Amortization Schedules
Unfunded Actuarially Accrued Liability (UAAL)
County of Mendocino
6/21/2010

One Page Summary

The County of Mendocino will need to pay $3.9 million as UAAL amortization payments in fiscal year 2010-2011 using the Level Percent of Payroll method. Payments will grow to $9.9 million in 2015 driven by the inclusion of $87 million of "sub-target" MCERA investment returns that are not included in the UAAL as of 6/09 because of smoothing.

Deeply Flawed Amortization Schedules

There are very substantial errors in the UAAL amortization schedules distributed by Jim Andersen last Thursday, 6/17. Total UAAL payments are significantly less than the beginning balance ($16 million less for the level payment method, $25 million for the level percent of payroll method). Simple and obvious math errors are throughout the schedules. I corrected the math and used Andersen's payment values. Under both methods the balance of UAAL debt would go up over 30 years - an increase of $3 million using the level payment method, and $25.5 million under the level percent of payroll. Andersen's payments do not amortize the debt - they increase it.

Correct Amortization Schedules

I produced correct amortization schedules for the two methods. They both show significantly higher payments are required. The method chosen by MCERA is a 30 year level percentage of payroll. Andersen's schedule showed the first year payment (in 2011 - not 2009 as shown on the schedule) would be $3.4 million. The required amount is a half million more - $3.9 million. Over the 30 years the County would pay a total of $221 million - $30 million more than the Andersen schedule.

Future UAAL Amortization - No Mention in Andersen Amortization Schedules

The UAAL balance to be amortized beginning in fiscal year 2010-2011 is about $67 million. But this doesn't include about $85 million of sub-target investment returns that have been deferred by "smoothing". In each of the next four years additional amortization schedules will have to be created to begin to eliminate these "deficits". Another major flaw with the Anderson schedules is not including these required future payments.

The total payment in 2015 for the schedule that begins in 2011 to amortize the initial $67 million would be about $4.6 million. The total payments in 2015 for the schedules that begin after 2011 would add an additional $5.3 million. This more than doubles the payments in 2015 - a total of nearly $10 million.

Level Percent of Payroll Method, 30 Year Amortization - and "Generational Equity"

The Level Percent of Payroll method produces lower payments in the first 11 years than the Level Dollar method, but much higher payments thereafter. The adoption of the 30 year amortization period and the Level Percent of Payroll method continues the County's deeply flawed practice of shoving past costs onto future generations.

Level Percent of Payroll Method - "Sensitivity Analysis"

Higher assumed Payroll growth rates reduce payments in the first 11 years and increase payments thereafter. Lowering the growth rate evens out the payments and greatly reduces total interest cost.

Amortization Schedules
Unfunded Actuarially Accrued Liability (UAAL)
County of Mendocino
6/21/2010

I realize that a UAAL is not a fixed debt - it changes year to year. And therefore amortization schedules are not fixed either - they would vary from year to year as well. However, if the County and MCERA have elected to use a specific amortization method they should know the results of that method assuming "all other things remain equal". And they should know what level of investment performance would be necessary on behalf of MCERA to eliminate UAAL balances through investment profits.

1) Andersen's Amortization Schedules are Significantly Incorrect

Jim Andersen sent two amortization schedules last Thursday, 6/17, that had been requested. They are shown as attachments A-1 and A-2.

These schedules are seriously flawed in several ways.

First, the math in the schedule "doesn't work". As just one example, in the Level Payment method the first year's payment is shown as creating "negative amortization" - that is, the payment isn't enough to pay the interest accruing during the year and therefore total debt increases. The following year's beginning balance should be larger than the first year's beginning balance, but is less in the schedule.

Table 1 - Example of Math Error - Andersen Schedules
First Year Change in Principal - Level Payment Method

	In Schedule	Correct Math	Difference
Beginning Balance	66,933,480	66,933,480	
Negative Amortization	26,546	26,546	
Ending Balance	66,253,283	66,960,026	(706,743)

Second, the total principal payments on the schedules do not amortize (i.e. eliminate) the beginning UAAL principal. (The schedules didn't show total principal or interest payments - I calculated them.)

Table 2 - Total Payments on Principal - Andersen Schedules

	Level Pmt	Level % Pay
Beg Balance	66,933,480	66,933,480
Less: Ttl Pmts to Principal	(50,709,684)	(41,816,047)
Unamortized	16,223,796	25,117,433

This can be easily seen by looking at the beginning balance in the last year of the schedule and comparing it to the payment of principal to be made that year; they don't equal. Therefore the amortization schedule is incorrect on its face.

Third, I corrected the math in the schedules and used the same payments, beginning balance, and projected payrolls. I produced schedules that show what the actual remaining balances would be after 30 years. (I don't include these in the attachments - they are available).

I made these calculations based on the assumption one payment is made at the end of each year, and that therefore a full year's interest at 8% is paid. I'm sure this is not a correct assumption - payments are probably made more often than that - and therefore total interest payments would be less.

However, it appears Andersen's schedules are based on the same assumption. The interest expense shown in the first year in both schedules is a full 8% of the year's beginning balance - so the two methods appear to be directly comparable in this assumption

The result of the amortization using the level payment method should be obvious - the debt grows every year. If the first year's payment is less than that year's interest expense, then it's going to be less than every year's interest expense.

The level percent of payroll method is more complex mathematically and the end result regarding whether or not the principal increases or decreases can't be immediately seen by looking at the first year's payments. But it turns out that after 30 years there is more debt than in the first year.

