree drops the benefits at age 65 but current retirees over age 65 have been excluded.

PERS requires offering the Minimum benefits to surviving dependents after a retiree death if the retiree elected an optional annuity with pension continuing to the survivor.

It is possible the District would choose to fully fund the expense by making contributions to a Trust Fund. If that were done, a higher interest assumption might be justified and the expense levels shown for Scenario 2 would be lower. Of course assuming some retirees decline the Minimum benefit at age 65 would also result in lower expense.

Although the projections are shown for 15 years, they will be revised based on future actuarial valuations. These will be at least biennial per GASB requirements.

**TABLE 1**

**Novato Unified School District  
Retiree Medical Program Scenario 1  
Current Plan  
Continue Pay-as-you-go Financing  
NOO is Net OPEB Obligation**

<b>Fiscal Year Begin</b>	<b>Number Retired</b>	<b>Expected Benefits</b>	<b>Employer Expense</b>	<b>NOO End of Year</b>
2009	60	121,000	108,000	-105,000
2010	63	131,000	112,000	-124,000
2011	63	134,000	116,000	-142,000
2012	63	136,000	120,000	-158,000
2013	54	115,000	124,000	-149,000
2014	49	105,000	128,000	-126,000
2015	46	101,000	133,000	-94,000
2016	45	98,000	138,000	-54,000
2017	38	84,000	143,000	5,000
2018	33	71,000	148,000	82,000
2019	30	67,000	153,000	168,000
2020	30	68,000	158,000	258,000
2021	30	69,000	164,000	353,000
2022	29	67,000	170,000	456,000
2023	27	65,000	176,000	567,000

**TABLE 2**

**Novato Unified School District  
Retiree Medical Program Scenario 2  
Proposed Benefit Improvement  
Continue Pay-as-you-go Financing  
NOO is Net OPEB Obligation**

<b>Fiscal Year Begin</b>	<b>Number Retired</b>	<b>Expected Benefits</b>	<b>Employer Expense</b>	<b>NOO End of Year</b>
2009	64	126,000	582,000	364,000
2010	83	136,000	605,000	833,000
2011	101	140,000	628,000	1,321,000
2012	121	149,000	651,000	1,823,000
2013	138	142,000	673,000	2,354,000
2014	153	147,000	693,000	2,900,000
2015	169	162,000	712,000	3,450,000
2016	183	179,000	729,000	4,000,000
2017	197	194,000	745,000	4,551,000
2018	209	214,000	772,000	5,109,000
2019	221	244,000	800,000	5,665,000
2020	231	280,000	829,000	6,214,000
2021	241	320,000	859,000	6,753,000
2022	249	362,000	890,000	7,281,000
2023	257	408,000	922,000	7,795,000

## EXPERIENCE REVIEW

The purpose of the experience analysis is to compare what happened since the previous valuation with what was forecast by the actuarial assumptions. The prior actuarial valuation was done as of July 1, 2006. The period under review is the two years between actuarial valuations.

### **Covered Payroll**

Covered payroll is used solely as a denominator to convert dollar results into percentages of payroll. GASB allows use of the current valuation for two years of expense, using the same percentage of payroll the second year as for the first. Consistency in defining “payroll” is vital and GASB allows any of several alternatives. Actual wages per the District’s “Unaudited Actuals” is used for actuarial purposes. This totaled \$40,778,000 for 2006-07 and \$41,537,000 for 2008-09. This is an increase of only 1.9% in two years. The assumption used in this valuation is 3.5% annual increases.

### **Pre-retirement Decrements**

The prior valuation used assumed probabilities of pre-retirement death, disability retirement, and service retirement that were used by PERS and STRS in valuing pensions. However, turnover rates were multiplied by 2.0 for all age and service durations and all representation units. Turnover comparisons shown below are with that 200% assumption.

There were 129 employees included in the prior valuation who left employment for reasons other than death, disability, and service retirement – they are “terminations.”

There were 35 terminations from Classified unit members compared to 22.3 expected. When analyzed by service, only those with under five years with the District had lower turnover than assumed. By age, only those under age 35 had less than the “200% of

PERS” probabilities that were assumed. All other groups were above 200% of the PERS assumptions. Because members who are young or have short service represent less actuarial liability, the use of 200% of PERS assumptions for all ages and service is expected to be actuarially conservative.

