



# Wilshire Research

## 2004 Wilshire Report on City & County Retirement Systems: Funding Levels and Asset Allocation

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## Section 1: Summary of Findings

- The following study includes 104 city and county retirement systems. Of these 104 retirement systems, 63 systems reported actuarial values on or after June 30, 2003 and 41 systems reported before June 30, 2003. Five of these 41 late-reporting systems reported before June 30, 2002.
- For the 63 city and county retirement systems which provided actuarial data for 2003, pension assets and liabilities were \$148.6 billion and \$179.2 billion, respectively. The ratio of pension assets-to-liabilities, or *funding ratio*, for all 63 city and county pension plans was 83% in 2003, down slightly from 84% for the same 63 plans in 2002. (Exhibit 2)
- For the 63 city and county retirement systems which provided actuarial data for 2003, pension assets grew 6%, or \$8.4 billion, from \$140.2 billion in 2002 to \$148.6 billion in 2003 while liabilities grew 7%, or \$11.8 billion, from \$167.4 billion to \$179.2 billion. Falling asset values combined with continued growth in liabilities caused the 63 city and county pension plans to go from a \$27.3 billion shortfall in 2002 to a \$30.6 billion shortfall in 2003. (Exhibit 2)
- For the 99 city and county retirement systems which provided actuarial data for 2002, pension assets and liabilities were \$256.3 billion and \$319.2 billion, respectively. The funding ratio for all 99 city and county pension plans was 80% in 2002. (Exhibit 1)
- Our findings of asset shortfall for city and county pension plans are slightly worse than corporate pension plans. Wilshire estimates that as of December 31, 2003 defined benefit pension assets for S&P 500 companies totaled \$1,031 billion, \$123 billion less than pension liabilities of \$1,154 billion, giving an aggregate funding ratio for corporate plans of 89%.<sup>1</sup>
- Our findings of asset shortfall for city and county pension plans are similar to state retirement systems. Wilshire estimates that as of December 31, 2003 state pension assets totaled \$1,720 billion, \$366 billion less than pension liabilities of \$2,086 billion, giving an aggregate funding ratio for state retirement systems of 82%.<sup>2</sup>
- Of the 63 city and county retirement systems which provided actuarial data for 2003, 83% have market value of assets less than pension liabilities, or are *underfunded*. The average underfunded plan has a ratio of assets-to-liabilities equal to 79%.
- The fiscal health of retirement plans among cities and counties varies widely. Eight retirement plans which reported actuarial values for 2003 – City of Boston RS, Chicago Firemen’s ABF, Chicago Policemen’s ABF, Jacksonville Police & Fire PP, Minneapolis Teachers’ RFA, City of Richmond RS, St. Paul Teachers’ RFA, and San Mateo County ERA – maintain pension plans whose funding ratios fall below 70%, with Minneapolis Teachers’ RFA the lowest at 43%. (Exhibit 11)

- City and county pension portfolios have a 65% average allocation to equities – including real estate and private equity – and a 35% allocation to fixed income. The 65% equity allocation is slightly higher than the 63% equity allocation in the prior year. The higher equity allocation suggests that pension funds remain committed to stocks. (Exhibit 12)
- Asset allocation varies widely by city and county retirement system. Nine of 104 retirement systems have allocations to equity that equal or exceed 75%, and three systems have equity allocations below 50%. The 25<sup>th</sup> and 75<sup>th</sup> percentile range for equity allocation is 62% to 70%.
- Wilshire forecasts a long-term return on city and county pension assets equal to 7.0% per annum, which is 0.9 percentage points below the average actuarial interest rate assumption of 7.9%. If correct, this asset performance shortfall will increase the total unfunded liabilities for the 63 city and county retirement systems which provided actuarial data for 2003 by an additional \$3.0 billion per year.

## Section 2: Financial Overview

This is our second report on the financial condition of city- and county-sponsored defined benefit retirement systems and is based upon data gathered from the most recent financial and actuarial reports provided by 104 retirement systems.

### *The Data*

Financial data on public retirement systems lack the timeliness and uniform disclosure governing pension plans sponsored by publicly traded companies, making it difficult to conclude a study with data that is both current and consistent across systems. For this reason, our study methodology involves collecting data during the third quarter of each calendar year with the objective of acquiring as many reports as possible with a June 30 valuation date from the previous year. Even for systems with the desire to report in a timely manner, it often takes six months to a year for actuaries to determine liability values. Sixty-three systems reported actuarial values on or after June 30, 2003 and 41 systems reported before June 30, 2003. Five of these 41 late-reporting systems reported before June 30, 2002.

### *Assets versus Liabilities*

Exhibit 1 shows market value of asset, actuarial value of asset, and pension liability values for all city and county retirement systems for which Wilshire has data. One hundred four, 99, and 63 retirement systems reported actuarial values for 2001, 2002, and 2003, respectively. Note that Exhibit 1 includes both market value and actuarial value of assets. Unless otherwise noted, “assets” will refer to market value of assets for the remainder of this paper.

**Exhibit 1**  
**Financial Overview of City & County Retirement Systems<sup>3</sup> (\$ billions)**

	<u>2001</u>	<u>2002</u>	<u>2003</u>
<u>Total Pension Assets:</u>			
- Market Value	\$291.5	\$256.3	\$148.6
- Actuarial Value	\$305.6	\$302.0	\$158.2
<u>Total Pension Liabilities:</u>	\$307.0	\$319.2	\$179.2
<u>Difference:</u>			
- Market Value	-\$15.5	-\$62.9	-\$30.6
- Actuarial Value	-\$1.4	-\$17.2	-\$21.1
<u>Assets as a % of Liabilities:</u>			
- Market Value	95%	80%	83%
- Actuarial Value	100%	95%	88%
<u>Total No. of Retirement Systems:</u>	104	99	63

Although the total pension asset and liability values in Exhibit 1 are not comparable because of the different number of retirement systems included for each year, the funding ratios, or ratio of assets-to-liabilities, provide a measure of the financial health for these retirement systems during the last three years. Market value funding ratios fell dramatically between 2001 and 2002, from 95% to 80%, and improved slightly between 2002 and 2003, from 80% to 83%. Actuarial value funding ratios declined steadily over the last three years, from 100% in 2001 to 88% in 2003.

Exhibit 2 shows asset and liability values for the 63 retirement systems which provided actuarial values for 2003 and compares them with the same totals from the previous two years.

**Exhibit 2**  
**Financial Overview of 63 City & County Retirement Systems<sup>3</sup> (\$ billions)**

	2001	2002	2003	Growth %	
				2001-2003	2002-2003
<u>Total Pension Assets:</u>					
- Market Value	\$153.1	\$140.2	\$148.6	-3%	6%
- Actuarial Value	\$154.2	\$157.2	\$158.2	3%	1%
<u>Total Pension Liabilities:</u>	\$154.0	\$167.4	\$179.2	16%	7%
<u>Difference:</u>					
- Market Value	-\$0.9	-\$27.3	-\$30.6		
- Actuarial Value	\$0.2	-\$10.2	-\$21.1		
<u>Assets as a % of Liabilities:</u>					
- Market Value	99%	84%	83%		
- Actuarial Value	100%	94%	88%		
<u>Underfunded Plans as % of All Plans:</u>					
- Market Value	60%	89%	84%		
- Actuarial Value	52%	67%	84%		
<u>Total No. of Retirement Systems:</u>	63	63	63		

In 2002, pension liabilities exceeded assets by \$27.3 billion and the funding ratio, or ratio of assets-to-liabilities, one measure of pension fund health, stood at 84%. One year later, assets have risen to \$148.6 billion, or 6%, while liabilities have grown to \$179.2 billion, or 7%. The result has been an increase in the difference between assets and liabilities from a negative \$27.3 billion to a negative \$30.6 billion, a \$3.3 billion decline, and a modest decrease in the ratio of assets-to-liabilities from 84% to 83%.

In 2001, pension liabilities exceeded assets by \$0.9 billion and the funding ratio, or ratio of assets-to-liabilities, stood at 99%. Over the next two years, assets fell 3% while liabilities grew 16%. The result has been an increase in the difference between assets and liabilities from a negative \$0.9 billion to a negative \$30.6 billion, a \$29.7 billion decline, and a dramatic decrease in the ratio of assets-to-liabilities from 99% to 83%.

Aggregate statistics such as these can mask more serious underlying fiscal problems because assets in well-funded retirement systems are not transferable to underfunded systems. Exhibit 2 shows that 84% of these 63 city and county pension systems, or 53 pension systems, have assets less than liabilities. If we look only at these 53 underfunded systems, their combined assets as a percent of liabilities equals 79% and their combined unfunded liabilities total \$31.9 billion.

*Funding Ratios*

Exhibit 3 shows the aggregate, average, and median market value funding ratios for the city and county pension systems by fiscal year. Exhibit 3 also shows the 25<sup>th</sup> and 75<sup>th</sup> percentile market value funding ratios for each year. Market value funding ratios generally fell between 2001 and 2002, and improved slightly over the last year.

