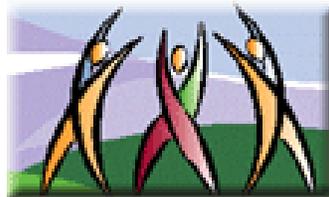


**THE LOS ANGELES CITY
EMPLOYEES' RETIREMENT SYSTEM**

**The Report of an
EXPERIENCE INVESTIGATION**

**Covering the Period
July 1, 1998 to May 30, 2002**



LACERS *Los Angeles City Employees'
Retirement System*

The Los Angeles City Employees' Retirement System
Report of the Experience Investigation
Covering the Period July 1, 1998 to May 30, 2002

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INTRODUCTION

September 10, 2002 (Revised)

The Los Angeles City Employees' Retirement System
360 East Second Street, 8th Floor
Los Angeles, CA 90012

Members of the Board:

Submitted in this report are the results of the Experience Investigation of the Los Angeles City Employees' Retirement System. The investigation was made for the purpose of analyzing financial risk areas related to investment activity, mortality, withdrawal, disability, retirement, and pay projection factors. Our recommendations are included in the report.

The investigation was based upon the statistical data furnished for the annual actuarial valuations, and covered the period from July 1, 1998 through May 30, 2002.

Respectfully Submitted,



Rick A. Roeder, E.A., F.S.A., M.A.A.A.



Anne D. Harper, E.A.

RAR/eg

The Los Angeles City Employees' Retirement System
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OVERVIEW

One of the most challenging parts of the actuarial valuation process is assumption setting. Our view is that the actuary should not make unilateral decisions as to assumptions. Instead, a collaborative approach should occur which embraces input from Retirement Board members and staff.

The assumption setting process is subjective in regard to how much credibility recent experience should be given in estimating the long-term future.

Highlights of the current Experience Investigation include:

Withdrawal, Disability, and Retirement: We are trying to get away from using sex distinct rates in our valuations since more women are in the work force full time and are exhibiting similar behavior as men regarding employment decisions. Therefore, we recommend using unisex rates for the incidence of withdrawal, disability, and retirement.

Withdrawal: Experience indicated markedly lower withdrawal rates than anticipated, particularly after age 40. In fact, the expected withdrawals still exceed actual withdrawals by almost 110%, even after a minor data refinement. We recommend a significant reduction in the rates. Even with this recommended reduction in rates, our expected withdrawals will still exceed the actual withdrawals from 1998-2002 by 23%.

We believe this trend will continue. There has been a tremendous amount of recent publicity regarding the security advantage of a guaranteed traditional pension.

Mortality for Disabled Retirees: The 1981 Disability Mortality Table (General) reasonably reflects experience for disabled male retirees. However, we do recommend that the table be set back five years for females to better reflect actual experience.

Mortality for Retirees and Beneficiaries: The 1971 Group Annuity Mortality Table, set back one year for males and five years for females, is somewhat outdated. We recommend an improvement to life expectancy by updating the table to the 1994 Uninsured Pensioner Male Mortality Table, set back three years for females.

Economic Assumptions: Salary increases during the 1998 – 2002 period were slightly higher than expected. The current assumptions for the average annual salary increase are age-based. We recommend changing the assumptions to be service-based so that members with 0 to 4 years of service are expected to receive larger salary increases than those member with 5 or more years of service due to greater promotional opportunities.

The Los Angeles City Employees' Retirement System
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COMMENTS & SUMMARY

Withdrawals. The study indicates that significantly fewer withdrawals are occurring than expected. Due to the unprecedented recent publicity, we anticipate there will be even greater appreciation for the guaranteed pensions afforded City employees in contrast to 401(k) arrangements that are prevalent in the private sector. We predict that employee retention will continue to be very strong. For these reasons, we recommend a large reduction in employee turnover rates, to mirror most of the difference between observed and anticipated experience.

Disability Retirement. There were slightly less than expected disabilities for males and slightly higher than expected disabilities for females. We recommend using unisex disability rates that will more closely predict experience for both males and females.

Age & Service Retirement. Actual experience resulted in lower incidence of retirement than assumed for both men and women. We are recommending that the existing retirement rates, which are sex distinct, be blended into unisex rates based on the current ratio of men (60%) to women (40%) in the active population from 1998 to 2002. We also recommend that the retirement rate at 62 is increased to account for those people who have a social security benefit and can thus retire with a reduced benefit at age 62.

Mortality. Overall experience is close to assumed rates for active members and male retirees who are disabled. Only a minor adjustment to the female disability mortality is recommended, a five year set back to the 1981 Disability Mortality Table (General). However in our opinion, the mortality table for retirees and beneficiaries (1971 Group Annuity Mortality Table) should be replaced by a table that more accurately reflects current mortality. The recommended table is the 1994 Uninsured Pensioner Male Mortality Table, set back three years for females.

ECONOMIC ASSUMPTIONS

Pay Increases. Average annualized pay increases were 6.5%. The total of the assumed inflation component (4.00%) and the merit component which is based on age (0% to 3.0%) ranges from 4.00% to 7.0%. We recommend changing the merit component to 1.0% with additional increases for those active members with 0 to 4 years of service. The additional increases recommended are as follows:

The Los Angeles City Employees' Retirement System
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COMMENTS & SUMMARY

(Continued)

<u>Service</u>	<u>% Increase</u>
0	4.0%
1	3.5%
2	3.0%
3	2.0%
4	1.5%

Rate of Return and Inflation. There is no single combination of future rate of investment return and the inflation component of pay increase assumption that is "right." We believe that the existing interest rate assumption of 8% is reasonable.

The assumed inflation rate of 4.00% exceeds the average actual inflation rate of 2.8% for this period. However, the 50-year average of actual inflation is 3.9%. No change is recommended for this assumption.

The assumed real rate of return of 4.00% is far less than the average actual real rate of return for this period of 9.5%. However, markets have been poor since March 2000. No change is recommended at present.

Lately, we are frequently being asked if we recommend lowering the assumed actuarial investment assumption in the current environment. Our generic answer is that we will not proactively recommend some adjustment unless the market malaise stays with us for another 12-18 months. The bear market has been with us for 2.5 years – a long time in some contexts, but not in terms of the lengthy time frame of pension funding. Recall that Systems did not raise the investment assumption to 10+% during the Go-Go 1990's. Most of us realized that the unprecedented yields of the 1990's were not sustainable on an indefinite basis.

Wilshire Associates just published a survey for large government plans which indicated that the median market returns for the year ended June 30, 2002 was a 6% loss.

