COUNTY EMPLOYEES' ANNUITY AND BENEFIT FUND OF COOK COUNTY

ACTUARIAL VALUATION AS OF DECEMBER 31, 2004

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October 5, 2005

Board of Trustees
County Employees' Annuity and
Benefit Fund of Cook County
33 North Dearborn Street
Chicago, Illinois 60602

Re: **Actuarial Valuation as of December 31, 2004**

Dear Board Members:

We are pleased to submit our actuarial report on the financial position and funding requirements of the County Employees' and Officers' Annuity and Benefit Fund of Cook County based on the actuarial valuation as of December 31, 2004.

The report consists of 11 Sections and 4 Appendices as follows:

We would be pleased to discuss any aspects of this report with you at your convenience.

Respectfully submitted,

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Consulting Actuary

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Consulting Actuary

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Actuary

A. PURPOSE AND SUMMARY

We have carried out an actuarial valuation of the County Employees' and Officers' Annuity and Benefit Fund of Cook County as of December 31, 2004. The purpose of the valuation was to determine the financial position and funding requirements of the Fund. This report is intended to present the results of the valuation. The results of the valuation are summarized below:

1. Total Actuarial Liability	$ 9,450,784,086
2. Actuarial Value of Assets	6,700,845,111
3. Unfunded Actuarial Liability	2,749,938,975
4. Funded Ratio	70.9%
5. Employer's Normal Cost for 2005 as a Percent of Payroll	14.96%
6. Actuarially Determined Contribution Requirement For Year Beginning January 1, 2005	428,971,126
7. Expected Net Employer Contribution from Tax Levy for 2005	205,610,546

B. DATA USED FOR THE VALUATION

Participant Data. The participant data required to carry out the valuation was supplied by the Fund. The membership of the Fund as of December 31, 2004, on which the valuation was based, is summarized in Exhibit 1. It can be seen that there were 25,848 active contributors, 13,782 members receiving annuities, and 10,071 inactive members included in the valuation. The total active payroll as of December 31, 2004 was $1,371,540,481.

EXHIBIT 1

Summary of Membership Data

1. Number of Members	
(a) Active Members	
(i) Vested	13,278
(ii) Non-vested	12,570
(b) Members Receiving	
(i) Retirement Annuities	11,174
(ii) Surviving Spouse's Annuities	2,171
(iii) Children's Annuities	138
(iv) Ordinary Disability Benefits	281
(v) Duty Disability Benefits	18
(c) Inactive Members	10,071
(d) Total	49,701
2. Annual Salaries	
(a) Total Salary	$ 1,371,540,481
(b) Average Salary	53,062
3. Total Accumulated Contributions of Active Members	$ 1,009,231,416
4. Annual Benefit Payments Currently Being Made	
(a) Retirement Annuities	$ 281,041,668
(b) Surviving Spouse's Annuities	17,243,400
(c) Children's Annuities	583,091
(d) Ordinary Disability Benefits	10,200,806
(e) Duty Disability Benefits	547,315

An age and service distribution for active members is provided in Exhibit 2. A breakdown of retirement and surviving spouse annuitants classified by age is provided in Exhibit 3. Age and salary statistics for male and female active members are provided in Exhibit 4. Exhibit 5 provides similar age and salary statistics by age at entrance.

EXHIBIT 2

AGE AND SERVICE DISTRIBUTION OF ACTIVE MEMBERS

Year 2004

Number of Members and Average Salaries by Age and Service Grouping (Male and Female Combined)

	Year of Service									
Age	<1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35+	Total
under 25	236	282	27							545
	$30,246	$31,794	$31,060							$31,087
25-29	412	1,203	374	20						2,009
	$36,394	$40,101	$39,747	$39,140						$39,265
30-34	320	1,149	1,208	469	19					3,165
	$45,883	$46,632	$49,175	$46,395	$47,061					$47,494
35-39	233	738	1,094	1,214	408	25				3,712
	$49,012	$51,279	$54,439	$53,830	$48,319	$54,351				$52,597
40-44	199	647	765	1,160	858	336	11			3,976
	$49,023	$51,103	$57,516	$58,795	$56,662	$53,251	$51,605			$55,859
45-49	159	540	722	963	773	746	201	9		4,113
	$45,936	$51,281	$54,437	$57,256	$62,187	$59,256	$54,666	$56,916		$56,701
50-54	159	411	506	794	656	509	272	42		3,349
	$53,251	$53,046	$54,743	$58,482	$61,243	$59,821	$64,989	$60,969		$58,306
55-59	93	340	437	617	491	295	103	74	17	2,467
	$50,311	$57,971	$56,345	$57,382	$60,288	$59,722	$62,124	$62,678	$65,511	$58,284
60-64	32	180	275	392	298	168	39	42	24	1,450
	$59,260	$56,465	$53,896	$54,273	$54,723	$54,687	$59,052	$60,588	$55,684	$55,059
65-69	11	53	113	185	158	73	20	29	21	663
	$52,400	$58,386	$54,799	$51,921	$48,932	$46,887	$47,054	$61,385	$63,602	$52,307
70+	13	27	49	107	96	51	15	13	28	399
	$50,246	$50,008	$58,011	$53,314	$47,598	$51,557	$57,103	$83,135	$56,820	$53,327
Number	1,867	5,570	5,570	5,921	3,757	2,203	661	209	90	25,848
Salary	$43,688	$47,667	$52,809	$55,676	$57,407	$57,684	$60,170	$62,759	$59,969	$53,062

EXHIBIT 3

ANNUITANTS CLASSIFIED BY AGE AS OF DECEMBER 31, 2004
Retirement Annuities (Including Reciprocal)

