

COUNTY EMPLOYEES' ANNUITY
AND BENEFIT FUND OF COOK COUNTY

ACTUARIAL VALUATION
AS OF DECEMBER 31, 2005

July 14, 2006

Board of Trustees
County Employees' Annuity and
Benefit Fund of Cook County
33 North Dearborn Street, Suite 1100
Chicago, Illinois 60602

Re: Actuarial Valuation as of December 31, 2005

Dear Board Members:

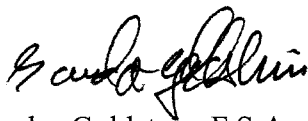
We are pleased to submit our actuarial report on the financial position and funding requirements of the County Employees' Annuity and Benefit Fund of Cook County based on the actuarial valuation as of December 31, 2005.

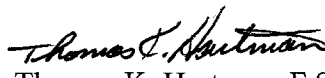
The report consists of 12 Sections and 3 Appendices as follows:

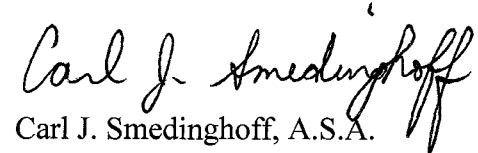
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We would be pleased to discuss any aspects of this report with you at your convenience.

Respectfully submitted,


Sandor Goldstein, F.S.A.
Consulting Actuary


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


Carl J. Smedinghoff, A.S.A.
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, 2005. 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	\$ 9,269,944,133
2. Actuarial Value of Assets	7,027,508,138
3. Unfunded Actuarial Liability	2,242,435,995
4. Funded Ratio	75.8%
5. Employer's Normal Cost for 2006 as a Percent of Payroll	15.55%
6. Actuarially Determined Contribution Requirement For Year Beginning January 1, 2006	398,340,979
7. Expected Net Employer Contribution from Tax Levy for 2006	221,416,720

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, 2005, on which the valuation was based, is summarized in Exhibit 1. It can be seen that there were 25,726 active contributors, 13,926 members receiving annuities, and 10,185 inactive members included in the valuation. The total active payroll as of December 31, 2005 was \$1,387,459,142.

EXHIBIT 1

Summary of Membership Data

1. Number of Members	
(a) Active Members	
(i) Vested	13,745
(ii) Non-vested	11,981
(b) Members Receiving	
(i) Retirement Annuities	11,190
(ii) Surviving Spouse's Annuities	2,255
(iii) Children's Annuities	136
(iv) Ordinary Disability Benefits	329
(v) Duty Disability Benefits	16
(c) Inactive Members	<u>10,185</u>
(d) Total	49,837
2. Annual Salaries	
(a) Total Salary	\$ 1,387,459,142
(b) Average Salary	53,932
3. Total Accumulated Contributions of Active Members	\$ 1,322,128,598
4. Annual Benefit Payments Currently Being Made	
(a) Retirement Annuities	\$ 289,611,765
(b) Surviving Spouse's Annuities	19,776,878
(c) Children's Annuities	639,380
(d) Ordinary Disability Benefits	6,192,702
(e) Duty Disability Benefits	79,438