**Exhibit 3  
Market Value Funding Ratios by Fiscal Year**

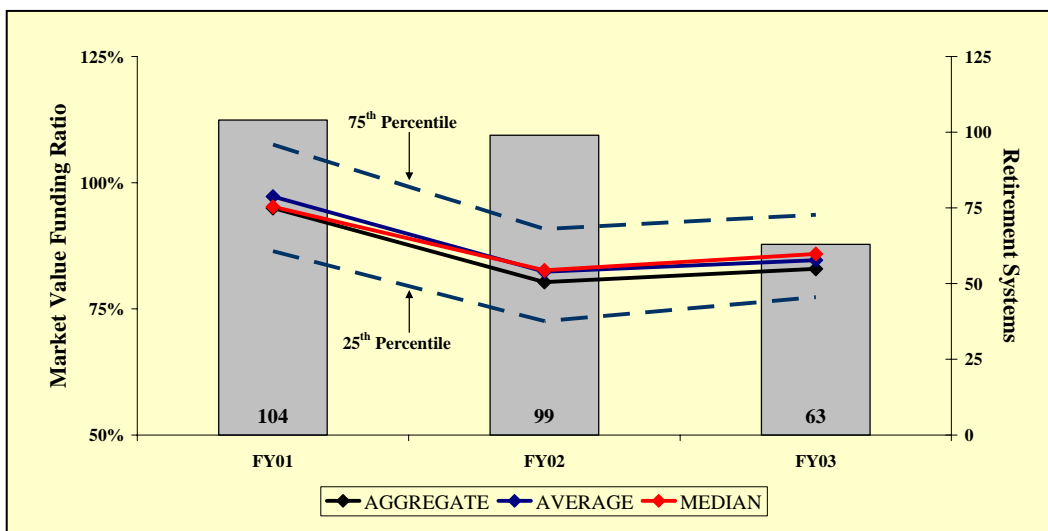
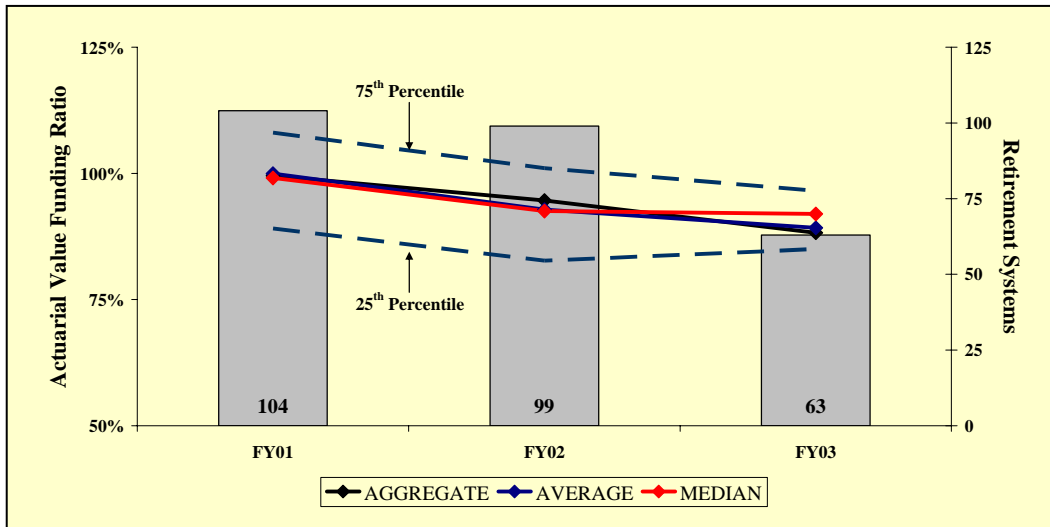


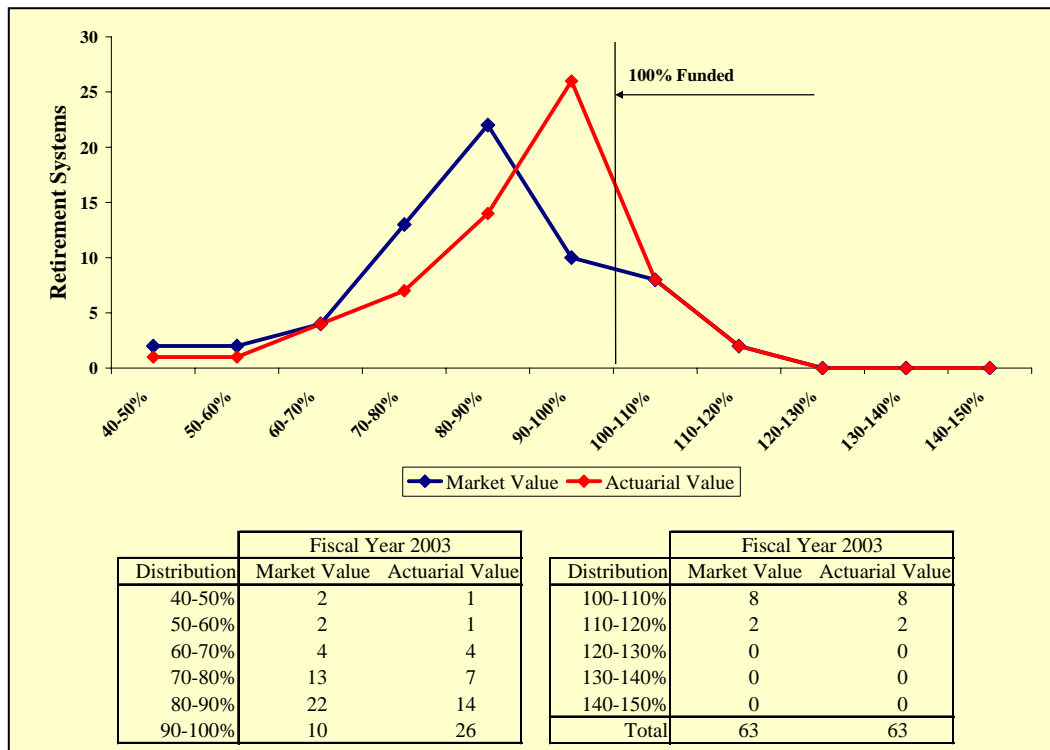
Exhibit 4 shows the same information as Exhibit 3, except uses actuarial value of assets to determine funding ratios. Similar to Exhibit 3, funding ratios generally fell between 2001 and 2002. However, actuarial value funding ratios continued to fall during the last year.

### Exhibit 4 Actuarial Value Funding Ratios by Fiscal Year



The graph in Exhibit 5 gives a more detailed picture of the fiscal condition for the 63 city and county retirement systems which provided actuarial values for 2003.

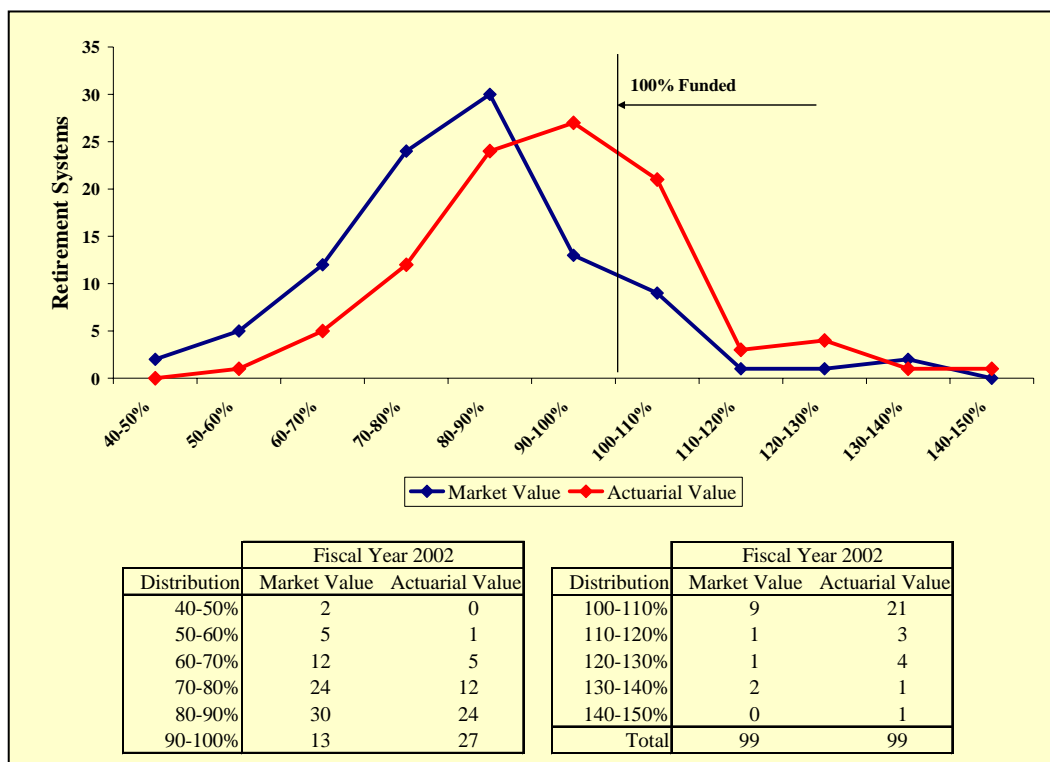
### Exhibit 5 Distribution of 63 City & County Pension Systems by FY03 Funding Ratio



While 53 of the 63 plans, or 84%, have market value of assets below liabilities, Exhibit 5 demonstrates the extent of the shortfall. Two plans have assets less than 50% of liabilities; eight plans have assets less than 70% of liabilities; and 21 plans have assets less than 80% of liabilities. Using actuarial value of assets to determine funding ratios, 53 of the 63 plans, or 84%, have assets below liabilities. One plan has assets less than 50% of liabilities; six plans have assets less than 70% of liabilities; and 13 plans have assets less than 80% of liabilities.

Similar to Exhibit 5, the graph in Exhibit 6 examines the fiscal condition of the 99 city and county retirement systems which provided actuarial values for 2002.

**Exhibit 6**  
**Distribution of 99 City & County Pension Systems by FY02 Funding Ratio**



Using market value of assets to determine funding ratios, 86 of the 99 plans, or 87%, have assets below liabilities. Two plans have assets less than 50% of liabilities; 19 plans have assets less than 70% of liabilities; and 43 plans have assets less than 80% of liabilities. Using actuarial value of assets to determine funding ratios, 69 of the 99 plans, or 70%, have assets below liabilities. No plans have assets less than 50% of liabilities; six plans have assets less than 70% of liabilities; and 18 plans have assets less than 80% of liabilities.