There were 86 Certificated employees who terminated since the prior valuation; 53.1 were forecast by the “200% of STRS” probabilities. Turnover exceeded assumptions for all age/service groups except males under 30 with service under 5 years. Although probabilities of 250% of the STRS assumptions would be reasonable, no change is recommended at this time.

For the Management/Confidential unit, there were eight terminations in two years compared to 6.1 expected. This limited data cannot be analyzed by age or service.

There were 35 service retirements in the two year period; 38.5 were projected by the assumptions. By representation unit, there were 17 from Certificated compared to 22.2 expected. There were 14 actual compared to 13.0 expected in the Classified unit. There were four service retirements from the Management/Confidential group, compared to 3.3 expected. This data is not sufficient to be analyzed by age or service.

STRS has new probabilities of termination, retirement, mortality and disability. The turnover rates differ slightly at some age/service combinations and are unchanged at many. The new retirement probabilities are generally lower for service under 25 years and higher thereafter. The new STRS assumptions were used in this 2008 valuation. PERS assumptions have not been revised.

Data from the next two years will be combined with this information for a more thorough study in the next valuation.

## PARTICIPANT DATA

### **Active Employees**

A census of 531 active eligible employees as of July 1, 2008 was provided by the District. The average age was 47.9 and average service was 8.9 years. Both average age and average service have decreased by 0.2 of one year since the prior valuation. Distributions of these employees by age and service are in Appendix D. The application of the decrement rates in Appendices B (for PERS members) and C (for STRS members) project the following for these current employees:

	Certificated	Classified	Mgmt/Conf	Total
Service Retire	201	121	24	346
Disability Retire	3	6	1	10
Death	6	3	1	10
Other termination	124	32	9	165
Total	334	162	35	531

Some employees projected to retire will not have sufficient service to receive retiree health benefits, or will retire after age 65 with no District-paid benefits due under the current plan. The average expected age of service retirement is over 63. The total number of retirees receiving benefits year-by-year is given in Tables 1 and 2 in the Valuation Results section.

### **Retirees**

There were 44 retirees in the census used for this valuation. This includes eight Classified members, 34 from Certificated, and two from the Management/Confidential unit. The average age of current retirees was 62.4 as of July 1, 2008. A distribution of these retirees by age and representation unit is in Appendix E. The average monthly benefit paid by the District is about \$196.

## Appendix A

### ACTUARIAL TERMINOLOGY

**NORMAL COST** This represents the cost of the portion of an employee's benefit deemed to be earned in the current year. In pension plans such as the District's, a benefit is earned during each year of service. It is, therefore, relatively easy to visualize the Normal Cost as being the cost for each participant of the benefit earned in the current year. In a program such as a post-retirement health insurance plan, this cost cannot be easily related to a benefit formula. The Projected Unit Credit actuarial cost method has been used here. The Normal Cost is calculated so that the total value of a participant's benefit would be accrued in equal units over his total service to the expected retirement date. Thus, if an employee's total projected service to retirement was 30 years, 1/30th of the present value of the expected post-retirement benefits would be the Normal Cost. This would be the total annual cost over the long term if (1) the Normal Costs attributable to the past had been fully funded, and (2) experience matched what was assumed in all areas including investment return, premium increase, retirement, turnover, etc.

**ACTUARIAL ACCRUED LIABILITY (AAL)** For employees, this term can be defined retrospectively or prospectively. It is the accumulation of past Normal Costs from date of hire to the valuation date for all current employees. Alternatively, it is the present value of all future benefits less the present value of future Normal Cost payments. For example, for an employee who would have 30 years of service at retirement and has worked 15 years already, it is 15/30 of the present value of expected post-retirement benefits. For retirees, the AAL equals the present value of future benefits. There are no future Normal Costs after retirement.

**UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)** is the Actuarial Accrued Liability minus the actuarial value of plan assets. The UAAL is the present value of



benefits attributed to the past which have not yet been funded. Amortization of the UAAL is a component of the District's expense.

**AMORTIZATION PAYMENT** The Unfunded Actuarial Accrued Liability is amortized over 30 years beginning July 1, 2008. Since these results will be used for years beginning 2009-10, there are 29 years remaining. Payments are set to rise 3.5% annually, which makes them level in relation to expected covered payroll. The UAAL is expected to rise in dollars but decline in relation to covered payroll during the first half of the 30-year period.