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 2005

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

Age	Year of Service									Total
	<1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35+	
under 25	196	229	28							453
	\$32,407	\$32,143	\$32,319							\$32,268
25-29	426	1,202	364	12						2,004
	\$35,893	\$40,946	\$39,510	\$39,763						\$39,604
30-34	252	1,093	1,166	434	23					2,968
	\$41,405	\$47,556	\$49,406	\$47,737	\$43,863					\$47,758
35-39	170	707	1,044	1,154	431	15				3,521
	\$50,934	\$51,542	\$55,090	\$54,531	\$49,576	\$50,401				\$53,299
40-44	140	623	770	1,074	979	346	5			3,937
	\$47,233	\$51,256	\$58,081	\$58,367	\$56,369	\$54,333	\$63,532			\$55,945
45-49	113	489	739	887	857	755	219	9		4,068
	\$45,729	\$50,701	\$55,674	\$59,912	\$60,229	\$60,814	\$54,056	\$58,836		\$57,558
50-54	111	442	532	771	736	599	335	66		3,586
	\$51,470	\$53,133	\$56,880	\$60,033	\$60,501	\$63,598	\$62,269	\$58,228		\$59,320
55-59	74	339	456	570	533	372	141	81	20	2,586
	\$50,875	\$58,422	\$56,361	\$58,451	\$60,632	\$60,870	\$63,444	\$61,904	\$56,832	\$59,027
60-64	33	139	282	382	345	183	56	42	30	1,492
	\$67,774	\$49,460	\$57,263	\$58,962	\$53,964	\$56,940	\$58,036	\$69,086	\$53,052	\$56,678
65-69	19	43	112	167	188	93	21	25	21	689
	\$59,343	\$67,397	\$59,322	\$53,415	\$49,328	\$50,488	\$47,079	\$61,341	\$54,755	\$54,036
70+	16	26	56	94	110	59	21	15	25	422
	\$22,772	\$64,761	\$58,146	\$54,231	\$49,032	\$49,916	\$58,915	\$61,273	\$64,262	\$53,326
Number	1,550	5,332	5,549	5,545	4,202	2,422	798	232	96	25,726
Salary	\$42,401	\$48,100	\$53,754	\$57,006	\$56,951	\$59,566	\$59,446	\$62,033	\$57,131	\$53,932

EXHIBIT 3

**ANNUITANTS CLASSIFIED BY AGE AS OF DECEMBER 31, 2005
Retirement Annuities (Including Reciprocal)**

Age	Number	Annual Payments	Average Annual Payments
under 45	5	35,466	7,093
45-49	10	32,765	3,277
50-54	432	16,969,652	39,282
55-59	1,502	52,470,319	34,934
60-64	1,949	60,685,123	31,137
65-69	2,106	55,958,011	26,571
70-74	1,848	43,545,509	23,564
75-79	1,438	29,545,190	20,546
80-84	1,042	18,990,062	18,225
85-89	549	7,754,629	14,125
90 & up	309	3,625,039	11,732
Totals	11,190	289,611,765	25,881
Average age			69.4
Surviving Spouse			
under 45	48	270,391	5,633
45-49	59	441,337	7,480
50-54	114	946,325	8,301
55-59	149	1,717,604	11,528
60-64	166	1,779,027	10,717
65-69	248	2,691,309	10,852
70-74	344	3,317,036	9,643
75-79	324	2,989,916	9,228
80-84	355	3,008,863	8,476
85-89	279	1,782,977	6,391
90 & up	169	832,092	4,924
Totals	2,255	19,776,878	8,770
Average age			73.1

EXHIBIT 4

**SALARY AND AGE STATISTICS
Ages and Salaries as of December 31, 2005**

Age	Number	Annual Salaries	Average Annual Salary
Male			
NoDOB	1	\$ 17,410	\$ 17,410
Under 20	12	315,062	26,255
20-24	209	7,222,696	34,558
25-29	947	38,149,678	40,285
30-34	1,376	67,870,402	49,324
35-39	1,699	95,602,208	56,270
40-44	1,718	103,162,117	60,048
45-49	1,728	107,967,894	62,481
50-54	1,514	98,651,217	65,159
55-59	1,062	70,627,141	66,504
60-64	658	41,567,912	63,173
65-69	321	19,456,015	60,611
70 and Over	<u>210</u>	<u>12,949,023</u>	<u>61,662</u>
Total Male	11,455	\$ 663,558,775	\$ 57,927
Female			
NoDOB	1	\$ 17,410	\$ 17,410
Under 20	9	207,983	23,109
20-24	223	6,871,654	30,815
25-29	1,057	41,272,388	39,047
30-34	1,592	73,876,536	46,405
35-39	1,822	92,062,489	50,528
40-44	2,219	117,106,165	52,774
45-49	2,340	126,166,896	53,917
50-54	2,072	114,044,464	55,041
55-59	1,524	81,962,800	53,781
60-64	834	43,044,144	51,612
65-69	368	17,747,809	48,228
70 and Over	<u>210</u>	<u>9,519,629</u>	<u>45,332</u>
Total Female	14,271	\$ 723,900,367	\$ 50,725
Male and Female	25,726	\$ 1,387,459,142	\$ 53,932