*Unfunded Actuarial Accrued Liability*

The financial health of retirement systems can also be measured by comparing the size of the unfunded actuarial accrued liability (UAAL) to different metrics. Since assets under Governmental Accounting Standards Board (GASB) Statement No. 25<sup>4</sup> are based on actuarial value, this section calculates the UAAL using actuarial value of assets.

Exhibit 7 shows the aggregate, average, and median size of the UAAL relative to the covered payroll over the last three years. Exhibit 7 also shows the 25<sup>th</sup> and 75<sup>th</sup> percentile for each year.

**Exhibit 7**  
**UAAL as a % of Covered Payroll by Fiscal Year**

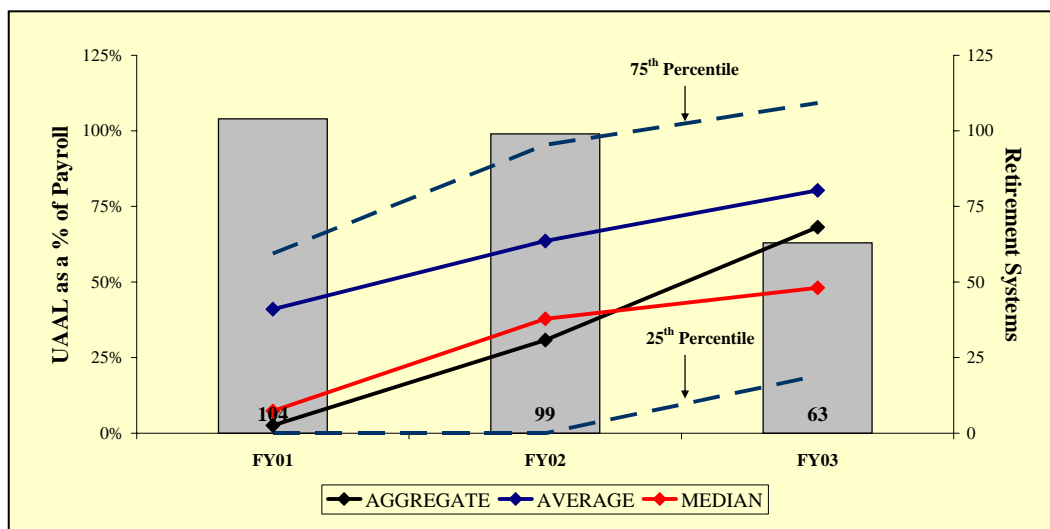


Exhibit 8 shows the aggregate, average, and median size of the UAAL relative to the actuarial value of assets over the last three years. Exhibit 8 also shows the 25<sup>th</sup> and 75<sup>th</sup> percentile for each year.

**Exhibit 8  
UAAL as a % of Actuarial Value of Assets by Fiscal Year**

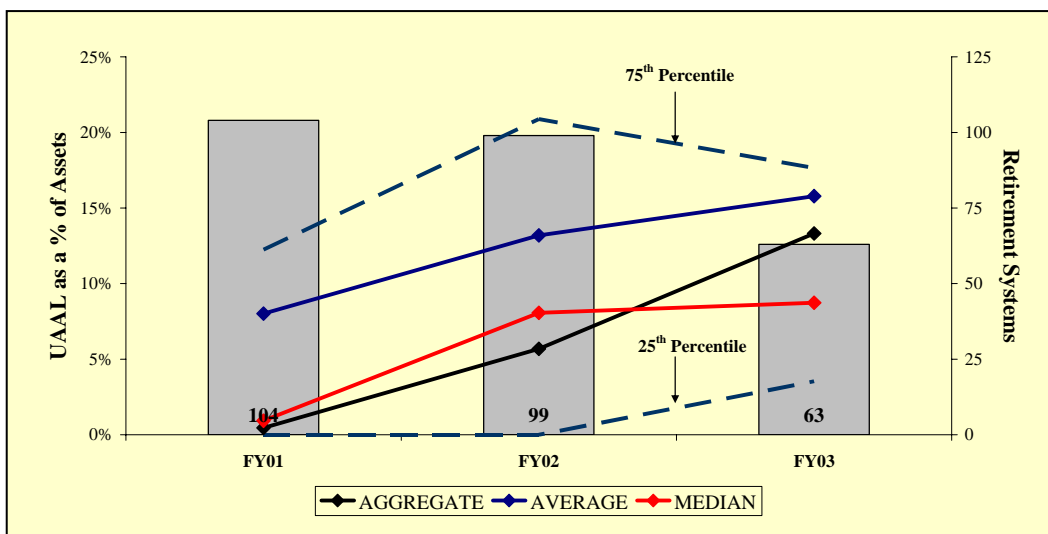
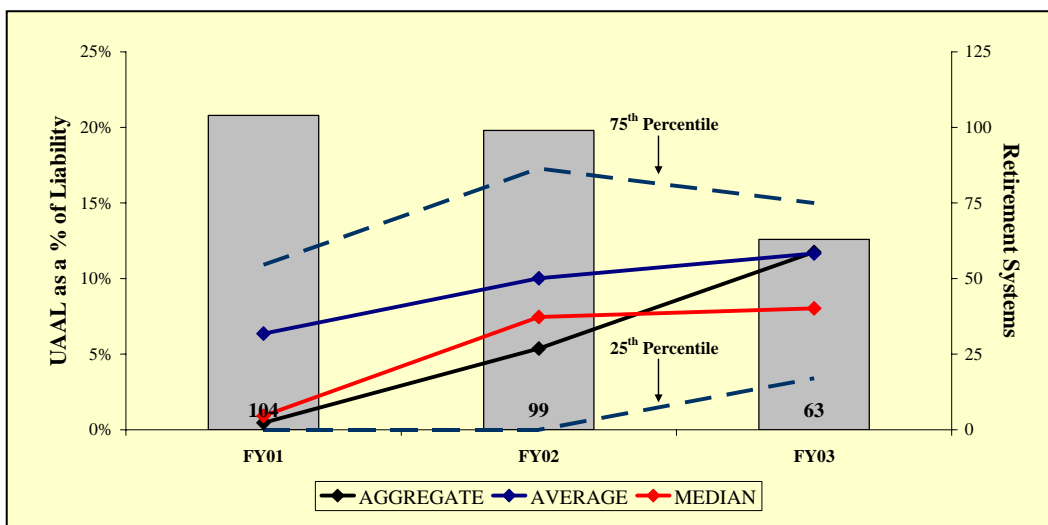


Exhibit 9 shows the aggregate, average, and median size of the UAAL relative to the actuarial accrued liability over the last three years. Exhibit 9 also shows the 25<sup>th</sup> and 75<sup>th</sup> percentile for each year.

**Exhibit 9  
UAAL as a % of Accrued Liability by Fiscal Year**



The UAAL has increased relative to all metrics over the last three years, which is indicative of deteriorating financial health for most city and county retirement systems. However, the actuarial value of assets is often calculated using a smoothing method in order to reduce the impact of market fluctuations when determining pension fund contributions. If the UAAL were calculated using market value of assets, the positive market return over the last year would have

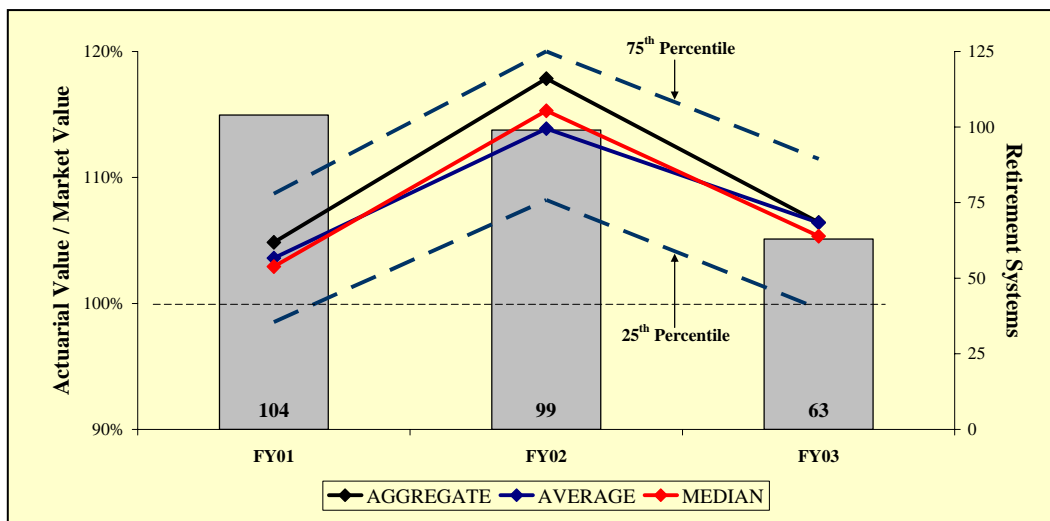
led to a decline in the UAAL relative to these metrics, indicating improved financial health for most city and county retirement systems.

*Market Value of Assets versus Actuarial Value of Assets*

As mentioned earlier, the actuarial value of assets is often calculated using a smoothing method in order to reduce the effects of market volatility when determining contribution rates. For example, a five-year smooth market value method would recognize 20% of the gain or loss<sup>5</sup> in the market value of assets over five years. Therefore, the poor market returns over the last few years are still being recognized when calculating the actuarial value of assets, despite the positive market return over the past year.

Exhibit 10 shows the aggregate, average, and median ratio of the actuarial value of assets (AVA) to the market value of assets (MVA) over the last three years. Exhibit 10 also shows the 25<sup>th</sup> and 75<sup>th</sup> percentile for each year. During 2002, market values fell dramatically relative to actuarial values since a fraction of the poor market return during the year was recognized when calculating the actuarial value of assets. During 2003, market values increased relative to actuarial values for the same reason, particularly since the actuarial value of assets were still recognizing the poor market returns from the past few years.

