# STATE OF WYOMING
# RETIREMENT SYSTEM

## REPORT ON ACTUARIAL VALUATION
## AS OF JANUARY 1, 2005

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## I. INTRODUCTION

This report summarizes the results of our actuarial valuation of the State of Wyoming Retirement System (the Retirement System) as of January 1, 2005. The contribution requirements presented in Section VI of the report are based on the following:

1. The benefit provisions of the Retirement System as of January 1, 2005.

2. The characteristics of covered active employees, inactive nonretired participants, and pensioners and beneficiaries as of December 31, 2004.

3. The assets of the Retirement System as of December 31, 2004.

4. Economic actuarial assumptions regarding future salary increases and investment earnings.

5. Other actuarial assumptions regarding employee termination, retirement, disability, death, etc.

One purpose of the actuarial valuation is to determine the contribution sufficient to meet the long-term obligations to the participants covered by the Retirement System in accordance with the benefit provisions of the Wyoming Retirement Act.

If each of the actuarial assumptions were to be exactly fulfilled, the true actuarial cost of the Retirement System would equal the cost projected by the actuarial calculations. However, because of the length of time for which projections are made, and because of the great number of variables which can affect the emerging costs, the actual experience of the Retirement System will not match the assumptions. The costs, expressed as a percentage of payroll, will increase if the Retirement System experiences net actuarial losses and will decrease if the Retirement System experiences net actuarial gains.

## II. SUMMARY OF VALUATION RESULTS

This section summarizes financial results for the Retirement System Plan based upon actuarial valuations as of January 1, 2005 and January 1, 2004.

Results of the 2005 actuarial valuation are presented with and without an automatic Cost-of-Living Adjustment (COLA). One set of results assumes no future COLAs will be given, while the second set is calculated assuming the maximum COLA assumption of 3.0% annually is granted.

| | January 1, 2005 3.0% COLA | January 1, 2005 0.0% COLA | January 1, 2004 3.0% COLA |
|---|---|---|---|
| **Contribution Requirements (as % of pay)** | | | |
| Total Normal Cost | 11.07% | 9.23% | 11.24% |
| Employee Contributions | 5.57% | 5.57% | 5.57% |
| Employer Share | 5.50% | 3.66% | 5.67% |
| Amortization of Unfunded Liability | 4.35% | (1.60%) | 2.95% |
| Administrative Expenses | 0.15% | 0.15% | 0.14% |
| Total Employer Cost | 10.00% | 2.21% | 8.76% |
| Total Cost (Employee + Employer) | 15.57% | 7.78% | 14.33% |
| **Funded Status** | | | |
| Actuarial Value of Assets (AV) | $ 4,704,299,000 | $ 4,704,299,000 | $ 4,657,898,000 |
| Actuarial Accrued Liability (AAL) | 5,536,192,000 | 4,397,301,000 | 5,077,443,000 |
| AAL Funded Percentage on AV Basis (AV ÷ AAL) | 85.0% | 107.0% | 91.7% |
| Market Value of Assets (MV) | 4,693,824,000 | 4,693,824,000 | 4,299,955,000 |
| AAL Funded Percentage on MV Basis (MV ÷ AAL) | 84.8% | 106.7% | 84.7% |

## III. MEMBERSHIP CHARACTERISTICS

As of December 31, 2004, there were 32,134 employees in active service covered under the provisions of the Retirement System. The significant age, service, valuation salary and accumulated contribution information for the active employees are summarized below along with comparative figures from the previous year.

| | 2004 | 2003 |
|---|---|---|
| Number of active employees | 32,134 | 31,494 |
| Average age | 46.1 | 45.9 |
| Average years of service | 10.5 | 10.5 |
| Total annual valuation salary* | $1,086,736,244 | $1,032,259,432 |
| Average annual salary | $ 33,819 | $ 32,776 |
| Total accumulated contributions | $ 840,104,831 | $ 795,274,433 |
| Average accumulated contributions | $ 26,144 | $ 25,252 |

*Includes assumed salary increase for one-half year during the valuation years, respectively.

During 2004, the average age increased slightly, average service remained the same, and the number of active employees increased by about 2%.

* * * * *

In addition to the data received on active employees, data were provided on 4,847 vested inactive nonretired members who did not elect to receive their accumulated contributions when they left covered employment. The significant age, service (on date of termination) and accumulated contribution information for these inactive members are summarized below with comparative figures from the previous year.

| | 2004 | 2003 |
|---|---|---|
| Number of inactive employees | 4,847 | 4,745 |
| Average age | 50.8 | 50.5 |
| Average years of service | 9.2 | 9.3 |
| Total accumulated contributions | $ 118,525,918 | $ 112,313,934 |
| Average accumulated contributions | $ 24,453 | $ 23,670 |

The average age increased from last year while average service decreased slightly. The number of inactive members increased by 2.1% since last year. The total accumulated contributions for these members increased by 5.5% since last year.