**ANNUAL REQUIRED CONTRIBUTION (ARC)** This consists of the Normal Cost plus the amortization of UAAL. It is the expense assigned to the current year, if the ARC has been paid each year since implementation of GASB 45. In years when an actuarial valuation is not done, the ARC is set to be the same percentage of that year's covered payroll as had been computed in the prior valuation. The ARC includes the benefits paid to current retirees.

**NET OPEB OBLIGATION (NOO)** When an agency does not contribute the ARC to a trust fund, there is an NOO. It equals the District contribution minus the Annual OPEB Cost. This represents the contribution shortfall – how much less than the ARC has been contributed since GASB 45 implementation. It is a liability to disclose on the District's financial statements. The retiree benefits paid are the District's contribution. As of July 1, 2009 the NOO was a credit of \$92,000.

**ANNUAL OPEB COST** This is the expense for accounting purposes to show on financial statements. It equals the ARC plus interest on the NOO minus the amortization of that NOO.

**PAY-AS-YOU-GO** This way of financing benefits is not a funding method because no assets are accumulated. The cost allocated to each year is the actual benefits paid.

## Appendix B

### Actuarial Assumptions for Employees in PERS

Investment return: 5.0% per year

General inflation: 3.5% per year

Covered payroll increases: 3.5% per year

Rates of death and disability for active employees:  
California PERS rates for School Employers from 2004 Experience Study.  
Sample annual rates:

Age	Males Rate (%)		Females Rate (%)	
	Death	Disability	Death	Disability
25	.03	.02	.01	.01
30	.04	.04	.02	.03
35	.05	.08	.03	.05
40	.08	.14	.05	.10
45	.11	.28	.07	.16
50	.16	.50	.10	.30
55	.22	.72	.15	.47
60	.31	.71	.23	.37
65	.45	.57	.34	.20
70	.63	.57	.50	.20

Rates of Retirement, Males and Females:  
 California PERS rates for School Employers from 2004 Experience Study

Years of Service							
Age	5	10	15	20	25	30	35+
50	0.36%	0.71%	1.00%	1.18%	1.31%	1.47%	1.72%
51	0.35	0.69	0.96	1.14	1.27	1.42	1.66
52	0.35	0.69	0.96	1.14	1.27	1.42	1.67
53	0.46	0.92	1.29	1.52	1.70	1.90	2.23
54	0.60	1.18	1.65	1.96	2.18	2.44	2.86
55	1.94	3.84	5.37	6.35	7.07	7.92	9.29
56	1.58	3.14	4.39	5.19	5.78	6.47	7.60
57	1.70	3.37	4.71	5.57	6.20	6.94	8.15
58	2.02	4.02	5.62	6.63	7.39	8.27	9.71
59	2.31	4.57	6.40	7.56	8.42	9.42	11.06
60	3.68	7.29	10.20	12.05	13.42	15.02	17.63
61	3.64	7.21	10.09	11.92	13.28	14.86	17.44
62	7.62	15.12	21.15	24.98	27.84	31.14	36.57
63	6.87	13.63	19.06	22.52	25.10	28.08	32.97
64	5.34	10.60	14.82	17.51	19.51	21.83	25.63
65	9.06	17.97	25.13	29.69	33.08	37.01	43.45
70	6.60	13.08	18.30	21.62	24.08	26.95	31.64
75	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Rates of Withdrawal, Males and Females:  
 California PERS rates for School Employers from 2004 Experience Study and multiplied by 2.00 at all age and service combinations

Years of Service								
Age	0	5	10	15	20	25	30	35+
20	32.34%							
25	30.42	6.94%						
30	28.50	6.22	4.30%					
35	26.58	5.52	3.68	2.88%				
40	24.66	4.80	3.06	2.36	1.85%			
45	22.74	4.10	2.46	1.84	1.38	0.92%		
50	20.82	3.38	1.84	1.32	0.94	0.58	0.38%	
55	18.90	2.68	1.22	0.80	0.50	0.24	0.08	0.04%
60	16.98	1.96	0.62	0.28	0.06	0.04	0.04	0.04
65	15.06	1.26	0.06	0.06	0.04	0.04	0.04	0.04
70	13.14	0.54	0.06	0.06	0.04	0.04	0.04	0.04