**Exhibit 10**  
**AVA as a Percentage of MVA by Fiscal Year**



### Section 3: Funding Ratios for Cities & Counties

#### *Funding Ratio Comparisons by Retirement System*

Appendices A, B, and C provide detailed asset and liability information by city and county retirement system. Appendix A contains an alphabetical listing of the 104 city and county retirement systems together with detailed information on assets, liabilities, actuarial assumptions, and reporting dates as provided in their annual reports. Appendix B contains a ranking by funding ratio of all retirement systems covered in the study.

Exhibit 11 reports the five best and five worst funded city- and county-sponsored retirement systems using two criteria: assets as a percent of liabilities, and the total dollar difference between assets and liabilities. Since some pension systems are late in reporting actuarial data, Exhibit 11 only includes the 63 retirement systems which provided actuarial data for fiscal year 2003 in order to make a more accurate and timely comparison of pension system funding levels.

**Exhibit 11**  
**Comparison of Market Value Funding Levels (\$ millions)**  
**City & County Pension Systems for Fiscal Year 2003**

<b>Best</b>		<b>Worst</b>	
	City of Baton Rouge PGT	116 %	Minneapolis Teachers' RFA 43 %
<b>Assets to Liabilities</b>	San Francisco City & County RS	112	Chicago Firemen's ABF 44
	Imperial County ERS	107	Chicago Policemen's ABF 56
	Sacramento City ERS	106	City of Boston RS 60
	Tulare County ERA	105	Jacksonville Police & Fire PP 61
	San Francisco City & County RS	\$1,117	Los Angeles County ERA (\$4,226)
<b>Assets minus Liabilities</b>	Texas County & District RS	58	Chicago Policemen's ABF (2,888)
	Tulare County ERA	31	Chicago Teachers PF (2,208)
	Alameda County ERA	30	City of Boston RS (2,184)
	Sacramento City ERS	23	Los Angeles City ERS (1,675)

*Note: ABF denotes annuity & benefit fund; ERA denotes employees' retirement association; ERS denotes employees' retirement system; PF denotes pension fund; PGT denotes police guarantee trust; PP denotes pension plan; RFA denotes retirement fund association; RS denotes retirement system.*

For the retirement systems which did not provide actuarial data for fiscal year 2003, and are therefore excluded from the comparison in Exhibit 11, the reader should refer to Appendix B when comparing the funded status for all city and county pension systems.

## Section 4: Asset Allocation

In this section we examine the investment strategies employed by city and county retirement systems.

Appendix C contains asset allocation information on the city and county retirement systems collected from the most recent annual reports. Included are allocations to the major asset classes. The average asset allocation across all 104 city and county retirement systems is shown below in Exhibit 12.

**Exhibit 12**  
**Average Asset Allocation for City & County Pension Plans**

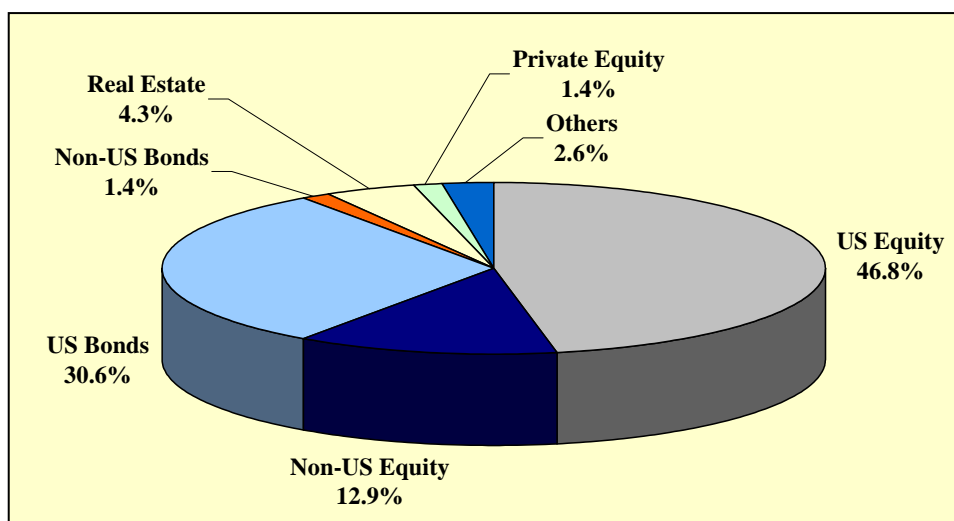


Exhibit 13 compares the average asset allocation for city & county pension plans over the last year. Allocations to domestic and international equities increased over the last year, while the allocation to domestic bonds fell dramatically, from 34.9% to 30.6% during this period of time.

**Exhibit 13**  
**Average Asset Allocation for City & County Pension Plans**

	<u>2003</u>	<u>2004</u>	<u>Change</u>
US Equity	45.9 %	46.8 %	0.9 %
Non-US Equity	12.0	12.9	0.9
US Bonds	34.9	30.6	-4.3
Non-US Bonds	1.7	1.4	-0.3
Real Estate	3.9	4.3	0.4
Private Equity	1.3	1.4	0.1
Other	0.3	2.6	2.3

Appendix C also provides Wilshire’s expected long-term return and risk for each system’s investment portfolio based upon their asset allocation. Portfolio expected return and risk is calculated using assumptions for the major asset classes together with each retirement system’s actual asset allocation, as reported in Appendix C. Exhibit 14 gives Wilshire’s long-term return and risk assumptions for each asset class. We view these assumptions as fairly mainstream among investment professionals.

**Exhibit 14**  
**Wilshire’s Asset Class Assumptions**

	<b>Expected</b>	
	<b><u>Return</u></b>	<b><u>Risk</u></b>
U.S. Equity	7.75 %	17.0 %
International Equity	7.75	20.0
Private Equity	10.75	30.0
Real Estate	7.50	16.0
U.S. Bonds	4.50	5.0
International Bonds	4.25	10.0

Exhibit 15 contains summary statistics on asset allocation for all city and county retirement systems. The median allocation is 46.2% to domestic equities and 14.6% to international equities. However, as the lowest and highest columns suggest, there is considerable variability in allocations among individual systems. The median city and county pension fund has an expected return, by Wilshire’s estimate, of 7.0%. This is 0.9 percentage points less than the current average actuarial interest rate of 7.9%.

**Exhibit 15**  
**Summary Asset Allocation Statistics for City & County Systems**

	<b><u>Lowest (%)</u></b>	<b><u>Median (%)</u></b>	<b><u>Highest (%)</u></b>
Domestic Equity	20.6 %	46.2 %	86.0 %
International Equity	0.0	14.6	24.8
Private Equity	0.0	0.0	16.7
Real Estate	0.0	4.4	17.5
Domestic Bonds	5.6	30.5	53.5
International Bonds	0.0	0.0	23.1
Other	0.0	1.0	18.9
<b>Expected Returns</b>	<b>6.3 %</b>	<b>7.0 %</b>	<b>8.3 %</b>

Exhibit 16 plots the expected return and risk for each of the 104 city and county retirement systems. Points in the upper right are more aggressive retirement systems while points in the lower left represent more conservative retirement systems. The horizontal line is positioned at a

return equal to 7.9%, the current average actuarial interest rate assumption used by city and county pension plans.

Using Wilshire’s return forecasts, none of the 104 city and county retirement systems are expected to earn long-term asset returns that equal or exceed their actuarial interest rate assumption.

**Exhibit 16**  
**Projected Return & Risk by City & County Pension System**

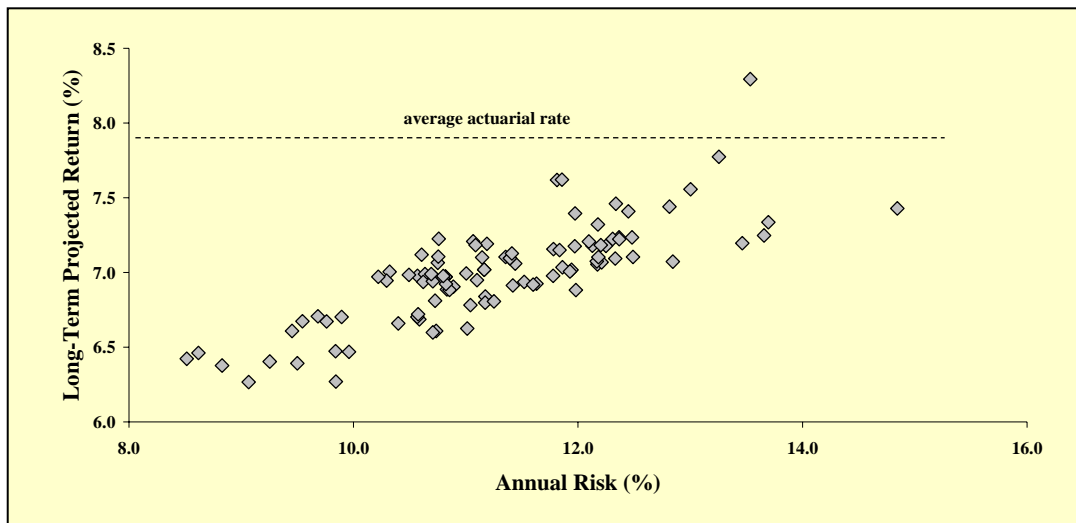


Exhibit 17 shows the five systems with highest expected return, high risk asset allocations followed by the five systems with lowest expected return, low risk asset allocations.