EXHIBIT 5

SALARY AND AGE STATISTICS
Ages and Salaries as of December 31, 2005

Ages at Entrance

Age at Entrance	Male		Female	
	Number	Annual Salaries	Number	Annual Salaries
Under 25	2,041	\$ 105,376,485	2,286	\$ 101,738,179
25-29	3,062	166,406,228	3,281	167,047,398
30-34	2,041	123,924,744	2,388	130,569,206
35-39	1,400	88,619,731	2,136	113,120,877
40-44	927	55,673,282	1,712	89,757,296
45-49	763	45,524,258	1,193	61,794,065
50-54	580	37,997,392	748	35,830,606
55-59	409	24,782,931	364	16,940,502
60-64	148	9,991,106	113	4,950,962
65 and Over	77	5,069,303	44	2,007,007
W/O Record	7	193,315	6	144,269
Totals	11,455	\$ 663,558,775	14,271	\$ 723,900,367
Average Annual Salary		\$ 57,927		\$ 50,725
Average Attained Age		44.8		45.5
Average Service		10.9		11.0
Average Age at Entrance		33.9		34.5

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, 2005. 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 \$7,027,508,138. The development of this actuarial value of assets is outlined in Exhibit 6. The market value of assets as of December 31, 2005 amounted to \$6,963,954,756. 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 2005

1. Market Value of Assets as of 12/31/2004	\$ 6,618,941,068
2. Employer and Miscellaneous Contributions	221,826,955
3. Employee Contributions	174,213,741
4. Benefits and Expenses	375,758,947
5. Expected Market Value (Based on 7.5% assumed rate of return)	7,136,390,213
6. Actual Market Value	6,963,954,756
7. Investment Gain (Loss) (6 – 5)	(172,435,457)

B. Development of Actuarial Value of Assets as of 12/31/05

8. Market Value of Assets as of December 31, 2005	\$ 6,963,954,756
9. Investment Gain/(Loss) for 2002	(827,419,834)
10. 20% of Gain/(Loss) for 2002	(165,483,967)
11. Investment Gain/(Loss) for 2003	467,432,689
12. 40% of Gain/(Loss) for 2003	186,973,076
13. Investment Gain/(Loss) for 2004	88,176,458
14. 60% of Gain/(Loss) for 2004	52,905,875
15. Investment Gain/(Loss) for 2005	(172,435,457)
16. 80% of Gain/(Loss) for 2005	<u>(137,948,366)</u>
17. Actuarial Value of Assets as of December 31, 2005 (8 – 10 – 12 – 14 – 16)	<u>\$ 7,027,508,138</u>

EXHIBIT 7

RECONCILIATION OF ASSET VALUES - DECEMBER 31, 2005

	<u>MARKET</u>	<u>ACTUARIAL</u>
NET ASSETS BEGINNING OF YEAR (A)	\$ 6,618,941,068	\$ 6,700,845,111
ADDITIONS		
Contributions		
From Cook County	214,849,442	214,849,442
Employee Contributions	174,213,741	174,213,741
Other		
Federal Government Contributions	3,443,036	3,443,036
Miscellaneous	3,348,318	3,348,318
Employee Transfer to Cook County	186,159	186,159
Total Contributions	<u>396,040,696</u>	<u>396,040,696</u>
Investment Income		
Interest on Bonds	94,967,224	94,967,224
Partnership Income	3,026,883	3,026,883
Dividends	44,444,904	44,444,904
Commission Recapture	206,061	206,061
Net Appreciation	190,554,053	172,203,392
Total Investment Income	<u>333,199,125</u>	<u>314,848,464</u>
Less Investment Fees	<u>(9,953,617)</u>	<u>(9,953,617)</u>
Net Investment Income (I)	323,245,508	304,894,847
Securities Lending Income	<u>1,486,431</u>	<u>1,486,431</u>
Total Additions	720,772,635	702,421,974
DEDUCTIONS		
Annuities and Benefits		
Employee Annuitants	289,176,133	289,176,133
Surviving Spouse Annuitants	18,768,074	18,768,074
Child Annuitants	705,779	705,779
Ordinary Disability Benefits	10,977,594	10,977,594
Duty Disability Benefits	382,324	382,324
Group Health Insurance	28,308,863	28,308,863
Total Annuities and Benefits	<u>348,318,767</u>	<u>348,318,767</u>
Refunds of Employee Contributions	23,041,743	23,041,743
Administrative Expenses	4,452,683	4,452,683
Charged to Forest Preserve	<u>(54,246)</u>	<u>(54,246)</u>
Total Deductions	375,758,947	375,758,947
NET INCREASE (DECREASE)	345,013,688	326,663,027
NET ASSETS END OF YEAR (B)	<u>\$ 6,963,954,756</u>	<u>\$ 7,027,508,138</u>
RATE OF RETURN = (2 x I) ÷ (A+B-I)	4.88%	4.54%
RATE OF RETURN FOR YEAR ENDING 12/31/04	9.46%	2.89%