* * * * *

Detailed summaries of the census data for active and inactive participants are shown in the tables contained in the Appendix to this report. The first page of the Appendix contains the index of the tables contained therein.

For these tables, the salaries shown for active employees are the actual 2004 salaries reported. For calculating active employee liabilities, the actual 2004 salaries reported were increased by 2.50% (one half of the 5.0% salary scale) to approximate a pay rate, as of January 1, 2005.

## IV. BENEFIT EXPERIENCE

During the year ended December 31, 2004, the Board approved 893 pension awards. Of that total, approximately 24% commenced before becoming eligible for unreduced benefits. 32% of new retirees have unreduced benefits due solely to reaching age 60 while 18% of new retirees have attained the rule of 85 without reaching age 60. The remaining 26% of new retirees have both age 60 and rule of 85.

On December 31, 2004, a total of 14,413 pensioners were receiving retirement benefits from the Plan. The average monthly benefit for the pensioners was $1,062 compared to $1,012 as of the end of 2003. In addition, 1,538 beneficiaries were receiving monthly payments at December 31, 2004.

Detailed summaries of the census data for pensioners and beneficiaries are shown in the tables contained in the Appendix to this report. The information presented may be summarized as follows:

- Total annual benefits in force as of December 31, 2004 for the 15,951 pensioners and beneficiaries were $199.7 million.
- Of the 15,951 pensioners and beneficiaries, approximately 30% are under age 65, 38% are 65 through 74 and 32% are 75 or older.
- Approximately 44% of the 14,413 pensioners are receiving benefits in either a 50% or 100% joint and survivor annuity, including those with a pop-up feature (options 2, 3, 6 or 7).
- Approximately 40% of the 15,951 pensioners and beneficiaries were receiving monthly benefits of less than $600 and 39% were receiving at least $1,000 per month.
- For members retiring from active service during 2004, the average age of early and normal retirements was 60.4.
- Benefit payments from Plan assets in 2004 totaled $201,772,174, including refund payments of $9,139,323. In 2003, benefit payments were $185,826,481, including refund payments of $9,460,758.

The actuarial accrued liability for pension benefits to the 15,951 pensioners and beneficiaries amounted to over $2,345 million as of January 1, 2005. This liability is the actuarially estimated amount necessary to pay benefits to the pensioners and beneficiaries assuming that the assets would earn 8.0% interest per year until they are expended in benefit payments. This amount includes the 3.0% annual cost-of-living increases.

## V. ASSETS

As shown in the auditor's report as of December 31, 2004, net assets totaled $4,693,824,018 at market value, compared to a value of $4,299,955,244 as of December 31, 2003. However, assets are taken at a somewhat different value for the actuarial valuation. Effective January 1, 2001, we are using a method that adjusts to market value gradually as follows:

> Appreciation and depreciation in excess of the expected appreciation, whether realized or unrealized, is spread over five years beginning with the year of occurrence. Interest, dividends, and other income are recognized immediately. The procedure results in recognition of all changes in market value after five years.

The procedure is applied to all investments. The determination of the actuarial value of investments is shown in Table A that follows. There was approximately $10 million of deferred depreciation that will be recognized in future years. A statement of the actuarial assets for the years ended December 31, 2004 and 2003 is provided in Table B. The asset value on this basis is $4,704,299,324 and $4,657,897,625, respectively.

The amount of write-up or write-down (which reflects changing market values) is considered part of the investment income for the year. This procedure treats realized and unrealized capital gains or losses equally. In other words, the sale of a security -- either at a gain or loss -- has no effect on the value of assets for actuarial purposes. If the market value has gone up, the increase is gradually reflected in the value of the fund's assets; it does not have to be sold for the appreciation to be *realized.* This *automatic* reflection of market value appreciation or depreciation should eliminate any need for making investment decisions for the explicit purpose of meeting the investment return assumption.

Chart 1 is a graph showing the historical asset values on both actuarial and market value bases. This graph illustrates that the growth of the market value of assets has also been reflected in the actuarial value of assets.

The investment portfolio is summarized in Table C. On December 31, 2004, 63% of the assets at market value consisted of equities.

Income and disbursements for 2004 and 2003 on the actuarial value basis are given in Table D. The progress of the fund for the last nineteen years is provided in Table E. It shows that assets have increased consistently from year to year, although the amount of the increase has varied with fluctuations in investment income. Benefit payments have consistently increased, confirming the growth in assets needed to finance lifetime benefits for current pensioners and those participants who will retire in the future.