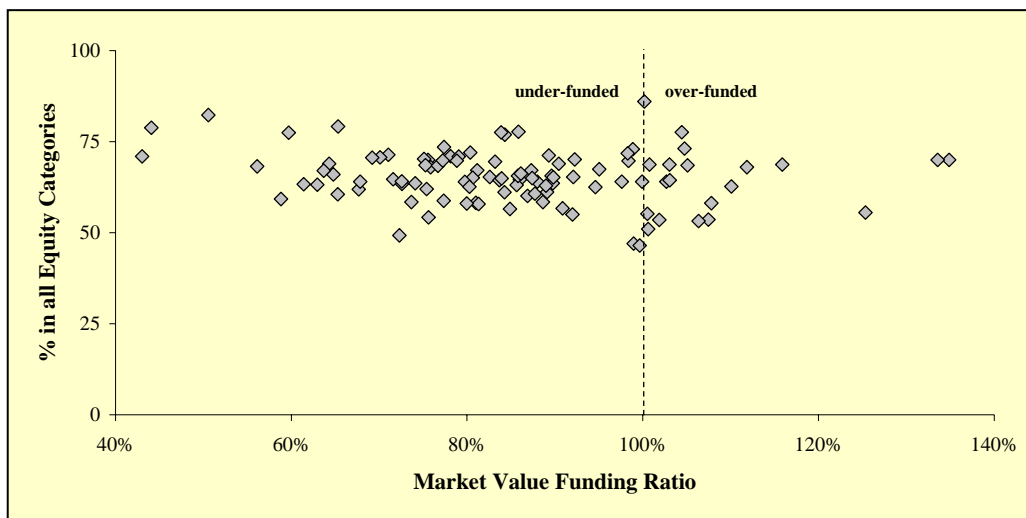
**Exhibit 17**  
**High and Low Expected Portfolio Returns for City & County Systems**

	<u>System</u>	<u>Equities*</u>	<u>Expected Return</u>
<b>High Return</b>	Houston Municipal EPS	82.3 %	8.29 %
	Seattle City ERS	77.7	7.77
	San Francisco City & County RS	68.0	7.62
	Houston Firefighters' R&RF	61.1	7.62
	Houston Police	70.3	7.56
<b>Low Return</b>	Oakland County Road Commission PERS	47.0	6.27
	City of Los Angeles Water & Power	55.0	6.27
	City of Oakland Police & Fire RS	46.5	6.38
	Oakland County PERS	51.0	6.39
	Kern County ERA	54.2	6.40

\* Sum of U.S., non-U.S., private equity, & real estate.

Exhibit 18 addresses the relationship between asset allocation and funding. The allocation to equity asset classes, a proxy for the investment aggressiveness, is plotted on the vertical scale. The market value funding ratio is shown on the horizontal scale. All city and county systems are plotted in the figure, but there is no relationship between asset allocation and funding.

**Exhibit 18**  
**Asset Allocation & Actuarial Funding**



The vertical line in Exhibit 18 separates overfunded plans from underfunded plans. Casual observation shows that overfunded plans have approximately the same asset allocation pattern as underfunded plans. Statistically, there is no correlation between the allocation to equity and plan funding ratio. In summary, city and county retirement systems have a broad spectrum of asset allocations that is unrelated to the size of their unfunded liabilities.

## Appendix A: Actuarial Summary (\$ millions)

Retirement System	Actuarial Valuation Date	Funding Method	Interest Rate	Market Value of Assets	Actuarial Liabilities	Actuarial Value of Assets	Active Liabilities as % of Total Liabilities
			(%) Assumption				
Alameda County ERA	12/31/2003	EAN	8.00	\$3,920	\$3,890	\$3,382	53%
Anne Arundel County ERP	1/1/2004	PUC	8.00	\$377	\$368	\$368	
Anne Arundel County PSRP	1/1/2004	PUC	8.00	\$325	\$326	\$311	
Anne Arundel County FSRP	1/1/2004	PUC	8.00	\$295	\$302	\$287	
Anne Arundel County DODSRP	1/1/2004	PUC	8.00	\$47	\$53	\$46	
Arlington County ERS	7/1/2002	EAN	8.00	\$999	\$969	\$1,168	52%
City of Austin ERS	12/31/2003	EAN	7.75	\$1,260	\$1,552	\$1,349	50%
Baltimore County ERS	6/30/2003	EAN	7.88	\$1,623	\$1,831	\$1,741	48%
Baltimore City ERS	6/30/2003	PUC	8.00	\$1,194	\$1,375	\$1,409	38%
Baltimore City Elected Officials RS	6/30/2003	PUC	7.50	\$12	\$14	\$13	39%
City of Baltimore Fire & Police	6/30/2003	PUC	8.25	\$1,770	\$2,287	\$2,205	40%
City of Baton Rouge & Parish ERS	12/31/2003	EAN	8.00	\$814	\$986	\$847	48%
City of Baton Rouge PGT	12/31/2003	AGG	8.00	\$26	\$22	\$26	86%
City of Birmingham R&RS	7/1/2003	EAN	7.50	\$811	\$796	\$786	48%
City of Boston RS	1/1/2004	EAN	8.00	\$3,237	\$5,421	\$3,385	
Chicago Municipal EA&BF	12/31/2002	EAN	8.00	\$5,128	\$7,577	\$6,404	
Chicago Firemen's ABF	12/31/2003	EAN	8.00	\$1,110	\$2,517	\$1,194	
Chicago Policemen's ABF	12/31/2003	EAN	8.00	\$3,693	\$6,581	\$4,040	
Chicago Teachers PF	6/30/2003	PUC	8.00	\$9,203	\$11,412	\$10,495	45%
City of Cincinnati RS	12/31/2003	EAN	8.75	\$1,556	\$1,637	\$1,556	
Contra Costa County ERA	12/31/2002	EAN	8.00	\$2,366	\$3,678	\$3,297	52%
Dallas ERF	12/31/2002	EAN	8.50	\$1,555	\$2,400	\$1,864	
Dallas Police & Fire	1/1/2004	EAN	8.50	\$2,183	\$2,889	\$2,286	
Denver ERP	1/1/2002	EAN	8.00	\$1,387	\$1,466	\$1,459	52%
Denver Public Schools RS	1/1/2004	EAN	8.75	\$2,404	\$2,794	\$2,532	34%
Detroit Fire & Police	6/30/2003	EAN	7.80	\$2,878	\$3,722	\$3,206	35%
Detroit General RS	6/30/2003	EAN	7.90	\$2,324	\$3,271	\$2,538	56%
Fairfax County ERS	7/1/2002	EAN	7.50	\$1,717	\$2,052	\$1,854	60%
Fairfax County Police	7/1/2002	EAN	7.50	\$573	\$657	\$628	42%
Fairfax County Uniformed RS	7/1/2002	EAN	7.50	\$618	\$721	\$687	60%
Fort Worth ERF	10/1/2002		8.50	\$1,031	\$1,519	\$1,237	
City of Fresno ERS	6/30/2002	PUC	8.25	\$715	\$530	\$749	39%
City of Fresno Fire & Police RS	6/30/2002	EAN	8.25	\$789	\$591	\$815	25%
Fresno County ERA	6/30/2002	EAN	8.00	\$1,566	\$1,932	\$1,675	49%
Fulton County ERS	12/31/2002	EAN	8.20	\$818	\$1,085	\$1,004	
Gainesville General EPP	9/30/2003	EAN	9.25	\$213	\$212	\$203	
Gainesville Police & Firefighters RP	10/1/2003	EAN	8.50	\$128	\$130	\$126	
Grand Rapids GRS	6/30/2003	IEA	7.50	\$269	\$298	\$271	
Grand Rapids Police & Fire RS	6/30/2003	IEA	7.00	\$272	\$277	\$270	
Houston Firefighters' R&RF	7/1/2002	EAN	8.50	\$1,660	\$1,970	\$1,922	
Houston Municipal EPS	7/1/2002	EAN	8.50	\$1,272	\$2,515	\$1,520	64%
Houston Police	7/1/2002	EAN	8.50	\$1,948	\$2,594	\$2,337	72%
Howard County Police & Fire ERP	7/1/2002	PUC	8.00	\$108	\$166	\$124	
Howard County RP	7/1/2002	PUC	8.00	\$100	\$114	\$112	
Imperial County ERS	6/30/2003	EAN		\$330	\$307	\$301	
Jacksonville General EPP	10/1/2003	EAN	8.40	\$1,437	\$1,612	\$1,446	
Jacksonville Police & Fire PP	10/1/2003	EAN	8.50	\$704	\$1,146	\$737	
Kansas City Police ERS	5/1/2003	EAN	7.75	\$503	\$683	\$611	36%
Kern County ERA	12/31/2002	EAN	8.00	\$1,436	\$1,899	\$1,570	49%
Knox County	1/1/2003	AGG	7.50	\$73	\$85	\$85	
Knox County Teachers	1/1/2003	AGG	8.00	\$64	\$71	\$71	
Los Angeles City ERS	6/30/2003	PUC	8.00	\$5,985	\$7,660	\$7,000	48%
Los Angeles City Fire & Police	6/30/2003	EAN	8.50	\$9,793	\$11,204	\$11,691	38%
City of Los Angeles Water & Power	6/30/2003	EAN	8.00	\$5,559	\$6,042	\$6,128	
Los Angeles County ERA	6/30/2003	EAN	8.00	\$26,248	\$30,474	\$26,564	45%
Los Angeles County MTA	12/31/2002	EAN	8.50	\$553	\$747	\$532	
Marin County ERA	6/30/2002	EAN	8.25	\$834	\$798	\$712	