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COMMENTS & SUMMARY

(Concluded)

For better or worse, the role of Trustees in this process will become more scrutinized. The mainstream media has started to focus more on assumed returns. Enclosed is a July 31, 2002 article from the Boston Globe, "Dream Rates of Return." The article is well-written, but tends to gloss over the fact that the article places more emphasis on the short-term than the long-term. Also, their comparisons of the public sector to the private sector can be dangerous since there are many ways in which comparing the two sectors is "apples" to "oranges." What is clear is that Trustees, staff and consultants will need to be much more vigilant in educating and responding to various interested parties.

In general, we would not stand in the way of strong overall sentiment from a Board and staff to lower rates now – we just believe it is premature for us to be leading the charge.

* * * * *

While we are making no recommendations to change the investment assumptions, we do recommend that a methodology change be made to the way that the actuarial value of assets is calculated. We believe it would be a beneficial refinement to the 5-year asset smoothing methodology to use the actuarial value of assets at the beginning of the year instead of market value.

While this will have no long-term impact on contribution levels, it will produce more consistent and, probably, smoother asset values from year to year. This refinement does not change the fact that market values will still be an integral part of the process of calculating the actuarial value of assets.

DISCUSSION

The Los Angeles City Employees' Retirement System
The Experience Investigation Process
1998 - 2002 Experience Investigation

The funding objective of the Retirement System is to finance members' benefits with contributions that remain approximately level from decade to decade. This objective is generally considered satisfied if contributions are structured as level percents of active member payroll.

Funding objective contributions are calculated by means of an actuarial valuation, a mathematical process. The flow of activity constituting an actuarial valuation may be summarized as follows:

- A. Covered People Data, furnished by the administrator including:
 - Retired lives now receiving benefits
 - Former employees with vested benefits not yet payable
 - Active employees
- B. + Asset Data (cash & investments), furnished by the administrator
- C. + Plan Description Data, furnished by the administrator
- D. + Assumptions concerning various future system activities and economic experiences
- E. + The Actuarial Cost Method for determining employer contributions (the long-term planned pattern for employer contributions)
- F. + Mathematically combining the Data, Assumptions of future activities, and the Funding Method
- G. = Determination of:
 - Funding Objective Contribution Rate
 - and/or System Actuarial Condition

Items A, B and C provide the current "knowns" about the system. However, a good deal of activity which will result in benefit payments has yet to occur. Accordingly, assumptions must be made about future activities (frequently called actuarial assumptions).

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The Los Angeles City Employees' Retirement System
The Experience Investigation Process
1998 - 2002 Experience Investigation

(Continued)

The assumptions may be classified as demographic and economic. Demographic activities include future mortality rates, disability rates, rates of pre-retirement withdrawal from employment, merit and longevity salary increases, and retirement ages. Economic activities consist of future across-the-board salary increases, future rates of investment return and future rates of inflation.

With modifications for expected future variances, demographic activities are generally selected on the basis of analysis of the system's historical activity or, if the level of activity is too small to be meaningful, the past activity of systems which are similar in nature.

The demographic activities which have had the greatest effect on computed contribution requirements are the probabilities of retirement after becoming eligible and probabilities of withdrawal before becoming eligible to retire. Lower rates of retirement generally result in lower contributions, and vice-versa. The opposite is true of withdrawal rates. Lower rates of withdrawal result in higher contributions. A third important demographic activity is the rate of mortality after retirement. Longer lifetimes result in higher employer contributions, and vice-versa.

Economic activities, on the other hand, do not lend themselves to prediction on the basis of historical analysis because both salary increases and investment return are impacted by inflation which defies accurate long-term prediction. Economic assumptions are generally selected on the basis of the expectations in an inflation-free environment and then both are increased by some provision for long-term inflation.

(Concluded on Next Page)

The Los Angeles City Employees' Retirement System

The Experience Investigation Process

1998 - 2002 Experience Investigation

(Concluded)

If inflation is higher than expected it will probably result in actual rates of salary increase and investment return which exceed the assumed rates. Salaries increasing faster than expected produce unexpected liabilities. Investment return exceeding the assumed rates results in unanticipated assets. It is expected that to a large degree that additional assets will offset additional liabilities over the long-term.

No single set of assumptions about future activities can be labeled "more appropriate" than all other sets. Honest differences of opinion are the norm rather than the exception with regard to future events, particularly in the area of economic assumptions. Selection of a set of assumptions involves policy decisions as well as technical decisions. We welcome your input.

The Los Angeles City Employees' Retirement System
Selection of Assumptions Used in the Actuarial Valuations
1998 – 2002 Experience Investigation

Non-Economic Assumptions

- Merit and Seniority Portion of Pay Increases to Individual Employees
- Expected Ages at Age & Service Retirement
- Rates of Separation Before Retirement
- Rates of Disablement
- Rates of Mortality Before and After Retirement

Economic Assumptions

- Rate of Investment Return
- Rate of Inflation
- Base Portion of Pay Increases to Individual Employees

Relationship Between Retirement Board and the Actuary

The actuary should have the primary responsibility for choosing the non-economic (demographic) assumptions used in the actuarial valuation, making use of specialized training and experience.

The actuary, however, has no special skill concerning the choice of suitable economic assumptions. The basis of the economic assumptions is the assumed rate of inflation, a quantity which defies accurate prediction by anyone. Given an assumed rate of future inflation, however, it is very important that this rate be applied in a consistent manner in deriving both the assumed rate of investment return and the base portion of the pay increase assumptions.

A sound procedure is that the actuary suggests reasonable alternatives for economic assumptions, followed by discussion between the actuary and the Retirement Board then makes a final choice from the various alternatives.

INVESTIGATION DATA

The Los Angeles City Employees' Retirement System
Summary of Member Data Used
 1998 - 2002 Experience Investigation

	<u>No.</u>	<u>Annual Salary</u>	<u>Averages</u>		
			<u>Annual Salary</u>	<u>Age</u>	<u>Service</u>
Active City Members					
6/30/1998	22,091	\$1,011,857,180	\$45,804	44.5	13.2
6/30/1999	22,504	1,068,124,413	47,464	44.6	13.1
6/30/2000	24,234	1,182,202,945	48,783	44.4	12.3
6/30/2001	25,654	1,293,350,161	50,415	44.3	11.8
5/30/2002	26,208	1,338,839,554	51,085	44.3	11.7

	<u>No.</u>	<u>Annual Total Pensions</u>	<u>Averages</u>	
			<u>Annual Pension</u>	<u>Age</u>
Retirees and Beneficiaries				
6/30/1998	12,591	\$259,378,957	\$20,600	71.5
6/30/1999	12,843	277,022,689	21,570	71.5
6/30/2000	13,058	290,899,998	22,278	71.6
6/30/2001	13,365	316,057,216	23,648	71.5
5/30/2002	13,550	334,986,628	24,722	71.6

**DEMOGRAPHIC
ASSUMPTION STUDY**

The Los Angeles City Employees' Retirement System
Summary of Withdrawal Experience
 1998 - 2002 Experience Investigation