C. FUND PROVISIONS

Our valuation was based on the provisions of the Fund in effect as of December 31, 2005 as provided in Articles 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 same actuarial assumptions were used for the December 31, 2005 actuarial valuation as were used for the December 31, 2004 valuation. These actuarial assumptions were based on an experience analysis of the fund over the four-year period 2000 through 2003. The actuarial assumptions used for the December 31, 2005 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, 2005 valuation, with costs allocated on the basis of earnings. This is the same actuarial cost method that was used for the December 31, 2004 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, 2005, the total actuarial liability is \$9,269,944,133, the actuarial value of assets is \$7,027,508,138 and the unfunded actuarial liability is \$2,242,435,995. The ratio of the actuarial value of assets to the actuarial liability, or funded ratio, is 75.8%.

EXHIBIT 8

Actuarial Liability as of December 31, 2005

1. Actuarial Liability for Active Members	
(a) Basic Retirement Annuity	\$ 2,782,624,130
(b) Automatic Increase in Retirement Annuity	767,031,939
(c) Additional Benefits Under Optional Plan	244,851,602
(d) Post-retirement Survivor's Annuity	395,569,151
(e) Pre-retirement Survivor's Annuity	109,290,555
(f) Lump Sum Payments and Refunds	58,371,640
(g) Retiree Health Insurance	<u>552,407,643</u>
(h) Total	\$ 4,910,146,660
2. Actuarial Liability For Members Receiving Benefits	
(a) Retirement Annuities	\$ 2,461,354,415
(b) Automatic Increase in Retirement Annuities	637,176,900
(c) Survivor Annuities to Survivors of Current Retirees	350,432,820
(d) Survivor Annuities to Current Survivors	193,079,375
(e) Lump Sum Death Benefit	4,726,741
(f) Retiree Health Insurance	<u>377,131,645</u>
(g) Total	\$ 4,023,901,896
3. Actuarial Liability for Inactive Members	<u>335,895,577</u>
4. Total Actuarial Liability	<u>\$ 9,269,944,133</u>
5. Actuarial Value of Assets	<u>7,027,508,138</u>
6. Unfunded Actuarial Liability	<u>\$ 2,242,435,995</u>
7. Funded Ratio	75.8%

F. RECONCILIATION OF CHANGE IN UNFUNDED ACTUARIAL LIABILITY

The net actuarial experience during the period January 1, 2005 to December 31, 2005 resulted in an decrease in the Fund's unfunded actuarial liability of \$507,502,980. This decrease in unfunded actuarial liability is a result of several kinds of gains and losses. The financial effect of the most significant gains and losses is illustrated in Exhibit 9.

The employer contribution requirement for the year of normal cost plus interest on the unfunded actuarial liability amounted to \$411,597,557. The total actual employer contribution for the year with interest amounted to \$229,995,082. Thus, the employer contribution for the year with interest fell short of the funding requirement of normal cost plus interest on the unfunded liability by \$181,602,475. Had all other aspects of the Fund's experience been in line with the actuarial assumptions, the unfunded liability would have increased by this amount.

The net rate of investment return earned by the Fund during the year, based on the actuarial value of assets, was approximately 4.5%, in comparison to the assumed rate of 7.5%. This resulted in an increase in the unfunded liability of \$196,928,921. Salaries increased at an average rate of 2.5% in comparison with the 5.0% assumed rate of increase, resulting in a decrease in the unfunded liability of \$120,058,069.