### Appendix A: (cont.)

<u>Retirement System</u>	<u>Actuarial Valuation Date</u>	<u>Funding Method</u>	Interest Rate	<u>Market Value of Assets</u>	<u>Actuarial Liabilities</u>	<u>Actuarial Value of Assets</u>	<u>Active Liabilities as % of Total Liabilities</u>
			<u>(%) Assumption</u>				
City of Memphis RS	7/1/2003	FEA	7.50	\$1,692	\$1,994	\$1,862	54%
Milwaukee City ERS	1/1/2003	PUC	8.50	\$3,356	\$3,204	\$3,690	
Milwaukee County ERS	1/1/2003	AGG	9.00	\$1,283	\$1,542	\$1,447	
Minneapolis ERF	7/1/2003	EAN	6.00	\$1,195	\$1,646	\$1,519	17%
Minneapolis Teachers' RFA	7/1/2003	EAN	8.50	\$720	\$1,672	\$957	27%
Montgomery County ERS	6/30/2003	PUC	8.00	\$1,727	\$2,411	\$2,029	48%
Montgomery County Public Schools	7/1/2003	PUC	8.00	\$602	\$793	\$741	45%
New York City ERS	6/30/2002	FIL	8.00	\$32,842	\$43,620	\$43,561	
New York City Police PF	6/30/2002	FIL	8.00	\$14,505	\$18,914	\$18,914	
New York City Teachers RS	6/30/2002	FIL	8.00	\$27,026	\$34,181	\$34,178	
Norfolk ERS	6/30/2003	PUC	7.50	\$750	\$813	\$761	
City of Oakland Police & Fire RS	7/1/2002	AGG	8.00	\$673	\$675	\$675	
Oakland County PERS	9/30/2002	AGG	7.50	\$606	\$602	\$723	
Oakland County Road Commission PERS	12/31/2002	EAN	7.50	\$131	\$133	\$149	
Oklahoma City ERS	12/31/2002	EAN	8.00	\$339	\$373	\$375	66%
Orange County ERS	12/31/2003	PUC	7.50	\$4,960	\$6,099	\$4,790	53%
Orlando Firefighter PF	10/1/2003	EAN	8.00	\$179	\$195	\$189	39%
Orlando GEPF	10/1/2003	AGG	8.00	\$150	\$167	\$158	
Orlando Police PF	10/1/2003	EAN	8.00	\$256	\$285	\$249	54%
City of Philadelphia RS	7/1/2002	EAN	9.00	\$3,959	\$6,727	\$4,891	
Phoenix ERP	6/30/2003	EAN	8.00	\$1,263	\$1,504	\$1,331	56%
Prince George's County PTF	1/1/2002	EAN	8.00	\$743	\$1,138	\$922	
City of Richmond RS	6/30/2003	PUC	8.00	\$400	\$635	\$440	
Sacramento City ERS	6/30/2003	EAN	7.50	\$386	\$363	\$386	
Sacramento County ERS	6/30/2003	EAN	8.00	\$3,239	\$4,108	\$3,864	61%
San Antonio Police & Fire PF	10/1/2003	EAN	8.00	\$1,327	\$1,718	\$1,429	57%
San Bernardino County ERA	6/30/2003	EAN	8.16	\$3,171	\$4,368	\$3,816	58%
San Diego City ERS	6/30/2002	PUC	8.00	\$2,527	\$3,169	\$2,448	55%
San Diego County ERA	6/30/2003	EAN	8.25	\$4,103	\$5,853	\$4,418	
San Francisco City & County RS	6/30/2003	EAN	8.25	\$10,533	\$9,416	\$11,103	
San Joaquin County ERA	1/1/2002	EAN	8.25	\$1,366	\$1,267	\$1,357	57%
San Jose Federated City ERS	6/30/2001	EAN	8.25	\$1,105	\$1,072	\$1,060	51%
San Jose Police & Fire Dept RP	6/30/2001	EAN	8.00	\$1,643	\$1,493	\$1,714	53%
San Luis Obispo County PT	1/1/2003	EAN	7.75	\$402	\$556	\$430	
San Mateo County ERA	6/30/2003	EAN	8.00	\$1,233	\$1,782	\$1,354	
Santa Barbara County ERS	6/30/2003	EAN	8.00	\$1,169	\$1,455	\$1,347	66%
Santa Clara VTA ATU PP	1/1/2003	EAN	8.00	\$222	\$278	\$224	
Seattle City ERS	1/1/2004	EAN	7.75	\$1,528	\$1,779	\$1,528	57%
St. Louis County ERP	1/1/2003	PUC	8.00	\$337	\$401	\$312	
St. Louis Public School RS	1/1/2003	FEA	8.00	\$854	\$1,063	\$873	
St. Paul Teachers' RFA	7/1/2003	EAN	8.50	\$758	\$1,189	\$899	40%
Sonoma County ERA	12/31/2003	EAN	8.00	\$1,110	\$1,130	\$1,100	59%
Tacoma ERS	1/1/2003	EAN	7.75	\$611	\$687	\$740	57%
City of Tallahassee PP	9/30/2001	EAN	7.75	\$749	\$598	\$724	
Texas County & District RS	12/31/2003	EAN	8.00	\$10,872	\$10,814	\$9,789	72%
Tulare County ERA	6/30/2003	EAN	8.00	\$640	\$609	\$634	51%
Ventura County ERA	6/30/2003	EAN	8.00	\$1,967	\$2,202	\$2,057	56%
<b>FY03 Only</b>	6/30/2003		7.9	\$148,622	\$179,239	\$158,176	49%
<b>Totals</b>	6/30/2003		8.0	\$271,017	\$336,914	\$309,329	50%
	(Median)		(Avg.)	(Sum)	(Sum)	(Sum)	(Avg.)

## Appendix B: Funding Ratio Ranking by System

<u>County</u>	<u>Report Date</u>	<u>Ratio of Assets to Liabilities</u>	<u>Rank out of 104 Systems</u>	<u>Assets minus Liabilities (\$ millions)</u>	<u>Rank out of 104 Systems</u>
City of Fresno ERS	06/30/02	1.35	1	\$185	3
City of Fresno Fire & Police RS	06/30/02	1.34	2	\$198	2
City of Tallahassee PP	09/30/01	1.25	3	\$151	5
City of Baton Rouge PGT	12/31/03	1.16	4	\$4	19
San Francisco City & County RS	06/30/03	1.12	5	\$1,117	1
San Jose Police & Fire Dept RP	06/30/01	1.10	6	\$151	6
San Joaquin County ERA	12/31/01	1.08	7	\$99	7
Imperial County ERS	06/30/03	1.07	8	\$23	15
Sacramento City ERS	06/30/03	1.06	9	\$23	14
Tulare County ERA	06/30/03	1.05	10	\$31	11
Milwaukee City ERS	12/31/02	1.05	11	\$152	4
Marin County ERA	06/30/02	1.04	12	\$35	9
San Jose Federated City ERS	06/30/01	1.03	13	\$33	10
Arlington County ERS	06/30/02	1.03	14	\$29	13
Anne Arundel County ERP	12/31/03	1.03	15	\$10	17
City of Birmingham R&RS	06/30/03	1.02	16	\$15	16
Alameda County ERA	12/31/03	1.01	17	\$30	12
Oakland County PERS	09/30/02	1.01	18	\$4	18
Texas County & District RS	12/31/03	1.01	19	\$58	8
Gainesville General EPP	09/30/03	1.00	20	\$0	20
Anne Arundel County PSRP	12/31/03	1.00	21	\$0	21
City of Oakland Police & Fire RS	06/30/02	1.00	22	-\$2	25
Oakland County Road Commission PERS	12/31/02	0.99	23	-\$1	22
Gainesville Police & Firefighters RP	09/30/03	0.99	24	-\$1	23
Grand Rapids Police & Fire RS	06/30/03	0.98	25	-\$4	26
Sonoma County ERA	12/31/03	0.98	26	-\$19	34
Anne Arundel County FSRP	12/31/03	0.98	27	-\$7	28
City of Cincinnati RS	12/31/03	0.95	28	-\$81	44
Denver ERP	12/31/01	0.95	29	-\$79	43
Norfolk ERS	06/30/03	0.92	30	-\$63	40
Orlando Firefighter PF	09/30/03	0.92	31	-\$15	32
City of Los Angeles Water & Power	06/30/03	0.92	32	-\$483	75
Oklahoma City ERS	06/30/02	0.91	33	-\$34	37
Grand Rapids GRS	06/30/03	0.90	34	-\$28	35
Orlando Police PF	09/30/03	0.90	35	-\$29	36
Orlando GEPF	09/30/03	0.90	36	-\$17	33
Knox County Teachers	06/30/03	0.90	37	-\$7	29
Ventura County ERA	06/30/03	0.89	38	-\$235	57
Jacksonville General EPP	09/30/03	0.89	39	-\$175	49
Tacoma ERS	12/31/02	0.89	40	-\$76	42
Baltimore County ERS	06/30/03	0.89	41	-\$208	54
Anne Arundel County DODSRP	12/31/03	0.88	42	-\$6	27
Howard County RP	06/30/02	0.88	43	-\$14	31
Los Angeles City Fire & Police	06/30/03	0.87	44	-\$1,410	93
Fairfax County Police	06/30/02	0.87	45	-\$83	45
Baltimore City ERS	06/30/03	0.87	46	-\$180	51
Los Angeles County ERA	06/30/03	0.86	47	-\$4,226	101
Denver Public Schools RS	12/31/03	0.86	48	-\$390	68
Seattle City ERS	12/31/03	0.86	49	-\$251	59
Knox County	06/30/03	0.86	50	-\$12	30
Fairfax County Uniformed RS	06/30/02	0.86	51	-\$103	46
City of Memphis RS	06/30/03	0.85	52	-\$301	64
Baltimore City Elected Officials RS	06/30/03	0.84	53	-\$2	24
Houston Firefighters' R&RF	06/30/02	0.84	54	-\$310	65
Phoenix ERP	06/30/03	0.84	55	-\$242	58
St. Louis County ERP	12/31/03	0.84	56	-\$65	41
Fairfax County ERS	06/30/02	0.84	57	-\$335	66