Age	Number	Annual Payments	Average Annual Payments
under 45	5	31,152	6,230
45-49	11	37,560	3,415
50-54	606	24,462,168	40,367
55-59	1,473	52,295,820	35,503
60-64	1,952	57,428,544	29,420
65-69	2,076	52,217,808	25,153
70-74	1,750	39,164,268	22,380
75-79	1,416	27,148,680	19,173
80-84	1,012	17,470,320	17,263
85-89	565	7,479,156	13,237
90 & up	308	3,306,192	10,734
Totals	11,174	281,041,668	25,151
Average age			71.2
		Surviving Spouse	
under 45	45	239,076	5,313
45-49	59	458,556	7,772
50-54	113	924,960	8,185
55-59	120	1,235,328	10,294
60-64	167	1,663,524	9,961
65-69	270	2,471,412	9,153
70-74	314	2,875,884	9,159
75-79	329	2,762,520	8,397
80-84	324	2,347,260	7,245
85-89	261	1,487,988	5,701
90 & up	169	776,892	4,597
Totals	2,171	17,243,400	7,943
Average age			81.0

EXHIBIT 4

SALARY AND AGE STATISTICS
Ages and Salaries as of December 31, 2004

Age	Number	Annual Salaries	Average Annual Salary
Male			
Under 20	12	$ 257,250	$ 21,438
20-24	224	7,424,822	33,147
25-29	896	36,001,147	40,180
30-34	1,486	73,522,570	49,477
35-39	1,744	97,934,470	56,155
40-44	1,699	100,484,033	59,143
45-49	1,749	109,438,436	62,572
50-54	1,419	90,284,738	63,626
55-59	1,014	66,300,749	65,385
60-64	656	39,668,004	60,470
65-69	309	18,425,366	59,629
70 and Over	201	12,371,567	61,550
Total Male	11,409	$ 652,113,152	$ 57,158
Female			
NoDOB	2	$ 89,509	$ 44,754
Under 20	20	409,448	20,472
20-24	289	8,851,184	30,627
25-29	1,113	42,882,747	38,529
30-34	1,679	76,795,568	45,739
35-39	1,968	97,306,876	49,445
40-44	2,277	121,612,472	53,409
45-49	2,364	123,774,460	52,358
50-54	1,930	104,981,087	54,394
55-59	1,453	77,485,813	53,328
60-64	794	40,167,420	50,589
65-69	354	16,254,092	45,916
70 and Over	196	8,816,653	44,983
Total Female	14,439	$ 719,427,329	$ 49,825
Male and Female	25,848	$ 1,371,540,481	$ 53,062

EXHIBIT 5

SALARY AND AGE STATISTICS
Ages and Salaries as of December 31, 2004

Ages at Entrance

Age at Entrance	Male Number	Male Annual Salaries	Female Number	Female Annual Salaries
Under 25	1,909	$ 95,986,932	2,240	$ 96,581,885
25-29	3,042	163,996,779	3,278	164,752,903
30-34	2,076	123,589,694	2,415	128,593,171
35-39	1,406	88,514,432	2,151	112,874,167
40-44	950	56,822,660	1,767	91,179,076
45-49	762	44,390,403	1,253	63,416,041
50-54	591	37,275,027	783	37,385,102
55-59	427	25,803,984	385	17,602,994
60-64	164	10,356,183	120	5,208,074
65 and Over	77	5,164,672	39	1,629,341
W/O Record	5	212,386	8	204,575
Totals	11,409	$ 652,113,152	14,439	$ 719,427,329
Average Annual Salary		$ 57,158		$ 49,825
Average Attained Age		44.5		44.9
Average Service		10.4		10.3
Average Age at Entrance		34.1		34.6

Assets. In November of 1994, the Governmental Accounting Standards Board (GASB) issued GASB Statement No. 25, which establishes standards of financial reporting for governmental pension plans. The statement is effective for periods beginning after June 15, 1996. Under GASB Statement No. 25, the actuarial value of assets to be used for determining a plan's funded status and annual required contribution needs to be market related. In determining the actuarial value of assets, smoothing changes in the market value of assets over a period of three to five years is considered to be appropriate.

The asset values used for the valuation were based on the asset information contained in the financial statements for the Fund for the year ending December 31, 2004. The actuarial value of assets was determined by smoothing unexpected gains or losses over a period of 5 years. The actuarial value of assets determined using this approach is limited to a maximum of 120% of market value and a minimum of 80% of market value.

The resulting actuarial value of assets is $6,700,845,111. The development of this actuarial value of assets is outlined in Exhibit 6. The market value of assets as of December 31, 2004 amounted to $6,618,941,068. A reconciliation of asset values from the beginning of the year to the end of the year is provided in Exhibit 7.

EXHIBIT 6

Actuarial Value of Assets

A. Development of Investment Gain for 2004

1. Market Value of Assets as of 12/31/2004		$ 6,063,872,421
2. Employer and Miscellaneous Contributions		202,641,230
3. Employee Contributions		148,924,055
4. Benefits and Expenses		369,095,183
5. Expected Market Value (Based on 8% assumed rate of return for 2004)		6,530,764,610
6. Actual Market Value		6,618,941,068
7. Investment Gain (6 – 5)		88,176,458

B. Development of Actuarial Value of Assets as of 12/31/04

8. Market Value of Assets as of December 31, 2004		$ 6,618,941,068
9. Investment Gain/(Loss) for 2001	(509,684,442)	
10. 20% of Gain/(Loss) for 2001		(101,936,888)
11. Investment Gain/Loss for 2002	(827,419,834)	
12. 40% of Gain/(Loss) for 2002		(330,967,934)
13. Investment Gain/(Loss) for 2003	467,432,689	
14. 60% of Gain/(Loss) for 2003		280,459,613
15. Investment Gain/(Loss) for 2004	88,176,458	
16. 80% of Gain/(Loss) for 2004		70,541,166
17. Actuarial Value of Assets as of December 31, 2004 (8 – 10 – 12– 14 – 16)		$ 6,700,845,111

Note: The development of the investment gains/losses for years 2000 through 2003 is shown in Appendix 4.