We have made some adjustments in the methods used to calculate the actuarial liability in order to more accurately model the liabilities of the Fund. This resulted in a decrease in the unfunded liability

of \$729,557,335. The various other aspects of the Fund's experience resulted in a net decrease in the unfunded liability of \$36,418,972. The aggregate financial experience of the Fund resulted in a decrease in the unfunded liability of \$507,502,980.

EXHIBIT 9

Reconciliation of Change in Unfunded Actuarial Liability Over the Period January 1, 2005 to December 31, 2005

1. Unfunded Actuarial Liability as of 01/01/05	\$ 2,749,938,975
2. Employer Contribution Requirement of Normal Cost Plus Interest on Unfunded Liability for Period 01/01/05 to 12/31/05	411,597,557
3. Actual Employer Contribution for the Year, Plus Interest	<u>229,995,082</u>
4. Increase in Unfunded Liability Due to Employer Contribution Plus Interest Being Less Than Normal Cost Plus Interest on Unfunded Liability (2 - 3)	\$ 181,602,475
5. Increase in Unfunded Liability Due to Investment Return Lower Than Assumed	196,928,921
6. (Decrease) in Unfunded Liability Due to Salary Increases Lower Than Assumed	(120,058,069)
7. (Decrease) in Unfunded Liability Due to Adjustments in Methods Used to Calculate Actuarial Liability	(729,557,335)
8. (Decrease) in Unfunded Liability Due to Other Sources	<u>(36,418,972)</u>
9. Net Increase (Decrease) in Unfunded Liability for the Year (4 + 5 + 6 + 7 + 8)	<u>\$ (507,502,980)</u>
10. Unfunded Actuarial Liability as of December 31, 2005 (1 + 9)	<u>\$ 2,242,435,995</u>

G. EMPLOYER'S NORMAL COST

The employer's share of the normal cost for the year beginning January 1, 2006 is developed in Exhibit 10. The total normal cost is \$333,904,419, employee contributions are estimated to be \$118,099,660, resulting in the employer's share of the normal cost of \$215,804,759.

Based on a payroll of \$1,387,459,142 as of December 31, 2005, the employer's share of the normal cost can be expressed as 15.55% of payroll.

EXHIBIT 10

Employer's Normal Cost For Year Beginning January 1, 2006

	<u>Dollar Amount</u>	<u>Percent Of Payroll</u>
1. Basic Retirement Annuity	\$ 177,529,145	12.80%
2. Automatic Increase in Retirement Annuity	48,771,712	3.51
3. Additional Benefits Under Optional Plan	13,484,996	0.97
4. Post-retirement Survivor's Annuity	24,681,631	1.78
5. Pre-retirement Survivor's Annuity	7,646,647	0.55
6. Lump Sum Benefits and Refunds	9,494,807	0.68
7. Retiree Medical	40,451,995	2.91
8. Duty Disability Benefits	83,410	0.01
9. Ordinary Disability Benefits	6,502,337	0.47
10. Children's Benefits	639,380	0.05
11. Administrative Expenses	<u>4,618,359</u>	<u>0.33</u>
12. Total Normal Cost	\$ 333,904,419	24.06%
13. Employee Contributions	<u>118,099,660</u>	<u>8.51</u>
14. Employer's Share of Normal Cost	<u>\$ 215,804,759</u>	<u>15.55%</u>

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 \$1,387,459,142 as of December 31, 2005.

H. 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 expired on January 1, 2006. We have therefore calculated the actuarially determined employer contribution for the year beginning January 1, 2006 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 11.

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 11, for the year beginning January 1, 2006, the actuarially determined contribution requirement amounts to \$398,340,979. The expected net employer contribution from the tax levy, after a 3.5% loss, amounts to \$221,416,720. Thus, the employer contribution is expected to fall short of meeting the actuarially determined contribution requirement by \$176,924,259. In order to have the employer contribution for the year 2006 sufficient to meet the

actuarially determined contribution requirement, it is estimated that a tax multiple of 2.77 would have been required.