### Appendix B: (cont.)

<u>County</u>	<u>Report Date</u>	<u>Ratio of Assets to Liabilities</u>	<u>Rank out of 104 Systems</u>	<u>Assets minus Liabilities (\$ millions)</u>	<u>Rank out of 104 Systems</u>
Milwaukee County ERS	12/31/02	0.83	58	-\$259	60
City of Baton Rouge & Parish ERS	12/31/03	0.83	59	-\$172	48
Orange County ERS	12/31/03	0.81	60	-\$1,140	88
City of Austin ERS	12/31/03	0.81	61	-\$292	63
Fresno County ERA	06/30/02	0.81	62	-\$367	67
Chicago Teachers PF	06/30/03	0.81	63	-\$2,208	97
Santa Barbara County ERS	06/30/03	0.80	64	-\$285	62
St. Louis Public School RS	12/31/02	0.80	65	-\$210	55
Santa Clara VTA ATU PP	06/30/03	0.80	66	-\$56	38
San Diego City ERS	06/30/02	0.80	67	-\$641	79
New York City Teachers RS	06/30/02	0.79	68	-\$7,155	103
Sacramento County ERS	06/30/03	0.79	69	-\$869	85
Los Angeles City ERS	06/30/03	0.78	70	-\$1,675	94
City of Baltimore Fire & Police	06/30/03	0.77	71	-\$517	77
Detroit Fire & Police	06/30/03	0.77	72	-\$843	83
San Antonio Police & Fire PF	09/30/03	0.77	73	-\$391	69
New York City Police PF	06/30/02	0.77	74	-\$4,409	102
Montgomery County Public Schools	06/30/03	0.76	75	-\$191	52
Kern County ERA	06/30/02	0.76	76	-\$463	74
Dallas Police & Fire	12/31/03	0.76	77	-\$706	82
Fulton County ERS	12/31/02	0.75	78	-\$267	61
New York City ERS	06/30/02	0.75	79	-\$10,778	104
Houston Police	06/30/02	0.75	80	-\$645	80
Los Angeles County MTA	06/30/02	0.74	81	-\$193	53
Kansas City Police ERS	04/30/03	0.74	82	-\$180	50
Minneapolis ERF	06/30/03	0.73	83	-\$451	73
San Bernardino County ERA	06/30/03	0.73	84	-\$1,198	89
San Luis Obispo County PT	12/31/02	0.72	85	-\$154	47
Montgomery County ERS	06/30/03	0.72	86	-\$685	81
Detroit General RS	06/30/03	0.71	87	-\$947	86
San Diego County ERA	06/30/03	0.70	88	-\$1,750	95
San Mateo County ERA	06/30/03	0.69	89	-\$548	78
Fort Worth ERF	09/30/02	0.68	90	-\$489	76
Chicago Municipal EA&BF	12/31/02	0.68	91	-\$2,449	98
Prince George's County PTF	06/30/02	0.65	92	-\$394	70
Howard County Police & Fire ERP	06/30/02	0.65	93	-\$58	39
Dallas ERF	12/31/02	0.65	94	-\$845	84
Contra Costa County ERA	12/31/02	0.64	95	-\$1,312	91
St. Paul Teachers' RFA	06/30/03	0.64	96	-\$432	71
City of Richmond RS	06/30/03	0.63	97	-\$235	56
Jacksonville Police & Fire PP	09/30/03	0.61	98	-\$442	72
City of Boston RS	12/31/03	0.60	99	-\$2,184	96
City of Philadelphia RS	06/30/02	0.59	100	-\$2,769	99
Chicago Policemen's ABF	12/31/03	0.56	101	-\$2,888	100
Houston Municipal EPS	06/30/02	0.51	102	-\$1,243	90
Chicago Firemen's ABF	12/31/03	0.44	103	-\$1,408	92
Minneapolis Teachers' RFA	06/30/03	0.43	104	-\$952	87
<b>Totals</b>	<b>06/30/03</b>	<b>0.85</b>			
	(Median)	(Avg.)			

### Appendix C: Asset Allocation (% of Total Assets)

<b>Retirement System</b>	<b>Report</b>	<b>Non-US</b>		<b>Non-US</b>		<b>Real</b>	<b>Private</b>	<b>Other</b>	<b>Expected</b>	
	<b>Date</b>	<b>US Equity</b>	<b>Equity</b>	<b>US Bonds</b>	<b>Bonds</b>	<b>Estate</b>	<b>Equity</b>		<b>Return</b>	<b>Risk</b>
Alameda County ERA	12/31/2003	38.7	23.6	22.9	3.4	6.4	0.0	5.0	7.06%	11.44%
Anne Arundel County ERP	12/31/2003	43.2	15.2	31.0	5.0	5.6	0.0	0.0	6.97%	10.82%
Anne Arundel County PSRP	12/31/2003	43.2	15.2	31.0	5.0	5.6	0.0	0.0	6.97%	10.82%
Anne Arundel County FSRP	12/31/2003	43.2	15.2	31.0	5.0	5.6	0.0	0.0	6.97%	10.82%
Anne Arundel County DODSRP	12/31/2003	43.2	15.2	31.0	5.0	5.6	0.0	0.0	6.97%	10.82%
Arlington County ERS	6/30/2003	48.2	14.8	29.1	0.9	3.9	1.8	1.3	7.16%	11.78%
City of Austin ERS	12/31/2003	50.3	16.8	32.9	0.0	0.0	0.0	0.0	7.02%	11.94%
Baltimore County ERS	6/30/2003	44.7	12.3	41.6	0.0	0.0	1.4	0.0	6.81%	10.73%
Baltimore City ERS	6/30/2003	43.6	13.5	39.9	0.0	1.0	2.0	0.0	6.90%	10.89%
Baltimore City Elected Officials RS	6/30/2003	76.9	0.0	23.0	0.0	0.0	0.0	0.1	7.20%	13.46%
City of Baltimore Fire & Police	6/30/2003	54.0	14.9	26.5	0.0	4.5	0.1	0.0	7.23%	12.37%
City of Baton Rouge & Parish ERS	12/31/2003	48.0	17.3	32.1	0.0	0.0	0.0	2.6	6.92%	11.63%
City of Baton Rouge PGT	12/31/2003	50.8	17.9	30.5	0.0	0.0	0.0	0.8	7.05%	12.17%
City of Birmingham R&RS	6/30/2003	53.5	0.0	43.2	0.0	0.0	0.0	3.3	6.47%	9.96%
City of Boston ERS	12/31/2003	52.9	15.4	14.6	4.5	6.4	2.8	3.4	7.44%	12.82%
Chicago Municipal EA&BF	12/31/2002	52.8	4.0	37.3	0.0	3.7	1.4	0.8	6.89%	10.83%
Chicago Firemen's ABF	12/31/2003	61.9	16.8	20.9	0.0	0.0	0.1	0.3	7.34%	13.70%
Chicago Policemen's ABF	12/31/2003	49.6	15.6	31.1	0.0	0.0	3.0	0.7	7.18%	12.25%
Chicago Teachers PF	6/30/2003	46.0	10.0	30.5	0.0	7.9	1.2	4.4	6.97%	10.72%
City of Cincinnati RS	12/31/2003	66.8	0.0	27.2	0.0	0.0	0.6	5.3	6.88%	11.98%
Contra Costa County ERA	12/31/2003	43.9	14.0	26.4	3.6	9.5	1.5	1.1	7.19%	11.19%
Dallas ERF	12/31/2002	47.0	19.0	33.0	0.0	0.0	0.0	1.0	6.98%	11.78%
Dallas Police & Fire	12/31/2002	32.0	22.8	5.6	23.1	15.2	0.0	1.3	7.21%	11.07%
Denver ERP	12/31/2002	38.8	12.1	35.4	0.0	9.3	2.3	2.1	7.00%	10.32%
Denver Public Schools RS	12/31/2003	34.0	16.9	30.8	0.0	10.0	3.7	4.6	7.12%	10.61%
Detroit Fire & Police	6/30/2003	37.8	10.9	29.9	0.0	8.1	2.0	11.3	6.71%	9.68%
Detroit General RS	6/30/2003	48.8	11.2	19.1	0.0	10.1	1.4	9.5	7.10%	11.35%
Fairfax County ERS	6/30/2003	43.6	10.1	29.8	3.2	10.7	0.0	2.6	6.95%	10.30%
Fairfax County Police	6/30/2003	46.1	10.2	32.8	0.0	10.8	0.0	0.1	7.06%	10.75%
Fairfax County Uniformed RS	6/30/2003	42.8	14.3	35.8	0.0	5.0	1.0	1.1	6.96%	10.80%
Fort Worth ERF	9/30/2002	39.0	17.0	29.0	6.0	8.0	0.0	1.0	6.98%	10.57%
City of Fresno ERS	6/30/2003	46.0	16.0	26.0	0.0	8.0	0.0	4.0	7.09%	11.39%
City of Fresno Fire & Police RS	6/30/2003	46.0	16.0	26.0	0.0	8.0	0.0	4.0	7.09%	11.39%
Fresno County ERA	6/30/2003	34.3	14.6	20.5	2.4	0.0	9.4	18.9	6.88%	10.86%
Fulton County ERS	12/31/2002	52.0	10.0	38.0	0.0	0.0	0.0	0.0	6.84%	11.18%
Gainesville General EPP	9/30/2003	86.0	0.0	14.0	0.0	0.0	0.0	0.0	7.43%	14.85%
Gainesville Police & Firefighters RP	9/30/2003	72.9	0.0	25.9	0.0	0.0	0.0	1.2	7.07%	12.85%
Grand Rapids GRS	6/30/2003	52.1	16.8	31.1	0.0	0.0	0.0	0.0	7.07%	12.21%
Grand Rapids Police & Fire RS	6/30/2003	52.4	17.3	30.3	0.0	0.0	0.0	0.0	7.09%	12.33%
Houston Firefighters' R&RF	6/30/2003	20.6	19.5	36.0	0.0	4.3	16.7	2.9	7.62%	11.81%
Houston Municipal EPS	6/30/2003	30.8	18.6	17.6	0.0	17.5	15.4	0.1	8.29%	13.53%
Houston Police	6/30/2003	42.0	19.0	29.7	0.0	0.0	9.3	0.1	7.56%	13.00%
Howard County Police & Fire ERP	6/30/2003	59.3	0.0	30.5	0.0	1.2	0.0	9.0	6.60%	10.71%
Howard County RP	6/30/2003	59.5	0.0	30.6	0.0	1.2	0.0	8.7	6.61%	10.74%
Imperial County ERS	6/30/2003	46.4	7.2	40.7	0.0	0.0	0.0	5.7	6.47%	9.84%
Jacksonville General EPP	9/30/2003	54.3	6.8	38.0	0.0	0.0	0.0	0.8	6.78%	11.04%
Jacksonville Police & Fire PP	9/30/2003	56.3	6.0	32.6	0.0	1.1	0.0	4.1	6.80%	11.17%
Kansas City Police ERS	4/30/2003	47.7	10.7	38.7	0.0	0.0	0.0	2.9	6.69%	10.59%
Kern County ERA	6/30/2003	31.9	17.0	27.7	0.0	4.3	1.0	18.1	6.40%	9.25%
Los Angeles City ERS	6/30/2003	44.5	18.2	26.8	0.0	4.5	3.8	2.2	7.32%	12.18%
Los Angeles City Fire & Police	6/30/2003	39.0	13.7	29.2	1.5	8.7	3.5	4.4	7.11%	10.76%
City of Los Angeles Water & Power	6/30/2003	55.0	0.0	27.0	0.0	0.0	0.0	18.0	6.27%	9.84%
Los Angeles County ERA	6/30/2003	30.9	19.1	28.1	0.4	11.6	4.7	5.2	7.23%	10.76%
Los Angeles County MTA	6/30/2002	47.4	16.2	36.4	0.0	0.0	0.0	0.0	6.91%	11.42%
Knox County	6/30/2004	41.0	19.6	34.0	0.0	5.0	0.0	0.4	7.02%	11.16%
Knox County Teachers	6/30/2004	41.0	19.6	34.0	0.0	5.0	0.0	0.4	7.02%	11.16%
Marin County ERA	6/30/2003	47.0	20.8	22.4	0.0	9.8	0.0	0.0	7.41%	12.45%