EXHIBIT 7

RECONCILIATION OF ASSET VALUES - DECEMBER 31, 2004

	MARKET	ACTUARIAL
NET ASSETS BEGINNING OF YEAR (A)	$ 6,063,872,421	$ 6,529,956,047 [1]
ADDITIONS		
Contributions		
From Cook County	198,117,042	198,117,042
Employee Contributions	148,924,055	148,924,055
Reciprocal Reimbursements	37,541	37,541
Other		
Federal Government Contributions	3,413,464	3,413,464
Interest Income from Operating Accounts	52,368	52,368
Transfers from Other Funds	123,321	123,321
Miscellaneous	427,431	427,431
Employee Transfer to Cook County	507,604	507,604
Adjustment for Payables & Receivables	(10,192)	(10,192)
Total Contributions	351,592,634	351,592,634
Investment Income		
Interest on Bonds	98,563,955	98,563,955
Partnership Income	7,615,311	7,615,311
Dividends	44,955,735	44,955,735
Commission Recapture	461,248	461,248
Net Appreciation	431,129,244	46,949,661
Total Investment Income	582,725,493	198,545,910
Less Investment Fees	(10,126,948)	(10,126,948)
Net Investment Income (I)	572,598,545	188,418,962
Total Additions	924,191,179	540,011,596
DEDUCTIONS		
Annuities and Benefits		
Employee Annuitants	279,822,990	279,822,990
Surviving Spouse Annuitants	16,723,442	16,723,442
Child Annuitants	680,132	680,132
Ordinary Disability Benefits	10,200,806	10,200,806
Duty Disability Benefits	547,315	547,315
Group Health Insurance	36,663,724	36,663,724
Total Annuities and Benefits	344,638,409	344,638,409
Refunds of Employee Contributions	18,049,094	18,049,094
Administrative Expenses	6,513,917	6,513,917
Charged to Forest Preserve	(78,888)	(78,888)
Total Deductions	369,122,532	369,122,532
NET INCREASE (DECREASE)	555,068,647	170,889,064
NET ASSETS END OF YEAR (B)	$ 6,618,941,068	$ 6,700,845,111
RATE OF RETURN = (2 x I) ÷ (A+B-I)	9.46%	2.89%

[1] Actuarial value using the previous actuary's method was $5,929,201,142.

C. FUND PROVISIONS

Our valuation was based on the provisions of the Fund in effect as of December 31, 2004 as provided in Article 9 of the Illinois Pension Code. A summary of the principal provisions of the Fund on which the valuation was based is provided in Appendix 2.

D. ACTUARIAL ASSUMPTIONS AND COST METHOD

The actuarial assumptions used for the December 31, 2004 actuarial valuation were based on an experience analysis of the fund over the four-year period 2000 through 2003. Based on this analysis, certain changes in assumptions were made from the assumptions used for the December 31, 2003 actuarial valuation. The following were some of the significant changes in assumptions: (1) the interest rate assumption was changed from 8.0% per year to 7.5% per year; and (2) the salary increase assumption was changed from 5.5% per year to 5.0% per year.

The actuarial assumptions used for the December 31, 2004 valuation are outlined in Appendix 1. In our opinion, the actuarial assumptions used for the valuation are reasonable, in the aggregate, taking into account Fund experience and future expectations and represent our best estimate of anticipated experience.

The entry age actuarial cost method was used for the December 31, 2004 valuation, with costs allocated on the basis of earnings. This is the same actuarial cost method that was used for the December 31, 2003 valuation.

E. ACTUARIAL LIABILITY

The actuarial liability as determined under the valuation for the various classes of members is summarized in Exhibit 8. The total actuarial liability is then compared with the actuarial value of assets in order to arrive at the unfunded actuarial liability.

As of December 31, 2004, the total actuarial liability is $9,450,784,086, the actuarial value of assets is $6,700,845,111 and the unfunded actuarial liability is $2,749,938,975. The ratio of the actuarial value of assets to the actuarial liability, or funded ratio, is 70.9%.

EXHIBIT 8

Actuarial Liability as of December 31, 2004

1. Actuarial Liability for Active Members

(a) Basic Retirement Annuity	$ 2,586,372,224
(b) Automatic Increase in Retirement Annuity	699,714,651
(c) Additional Benefits Under Optional Plan	207,793,874
(d) Post-retirement Survivor's Annuity	363,815,695
(e) Pre-retirement Survivor's Annuity	101,996,896
(f) Lump Sum Payments and Refunds	46,403,056
(g) Retiree Health Insurance	462,968,225
(h) Total	$ 4,469,064,621

2. Actuarial Liability For Members Receiving Benefits

(a) Retirement Annuities	$ 2,428,414,496
(b) Automatic Increase in Retirement Annuities	541,907,256
(c) Survivor Annuities to Survivors of Current Retirees	869,370,009
(d) Survivor Annuities to Current Survivors	166,260,608
(e) Lump Sum Death Benefit	4,661,811
(f) Retiree Health Insurance	412,477,982
(g) Total	$ 4,423,092,162

3. Actuarial Liability for Inactive Members	558,627,303
4. Total Actuarial Liability	$ 9,450,784,086
5. Actuarial Value of Assets	6,700,845,111
6. Unfunded Actuarial Liability	$ 2,749,938,975
7. Funded Ratio	70.9%

Impact of Changes in Actuarial Assumptions We have made some changes in the actuarial assumptions used for the December 31, 2004 valuation from the assumptions that were used for the December 31, 2003 valuation. We have estimated that the changes made in the assumptions used for the December 31, 2004 valuation had the impact of increasing the total actuarial liability as of December 31, 2004 by $142,940,000.