Age Group	Years of Service less than 4				Years of Service greater than or equal to 4			
	Men		Women		Men		Women	
	Actual	Expected	Actual	Expected	Actual	Expected	Actual	Expected
20-24	83	252	91	188	2	7	3	5
25-29	172	394	151	316	39	67	39	71
30-34	135	299	104	218	136	229	140	229
35-39	114	216	91	155	233	342	161	276
40-44	98	157	82	107	186	326	112	226
45-49	44	109	45	72	147	245	94	173
50-54	23	87	22	73	92	392	57	245
55-59	21	42	20	37	30	175	14	102
60-64	13	14	9	13	10	51	9	37
65-69	3	0	2	0	6	0	3	0
70-74	1	0	3	0	4	0	1	0
75-79	1	0	0	0	1	0	0	0
80-84	0	0	0	0	1	0	2	0
Total	708	1,570	620	1,179	887	1,834	635	1,364

Comment: Actual turnover is significantly lower than expected. Also, experience did not support the current spike in withdrawal rates for both men and women at ages 50 – 60. (See the following page for actual rates). In our analysis we did not include people who terminated but were never included in any valuation data. It is recommended that withdrawal rate reductions be made as well as adding select withdrawal rates for actives with less than 5 years of service. Since the difference between actual and expected is dramatic, we are not recommending giving full credibility to the experience period. Our changes would adjust for about 80% of the difference. This is a “compromise” of sorts since we believe the recent favorable publicity given traditional pension plans will help in employee retention and keep future turnovers low. The following page outlines the proposed changes.

The Los Angeles City Employees' Retirement System
Summary of Current and Proposed Withdrawal Rates

1998 – 2002 Experience Investigation

Present Rates

Sample Ages	<u>Present Rates</u> <u>% of Active Members</u> <u>Separating Within Next Year</u>	
	<u>Men</u>	<u>Women</u>
20	31.17%	15.00%
25	14.62	11.60
30	8.01	7.41
35	5.84	5.50
40	4.26	4.38
45	3.40	3.50
50	4.38	6.02
55	4.00	4.82
60	2.25	3.50

Rates are 5.0% higher for actives with less than four years of service.

Proposed Withdrawal Rates

Years of Service less than 5

<u>Service</u>	<u>Rate</u>
0	8.25%
1	7.25
2	6.75
3	6.50
4	6.25

Years of Service greater than or equal to 5

<u>Ages</u>	<u>Rates</u>
20	6.25%
25	5.75
30	5.25
35	3.75
40	2.75
45	2.25
50	1.70
55	1.45
60	1.20

The Los Angeles City Employees' Retirement System
Summary of Disability Experience
 1998 – 2002 Experience Investigation

Age Group	Men		Women	
	<u>Actual</u>	<u>Expected</u>	<u>Actual</u>	<u>Expected</u>
20-24	0	0	0	0
25-29	0	0	0	0
30-34	1	3	3	0
35-39	7	10	7	1
40-44	12	15	9	3
45-49	10	18	12	8
50-54	15	19	4	12
55-59	12	13	0	9
60-64	0	7	1	0
65+	0	0	0	0
Total	57	85	36	33

Sample Age	Present Rates		Proposed Rates
	<u>Men</u>	<u>Women</u>	<u>All members</u>
20	.00%	.00%	.00%
25	.02%	.00%	.01%
30	.06%	.01%	.02%
35	.13%	.02%	.07%
40	.18%	.04%	.12%
45	.20%	.12%	.17%
50	.23%	.20%	.20%
55	.24%	.40%	.20%
60	.24%	.00%	.00%

The Los Angeles City Employees' Retirement System
Summary of Service Retirement Experience
 1998 – 2002 Experience Investigation

Age Group	Men		Women	
	<u>Actual</u>	<u>Expected</u>	<u>Actual</u>	<u>Expected</u>
<50	1	0	6	0
50-54	278	19	154	17
55-59	494	603	220	181
60-64	371	500	130	161
65-69	189	271	81	76
70+	92	365	59	231
Totals	1,425	1,758	650	666

Comment: Due to the special early retirement program offered to active members who are at least 50 years old with 30 or more years of service, there were markedly more retirements in the 50-54 age group than expected. Overall, there were slightly fewer retirements than expected during the 1998 to 2002 period. We propose blending the male and female rates for unisex rates and increasing the rate at age 62 to account for those people who may have a social security benefit and can retire with a reduced benefit at age 62. The following page outlines the proposed change.

The Los Angeles City Employees' Retirement System
Current and Proposed Service Retirement Rates
 1998 – 2002 Experience Investigation

Retirement <u>Ages</u>	Percent of Members Retiring Within the Next Year		
	Current		Proposed
	<u>Men</u>	<u>Women</u>	<u>60% male/40% female</u>
50	1.0%	0.1%	1.0%
51	1.0%	0.5%	1.0%
52	1.0%	1.0%	1.0%
53	1.0%	2.0%	1.0%
54	1.0%	3.0%	2.0%
55	10.0%	8.0%	9.0%
56	11.0%	8.0%	10.0%
57	12.0%	7.0%	10.0%
58	13.0%	11.0%	12.0%
59	14.0%	10.0%	12.0%
60	20.0%	20.0%	20.0%
61	18.0%	10.0%	15.0%
62	16.0%	15.0%	25.0%
63	18.0%	16.0%	10.0%
64	20.0%	17.0%	15.0%
65	30.0%	20.0%	26.0%
66	25.0%	20.0%	23.0%
67	25.0%	20.0%	23.0%
68	25.0%	20.0%	23.0%
69	25.0%	20.0%	23.0%
70	100.0%	100.0%	100.0%

The Los Angeles City Employees' Retirement System
Summary of Active Life Mortality Experience
 1998 - 2002 Experience Investigation

<u>Age Group</u>	<u>Men</u>		<u>Women</u>	
	<u>Actual</u>	<u>Expected</u>	<u>Actual</u>	<u>Expected</u>
20-24	2	0	0	0
25-29	2	1	0	1
30-34	3	4	2	3
35-39	10	9	3	6
40-44	9	14	4	7
45-49	24	19	10	9
50-54	26	25	14	10
55-59	22	21	10	9
60-64	16	16	7	7
65-69	10	10	2	5
70+	6	0	4	0
Totals	130	119	56	57

Comment: No change in active mortality is recommended at this time.