### Appendix C: (cont.)

Retirement System	Report	Non-US		Non-US		Real	Private	Other	Expected	
	Date	US Equity	Equity	US Bonds	Bonds	Estate	Equity		Return	Risk
City of Memphis RS	6/30/2003	36.7	14.9	40.2	0.0	4.9	0.0	3.3	6.67%	9.76%
Milwaukee City ERS	12/31/2003	52.3	16.3	26.9	0.0	4.5	0.0	0.0	7.22%	12.31%
Milwaukee County ERS	12/31/2003	65.2	0.0	30.5	0.0	4.3	0.0	0.0	7.04%	11.86%
Minneapolis ERF	6/30/2003	40.9	17.8	34.9	0.0	4.8	0.0	1.7	6.92%	10.82%
Minneapolis Teachers' RFA	6/30/2003	54.8	15.4	25.8	0.0	0.0	0.8	3.2	7.10%	12.49%
Montgomery County ERS	6/30/2003	49.3	14.9	34.6	0.0	0.4	0.1	0.7	6.94%	11.52%
Montgomery County Public Schools	6/30/2003	46.0	14.0	28.0	4.0	8.0	0.0	0.0	7.10%	11.15%
New York City ERS	6/30/2003	54.0	13.9	31.5	0.0	0.0	0.6	0.0	7.07%	12.17%
New York City Police PF	6/30/2003	49.6	17.9	30.5	1.0	0.0	0.9	0.1	7.10%	12.18%
New York City Teachers RS	6/30/2004	50.9	15.8	26.1	1.9	3.3	0.9	1.1	7.18%	12.13%
Norfolk ERS	6/30/2003	60.9	0.0	23.4	0.0	3.1	6.1	6.5	7.22%	12.37%
City of Oakland Police & Fire RS	6/30/2002	31.3	13.9	53.5	0.0	1.3	0.0	0.0	6.38%	8.83%
Oakland County PERS	9/30/2003	50.1	0.0	45.7	0.0	0.9	0.0	3.4	6.39%	9.50%
Oakland County Road Commission P	12/31/2002	47.0	0.0	50.1	0.0	0.0	0.0	2.9	6.27%	9.07%
Oklahoma City ERS	6/30/2003	48.7	8.0	42.8	0.0	0.0	0.0	0.5	6.66%	10.40%
Orange County ERS	12/31/2003	34.7	15.1	23.8	4.8	5.0	3.1	13.5	6.70%	9.89%
Orlando Firefighter PF	9/30/2003	47.6	8.4	34.4	0.0	9.3	0.0	0.3	6.99%	10.64%
Orlando GEPF	9/30/2003	45.1	11.6	36.0	0.0	6.9	0.0	0.4	6.94%	10.62%
Orlando Police PF	9/30/2003	48.8	8.9	34.4	0.0	7.5	0.0	0.4	6.98%	10.80%
City of Philadelphia RS	6/30/2002	37.4	17.4	40.3	0.0	0.2	4.3	0.5	6.99%	11.01%
Phoenix ERP	6/30/2003	55.7	9.2	35.1	0.0	0.0	0.0	0.0	6.92%	11.60%
Prince George's County PTF	6/30/2003	66.6	12.6	16.2	0.0	0.0	0.0	4.7	7.25%	13.66%
City of Richmond RS	6/30/2003	43.9	19.3	25.0	5.0	0.0	0.0	6.8	6.81%	11.25%
Sacramento City ERS	6/30/2003	41.0	0.0	40.3	0.0	12.1	0.0	6.5	6.46%	8.62%
Sacramento County ERS	6/30/2003	38.7	19.4	28.7	1.0	11.6	0.0	0.6	7.18%	11.09%
San Antonio Police & Fire PF	9/30/2003	45.6	12.9	29.9	0.0	3.9	7.4	0.3	7.46%	12.34%
San Bernardino County ERA	6/30/2004	40.0	17.6	27.6	5.4	6.5	0.0	2.9	6.94%	10.71%
San Diego City ERS	6/30/2003	40.8	14.5	31.2	4.7	8.7	0.0	0.1	6.98%	10.49%
San Diego County ERA	6/30/2003	34.4	24.8	14.2	14.5	7.7	3.8	0.6	7.39%	11.97%
San Francisco City & County RS	6/30/2003	34.0	13.0	22.0	7.0	9.0	12.0	3.0	7.62%	11.86%
San Joaquin County ERA	12/31/2001	40.1	18.0	38.6	0.0	0.0	0.0	3.3	6.70%	10.57%
San Jose Federated City ERS	6/30/2003	43.6	13.6	27.7	7.8	7.2	0.0	0.1	6.99%	10.69%
San Jose Police & Fire Dept RP	6/30/2003	32.7	19.7	29.9	7.1	10.3	0.0	0.3	6.97%	10.22%
San Luis Obispo County PT	12/31/2002	40.2	0.0	50.4	0.0	9.1	0.0	0.3	6.42%	8.51%
San Mateo County ERA	6/30/2003	50.7	14.6	29.2	0.0	5.3	0.0	0.2	7.15%	11.84%
Santa Barbara County ERS	6/30/2003	49.0	19.0	27.0	0.0	4.0	0.0	1.0	7.18%	12.20%
Santa Clara VTA ATU PP	6/30/2003	44.0	14.0	41.0	0.0	0.0	0.0	1.0	6.72%	10.58%
Seattle City ERS	12/31/2003	49.5	11.5	21.5	0.0	7.5	9.2	0.8	7.77%	13.26%
St. Louis County ERP	12/31/2003	68.6	0.0	18.6	0.0	8.9	0.0	3.8	7.23%	12.48%
St. Louis Public School RS	12/31/2003	47.3	11.8	23.3	11.5	1.5	2.0	2.6	6.95%	11.10%
St. Paul Teachers' RFA	6/30/2003	48.1	18.8	31.4	0.0	0.0	0.2	1.6	7.01%	11.93%
Sonoma County ERA	12/31/2003	46.6	20.3	26.9	1.2	4.9	0.0	0.1	7.21%	12.10%
Tacoma ERS	12/31/2003	48.3	14.6	20.9	0.6	0.0	0.0	15.6	6.63%	11.01%
City of Tallahassee PP	9/30/2003	40.3	9.0	40.4	0.0	6.3	0.0	4.1	6.61%	9.45%
Texas County & District RS	12/31/2003	36.2	13.3	44.2	0.0	5.7	0.0	0.6	6.67%	9.55%
Tulare County ERA	6/30/2003	41.8	20.0	29.9	1.6	6.7	0.0	0.0	7.13%	11.41%
Ventura County ERA	6/30/2003	49.7	16.5	28.8	0.0	5.0	0.0	0.0	7.18%	11.97%
<b>Average</b>		46.8	12.9	30.6	1.4	4.3	1.4	2.6	7.00%	11.26%
<b>High</b>		86.0	24.8	53.5	23.1	17.5	16.7	18.9	8.29%	14.85%
<b>Low</b>		20.6	0.0	5.6	0.0	0.0	0.0	0.0	6.27%	8.51%
<b>Median</b>		46.2	14.6	30.5	0.0	4.4	0.0	1.0	6.99%	11.16%

<sup>1</sup> Based on Wilshire's "2004 Corporate Funding Survey on Pensions," May 11, 2004.

<sup>2</sup> Based on "2004 Wilshire Report on State Retirement Systems: Funding Levels and Asset Allocation," March 12, 2004.

<sup>3</sup> As disclosed in annual reports (most annual reports use a June 30 or December 31 fiscal year). Liabilities are the reported actuarial accrued liabilities and assets are the current market and actuarial values as of the same valuation date as liabilities.

<sup>4</sup> GASB No. 25, Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans.

<sup>5</sup> A gain (loss) occurs when the actual rate of return is greater than (less than) the assumed rate of return.