F. EMPLOYER'S NORMAL COST

The employer's share of the normal cost for the year beginning January 1, 2005 is developed in Exhibit 9. The total normal cost is $331,734,727, employee contributions are estimated to be $126,611,000, resulting in the employer's share of the normal cost of $205,123,727.

Based on a payroll of $1,371,540,481 as of December 31, 2004, the employer's share of the normal cost can be expressed as 14.96% of payroll.

EXHIBIT 9

Employer's Normal Cost For Year Beginning January 1, 2005

	Dollar Amount	Percent Of Payroll
1. Basic Retirement Annuity	$ 176,357,644	12.86%
2. Automatic Increase in Retirement Annuity	47,286,282	3.45
3. Additional Benefits Under Optional Plan	12,383,740	0.90
4. Post-retirement Survivor's Annuity	24,232,946	1.77
5. Pre-retirement Survivor's Annuity	7,519,902	0.55
6. Lump Sum Benefits and Refunds	9,289,157	0.68
7. Retiree Medical	36,039,658	2.63
8. Duty Disability Benefits	574,681	0.04
9. Ordinary Disability Benefits	10,710,846	0.78
10. Children's Benefits	583,091	0.04
11. Administrative Expenses	6,756,780	0.49
12. Total Normal Cost	$ 331,734,727	24.19%
13. Employee Contributions	126,611,000	9.23
14. Employer's Share of Normal Cost	$ 205,123,727	14.96%

Note. Normal costs for duty disability benefits, ordinary disability benefits, and children's benefits are calculated on an annual payout basis. The above figures are based on a total active payroll of $1,371,540,481 as of December 31, 2004.

G. ACTUARIALLY DETERMINED CONTRIBUTION REQUIREMENT

GASB Statements No. 25 and 27 provide for annual employer contribution requirements determined on an actuarial basis. According to the GASB statements, the actuarially determined contribution requirement is equal to the employer's normal cost plus an amortization of the unfunded actuarial liability. For a period of 10 years, the maximum acceptable amortization period is 40 years. After the 10 year period, the maximum acceptable amortization period is 30 years. The 10 year period expires on January 1, 2006. We have therefore calculated the actuarially determined employer contribution for the year beginning January 1, 2005 as the employer's normal cost plus a 30-year level-dollar amortization of the unfunded actuarial liability. The results of our calculation are shown in Exhibit 10.

Employer contributions come from a tax levied by the County upon all taxable property within the County equal to the total amount of contributions made by employees in the calendar year 2 years prior to the year of the levy, multiplied by 1.54. The 1.54 is known as the tax multiple.

As can be seen from Exhibit 10, for the year beginning January 1, 2005, the actuarially determined contribution requirement amounts to $428,971,126. The expected net employer contribution from the tax levy, after a 3.5% loss, amounts to $205,610,546. Thus, the employer contribution is expected to fall short of meeting the actuarially determined contribution requirement by $223,360,580. In order to have the employer contribution for the year 2005 sufficient to meet the actuarially determined contribution requirement, it is estimated that a tax multiple of 3.10 would have been required.

EXHBIT 10

Actuarially Determined Contribution Requirement

1. Employer's normal cost	$205,123,727
2. Annual amount to amortize the unfunded liability over 30 years as a level dollar amount	223,847,399
3. Actuarially determined contribution requirement for year beginning January 1, 2005	$428,971,126
4. Expected net employer contribution from tax levy, after a 3.5% loss	205,610,546
5. Amount by which employer contributions are expected to fall short of the actuarially determined contribution requirement	$223,360,580
6. Required tax multiple for employer contribution to meet actuarially determined contribution requirement	3.10

H. ANNUAL REQUIRED CONTRIBUTION FOR GASB STATEMENT NO. 25

GASB Statement No. 25 requires the disclosure of the annual required employer contribution (ARC), calculated in line within certain parameters. The actuarially determined contribution requirement for the year beginning January 1, 2005 developed in Exhibit 10 has been calculated in accordance with the parameters of GASB Statement No. 25. Therefore, the annual required contribution (ARC) for the year beginning January 1, 2005 for purposes of GASB Statement No. 25 is as follows:

1. Employer's normal cost	$205,123,727
2. Annual amount to amortize the unfunded liability over 30 years as a level dollar amount	223,847,399
3. Annual required contribution (1 + 2)	$428,971,126

I. GASB DISCLOSURE INFORMATION

Governmental Accounting Standards Board (GASB) Statement No. 25 established financial reporting standards for defined benefit pension plans of governmental employers. The statement requires a presentation of "actuarially determined information, from a long-term perspective, about the funded status of the plan and the progress being made in accumulating sufficient assets to pay benefits when due". The information, covering a minimum of six years, is to be provided in two schedules of historical trend information, as follows:

1. The Schedule of Funding Progress provides information about the actuarially determined funded status from a long-term ongoing plan perspective and the progress made toward accumulating sufficient assets, and

2. The Schedule of Employer Contributions provides information about the annual required contribution (ARC) and percent of the ARC actually contributed by the employer.