Table F shows the components of investment earnings over the last nineteen years. Over the full period, the earnings of $4,344,743,000 on an actuarial value basis represents an average annual return of 10.1%.

These investment results are used to determine whether investment experience is meeting the Retirement System's actuarially assumed return. They do not, however, necessarily indicate the relative success of the Retirement System's investment program. Rather than on the smoothed actuarial value of assets, comparisons of performance (with other funds, investment institutions and market indices) are generally based on rates of return that reflect market changes in full.

## Market Value Results

The estimated investment returns for the last sixteen years on a *market value basis* as reported by your investment advisors are as follows:

| Year | Rate of Return | Year | Rate of Return |
|---|---|---|---|
| 1989 | 18.00% | 1997 | 20.92% |
| 1990 | 5.30% | 1998 | 19.02% |
| 1991 | 20.30% | 1999 | 13.88% |
| 1992 | 8.57% | 2000 | (0.99)% |
| 1993 | 10.24% | 2001 | (4.47)% |
| 1994 | (2.78)% | 2002 | (9.29)% |
| 1995 | 25.90% | 2003 | 21.00% |
| 1996 | 11.73% | 2004 | 11.54% |

These values can be used to illustrate the smoothing effect that results from using an actuarial value of assets. Chart 2 illustrates that the volatility of market values is reduced by using an actuarial value of assets. By using an actuarial value that reduces the year-to-year fluctuations in investment return, the volatility in cost from year-to-year is reduced.

The difference between the investment return rates at market value, when compared to similar return rates on the actuarial valuation basis, stems from the inclusion in the market value figures of all capital appreciation or depreciation whereas the results based on the actuarial valuation basis reflect only the write-up/down in accordance with the adopted valuation procedure.

The rates of return, based on full market value changes as presented herein, should not be taken as a truly adequate measure of the Retirement System's investment performance. There are many reasons for differences among portfolios in return rates based on market value and among managers during a given time period. While a manager's investment choices are an important factor, consideration must also be given to the effects of established policy guidelines and any special characteristics of the Plan that influence investment decisions. Those other factors, commonly dealt with in an investment performance study, are beyond the scope of this report.

## DETERMINATION OF WRITE-UP (DOWN) AMOUNT AND ACTUARIAL VALUE OF INVESTMENTS AS OF DECEMBER 31, 2004 AND 2003

| | | | | PORTION OF TOTAL APPRECIATION/(DEPRECIATION) | | | |
|---|---|---|---|---|---|---|---|
| | | | | December 31, 2004 | | December 31, 2003 | |
| Year Ending | Total Appreciation (Depreciation) | Expected Appreciation | Difference From Expected | % Deferred | $ Deferred | % Deferred | $ Deferred |
| 12/31/00 | (174,445,845) | 230,318,773 | (404,764,618) | 0% | 0 | 20% | (80,952,924) |
| 12/31/01 | (319,713,854) | 223,300,711 | (543,014,565) | 20% | (108,602,913) | 40% | (217,205,826) |
| 12/31/02 | (494,704,675) | 212,650,620 | (707,355,295) | 40% | (282,942,118) | 60% | (424,413,177) |
| 12/31/03 | 634,778,699 | 178,991,767 | 455,786,932 | 60% | 273,472,159 | 80% | 364,629,546 |
| 12/31/04 | 377,711,695 | 243,214,738 | 134,496,957 | 80% | 107,597,566 | - | - |