Table 3 - Ending Balance with Andersen's Payment Amounts

	Level ...	
	Payment	Percent
Beg Bal	66,933,480	66,933,480
Ttl Prin Pmts	(3,007,261)	(25,544,859)
End Bal	69,940,741	92,478,339

In both methods the County would wind up owing more in the 30 years than it does now.

These two schedules should be thrown away; they are deeply flawed.

I am no longer surprised the numbers don't work on financial calculations and reports from MCERA and/or the County. As Ted Stephens and I have pointed out, there are many instances of obviously incorrect financial statements and calculations, instances where what should be the same number appears in different documents but they are significantly different, etc.

But I remain astonished that the financial management of our County and Retirement Association can't accurately produce what is expected from a first year graduate finance student. If these schedules had been turned in as a quiz in a first year finance course, the grade would be "F".

As the Executive Summary of the Kroll Report regarding the unfunded pension problems in the City of San Diego stated:

> *... no one viewed himself or herself as accountable for the accuracy of City financial disclosures.... no one ... took responsibility for seeing to it that information provided to, or prepared by, the auditor was actually correct.*

I believe this is true for Mendocino County and MCERA as well.

2) Correct Amortization Schedules

I produced amortization schedules for the two methods - shown as attachments D-1 and D-2. I used what I believe is probably a more accurate payment assumption - monthly payments at the end of each month rather than 1 yearly payment at the end of the year. The result is a slight reduction in interest expense compared to the yearly payment assumption.

This table shows some of the differences from the Andersen schedules.

Table 4 - Accurate Amortization Schedules - Monthly Payments Compared to Andersen Schedules

	Level Payment Method			Level Percent of Payroll Method		
	Interest	Principal	Total	Interest	Principal	Total
Year 1						
YourPublicMoney	5,334,472	559,138	5,893,610	5,407,579	(1,463,813)	3,943,766
Andersen	5,354,678	(26,546)	5,328,132	5,354,678	(1,946,359)	3,408,319
Difference	(20,206)	585,684	565,478	52,901	482,546	535,447
1st 5 Years						
YourPublicMoney	26,168,133	3,299,916	29,468,050	28,152,031	(6,791,325)	21,360,706
Andersen	26,188,468	452,192	26,640,660	27,716,840	(9,256,280)	18,460,560
Difference	(20,335)	2,847,724	2,827,390	435,191	2,464,955	2,900,146
Total						
YourPublicMoney	109,874,819	66,933,480	176,808,299	154,252,367	66,933,480	221,185,847
Andersen	109,134,276	50,709,684	159,843,960	149,339,357	41,816,047	191,155,404
Difference	740,543	16,223,796	16,964,339	4,913,010	25,117,433	30,030,443

The method chosen by MCERA is the level percent of payroll. Right off the bat the accurate amortization schedule would require a principal payment in the first year of over $500,000 more than the Andersen schedule. The first year payment would be nearly $4 million.

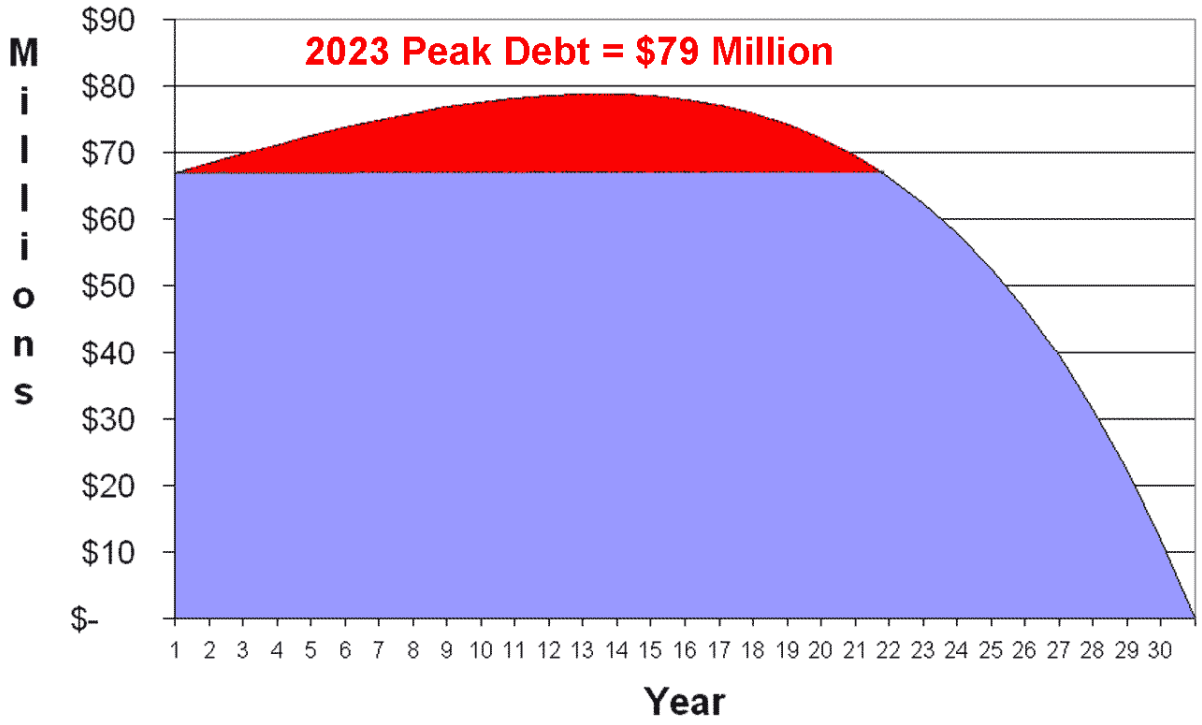
Total payments over the first five years would be $21.4 million - $2.9 million more than the Andersen schedules.