Retiree Mortality Rates: California PERS 2004 Experience Study  
 Sample annual rates and life expectancies:

**MALE EMPLOYEES**

Age	Life Expectancy (Years)			Rate of Mortality (%)		
	Service Retiree	Disability Retiree	Spouse	Service Retiree	Disability Retiree	Spouse
55	26.4	18.9	30.0	.43	2.12	.25
60	22.0	16.1	25.5	.72	2.87	.44
65	17.9	13.4	21.1	1.30	3.62	.80
70	14.2	10.9	17.1	2.14	4.67	1.28
75	10.9	8.5	13.3	3.72	6.55	2.16
80	8.0	6.5	9.9	6.26	9.48	3.88
85	5.8	4.8	7.1	10.20	14.04	7.22

**FEMALE EMPLOYEES**

Age	Life Expectancy (Years)			Rate of Mortality (%)		
	Service Retiree	Disability Retiree	Spouse	Service Retiree	Disability Retiree	Spouse
55	30.0	22.9	26.4	.25	1.48	.43
60	25.5	19.7	22.0	.44	1.88	.72
65	21.1	16.6	17.9	.80	2.36	1.30
70	17.1	13.5	14.2	1.28	3.02	2.14
75	13.3	10.6	10.9	2.16	4.30	3.72
80	9.9	8.1	8.0	3.88	6.51	6.26
85	7.1	5.9	5.8	7.22	10.27	10.20

Note: **Life expectancy** is the average number of future years of life for those who have attained the specified age. For example, female service retirees who are currently age 65 will live for an *average* of 21.1 more years. The **rates of mortality** are the percentages of the retirees at the specific age who die before reaching the next age. For example, 0.80% of female service retirees age 65 are assumed to die before reaching age 66.

District's monthly payment for retirees is limited to \$200.00 per month

Assumed Increases in benefits: None.

Percentage of Future Retirees Declining Coverage: 1%

**For Proposal:**

PERS Minimum Employer Contribution rises 4% per annum. District adopts 20-year phase-in. Sample of projected benefits

<b>Calendar Year</b>	<b>Monthly Minimum</b>	<b>Phase-In Percentage</b>	<b>District Payment</b>
2008	97.00		1.00
2009	101.00	5%	5.05
2010	105.00	10%	10.50
2015	128.00	35%	44.80
2020	156.00	60%	93.60
2025	189.00	85%	160.65
2030	231.00	100%	231.00
2035	281.00	100%	281.00

District payment applies beginning age 65 and paid for life. District pays greater of amount shown above or \$200 monthly (prorated for service) before age 65.

Family composition: 20% of females and 30% of males will have surviving dependents eligible for and electing the District-paid PERS Minimum. Wives are assumed to be three years younger than husbands.

## Appendix C

### Actuarial Assumptions for Employees in STRS

Investment return: 5.0% per year

General inflation: 3.5% per year

Covered payroll increases: 3.5% per year

Rates of death and disability for employees (California STRS 2008 Experience Study)

Age	Male Rates (%)		Female Rates (%)	
	Death	Disability	Death	Disability
25	.03	.02	.02	.02
30	.04	.03	.02	.03
35	.04	.05	.02	.06
40	.06	.08	.04	.09
45	.10	.11	.06	.11
50	.13	.16	.09	.22
55	.19	.21	.14	.28
60	.29		.22	
65	.53		.51	

Rates of retirement for active employees (California STRS 2008 Experience Study)

Age	Female Rates		Male Rates	
	Under 30 Years	30 + Years	Under 30 Years	30 + Years
55	4.50%	9.0%	2.70%	8.0%
56	3.15%	8.0%	1.80%	8.0%
57	3.15%	11.0%	1.80%	10.0%
58	4.05%	16.0%	2.70%	14.0%
59	5.40%	19.0%	4.50%	18.0%
60	9.00%	31.0%	6.30%	27.0%
61	9.00%	40.0%	6.30%	43.0%
62	10.80%	37.0%	10.80%	38.0%
63	16.20%	35.0%	11.70%	30.0%
64	13.50%	32.0%	10.80%	30.0%
65	14.40%	32.0%	13.50%	30.0%
66-69	13.50%	32.0%	10.80%	30.0%
70	100.0%	100.0%	100.0%	100.0%