% of Active Members
Dying Within Next Year

<u>Sample Ages</u>	<u>Men</u>	<u>Women</u>
20	.03%	.02%
25	.04%	.03%
30	.06%	.05%
35	.08%	.07%
40	.12%	.10%
45	.17%	.14%
50	.23%	.18%
55	.32%	.26%
60	.44%	.42%
65	.74%	.73%

The Los Angeles City Employees' Retirement System
Summary of Mortality Experience of Disability Retirees
 1998 - 2002 Experience Investigation

Age Group	Men		Women	
	<u>Actual</u>	<u>Expected</u>	<u>Actual</u>	<u>Expected</u>
< 50	8	10	5	6
50-54	3	10	1	4
55-59	10	11	2	3
60-64	10	13	3	4
65-69	13	12	3	3
70-74	12	12	2	3
75-79	10	10	1	3
80-84	4	6	5	5
85-89	3	3	0	2
90+	0	1	0	2
Totals	73	88	22	35

Comment: The current table is the 1981 Disability Mortality Table (General) for all disabilitants. We recommend that the table for females be set back five years to match their better than expected experience.

The Los Angeles City Employees' Retirement System
**Summary of Mortality Experience of Service Retirees
 & Beneficiaries of Retirees**
 1998 - 2002 Experience Investigation

Age Group	Men		Women	
	<u>Actual</u>	<u>Expected</u>	<u>Actual</u>	<u>Expected</u>
< 50	0	0	1	1
50-54	5	4	3	2
55-59	18	24	9	11
60-64	53	59	23	22
65-69	87	125	39	40
70-74	170	227	76	96
75-79	238	322	137	170
80-84	263	326	152	202
85-89	182	213	175	193
90-94	87	89	147	137
95-99	23	27	50	50
100+	3	5	8	9
Totals	1,129	1,421	820	933

Comment: The 1971 Group Annuity Mortality Table, set back one year for males and five years for females is an outdated mortality table. We recommend that the table be changed to the 1994 Uninsured Pensioner Male Mortality Table, set back three years for females. We considered using the 1994 Uninsured Pensioner Female Mortality Table for females but the death rates were much lower than actual experience.

The Los Angeles City Employees' Retirement System
Summary of Current and Proposed Mortality Rates
 1998 - 2002 Experience Investigation

Current Rates

Sample Ages	% of Benefit Recipients Dying Within Next Year			
	Disabilitants		Service Retirants & Beneficiaries	
	Men	Women	Men	Women
45	2.08%	2.08%	0.26%	0.16%
50	2.44	2.44	0.47	0.29
55	2.84	2.84	0.78	0.53
60	3.30	3.30	1.19	0.85
65	3.79	3.79	1.92	1.31
70	4.37	4.37	3.24	2.13
75	5.53	5.53	5.12	3.61
80	8.74	8.74	7.97	5.53

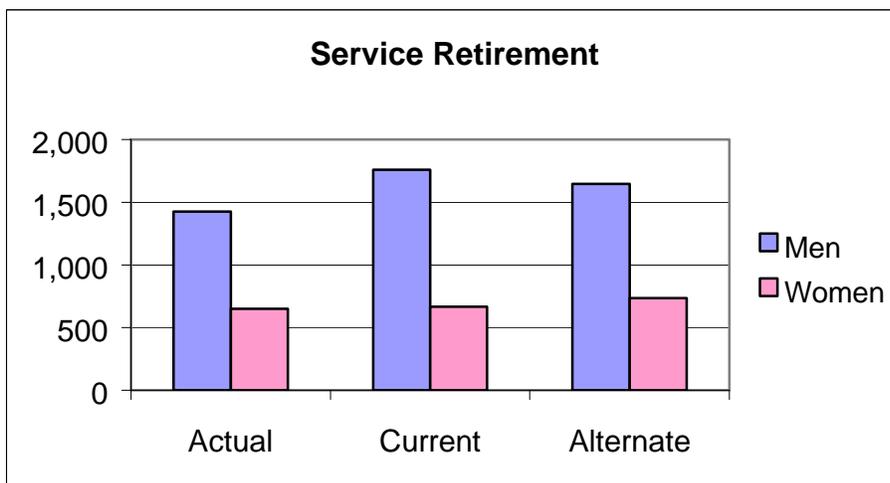
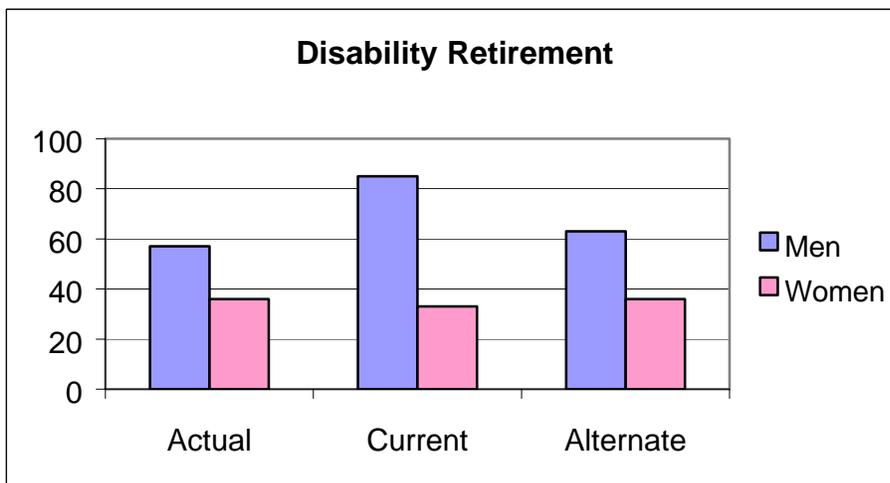
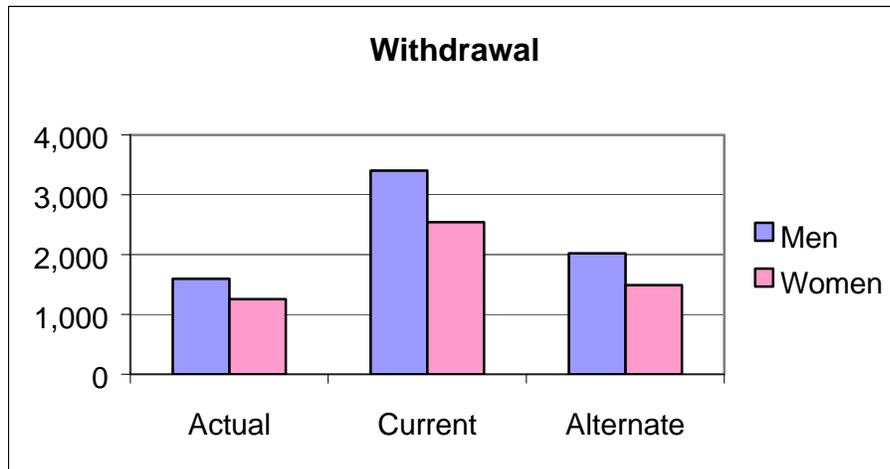
Proposed Rates