Based on the results of the December 31, 2004 actuarial valuation as well as the results of previous actuarial valuations, we have prepared a Schedule of Funding Progress and a Schedule of Employer Contributions, which are included in Exhibits 11 and 12 below.

We have also made calculations to determine the Net Pension Obligation (NPO) as of December 31, 2004. Our calculations have been based on the parameters prescribed in Governmental Accounting Standards Board (GASB) Statement No. 27 for calculating the NPO. According to GASB Statement

No. 27, an employer's NPO is equal to the cumulative difference between the annual pension cost and the employer's contribution. The Net Pension Obligation as of December 31, 2004 is determined in Exhibit 13 below.

The following information is applicable to the calculations of the information shown in Exhibits 11, 12, and 13 below:

Valuation Date:	- December 31, 2004
Actuarial Cost Method:	- Entry Age Normal
Amortization Method:	- Level Dollar
Remaining Amortization Period:	- 30 years
Asset Valuation Method:	- 5 year smoothed market value
Actuarial Assumptions:	
Investment return rate:	- 7.5% per year
Projected salary increases:	- 5.0% per year
Inflation rate:	- 3% per year
Postretirement benefit increase	- 3% per year
Increases in Postretirement health care costs:	
2006	- 10.0%
2007	- 9.0%
2008	- 8.0%
2009	- 7.0%
2010	- 6.0%
2011 and later	- 5.0%

EXHIBIT 11

SCHEDULE OF FUNDING PROGRESS

Fiscal Year	Total Actuarial Liability	Actuarial Value of Assets	Assets as a % of Actuarial Liability	Unfunded Liability	Active Member Payroll	UAL as a % of Active Member Payroll
1995	3,164,701,603	3,027,413,256	95.7%	137,288,347	980,603,088	14.0%
1996	3,509,378,287	3,423,965,896	97.6%	85,412,391	1,025,670,504	8.3%
1997	4,426,784,225	4,002,726,492	90.4%	424,057,733	1,068,038,496	39.7%
1998	4,942,155,173	4,535,296,601	91.8%	406,858,572	1,066,458,432	38.2%
1999	5,555,661,795	5,273,208,730	94.9%	282,453,065	1,162,538,616	24.3%
2000	6,070,267,055	5,706,998,091	94.0%	363,268,964	1,261,050,576	28.8%
2001	6,678,219,689	5,935,506,269	88.9%	742,713,420	1,274,942,064	58.3%
2002	7,846,307,991	5,861,233,506	74.7%	1,985,074,485	1,330,456,896	149.2%
2003	8,780,969,704	5,929,201,142	67.5%	2,851,768,562	1,307,079,312	218.2%
2004	9,450,784,086	6,700,845,111	70.9%	2,749,938,975	1,371,540,481	200.5%

EXHIBIT 12

SCHEDULE OF EMPLOYER CONTRIBUTIONS

	Employer Contributions		
Fiscal Year	Annual Required Contribution (ARC)	Employer Contribution	Employer Contribution as a Percent of ARC
1997	$107,741,768	$134,783,854	125.10%
1998	171,928,912	146,339,155	85.12%
1999	196,850,449	160,940,258	81.76%
2000	190,557,579	158,474,997	83.16%
2001	211,188,715	161,141,138	76.30%
2002	253,942,375	178,410,973	70.26%
2003	364,658,305	185,608,032	50.90%
2004	457,427,014	201,957,937	44.15%

EXHIBIT 13

NET PENSION OBLIGATION AS OF DECEMBER 31, 2004

1. NPO as of 12-31-2003	$94,778,086
2. Annual Required Contribution (ARC)	457,427,014
3. Interest on NPO	7,582,247
4. Adjustment to ARC	(7,621,714)
5. Annual Pension Cost for 2004 (2 + 3 + 4)	457,387,547
6. Total Employer Contribution for 2004	201,957,937
7. NPO as of 12-31-2004	$350,207,696

J. SOLVENCY TEST

A short term solvency test is a measure that can provide additional insight into the adequacy of pension funding. In this type of solvency test, a pension fund's current assets are compared with:

1. Active member accumulated contributions;
2. The liability for future benefits to current pensioners;
3. The employer's share of the liability for service already rendered by active members

In the case of a pension fund that is actuarially funded, the active member accumulated contributions and the liability for future benefits to present pensioners should generally be fully covered by plan assets. In addition, the employer's share of the liability for service already rendered by active members should be at least partially covered by the remainder of plan assets. In Exhibit 14 below, the actuarial value of the assets of the fund is compared with: (1) active member accumulated contributions, (2) the liability for future benefits to current pensioners; and (3) the employer's liability for service already rendered by active members. The portion of each of the three liabilities that is covered by the actuarial value of assets is shown.

EXHIBIT 14

SOLVENCY TEST

	Accrued Liabilities For				Percent of Accrued Liabilities Covered By Assets		
	(1)	(2)	(3)				
Fiscal Year	Active and Inactive Member Accumulated Contributions	Member Currently Receiving Benefits	Active and Inactive Member Employer Portion	Actuarial Value of Assets	(1)	(2)	(3)
1995	660,953,820	980,421,031	1,523,326,752	3,027,413,256	100%	100%	91%
1996	744,710,839	1,010,675,521	1,753,991,927	3,423,965,896	100%	100%	95%
1997	821,181,256	1,240,955,803	2,364,647,166	4,002,726,492	100%	100%	82%
1998	808,675,585	1,848,475,127	2,285,004,461	4,535,296,601	100%	100%	82%
1999	897,872,191	2,009,011,295	2,648,778,309	5,273,208,730	100%	100%	89%
2000	997,482,161	2,059,663,630	3,013,121,264	5,706,998,091	100%	100%	88%
2001	1,108,332,348	2,277,232,951	3,292,654,390	5,935,506,269	100%	100%	77%
2002	1,245,347,907	2,498,721,228	4,102,238,856	5,861,233,506	100%	100%	52%
2003	1,141,964,297	4,021,001,425	3,618,003,982	5,929,201,142	100%	100%	21%
2004	1,275,497,167	4,423,092,162	3,752,194,757	6,700,845,111	100%	100%	27%

K. CERTIFICATION

This actuarial report has been prepared in accordance with generally accepted actuarial principles and practices and to the best of our knowledge, fairly represents the financial condition of the County Employees' and Officers' Annuity and Benefit Fund of Cook County as of December 31, 2004.