Rates of Withdrawal:

California STRS rates from 2008 Experience Study multiplied by 2.00 at all age and service combinations. Sample annual rates:

**FEMALES**

Age When Hired						
Years of Service	Under 25	25 - 29	30 - 34	35 - 39	40 - 44	45 & Over
0	30.60%	30.60%	30.60%	30.60%	30.60%	30.60%
5	11.00%	10.50%	9.00%	7.50%	6.50%	5.00%
10	4.50%	3.60%	3.20%	2.60%	2.60%	0.80%
15	2.00%	1.80%	1.80%	1.70%	1.60%	0.80%
20	1.00%	1.00%	1.00%	1.20%	0.80%	0.80%
25	0.68%	0.80%	0.80%	0.80%	0.80%	0.80%
30	0.60%	0.80%	0.80%	0.80%	0.80%	0.80%

**MALES**

Age When Hired						
Years of Service	Under 25	25 - 29	30 - 34	35 - 39	40 - 44	45 & Over
0	30.60%	30.60%	30.60%	30.60%	30.60%	36.00%
5	7.80%	7.20%	6.00%	6.00%	6.00%	6.00%
10	4.00%	4.00%	4.00%	4.00%	4.00%	2.00%
15	2.20%	2.20%	2.20%	2.20%	2.20%	0.60%
20	1.20%	1.20%	1.20%	1.20%	1.20%	0.50%
25	0.75%	1.00%	1.00%	1.00%	1.00%	0.50%
30	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%

Retiree Mortality Rates: California STRS 2008 Experience Study  
 Sample annual rates and life expectancies:

**MALE EMPLOYEES**

Age	Life Expectancy (Years)			Rate of Mortality (%)		
	Service Retiree	Disability Retiree	Spouse	Service Retiree	Disability Retiree	Spouse
55	29.2	21.0	31.9	.21	2.50	.17
60	25.1	18.5	27.2	.36	2.50	.27
65	20.6	15.7	22.7	.68	2.50	.51
70	16.5	12.5	18.4	1.27	2.73	.97
75	12.7	9.34	14.4	2.38	4.69	1.67
80	9.4	6.8	10.8	4.36	8.05	3.26

**FEMALE EMPLOYEES**

Age	Life Expectancy (Years)			Rate of Mortality (%)		
	Service Retiree	Disability Retiree	Spouse	Service Retiree	Disability Retiree	Spouse
55	31.9	23.9	29.2	.17	2.00	.21
60	27.2	21.1	25.1	.27	2.00	.36
65	22.7	18.1	20.6	.51	2.00	.68
70	18.4	14.8	16.5	.97	2.07	1.27
75	14.4	11.5	12.7	1.67	3.41	2.38
80	10.8	8.6	9.4	3.26	5.63	4.36

These are STRS assumptions for current retirees, which have been used in this study for all retirees. Higher rates of mortality among disability retirees in their first three years of retirement have not been used herein.



District's monthly payment for retirees is limited to \$200.00 per month

Assumed Increases in benefits: None.

Percentage of Future Retirees Declining Coverage: 1%

**For Proposal:**

PERS Minimum Employer Contribution rises 4% per annum. District adopts 20-year phase-in. Sample of projected benefits

<b>Calendar Year</b>	<b>Monthly Minimum</b>	<b>Phase-In Percentage</b>	<b>District Payment</b>
2008	97.00		1.00
2009	101.00	5%	5.05
2010	105.00	10%	10.50
2015	128.00	35%	44.80
2020	156.00	60%	93.60
2025	189.00	85%	160.65
2030	231.00	100%	231.00
2035	281.00	100%	281.00

District payment applies beginning age 65 and paid for life. District pays greater of amount shown above or \$200 monthly (prorated for service) before age 65.

Family composition: 20% of females and 30% of males will have surviving dependents eligible for and electing the District-paid PERS Minimum. Wives are assumed to be three years younger than husbands.