Sample Ages	% of Benefit Recipients Dying Within Next Year			
	Disabilitants		Service Retirants & Beneficiaries	
	Men	Women	Men	Women
45	2.08%	1.76%	0.17%	0.13%
50	2.44	2.08	0.28	0.20
55	2.84	2.44	0.48	0.35
60	3.30	2.84	0.86	0.60
65	3.79	3.30	1.56	1.09
70	4.37	3.79	2.55	1.94
75	5.53	4.37	4.00	3.06
80	8.74	5.53	6.67	4.86

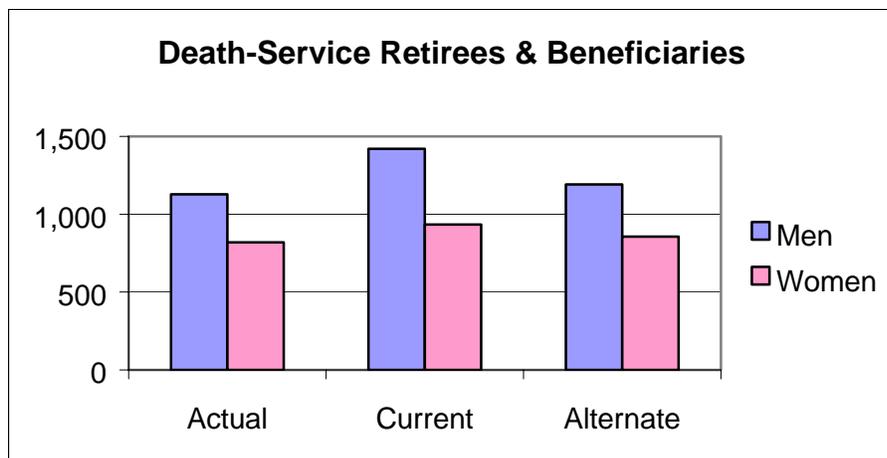
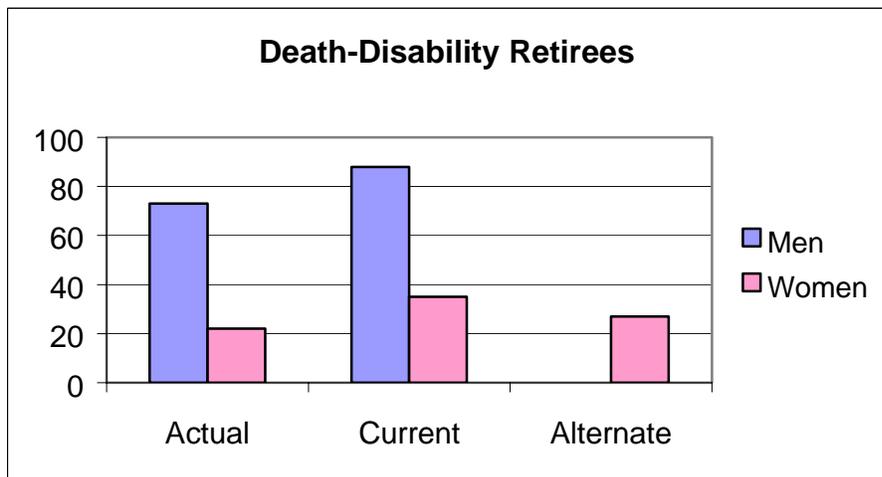
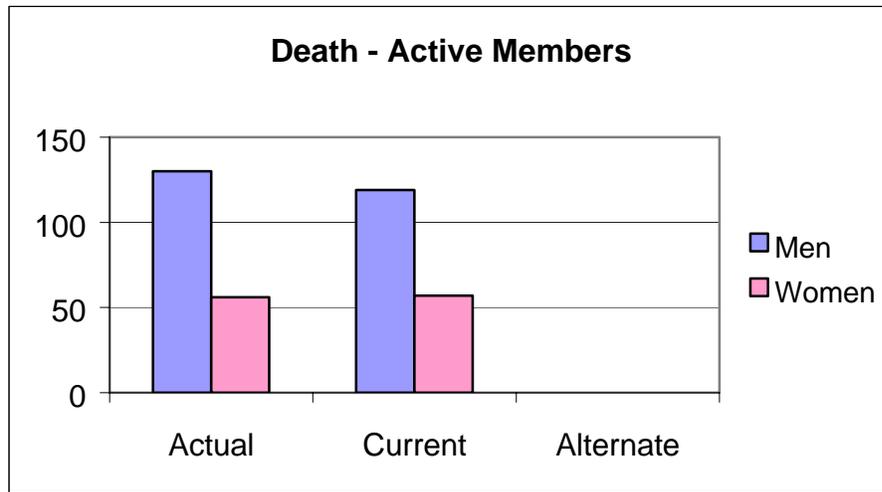
The Los Angeles City Employees' Retirement System
Summary of Overall Decrement Experience
 1998 - 2002 Experience Investigation

<u>Type of Separation</u>	<u>Actual</u>	<u>Expected</u>	
		<u>Current</u>	<u>Alternate</u>
Withdrawal			
Men	1,595	3,404	2,022
Women	<u>1,255</u>	<u>2,543</u>	<u>1,491</u>
Total	2,850	5,947	3,513
Disability Retirement			
Men	57	85	63
Women	<u>36</u>	<u>33</u>	<u>36</u>
Total	93	118	99
Service Retirement			
Men	1,425	1,758	1,647
Women	<u>650</u>	<u>666</u>	<u>734</u>
Total	2,075	2,424	2,381
Death			
Active Members			
Men	130	119	N/A
Women	<u>56</u>	<u>57</u>	N/A
Total	186	176	
Disability Retirees			
Men	73	88	N/A
Women	<u>22</u>	<u>35</u>	<u>27</u>
Total	95	123	115
Service Retirees & Beneficiaries			
Men	1,129	1,421	1,191
Women	<u>820</u>	<u>933</u>	<u>857</u>
Total	1,949	2,354	2,048

The Los Angeles City Employees' Retirement System
Summary of Overall Decrement Experience
 1998 – 2002 Experience Investigation



The Los Angeles City Employees' Retirement System
Summary of Overall Decrement Experience
 1998 – 2002 Experience Investigation



The Los Angeles City Employees' Retirement System
Summary of Marital or Domestic Partner Status at Retirement
1998 – 2002 Experience Study

We have done an analysis on the marital/domestic partner status at retirement. Currently we are assuming that 76% of men and 56% of women are assumed married or have a domestic partner at retirement. Marital/domestic partner status at retirement is not accurately reflected in the City's data file. However, based on staff input, we believe we can make a reasonable approximation using the percent of retirees that were coded as having a joint and survivor benefit as an indicator of the marital/domestic partner status.

We calculated that 78% of men and 43% of women were married or had a domestic partner at the time they retired. Our recommendation is to keep the assumption at 76% for men, but change the assumption to 50% for women. The effect of this change will very slightly lower the contribution rate.