Respectfully submitted,

Sandor Goldstein, F.S.A.
Consulting Actuary

Thomas K. Hartman, F.S.A.
Consulting Actuary

Carl J. Smedinghoff, A.S.A.
Actuary

Appendix 1

Summary of Actuarial Assumptions and Actuarial Cost Method

Mortality Rates. The 1983 Group Annuity Mortality Table, Male and Female, rated up two years.

Termination Rates. Termination rates based on the recent experience of the fund were used. The following is a sample of the proposed termination rates:

Rates of Termination

Age at Entrance

Attained Age	Males 27	Males 32	Males 37	Females 27	Females 32	Females 37
27	.058			.090		
32	.047	.066		.059	.083	
37	-	.042	.056	-	.047	.057
42	-	-	.034	-	-	.030
47	-	-	-	-	-	-

Retirement Rates. Rates of retirement for each age from 50 to 75 based on the recent experience of the fund. The following are samples of the proposed rates of retirement:

Less Than 30 Years of Service at Retirement

Age	Rates of Retirement Males	Rates of Retirement Females
50	.010	.015
55	.060	.090
60	.250	.270
65	.300	.300
70	.500	.500
75	1.000	1.000

30 Or MoreYears of Service at Retirement

Age	Rates of Retirement Males	Females
50	.100	.150
55	.200	.250
60	.250	.270
65	.300	.300
70	.500	.500
75	1.000	1.000

Salary Progression. 5.0% per year, compounded annually.

Interest Rate. 7.5% per year, compounded annually.

Medical Trend Rate. 10% in the first year, decreasing by 1% per year until an ultimate rate of 5% is reached.

Loading For Reciprocal Benefits. For reciprocal annuities where the County is the last employer, load costs and liabilities by 1%. For reciprocal annuities where the County is not the last employer, value reciprocal annuities as 10 times an inactive member's accumulated contributions.

Marital Status. 85% of participants were assumed to be married.

Spouse's Age. The spouse of a male employee was assumed to be four years younger than the employee. The spouse of a female employee was assumed to be four years older than the age of the employee.

Actuarial Cost Method.

The entry age actuarial cost method was used, with costs allocated on the basis of earnings. Actuarial gains and losses are reflected in the unfunded actuarial liability.

Appendix 2

Summary of Principal Provisions

Participant. A person employed by the County whose salary or wages is paid in whole or in part by the County. An employee in service on or after January 1, 1984 shall be deemed as a participant regardless of when he or she became an employee.

Service. For all purposes except the minimum retirement annuity and ordinary disability benefit, service during four months in any calendar year constitutes one year of service. For the minimum retirement annuity, all service is computed in whole calendar months. Service for any 15 days in a calendar month shall constitute a month of service.

For purposes of the minimum retirement annuity, service shall include:

a. Any time during which the employee performed the duties of his or her position and contributed to the fund.
b. Vacations and leaves of absence with whole or part pay.
c. Periods during which the employee receives a disability benefit from the Fund, and
d. Certain periods of accumulated sick leave.

Retirement Annuity – Eligibility. An employee who withdraws from service with 10 or more years of service is entitled to a retirement annuity upon attainment of age 50.

Retirement Annuity – Amount

Money Purchase Annuity. The amount of annuity based on the sum accumulated from the employee's salary deductions for age and service annuity plus 1/10 of the sum accumulated from the contributions by the County for age and service annuity for each completed year of service after the first 10.

Minimum Formula Annuity. The amount of annuity provided is equal to 2.4% of final average salary for each year of service. Final average salary is the highest average monthly salary for any 48 consecutive months within the last 10 years of service. Salary for pension purposes is actual salary earned exclusive of overtime or extra salary. The maximum amount of annuity is 80% of final average salary.

If an employee retires before age 60, the annuity is reduced by .5% for each full month or fraction thereof that the employee is under age 60 when the annuity begins, unless the employee has 30 or more years of service, in which case there is no reduction for retirement before age 60.

If the Minimum Formula Annuity is greater than the Money Purchase Annuity, the employee is entitled to receive the Minimum Formula Annuity.

Automatic Increase in Retirement Annuity. Employees who retire from service having attained age 60 or more, or, if retirement occurs on or after January 1, 1991, with at least 30 years of service, 3% of the annuity beginning January of the year following the year in which the first anniversary of retirement occurs. If retirement is before age 60 with less than 30 years of service, increases begin in January of the year immediately following the year in which age 60 is attained. Beginning January 1, 1998, increases are calculated as 3% of the monthly annuity payable at the time of the increase.

Optional Plan of Contributions and Benefits. During the period through June 30, 2005, an employee may establish optional credit for additional benefits by making additional contributions of 3% of salary. The additional benefit is equal to 1% of final average salary for each year of service for which optional contributions have been paid. The additional benefit shall be included in the calculation of the automatic annual increase and the calculation of the survivor's annuity.