## APPENDIX D-1

### Distribution of All Employees By Age and Years of Service as of July 1, 2008

Age	Years of Service						Total
	Under 5	5 - 9	10 - 14	15 - 19	20 - 24	25 & Over	
Under 25	3						3
25 - 29	48	2					50
30 - 34	39	12	1				52
35 - 39	21	11	4				36
40 - 44	32	17	13	1			63
45 - 49	20	15	7	9	8		59
50 - 54	27	17	10	10	3	1	68
55 - 59	14	31	13	20	7	10	95
60 - 64	7	10	18	18	17	13	83
65 - 69	3	3	6	1	2	5	20
70 & Over		2					2
Total	214	120	72	59	37	29	531

There are 378 females and 153 males in this census. The average age is 47.9 and the average length of service is 8.9 years.

## APPENDIX D-2

### Distribution of Non-Management Certificated Employees By Age and Years of Service as of July 1, 2008

Years of Service							
Age	Under 5	5 - 9	10 - 14	15 - 19	20 - 24	25 & Over	Total
Under 25	1						1
25 - 29	46	2					48
30 - 34	33	10	1				44
35 - 39	15	9	4				28
40 - 44	21	10	11	1			43
45 - 49	10	9	3	4	7		33
50 - 54	9	10	8	7	1		35
55 - 59	5	17	7	9	2	7	47
60 - 64	1	7	11	9	8	7	43
65 - 69	2	1	5		1	2	11
70 & Over		1					1
Total	143	76	50	30	19	16	334

There are 250 females and 84 males in this census. The average age is 45.3, and the average service is 8.3 years.

### APPENDIX D-3

Distribution of Non-Management Classified Employees  
By Age and Years of Service  
as of July 1, 2008

Years of Service							
Age	Under 5	5 - 9	10 - 14	15 - 19	20 - 24	25 & Over	Total
Under 25	2						2
25 - 29	2						2
30 - 34	4	2					6
35 - 39	3	1					4
40 - 44	8	6	2				16
45 - 49	8	5	3	5	1		22
50 - 54	15	7	2	2	2	1	29
55 - 59	7	12	4	11	3	2	39
60 - 64	5	2	7	7	8	3	32
65 - 69	1	2	1	1	1	3	9
70 & Over		1					1
Total	55	38	19	26	15	9	162

There are 107 females and 55 males in this census. The average age is 52.5 and the average service is 10.0 years.

## APPENDIX D-4

### Distribution of Management/Confidential Employees By Age and Years of Service as of July 1, 2008

Years of Service							
Age	Under 5	5 - 9	10 - 14	15 - 19	20 - 24	25 & Over	Total
Under 25							0
25 - 29							0
30 - 34	2						2
35 - 39	3	1					4
40 - 44	3	1					4
45 - 49	2	1	1				4
50 - 54	3			1			4
55 - 59	2	2	2		2	1	9
60 - 64	1	1		2	1	3	8
65 - 69							0
70 & Over							0
Total	16	6	3	3	3	4	35

This census includes 21 female and 14 male employees. The average age is 51.1 and the average service is 9.8 years.

## APPENDIX E

Distribution of Current Retirees by  
Employment Unit and Age  
As of July 1, 2008

Age	Certificated	Classified	Mgmt/Conf	Total
Under 55				0
55 - 59	4	2		6
60 - 64	30	6	2	38
65 & Over				0
Total	34	8	2	44

There are 35 females and 9 males in this table. The average age is 62.4 and the average monthly benefit is \$196.

**APPENDIX F**  
**Summary of Principal Provisions of Retiree Health Program**  
**Novato Unified School District**  
**Current Plan**

	<b>Certificated and Mgmt/Conf</b>	<b>Classified</b>
<b>Full Retirement Benefit</b>		
Eligibility Age	55	55
Years of Service Required	10	15
Benefit Amount	Payment of one-party medical premiums, maximum \$200	Payment of one-party medical premiums, maximum \$200
Benefit Duration	Paid until earlier of age 65 or death	Paid until earlier of age 65 or death
<b>Partial Retirement Benefit</b>		
Eligibility Age	55	55
Years of Service Required	5	5
Benefit Amount	Amount of full benefit is pro-rated by years of service at retirement to 10	Amount of full benefit is pro-rated by years of service at retirement to 15
Benefit Duration	Paid until earlier of age 65 or death	Paid until earlier of age 65 or death
<b>Disability Benefit</b>	Same as full or partial benefit above	Same as full or partial benefit above
<b>Pre-retirement Death Benefit</b>	None	None
<b>Post-retirement Death Benefit</b>	None	None