Over the 30 year amortization period the correct amortization schedule would require $30 million more payments than the Andersen schedules.

The level percentage of payroll method produces “negative amortization” - the debt actually increases in the early years because the interest accruing isn’t being paid in full.

This graph shows the UAAL balance through the 30 year period.

Note - a minor issue with the Andersen schedules is they show payments starting in fiscal year 2009. We don't believe these payments begin until 2011. This graph shows years 1 through 30 - year 1 being 2011.



The total UAAL - if all other things remain equal - would grow to a total of nearly $79 million in 2023 - and increase of about $12 million - because of negative amortization. This method (again all other things remaining equal) increases the County's UAAL by nearly $1.5 million in the first year.

In fact, the total UAAL would not drop below the beginning balance until 2032 - more than 20 years from now.

3) Future UAAL Amortization - No Mention in Andersen Amortization Schedules

All the schedules above refer to amortizing the actuarially valued UAAL as of 6/09 of about $67 million. But this ignores MCERA's sub-target investment performance that has not yet been incorporated into the actuarial value of the UAAL because of "smoothing".

This is a very significant omission.

The Actuarial Valuation is a very complex calculation. We know that actual results never reproduce the plan exactly. However, we must make that assumption to understand the impacts of the amortization method to be used.

This is the first part of the table on page 24 of the 6/30/09 Buck Consultants Actuarial Valuation. The first step in determining the Net Actuarial Value of Assets is "smoothing". The "Contributions" and "Benefit Payments" columns are "grayed out" because they are not part of the smoothing calculation.

Table 5 - Smoothing - Buck Consultants Actuarial Valuation 6/30/09

1.	Year Ending 6/30	Contributions	Benefit Payments	Expected Investment Return	Actual Investment Return	Earnings Above/Below Expected	Portion Deferred	Deferred Earnings
	2006	$13,504,121	$18,368,170	$22,219,384	$30,976,463	8,757,079	20%	1,751,416
	2007	13,738,923	18,361,712	24,317,842	50,991,137	26,673,295	40%	10,669,318
	2008	13,838,980	20,708,074	27,967,796	(28,174,415)	(56,142,211)	60%	(33,685,327)
	2009	15,377,201	22,976,920	26,278,512	(53,511,078)	(79,789,590)	80%	(63,831,672)
	Total							**(85,096,265)**
2.	Market Value of Assets as of June 30, 2009							$271,188,485
3.	Actuarial Value of Assets as of June 30, 2009 (2)-(1)							$356,284,750

The "Portion Deferred" column highlighted in yellow is the smoothing calculation. That percentage of the "Earnings Above/Below Expected" (Expected is the "target rate of return") is deferred - not included the "Actuarial Value of Assets". In this Valuation a net $85 million of "Earnings Below Expected" is added back into the Market Value of Assets. The actual calculation is to subtract the Total Deferred Earnings from the Market Value, but since the Total Deferred is itself a negative number that means it is really added.

Therefore the Market Value of Assets was $85 million less than the Actuarial Value shown in step 3. After this calculation the "Corridor Limit" is applied and various "Reserves" are deducted - those stops aren't shown here. The "bottom line", the Net Actuarial Value of Assets", wound up at $336 million.

The 6/30/2010 Valuation will defer only 60% of the nearly $80 million Earnings Below Expected in 2009. Or, put another way, 20% of that amount - $16 million - will not be added back into the Market Value - which will reduce the calculated Actuarial Value in step 3 by that amount.

The Total Deferred Earnings of $85 million will be brought into the Actuarial Value of Assets over the next four years.

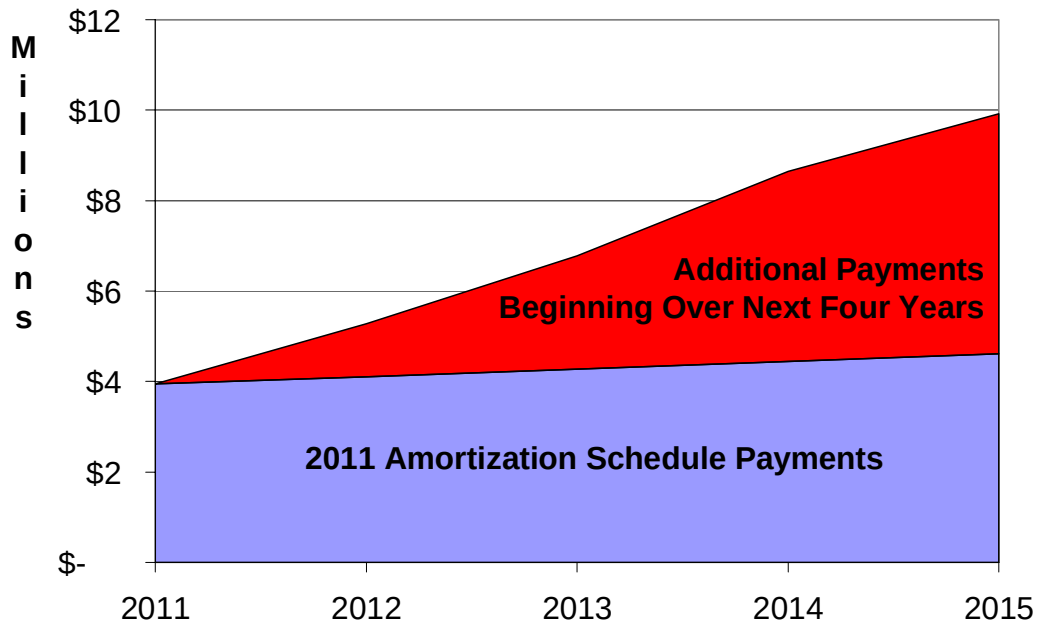
This table shows the amounts of Deferred Earnings from previous years that will be included in the calculation of Actuarial Value over the next 4 years. For purposes of analyzing the amortization schedules, I am assuming that earnings over those 4 years will be exactly what is expected.