Alternate Annuity for County Officers. An alternate annuity is available for elected county officers. The amount of this alternate annuity is equal to 3% of final salary for the first 8 years of service, 4% for the next 4 years of service, and 5% thereafter, subject to a maximum of 80% of final salary. The elected county officer is required to contribute an additional 3% of salary to be eligible for the alternate annuity. The alternate survivor's annuity for survivors of elected county officers is 66 2/3% of the amount of the elected county officer's earned retirement annuity on the date of death, subject to a minimum payment of 10% of salary.

Annuities for Members of the Cook County Police Department. In lieu of the regular of minimum retirement annuity, a deputy sheriff who is a member of the County Police Department may be entitled to the following annuity:

Upon withdrawal from service after having attained age 50 in service with 20 or more years of service credit as a police officer, the officer shall be entitled to an annuity computed as follows: 50% of final average salary, plus 2% of final average salary for each completed years of service in excess of 20 years, subject to a maximum of 80% of final average salary.

Surviving Spouse's Annuity – Death in Service

Money Purchase Annuity. The amount of annuity based on the accumulated salary deductions and County contributions for both the employee and the spouse.

Minimum Formula Annuity. A minimum annuity is provided for the eligible surviving spouse of an employee who dies in service with any number of years of service. The amount of such minimum spouse's annuity is equal to 65% of the annuity the employee would have been entitled to as of the date of death, provided the spouse on such date is age 55 or older, or that the employee had 30 or more years of service. If the spouse is under age 55 and the employee had less than 30 years of service, the amount of the spouse's annuity shall be discounted by .5% for each month that the spouse is less than age 55 on the date of the employee's death. The amount of the surviving spouse's annuity shall not be less than 10% of the employee's final average salary as of the date of death.

If the Minimum Formula Annuity is greater than the Money Purchase Annuity, the surviving spouse shall be entitled to receive the Minimum Formula Annuity.

Surviving Spouse's Annuity – Death after Retirement. The amount of the annuity is the greater of the money purchase annuity or the minimum formula annuity, based on the law in effect as of the date of the participant's retirement. The surviving spouse of an annuitant who dies on or after July 1, 2002 shall be entitled to an annuity of 65% of the employee's annuity at the time of death if the employee had at least 10 years of service, reduced by .5% per month that the spouse is under age 55 at the time of the employee's death. There is no reduction for age if the employee had at least 30 years of service.

Automatic Annual Increase in Surviving Spouse's Annuity. On the January 1 occurring on or immediately after the first anniversary of the deceased employee's death, the surviving spouse's annuity shall be increased by 3% of the amount of annuity payable at the time of the increase. On each January 1 thereafter, the annuity shall be increased by an additional 3% of the amount of annuity payable at the time of the increase.

Child's Annuity. Annuities are provided for unmarried children of a deceased employee who are under age 18. An adopted child is entitled to the child's annuity if such child was legally adopted at least one year before the child's annuity becomes payable. The child's annuity is payable under the following conditions:

(a) the death of the employee was a duty related death; or (b) if the death is not a duty related death, the employee died while in service and had completed at least four years of service from the date of his or her original entrance in service and at least two years from the latest re-entrance: or (c) if the employee died while in receipt of an annuity, her or she must have withdrawn from service after attainment of age 50

The amount of the annuity is the greater of 10% of the employee's final salary at the date of death or $140 per month for each child.

Duty Disability Benefits. Duty disability benefits are payable to an employee who becomes disabled as a result of an accidental injury incurred while in the performance of an act of duty. Benefits begin on the first regular and normal work date for which the employee does not receive a salary. The amount of the duty disability benefit is equal to 75% of the employee's salary at the date of injury, reduced by the amount the employee receives from Workers' Compensation. However, if the disability, in any measure has resulted from any physical defect or disease that existed at the time such injury was sustained, the duty disability benefit shall be 50% of salary.

If the disability commences prior to age 60, duty disability benefits are payable during disability until the employee attains age 65. If the disability begins after age 60, the benefit is payable during disability for a period of 5 years.

Recipients of duty disability benefits also have a right to receive child's disability benefits of $10 per month on account of each unmarried child less than age 18. Total children's disability benefits shall not exceed 15% of the employee's salary.

Ordinary Disability Benefits. Ordinary disability benefits are provided for employees who become disabled as the result of any cause other than injury incurred in the performance of an act of duty. The amount of the benefit is 50% of the employee's annual salary at the time of disability. The County also contributes the 8.5% of salary normally contributed by the employee for pension purposes.

Ordinary disability benefits are payable after the first 30 days of disability provided the employee is not then in receipt of salary. Ordinary disability benefits are payable until the first of the following shall occur:

(a) the disability ceases; or
(b) the date that total payments equal the lesser of (1) ¼ of the total service rendered prior to disability, and (2) five years.

An employee unable to return to work at the expiration of ordinary disability benefit is entitled to an annuity beginning on the date of the employee's withdrawal from service regardless of age on such date.

Death Benefit. Upon the death of an active or retired employee, a death benefit of $1,000 is payable to the employee's designated beneficiary or to the employee's estate if no beneficiary has been designated.

Group Health Benefits. The Fund may pay all or any portion of the premium for health insurance on behalf of each of the Fund's annuitants who participates in any of the county's health care plans. As of January 1, 2005, the Fund is paying 55% of the premiums for retiree annuitants and 70% of the premium for survivor annuitants.