ECONOMIC ASSUMPTION STUDY

The Los Angeles City Employees' Retirement System
Summary of Salary Increase Experience
 1998 - 2002 Experience Investigation

<u>Age Group</u>	<u>Average Annual Salary % Increase</u>
Under 35	9.62%
35 – 44	6.58%
45 – 54	5.67%
55 and over	5.24%
All	5.95%

<u>Years of Service</u>	<u>Average Annual Salary % Increase</u>
0	12.08%
1	12.81%
2	11.48%
3	10.05%
4	8.05%
5 or more	5.48%
All	5.95%

The Los Angeles City Employees' Retirement System
Current and Proposed Salary Increase Assumptions
 1998 – 2002 Experience Investigation

Current Assumptions

<u>Age Group</u>	<u>Average Annual Salary % Increase</u>
Under 35	7.0%
35 – 44	6.0%
45 – 54	5.0%
55 and Over	4.0%

Comment: Salary increases are higher than assumed. We recommend a change to the following schedule, which includes a merit increase for all members as well as additional merit and longevity increases for the first five years of service.

The following tables represent salary increase rates used to project current pays to those upon which a benefit will be based. Rates do not vary by age, but include additional merit and longevity increases for employees with less than five years of service.

Proposed

<u>Base Annual Rate of Salary Increase</u>	<u>Years of Service at Valuation Date</u>	<u>All Members</u>
Inflation	0	4.0%
Merit & Longevity	1	3.5
Total	2	3.0
	3	2.0
	4	1.5

The Los Angeles City Employees' Retirement System
Summary of Economic Experience
 1998 - 2002 Experience Investigation

	<u>Average</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>	<u>1999</u>
Total Investment Yield					
Assumed	8.0%	8.0%	8.0%	8.0%	8.0%
Actual	12.3%	N/A	9.1%	13.6%	14.4%
Inflation					
Assumed	4.0%	4.0%	4.0%	4.0%	4.0%
Actual	2.8%	2.8%	3.7%	2.7%	1.9%
Real Return					
Assumed	4.0%	4.0%	4.0%	4.0%	4.0%
Actual	9.5%	N/A	5.4%	10.9%	12.5%
Individual Salary Increase					
Assumed					
Inflation	4.0%	4.0%	4.0%	4.0%	4.0%
Merit – Age dependent					
20 – 34	3.0%	3.0%	3.0%	3.0%	3.0%
35 – 44	2.0%	2.0%	2.0%	2.0%	2.0%
45 – 54	1.0%	1.0%	1.0%	1.0%	1.0%
55+	0.0%	0.0%	0.0%	0.0%	0.0%
Group Actual					
Average Increase	6.5%	3.7%	7.0%	7.5%	7.8%
Group Salary Increase in Excess of Inflation	3.7%	0.9%	3.3%	4.8%	5.9%

Total Yield - Total yield is computed for the year ended in June of the given year, using actuarial value of assets.

Inflation - Actual inflation was computed in a manner consistent with the determination of annual cost-of-living allowances. Rates shown are based on the Consumer Price Index for Los Angeles-Riverside-Orange County, CA All Items, Base 1982 – 1984 = 100. No change to this assumption is recommended.

Inflation defies accurate prediction. The answer one gets, by looking in the "rearview mirror", is a function of the length of history examined.

The Los Angeles City Employees' Retirement System
Summary of Economic Experience
1998 - 2002 Experience Investigation

(continued)

Consumer Price Index
Urban Wage Earner and Clerical Workers Before 1978
All Urban consumers After 1977
10 Year Moving Averages

June 30, 1962	1.3%
June 30, 1972	3.3%
June 30, 1982	8.8%
June 30, 1992	3.8%
May 30, 2002	2.5%
50 Yr. Average	3.9%

Real Return – Actual real return is total yield less inflation. The real return significantly exceeded assumptions for the three-year period ended June 30, 2001. However, our analysis does not incorporate the below-par investment results for the year ended June 30, 2002. Also, there were \$528 million in deferred losses as of June 30, 2001 that were not reflected in the actuarial value of assets due to asset smoothing. We recommend no change to this assumption at present.

Salary Increase – Actual average increase shown is the increase in average salary for the year ended in June of the given year.

CONCLUSION

The Los Angeles City Employees' Retirement System
Summary of Preliminary Recommendations Concerning Experience
 1998 - 2002 Experience Investigation

<u>Type of Activity</u>	<u>Present</u>	<u>Proposed</u>	<u>Effect on Liabilities (+ or -)</u>
Withdrawal	Graded rates by age and service	Lower select and ultimate rates by age and service; unisex	+
Disability	Graded rates by age after eligible	Unisex rates by age after eligible	None
Service Retirement	Graded rates by age after eligible	Unisex rates by age after eligible; 60%male/40%female	None
Mortality	Grade rates by Age for Actives	No change	None
	1971 Group Annuity Mortality, set back 1 year for males and 5 years for females for Retirees	1994 Uninsured Pensioner Male Mortality, set back 3 years for females	+
	1981 Disability Mortality (General)	Set back 5 years for females	
Investment Return	8.00%	No change	None
Inflation	4.00%	No change	None
Real Rate of Return	4.00%	No change	None
Salary Increases			
- Inflation	4.00%	Merit – 1.0%; add'l merit <u>Service</u> <u>Increase</u> 0 4.0% 1 3.5 2 3.0 3 2.0 4 1.5	None, or Slight -
- Merit –Age dependent	20 – 34: 3.0%		
	35 – 44: 2.0%		
	45 – 54: 1.0%		
Marital/partner assumption	Men – 76% Women – 56%	No Change 50%	Slight -

APPENDIX

Appendix

The Los Angeles City Employees' Retirement System

I. Quality Control

As part of internal quality procedure, we do a consistency check on the decrement data (withdrawals, retirements, deaths, etc.) compared to the active and retiree counts in the valuation. For the active population we start with the number of members as of June 30, 1998; subtract the "OUTS" - withdrawals, disabilities, deaths, and service retirements - from the data we received specifically for the experience study; and add the "INS" - new hires from the valuation data. We compare this number to the final active count at the endpoint of our study for reasonableness. The following is the active population comparison:

$$\begin{array}{r r r r r r r} \text{Actives at} & & & & & & \\ \text{6/30/98} & - & \text{"OUTS"} & + & \text{"INS"} & = & 26,446 \\ 22,091 & & 4,898 & & 9,253 & & \\ & & & & & & \\ & & & & \text{Actives at 5/30/02} & = & 26,208 \end{array}$$