Table 6 - Additional UAAL to Amortize - Next Five Years

	Following FY	Next FY
2011		66,933,480
2012	19,983,103	
2013	21,734,519	
2014	27,069,178	
2015	15,840,735	
	84,627,534	84,627,534
		151,561,014

The Andersen schedules do not address these additional amortization amounts - a serious oversight because in fact the amount of Total Deferred Earnings as of 6/30/09 was itself around 27% larger than the UAAL that is being set up to be amortized today. The County's total "deficit" that will have to be amortized is really over $150 million.

I developed 30 year amortization schedules for each of these four years using the level percent of payroll method - and using the projected payrolls in the Andersen schedules. The total yearly payments for all five amortization schedules are shown in attachment T-2. This graph shows the impact on total UAAL payments (using the Level Percent of Payroll method) these additional amounts would have - all other things remaining equal.



By the time the last of the currently deferred sub-target earnings is incorporated into UAAL amortization payments the total will more than double the amortization payment required for 2011. Again, all other things remaining equal (which they won't) total UAAL amortization payments for the next five years would be:

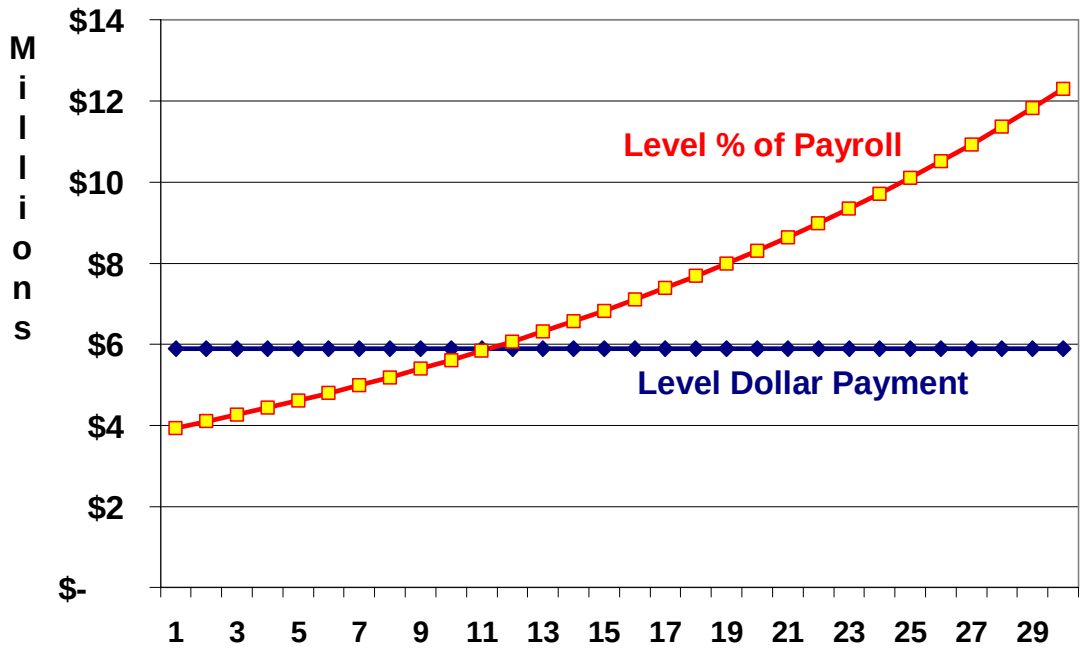
Table 7 - Expected Total UAAL Payments

2011	3,943,766
2012	5,281,017
2013	6,775,136
2014	8,643,898
2015	9,924,652

This is obviously a much more difficult increase in amortization payments to accommodate. The Level Percent of Payroll amortization method (assuming growth of 4% a year in payroll) will result in negative amortization over the next 5 years of about $11 million. That is, the County's UAAL would increase by $11 million (all other things remaining equal).

4) Level Percent of Payroll Method, 30 Year Amortization - and "Generational Equity"

A short-term advantage of this method chosen for Mendocino County's UAAL amortization is that payments are lower in the earlier years. This graph shows the payments for the $67 million that begin in fiscal year 2010-2011. (These don't include payments for the amounts that begin to be amortized in the following 4 years.)



The Level Percent of Payroll method produces payments that are below those of the Level Dollar Payment method for the first 11 years. Payments thereafter are higher. Note - this table is based on the simpler "1 payment at end of year" amortization calculation that produces slightly higher interest payments than the "payment at the end of each month" method.