Refund to Employee Upon Withdrawal From Service. Upon withdrawal from service, an employee under the age of 55, or between ages 55 and 60 with less than 10 years of service, or age 60 or over if the employee is eligible for a temporary rather than a life annuity. The employee is entitled to a refund of the amount accumulated to his or her credit for age and service annuity and the survivor's annuity together with the total amount contributed for the automatic annual increase, without interest. Upon receipt of such refund, the employee forfeits all rights to benefits from the Fund.

Election of Refund in Lieu of Annuity. If an employee's annuity or spouse's annuity is less than $150.00 per month, such employee or spouse annuitant may elect a refund of the employee's accumulated contributions in lieu of a monthly annuity.

Refund For Surviving Spouse's Annuity. If an employee is unmarried at the time of retirement, all contributions for surviving spouse's annuity will be refunded with interest at the rate of 3% per year, compounded annually.

Refund of Remaining Amounts. In the event that the total amount accumulated to the account of employee from employee contributions for annuity purposes has not been paid to the employee and surviving spouse as a retirement or surviving spouse's annuity before the death of the survivor of the employee and spouse, a refund of any excess amount shall be paid to the children of the employee, in equal parts, or if there are no children, to the beneficiaries of the employee or the administrator of the estate.

Employee Contributions. Employees contribute through salary deductions 8.5% of salary to the pension fund, 6.5% being for the retirement annuity, 1.5% being for the surviving spouse's annuity, and .5% being for the automatic increase in retirement annuity.

Employer Contributions. The County levies a tax annually equal to the total amount of contributions made by employees in the calendar year 2 years prior to the year of the levy, multiplied by 1.54.

Employer Pick-up of Employee Contributions. Since April 1, 1982, regular employee contributions have been designated for federal income tax purposes as being made by the employer. The employee's W-2 salary is therefore reduced by the amount of contribution. For pension purposes, the salary remains unchanged. For purposes of benefits, refunds, and financing, these contributions are treated as employee contributions.

Appendix 3

Glossary of Terms used in Report

1. Actuarial Present Value. The value of an amount or series of amounts payable at various times, determined as of a given date by the application of a particular set of actuarial assumptions.

2. Actuarial Cost Method or Funding Method. A procedure for determining the actuarial present value of pension plan benefits and for determining an actuarially equivalent allocation of such value to time periods, usually in the form of a normal cost and an actuarial accrued liability.

3. Normal Cost. That portion of the present value of pension plan benefits, which is allocated to a valuation year by the actuarial cost method.

4. Actuarial Accrued Liability or Accrued Liability. That portion, as determined by a particular actuarial cost method, of the actuarial present value of pension benefits which is not provided for by future normal costs.

5. Actuarial Value of Assets. The value assigned by the actuary to the assets of the pension plan for purposes of an actuarial valuation.

6. Unfunded Actuarial Liability. The excess of the actuarial liability over the actuarial value of assets.

7. Entry Age Actuarial Cost Method. A cost method under which the present value of the projected benefits of each individual included in an actuarial valuation is allocated as a level dollar amount or level percent of the individual's earnings between entry age and assumed exit age. The portion of this actuarial present value of benefits allocated to a valuation year is called the normal cost. The portion of this actuarial present value of benefits not provided at a valuation date by the actuarial present value of future value of normal costs is called the actuarial liability.

Under this method, the actuarial gains (losses), as they occur, generally reduce (increase) the unfunded actuarial liability.

8. Actuarial Assumptions. Assumptions as to future events affecting pension costs.

9. Actuarial Valuation. The determination, as of the valuation date, of the normal cost, actuarial liability, actuarial value of assets, and related actuarial present values for a pension plan.

10. Vested Benefits. Benefits that are not contingent on an employee's future service.

Appendix 4

Development of Investment Gains/Losses for Years 2000 Through 2003

A. Development of Investment Gain/(Loss) for 2000

1. Market Value of Assets as of 12/31/1999	$ 5,270,884,912
2. Employer and Miscellaneous Contributions	158,251,489
3. Employee Contributions	119,587,172
4. Benefits and Expenses	228,638,781
5. Expected Market Value (Based on 8% assumed rate of return)	5,743,685,720
6. Actual Market Value	5,547,128,904
7. Investment Gain/(Loss) (6 – 5)	(196,556,816)

B. Development of Investment Gain/(Loss) for 2001

1. Market Value of Assets as of 12/31/2000	$ 5,547,128,904
2. Employer and Miscellaneous Contributions	160,977,001
3. Employee Contributions	125,848,928
4. Benefits and Expenses	239,591,004
5. Expected Market Value (Based on 8% assumed rate of return)	6,039,987,190
6. Actual Market Value	5,530,302,748
7. Investment Gain/(Loss) (6 – 5)	(509,684,442)

C. Development of Investment Gain/(Loss) for 2002

1. Market Value of Assets as of 12/31/2001	$ 5,530,302,748
2. Employer and Miscellaneous Contributions	178,373,458
3. Employee Contributions	146,979,954
4. Benefits and Expenses	251,696,606
5. Expected Market Value (Based on 8% assumed rate of return)	6,049,273,366
6. Actual Market Value	5,221,853,532
7. Investment Gain/(Loss) (6 – 5)	(827,419,834)

D. Development of Investment Gain/(Loss) for 2003

1. Market Value of Assets as of 12/31/2002	$ 5,221,853,532
2. Employer and Miscellaneous Contributions	185,552,498
3. Employee Contributions	140,029,597
4. Benefits and Expenses	367,114,828
5. Expected Market Value (Based on 8% assumed rate of return)	5,596,439,732
6. Actual Market Value	6,063,872,421
7. Investment Gain/(Loss) (6 – 5)	467,432,689