For the retiree population, the process is similar. We start with the number of retirees as of June 30, 1998; subtract the deaths; add the new active retirements and new disabilities from the data we received specifically for the experience study; and add in new beneficiaries and new vested term retirements (which are not included as retirements in our study) from the valuation data. We compare this number to the final retiree count at the endpoint of our study for reasonableness. The following is the retiree population comparison:

$$\begin{array}{r r r r r r r} \text{Retirees at} & & & \text{New} & & \text{New vested} & \\ \text{6/30/98} & - & \text{"Deaths"} & \text{retirements} & + & \text{term retirements} & \\ 12,591 & & 2,044 & \text{and disabilities"} & + & \text{and beneficiaries} & = 13,533 \\ & & & 2,168 & & 818 & \\ & & & & & & \\ & & & & & \text{Retirees at 5/30/02} & = 13,550 \end{array}$$

Appendix

The Los Angeles City Employees' Retirement System

II. Wall Street Journal Article

Market's Swoon Boosts Pensions Over 401(k) Plans

Once High-Flying 401(k)s Pale Beside Payouts From Pensions

By JOHN HECHINGER

Staff Reporter of **THE WALL STREET JOURNAL**, Friday, August 16, 2002

NAPERVILLE, Ill. -- In the 1990s, Drew O'Connor was the family tortoise, plodding along at a low-paying but secure public job. He quietly envied the hare: his first cousin Michael Lassandrello, who earned twice his salary as an engineer at a fast-growing telecommunications company.

But, now, as the golfing buddies and former parochial-school classmates near retirement, their financial fortunes have been reversed. Mr. O'Connor has overtaken Mr. Lassandrello. The reason: their pensions.

Mr. O'Connor, a 51-year-old Illinois tax investigator, has an old-fashioned pension plan, the kind that pays a set monthly income for life. And it's a generous one: At the end of the year, he expects to take advantage of an early retirement program and draw a \$54,000 annual pension, or 75% of his current salary.

Mr. Lassandrello, 50, like most employees of private companies, has long relied on a 401(k) retirement plan. When the stock market soared, his nest egg seemed destined to provide a more comfortable retirement than his cousin's pension. But in the market tumble of the last two years, Mr. Lassandrello's retirement savings plunged 30%. If he stopped working now and wanted to be sure he wouldn't outlive his money, he could draw just \$28,000 a year.

During the biggest stock-market downturn in a generation, the Illinois cousins demonstrate a telling new feature of the American retirement system. The extended bull market helped popularize 401(k) plans, which happened to be introduced just as the long boom began in the early 1980s. But this year's stock rout has exposed their risks -- and the advantages of guaranteed-payment pensions. Old-fashioned pensioners, a vanishing breed, have become unexpected winners compared with the swelling population of workers who rely on 401(k)s.

Over the last 20 years, private corporations have been rapidly shifting away from traditional pensions. More than six in 10 U.S. workers with retirement coverage rely primarily on 401(k)s and similar plans for their retirements. Even the federal government has used 401(k)-like plans as part of the retirement package for new civilian hires since 1987, while longer-standing employees can choose to retain their rich traditional pensions.

But there have been notable holdouts. Many unionized workers, including those in state and local governments and the auto and airline industries, stuck with the old approach -- an assured payout based on salary and years of service.

Now these employees, if they are nearing retirement, can hardly believe their good fortune.

"I don't want to flaunt it," Mr. O'Connor says. "I remember when everyone was building up millions in their 401(k)s. I thought, 'My God, how good they had it.' Now they're going to struggle for I don't know how long. All of a sudden, I'm the guy who looks like he's got the bull by the horns."

Meanwhile, Mr. Lassandrello, who long felt secure with his six-figure salary and rising 401(k) balance, is left to wonder. "I'm thinking maybe I should have been a police officer or a firefighter or something with a pension I can count on," Mr. Lassandrello says.

William Dudley, chief U.S. economist at Goldman Sachs, says the evaporation of retirement savings in the stock market could well inspire "a swing back to traditional pensions."

Already, a push to let workers invest a portion of their Social Security payments in the stock market has lost its steam in Washington, though President Bush says he still favors the idea.

Now, some Congressional Democrats, including Rep. Robert Matsui of California, are considering legislation over the next year that would prod companies to pool together to offer traditional pension plans that workers could carry from one job to another. One possibility: tax incentives for companies that elect to do so.

"As the baby boomers retire and feel they don't have enough money to make ends meet, you will start to see some political pressure to bring back traditional pensions," Mr. Matsui says. "It's an issue that isn't going to go away."

Businesses have little interest in returning to the old days. Corporations began looking for ways to scale back traditional pensions in the 1970s, after Congress required them to beef up the plans' funding to make them more secure. Executives were worried about the cost of

providing those pensions, known as defined-benefit plans. The reason: The unknowable cost of guaranteeing a fixed monthly payment for a lifetime of retirement.

In the early 1980s, the Internal Revenue Service approved the use of 401(k) plans for tax-deferred retirement savings. The plans transferred the risk of investment from companies to their employees. Employers no longer had to guarantee a certain lifetime benefit, just make contributions. Workers generally had to shell out their own money before they received benefits. In return they won more control over how the cash was invested and could take their retirement funds with them when they changed jobs.

Thanks to the rising stock market, the return on workers' investments soared, along with the number of plans. Still, top corporate executives, by and large, preserved their rich guaranteed pensions. And public-employee unions have been especially resistant to exchanging the security of fixed pensions for the risks of 401(k)-type plans. Gerald McEntee, president of the American Federation of State, County and Municipal Employees, says corporations pushing 401(k)s have "tried -- successfully -- to sell a bill of goods to workers."

State and local employees, whose average pay was about \$38,000 in 2001, typically receive pensions ranging from 50% to 60% of their final pay if they work most of their careers for a single government, according to the National Conference of State Legislatures in Denver. In law-enforcement jobs, that figure often rises to 75%.

Employees' Choice

Some states have created 401(k)-like plans for their workers, but in most cases, employees can choose to join a plan or keep their old-style pension. Often, the defined-contribution plan merely supplemented traditional pensions. Florida started offering a 401(k)-like plan to its 600,000 employees this year that would replace their traditional pension. Only 3,000 have chosen to switch so far.

Traditional pensions also have taken a wallop in the plunging market, but the losses don't generally affect workers' guaranteed payouts. The government-sponsored Pension Benefit Guaranty Corp., funded by employer premiums, backs basic corporate pension benefits up to \$42,954 a year for people retiring at 65. Taxpayers back public pensions directly. In 2001, 51% of state pensions were under-funded, according to a new study by Wilshire Associates Inc., a Santa Monica, Calif., advisory firm, up from 31% from 2000. If markets don't recover, taxpayers will have to make up the shortfall because governments are on the hook.