Table 8 - Total Amortization Payments - $67 Million UAAL Starting FY10-11

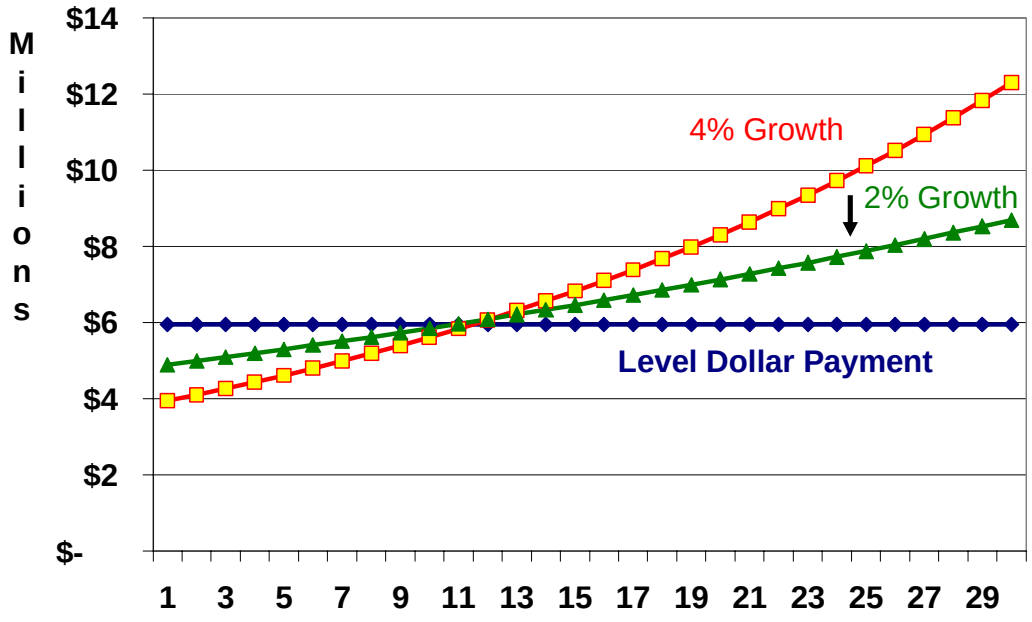
	Level Dollar	Level % Pay	Difference
1st 11	65,400,822	53,281,117	12,119,704
After	112,965,055	168,296,095	(55,331,039)
All	178,365,877	221,577,212	(43,211,335)

The County will pay $11.5 million less during the first 11 years than if the Level Dollar method were used. However, after that it will pay nearly $55 million more. All told, the Level Percent of Payroll method will require the County to pay over $43 million more than the Level Dollar method.

One of the major criticisms we have made of the financial management of the County's retirement benefits is that current officials have forced massive unfair payments onto future generations. This is precisely what the amortization method and term does. A 30 year term by definition forces future generations to pay costs that should have already been paid in the past. It isn't "their fault" that past County officials didn't manage the funding of retiree benefits correctly - but they will pay for it. The Level Percent of Payroll method makes it worse. It allows current officials to choose to pay $11.5 million less and shove that - with interest - onto future citizens.

5) <u>Level Percent of Payroll Method - "Sensitivity Analysis"</u>

The Level Percent of Payroll Amortization Schedule from Jim Andersen assumes a 4% annual increase in County payroll. The math of this method is that higher growth rates produce lower initial payments and higher future payments. What if the growth rate were 2% instead of 4%?



Reducing the growth rate of payroll from 4% to 2% pushes the curve of payments about halfway to the Level Dollar method pivoting on year 11. It still pushes payments to the future, but not as much.

Table 9 - Level Dollar, 4% Payroll Growth, 2% Payroll Growth

		Level % Pay		Level % Pay	
	Level Dollar	4% growth	Difference	2 % growth	Difference
1st 11	65,400,822	53,281,117	12,119,704	59,597,758	5,803,063
After	112,965,055	168,296,095	(55,331,039)	139,089,325	(26,124,270)
All	178,365,877	221,577,212	(43,211,335)	198,687,084	(20,321,207)

This table compares the 2% growth assumption to the values shown in Table 8. Two things happen by lowering the assumed Payroll growth rate. First, payments in the first 11 years are higher than under the 4% growth assumption, and less in later years. Second, because more debt is paid down in the early years, total interest is significantly reduced, which lowers the total payments by about $23 million.

Attachment A-1: UAAL Amortization Schedules Received from Jim Andersen 6/18/10
"Level $ Summary"
Form slightly modified - column totals added - same data