EXHIBIT 11

Actuarially Determined Contribution Requirement

1. Employer's normal cost	\$215,804,759
2. Annual amount to amortize the unfunded liability over 30 years as a level dollar amount	<u>182,536,220</u>
3. Actuarially determined contribution requirement for year beginning January 1, 2006	\$398,340,979
4. Expected net employer contribution from tax levy, after a 3.5% loss	<u>221,416,720</u>
5. Amount by which employer contributions are expected to fall short of the actuarially determined contribution requirement	<u>\$176,924,259</u>
6. Required tax multiple for employer contribution to meet actuarially determined contribution requirement	2.77

I. 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, 2006 developed in Exhibit 11 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, 2006 for purposes of GASB Statement No. 25 is as follows:

1. Employer's normal cost	\$215,804,759
2. Annual amount to amortize the unfunded liability over 30 years as a level dollar amount	<u>182,536,220</u>
3. Annual required contribution (1 + 2)	<u>\$398,340,979</u>

J. 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, 2005 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 12 and 13 below.

We have also made calculations to determine the Net Pension Obligation (NPO) as of December 31, 2005. 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, 2005 is determined in Exhibit 14 below.

The following information is applicable to the calculations of the information shown in Exhibits 12, 13, and 14 below:

<u>Valuation Date:</u>	- December 31, 2005
<u>Actuarial Cost Method:</u>	- Entry Age Normal
<u>Amortization Method:</u>	- Level Dollar
<u>Remaining Amortization Period:</u>	- 30 years
<u>Asset Valuation Method:</u>	- 5 year smoothed market value
<u>Actuarial Assumptions:</u>	
Investment return rate:	- 7.5% per year
Projected salary increases:	- 5.0% per year
Inflation rate:	- 3.0% per year

Postretirement benefit increase - 3.0% per year

Increases in Postretirement health care costs:

2007	- 10.0%
2008	- 9.0%
2009	- 8.0%
2010	- 7.0%
2011	- 6.0%
2012 and later	- 5.0%

EXHIBIT 12

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
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%
2005	9,269,944,133	7,027,508,138	75.8%	2,242,435,995	1,387,459,142	161.6%

EXHIBIT 13

SCHEDULE OF EMPLOYER CONTRIBUTIONS

Fiscal Year	Employer Contributions		
	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%
2005	428,971,126	218,292,478	50.89%

EXHIBIT 14

NET PENSION OBLIGATION AS OF DECEMBER 31, 2005

1. NPO as of 12-31-2004	\$350,207,696
2. Annual Required Contribution (ARC)	428,971,126
3. Interest on NPO	26,265,577
4. Adjustment to ARC	<u>(28,507,209)</u>
5. Annual Pension Cost for 2005 (2 + 3 + 4)	426,729,494
6. Total Employer Contribution for 2005	<u>218,292,478</u>
7. NPO as of 12-31-2005	<u>\$558,644,712</u>

K. 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 15 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 15

SOLVENCY TEST

ACCRUED LIABILITIES FOR

Fiscal Year	(1)	(2)	(3)	Actuarial Value of Assets	Percent of Accrued Liabilities Covered By Assets		
	Active and Inactive Member Accumulated Contributions	Member Currently Receiving Benefits	Active and Inactive Member Employer Portion		(1)	(2)	(3)
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%
2005	1,322,128,598	4,023,901,896	3,923,913,639	7,027,508,138	100%	100%	43%

L. 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, 2005.

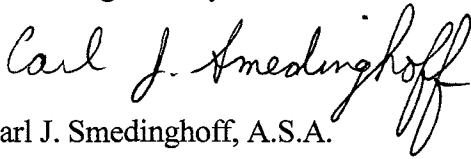
Respectfully submitted,



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			Females		
	27	32	37	27	32	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 rates of retirement used:

Less Than 30 Years of Service at Retirement

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

30 Or More Years of Service at Retirement

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

Retirement Rates for Deputy Sheriffs Who Are Members of the Cook County Police Department With 20 or More Years of Service at Retirement

<u>Age</u>	<u>Rates of Retirement</u>	
	<u>Males</u>	<u>Females</u>
50	.211	.211
55	.169	.169
60	.382	.382
65	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. Costs and liabilities of active employees were loaded by 1% for reciprocal annuities where the County is the last employer. It was assumed that 50% of inactive members with one or more year of service would receive a reciprocal annuity where the County is not the last employer. These reciprocal annuities were valued as of the member's retirement date 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. Normal costs for duty disability benefits, ordinary disability benefits, and children's benefits are calculated on an annual payout basis.

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) $\frac{1}{4}$ 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 annuitant 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.