Looking at their recent quarterly statements, many 401(k) holders undoubtedly wish others were bearing their risk. Even before this year's bear market, total assets in 401(k)s dropped 10% from 1999 to 2001, to \$1.64 trillion -- including new contributions -- according to Cerulli

Associates, a Boston consulting firm. With about three-quarters of all 401(k) assets in stocks, Cerulli analyst Luis Fleites figures assets dropped at least a further 9% this year.

But employees with old-line pensions have been spared that blow.

For years, Seth Goldsmith, a professor of public health at the University of Massachusetts at Amherst, grumbled about his retirement fund missing out on the stock market's stellar gains. His complaints disappeared in June, when he retired amid the stock market's swoon. Prof. Goldsmith, 61, started receiving 63% of his final salary of about \$92,000, roughly a \$58,000-a-year pension.

Prof. Goldsmith would have had to amass \$957,000 in a 401(k) -- from his own contributions, his employer's, and his investment returns -- to achieve that kind of guaranteed income stream for life, according to Financial Engines Inc., a Palo Alto, Calif., firm that advises employees in 401(k)s. (The company came up with that figure by calculating his cost of buying an annuity of that size upon retirement, considering his life expectancy and other factors.)

"It's like I walked into the 7-Eleven, bought a lottery ticket and I scratched five numbers and I won," says Prof. Goldsmith, who lives in Hollywood, Fla.

In Ohio, Wilbur Burke worked 23 years as a supervisor for a state hospital for the criminally insane, earning \$12,500 a year when he retired 24 years ago. These days, he lives comfortably on his \$25,000-a-year pension, which began at \$9,400 but has risen with inflation. Mr. Burke says he is glad he doesn't have to worry about stocks, or a 401(k); he was never able to save much on his salary. To match his pension payment, he would need to have socked away \$182,200 in a 401(k) when he retired in 1978 -- or \$486,500 in today's dollars, according to Financial Engines.

"I'd hate to depend on investing," says Mr. Burke, 77, who lives in Elida, Ohio. "I don't know much about it. If you had a little money to spare, I guess it would be OK. I never had any I could afford to lose in the stock market."

Unrewarding?

In New York, Philip Fier, a New York City high-school-chemistry teacher, knew his two grown children, a hedge-fund trader and a corporate executive, felt he was toiling at a noble, but financially unrewarding, profession. But Mr. Fier recently shared the details of his pension with his daughter, who has a 401(k), and she was floored.

In 1995, at age 55, Mr. Fier retired after more than 32 years in the New York City public schools. He receives a pension of about \$47,000 a year. His wife, Rhoda, an elementary-

school teacher, recently retired with an annual pension of around \$23,000. The Fiers would have needed \$1.2 million in a 401(k) to buy an equivalent annuity, by Financial Engines' tally.

Mr. Fier says the couple, who live in Brooklyn, are now scouting out co-ops on the pricey Upper West Side. "You work for a big corporation with nice perks," Mr. Fier, 62, told his daughter. "My perks come after I retire."

The fathers -- both police officers -- of Messrs. O'Connor and Lassandrello, the Illinois cousins, often extolled the virtues of their own public-sector perk. "Is there a pension?" Mr. O'Connor's father would ask him, when they talked careers. "What are you going to do 25 years from now?"

The cousins grew up a block apart on Chicago's blue-collar South Side. Mr. Lassandrello first tried the public sector, working as an apprentice police patrolman for two years after high school. After graduating from college with an electrical-engineering degree, he joined a succession of telecom firms, and finally hooked up with Tellabs Inc. in 1988 as an engineering manager.

From the year Mr. Lassandrello was hired until the end of 2000, the Naperville, Ill., optical networking company's stock rose 80-fold, adjusted for splits. At one point, he figures his Tellabs stock alone was worth \$400,000.

Mr. Lassandrello and his wife, Rita, bought a four-bedroom home in Naperville, where they lived with their three children, now ages 17 to 20.

Like many employees, Mr. Lassandrello, who earned a six-figure salary, stuffed his 401(k) with company stock -- as much as 40% of his retirement savings -- with most of the rest in stock mutual funds. Tellabs matches employee contributions to 401(k) plans dollar for dollar, up to 3% of their salaries. In a related program, the company contributes another 5% of the employee's pay, also to be invested by the worker.

Mr. Lassandrello says his retirement savings peaked at \$850,000 in 2000. But he once figured he could save \$2.5 million, including the exercise of stock options, by the time he needed to stop working. "Life was good," Mr. Lassandrello says. "I was set."

Now, with the collapse of the telecom sector, Mr. Lassandrello says his retirement savings have shrunk to \$600,000, even though he averted even more damage by wisely unloading Tellabs stock from his 401(k) in late 2000. The company's shares are now down about 90% since July 2000. Financial Engines says his nest egg could now be counted on to generate only \$27,800 a year if he were to retire this year and buy an annuity.

For now, Mr. Lassandrello has more immediate worries. In April, Tellabs laid him off as part of a big restructuring. Now, he scours the Internet and calls friends looking for scarce jobs out of a makeshift office in his living room. Despite his best efforts, he says he can't help getting "a sinking feeling in my gut."

Until this year, Mr. O'Connor, Mr. Lassandrello's cousin, worried he was missing out on the bull market. "I thought Mike had the goose that laid the golden egg," Mr. O'Connor says. In 1985, Mr. O'Connor joined the Illinois Department of Revenue as an \$18,000-a-year special agent who ferrets out tax cheats. Although he wasn't able to save much, he climbed the ranks of the department, to become a senior special agent, earning \$72,000 a year.

Through a special program to encourage early retirement, Mr. O'Connor will be able to leave with full pension benefits at 51 instead of waiting until he's 55. He expects to receive \$54,000 a year, which will adjust annually for inflation. According to Financial Engines, Mr. O'Connor would need to have accumulated \$1.1 million in a 401(k) plan to match that income stream.

After he leaves his job, Mr. O'Connor hopes to work as a private investigator for a few years. Divorced, he expects to use that money to pay the college bill of his son Patrick, 19. Then, he plans to buy a small condo on the Florida coast.

"I'm walking on a cloud right now," says Mr. O'Connor, who also lives in Naperville a few miles from his cousin. "I don't think there's a company out there that would let me start working at age 34 and stop working at 51 and give me a pension at 75% of my salary."

The two cousins sat recently around Mr. Lassandrello's kitchen table. Taking a break from work, Mr. O'Connor wore a dark suit, gray tie and carried a black briefcase, with a Glock 9mm pistol inside. Mr. Lassandrello wore shorts and a white polo shirt, with Tellabs embroidered on the right shirt sleeve.

Mr. Lassandrello can't help thinking about the time he worked on the Chicago police force. If he had stayed on 32 years, he now would have been eligible for a fat fixed pension. "Sometimes, I wonder if I would have been better off," he says.

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Appendix

The Los Angeles City Employees' Retirement System

III. Boston Globe Article