FY	Beg UAAL	Payment	Payroll	% Payroll	Years	Int %	Payment Interest	Payment Principal
2009	66,933,480	5,328,132	72,235,095	0.0738	30	0.080	5,354,678	(26,546)
2010	66,253,283	5,328,132	75,124,499	0.0709	29	0.080	5,300,263	27,869
2011	65,523,931	5,328,132	78,129,479	0.0682	28	0.080	5,241,914	86,218
2012	64,741,869	5,328,132	81,254,658	0.0656	17	0.080	5,179,350	148,782
2013	63,903,291	5,328,132	84,504,844	0.0631	26	0.080	5,112,263	215,869
2014	63,004,111	5,328,132	87,885,038	0.0606	25	0.080	5,040,329	287,803
2015	62,039,949	5,328,132	91,400,440	0.0583	24	0.080	4,963,196	364,936
2016	61,006,110	5,328,132	95,056,457	0.0561	23	0.080	4,880,489	447,643
2017	59,897,558	5,328,132	98,858,715	0.0539	22	0.080	4,791,805	536,327
2018	58,708,894	5,328,132	102,813,064	0.0518	21	0.080	4,696,712	631,420
2019	57,434,329	5,328,132	106,925,587	0.0498	20	0.080	4,594,746	733,386
2020	56,067,654	5,328,132	111,202,610	0.0479	19	0.080	4,485,412	842,720
2021	54,602,213	5,328,132	115,650,714	0.0461	18	0.080	4,368,177	959,955
2022	53,030,869	5,328,132	120,276,743	0.0443	17	0.080	4,242,470	1,085,662
2023	51,345,968	5,328,132	125,087,813	0.0426	16	0.080	4,107,677	1,220,455
2024	49,539,304	5,328,132	130,091,325	0.0410	15	0.080	3,963,144	1,364,988
2025	47,602,077	5,328,132	135,294,978	0.0394	14	0.080	3,808,166	1,519,966
2026	45,524,852	5,328,132	140,706,777	0.0379	13	0.080	3,641,988	1,686,144
2027	43,297,512	5,328,132	146,335,048	0.0364	12	0.080	3,463,801	1,864,331
2028	40,909,207	5,328,132	152,188,450	0.0350	11	0.080	3,272,737	2,055,395
2029	38,348,306	5,328,132	158,275,988	0.0337	10	0.080	3,067,865	2,260,267
2030	35,602,336	5,328,132	164,607,028	0.0324	9	0.080	2,848,187	2,479,945
2031	32,657,922	5,328,132	171,191,309	0.0311	8	0.080	2,612,634	2,715,498
2032	29,500,723	5,328,132	178,038,961	0.0299	7	0.080	2,360,058	2,968,074
2033	26,115,362	5,328,132	185,160,520	0.0288	6	0.080	2,089,229	3,238,903
2034	22,485,350	5,328,132	192,566,941	0.0277	5	0.080	1,798,828	3,529,304
2035	18,593,007	5,328,132	200,269,618	0.0266	4	0.080	1,487,441	3,840,691
2036	14,419,375	5,328,132	208,280,403	0.0256	3	0.080	1,153,550	4,174,582
2037	9,944,125	5,328,132	216,611,619	0.0246	2	0.080	795,530	4,532,602
2038	5,145,461	5,328,132	225,276,084	0.0237	1	0.080	411,637	4,916,495
		159,843,960	4,051,300,805				109,134,276	50,709,684

Attachment A-2: UAAL Amortization Schedules Received from Jim Andersen 6/18/10
"Level % Payroll Summary"
Form slightly modified - column totals added - same data

FY	Beg UAAL	Payment	Payroll	% Payroll	Years	Int %	Interest	Principal
2009	66,933,480	3,408,320	72,235,095	4.72%	30	0.080	5,354,678	(1,946,359)
2010	68,172,950	3,544,653	75,124,499	4.72%	29	0.080	5,453,836	(1,909,183)
2011	69,356,536	3,686,439	78,129,479	4.72%	28	0.080	5,548,523	(1,862,084)
2012	70,476,033	3,833,896	81,254,658	4.72%	27	0.080	5,638,083	(1,804,186)
2013	71,521,498	3,987,252	84,504,844	4.72%	26	0.080	5,721,720	(1,734,468)
2014	72,479,019	4,146,742	87,885,038	4.72%	25	0.080	5,798,321	(1,651,579)
2015	73,338,749	4,312,612	91,400,440	4.72%	24	0.080	5,867,100	(1,554,488)
2016	74,085,171	4,485,116	95,056,457	4.72%	23	0.080	5,926,814	(1,441,697)
2017	74,704,050	4,664,521	98,858,715	4.72%	22	0.080	5,976,324	(1,311,803)
2018	75,177,079	4,851,102	102,813,064	4.72%	21	0.080	6,014,166	(1,163,065)
2019	75,487,713	5,045,146	106,925,587	4.72%	20	0.080	6,039,017	(993,871)
2020	75,615,386	5,246,952	111,202,610	4.72%	19	0.080	6,049,231	(802,279)
2021	75,539,601	5,456,830	115,650,714	4.72%	18	0.080	6,043,168	(586,338)
2022	75,237,679	5,675,103	120,276,743	4.72%	17	0.080	6,019,014	(343,911)
2023	74,682,800	5,902,107	125,087,813	4.72%	16	0.080	5,974,624	(72,517)
2024	73,847,345	6,138,191	130,091,325	4.72%	15	0.080	5,907,788	230,404
2025	72,703,365	6,383,719	135,294,978	4.72%	14	0.080	5,816,269	567,450
2026	71,216,293	6,639,068	140,706,777	4.72%	13	0.080	5,697,303	941,764
2027	69,352,844	6,904,630	146,335,048	4.72%	12	0.080	5,548,227	1,356,403
2028	67,074,695	7,180,816	152,188,450	4.72%	11	0.080	5,365,976	1,814,840
2029	64,339,791	7,468,048	158,275,988	4.72%	10	0.080	5,147,183	2,320,865
2030	61,103,709	7,766,770	164,607,028	4.72%	9	0.080	4,888,297	2,878,474
2031	57,318,930	8,077,441	171,191,309	4.72%	8	0.080	4,585,514	3,491,927
2032	52,932,450	8,400,539	178,038,961	4.72%	7	0.080	4,234,596	4,165,943
2033	47,887,569	8,736,560	185,160,520	4.72%	6	0.080	3,831,006	4,905,555
2034	42,123,424	9,086,023	192,566,941	4.72%	5	0.080	3,369,874	5,716,149
2035	35,573,781	9,449,463	200,269,618	4.72%	4	0.080	2,845,902	6,603,561
2036	28,167,092	9,827,442	208,280,403	4.72%	3	0.080	2,253,367	7,574,075
2037	19,825,959	10,220,540	216,611,619	4.72%	2	0.080	1,586,077	8,634,463
2038	10,466,987	10,629,361	225,276,084	4.72%	1	0.080	837,359	9,792,002
		191,155,402	4,051,300,805				149,339,357	41,816,047

Attachment D-1: UAAL Amortization Schedules
"Level $ Summary"
"Correct" Amortization Schedule assuming Monthly payments of principal and interest at end of month.

Year	Beg UAAL	Payment	Interest	Principal
1	66,933,480	5,893,610	5,334,472	559,138
2	66,422,658	5,893,610	5,288,064	605,546
3	65,821,122	5,893,610	5,237,804	655,806
4	65,169,659	5,893,610	5,183,372	710,238
5	64,464,124	5,893,610	5,124,423	769,187
6	63,700,031	5,893,610	5,060,580	833,030
7	62,872,518	5,893,610	4,991,439	902,171
8	61,976,322	5,893,610	4,916,560	977,050
9	61,005,742	5,893,610	4,835,465	1,058,145
10	59,954,605	5,893,610	4,747,639	1,145,971
11	58,816,223	5,893,610	4,652,524	1,241,086
12	57,583,357	5,893,610	4,549,515	1,344,095
13	56,248,163	5,893,610	4,437,956	1,455,654
14	54,802,149	5,893,610	4,317,137	1,576,473
15	53,236,116	5,893,610	4,186,291	1,707,319
16	51,540,103	5,893,610	4,044,584	1,849,026
17	49,703,322	5,893,610	3,891,116	2,002,494
18	47,714,090	5,893,610	3,724,910	2,168,700
19	45,559,752	5,893,610	3,544,909	2,348,701
20	43,226,604	5,893,610	3,349,967	2,543,642
21	40,699,807	5,893,610	3,138,846	2,754,764
22	37,963,287	5,893,610	2,910,202	2,983,408
23	34,999,637	5,893,610	2,662,581	3,231,029
24	31,790,006	5,893,610	2,394,407	3,499,203
25	28,313,977	5,893,610	2,103,975	3,789,635
26	24,549,439	5,893,610	1,789,437	4,104,173
27	20,472,446	5,893,610	1,448,793	4,444,817
28	16,057,065	5,893,610	1,079,875	4,813,735
29	11,275,209	5,893,610	680,338	5,213,272
30	6,096,462	5,893,610	247,639	5,645,971
End	0			
		176,808,299	109,874,819	66,933,480

.**Attachment D-2:** UAAL Amortization Schedules
"Level % Payroll Summary"
"Correct" Amortization Schedule assuming Monthly payments of principal and interest at end of month.

Year	Beg UAAL	Payment	Payroll	% Payroll	Payments on … Interest	Principal
1	66,933,480	3,943,766	72,235,095	5.46%	5,407,579	(1,463,813)
2	68,270,802	4,101,516	75,124,499	5.46%	5,523,160	(1,421,644)
3	69,696,090	4,265,577	78,129,479	5.46%	5,635,005	(1,369,428)
4	71,070,029	4,436,200	81,254,658	5.46%	5,742,269	(1,306,069)
5	72,381,573	4,613,648	84,504,844	5.46%	5,844,019	(1,230,371)
6	73,618,486	4,798,194	87,885,038	5.46%	5,939,220	(1,141,026)
7	74,767,232	4,990,122	91,400,440	5.46%	6,026,728	(1,036,607)
8	75,812,862	5,189,726	95,056,457	5.46%	6,105,282	(915,556)
9	76,738,878	5,397,315	98,858,715	5.46%	6,173,489	(776,174)
10	77,527,096	5,613,208	102,813,064	5.46%	6,229,817	(616,609)
11	78,157,493	5,837,736	106,925,587	5.46%	6,272,577	(434,840)
12	78,608,041	6,071,246	111,202,610	5.46%	6,299,913	(228,667)
13	78,854,524	6,314,096	115,650,714	5.46%	6,309,787	4,309
14	78,870,347	6,566,660	120,276,743	5.46%	6,299,960	266,700
15	78,626,321	6,829,326	125,087,813	5.46%	6,267,975	561,351
16	78,090,432	7,102,499	130,091,325	5.46%	6,211,141	891,358
17	77,227,591	7,386,599	135,294,978	5.46%	6,126,507	1,260,092
18	75,999,362	7,682,063	140,706,777	5.46%	6,010,842	1,671,221
19	74,363,668	7,989,345	146,335,048	5.46%	5,860,610	2,128,735
20	72,274,467	8,308,919	152,188,450	5.46%	5,671,944	2,636,975
21	69,681,411	8,641,276	158,275,988	5.46%	5,440,615	3,200,661
22	66,529,459	8,986,927	164,607,028	5.46%	5,162,002	3,824,925
23	62,758,479	9,346,404	171,191,309	5.46%	4,831,057	4,515,347
24	58,302,793	9,720,260	178,038,961	5.46%	4,442,268	5,277,992
25	53,090,703	10,109,071	185,160,520	5.46%	3,989,620	6,119,451
26	47,043,964	10,513,434	192,566,941	5.46%	3,466,547	7,046,887
27	40,077,219	10,933,971	200,269,618	5.46%	2,865,891	8,068,080
28	32,097,383	11,371,330	208,280,403	5.46%	2,179,846	9,191,483
29	23,002,976	11,826,183	216,611,619	5.46%	1,399,904	10,426,279
30	12,683,399	12,299,230	225,276,084	5.46%	516,791	11,782,439
End	0					
		221,185,847	4,051,300,805		154,252,367	66,933,480

.**Attachment T-2:** UAAL Amortization Schedule
"Level % Payroll Summary"
Total of Payments for Amortizations Beginning over Next Five Years

	All Amortizations			2011 Schedule Only			Difference		
	Principal	Interest	Ttl Payment	Principal	Interest	Ttl Payment	Principal	Interest	Ttl Payment
2011	(1,463,813)	5,407,579	3,943,766	(1,463,813)	5,407,579	3,943,766	0	0	0
2012	(1,840,791)	7,121,808	5,281,017	(1,421,644)	5,523,160	4,101,516	(419,147)	1,598,648	1,179,501
2013	(2,230,810)	9,005,946	6,775,136	(1,369,428)	5,635,005	4,265,577	(861,382)	3,370,941	2,509,560
2014	(2,703,757)	11,347,655	8,643,898	(1,306,069)	5,742,269	4,436,200	(1,397,688)	5,605,386	4,207,698
2015	(2,903,827)	12,828,479	9,924,652	(1,230,371)	5,844,019	4,613,648	(1,673,456)	6,984,460	5,311,004
2016	(2,735,918)	13,057,556	10,321,638	(1,141,026)	5,939,220	4,798,194	(1,594,892)	7,118,337	5,523,444
2017	(2,538,152)	13,272,656	10,734,504	(1,036,607)	6,026,728	4,990,122	(1,501,546)	7,245,928	5,744,382
2018	(2,307,450)	13,471,334	11,163,884	(915,556)	6,105,282	5,189,726	(1,391,894)	7,366,052	5,974,157
2019	(2,040,453)	13,650,893	11,610,439	(776,174)	6,173,489	5,397,315	(1,264,279)	7,477,403	6,213,124
2020	(1,733,506)	13,808,362	12,074,857	(616,609)	6,229,817	5,613,208	(1,116,897)	7,578,545	6,461,649
2021	(1,382,623)	13,940,474	12,557,851	(434,840)	6,272,577	5,837,736	(947,783)	7,667,897	6,720,115
2022	(983,468)	14,043,633	13,060,165	(228,667)	6,299,913	6,071,246	(754,801)	7,743,720	6,988,919
2023	(531,319)	14,113,891	13,582,572	4,309	6,309,787	6,314,096	(535,628)	7,804,104	7,268,476
2024	(21,039)	14,146,914	14,125,875	266,700	6,299,960	6,566,660	(287,739)	7,846,954	7,559,215
2025	552,961	14,137,949	14,690,910	561,351	6,267,975	6,829,326	(8,390)	7,869,973	7,861,584
2026	1,196,760	14,081,786	15,278,546	891,358	6,211,141	7,102,499	305,403	7,870,644	8,176,047
2027	1,916,969	13,972,719	15,889,688	1,260,092	6,126,507	7,386,599	656,877	7,846,212	8,503,089
2028	2,720,771	13,804,504	16,525,275	1,671,221	6,010,842	7,682,063	1,049,550	7,793,662	8,843,212
2029	3,615,978	13,570,308	17,186,286	2,128,735	5,860,610	7,989,345	1,487,243	7,709,698	9,196,941
2030	4,611,075	13,262,663	17,873,738	2,636,975	5,671,944	8,308,919	1,974,100	7,590,719	9,564,819
2031	5,715,281	12,873,406	18,588,687	3,200,661	5,440,615	8,641,276	2,514,621	7,432,791	9,947,411
2032	6,938,612	12,393,623	19,332,235	3,824,925	5,162,002	8,986,927	3,113,687	7,231,621	10,345,308
2033	8,291,941	11,813,583	20,105,524	4,515,347	4,831,057	9,346,404	3,776,594	6,982,526	10,759,120
2034	9,787,078	11,122,667	20,909,745	5,277,992	4,442,268	9,720,260	4,509,086	6,680,398	11,189,485
2035	11,436,844	10,309,291	21,746,135	6,119,451	3,989,620	10,109,071	5,317,393	6,319,672	11,637,064
2036	13,255,153	9,360,827	22,615,980	7,046,887	3,466,547	10,513,434	6,208,267	5,894,280	12,102,547
2037	15,257,109	8,263,510	23,520,620	8,068,080	2,865,891	10,933,971	7,189,030	5,397,619	12,586,649
2038	17,459,101	7,002,343	24,461,444	9,191,483	2,179,846	11,371,330	8,267,618	4,822,496	13,090,115
2039	19,878,911	5,560,991	25,439,902	10,426,279	1,399,904	11,826,183	9,452,632	4,161,087	13,613,719
2040	22,535,831	3,921,668	26,457,498	11,782,439	516,791	12,299,230	10,753,392	3,404,876	14,158,268
2041	12,179,994	2,544,605	14,724,599	0	-	0	12,179,994	2,544,605	14,724,599
2042	9,917,786	1,570,206	11,487,992				9,917,786	1,570,206	11,487,992

2043	7,009,844	776,783	7,786,627				7,009,844	776,783	7,786,627
2044	2,699,938	215,995	2,915,934				2,699,938	215,995	2,915,934
2045									
	151,561,013	349,776,606	501,337,619	66,933,480	154,252,367	221,185,847	84,627,533	195,524,239	280,151,772