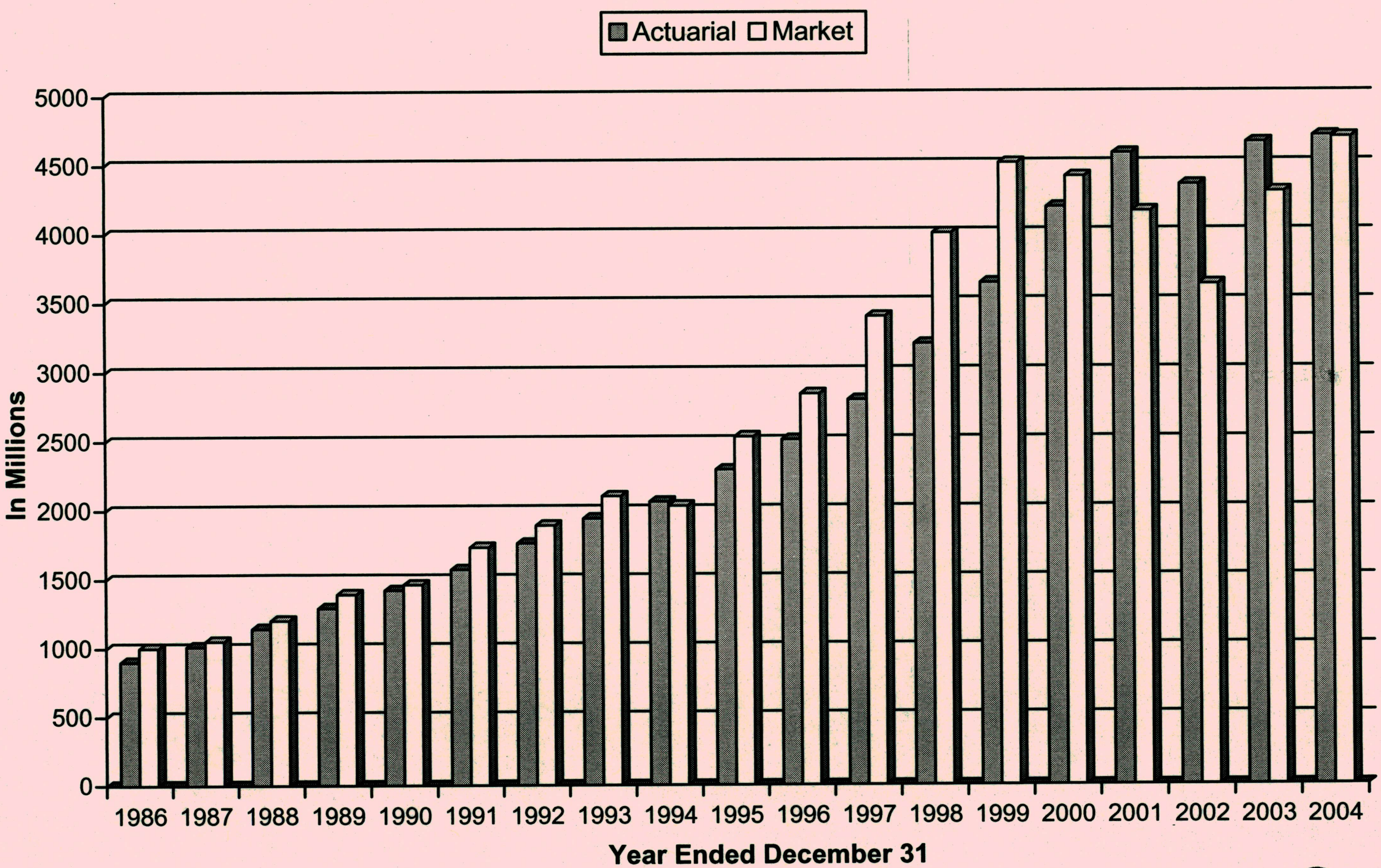
| | December 31, 2004 | December 31, 2003 |
|---|---|---|
| (a) Total Deferred as of Valuation Date | $ (10,475,306) | $ (357,942,381) |
| (b) Total Appreciation (Depreciation) for Last Five Plan Years | (1,064,850,589) | (798,338,870) |
| (c) Write-Up/(Down) Amount for the Year--Equals 20% of (b) Plus Rounding Adjustment | (212,970,118) | (159,667,774) |
| | **January 1, 2005** | **January 1, 2004** |
| Market Value of Investments | $ 4,831,045,164 | $ 4,427,411,397 |
| Less: Deferred Appreciation (Depreciation) | (10,475,306) | (357,942,381) |
| Preliminary Actuarial Value of Investments | $ 4,841,520,470 | $ 4,785,353,778 |
| Adjustment for 20% Corridor | 0 | 0 |
| Actuarial Value of Investments* | $ 4,841,520,470 | $ 4,785,353,778 |

* See Table B for actuarial value of assets.

## ASSETS OF THE FUND AS OF DECEMBER 31, 2004 AND 2003
## (ACTUARIAL VALUE BASIS)

| | December 31, 2004 | December 31, 2003 |
|---|---|---|
| **Net Accounts Receivable/(Payable)** | $ (137,221,146) | $ (127,456,153) |
| **Preliminary Actuarial Value of Investments** | $ 4,841,520,470 | $ 4,785,353,778 |
| **Net Assets** | $ 4,704,299,324 | $ 4,657,897,625 |
| **Market Value of Assets** | $ 4,693,824,018 | $ 4,299,955,244 |
| **80% Minimum Actuarial Value** | $ 3,755,059,215 | $ 3,439,964,196 |
| **120% Maximum Actuarial Value** | $ 5,632,588,821 | $ 5,159,946,292 |
| **Adjustment for 20% Corridor** | $ 0 | $ 0 |
| **Actuarial Value of Assets** | $ 4,704,299,324 | $ 4,657,897,625 |

## Value of Assets

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## INVESTMENT PORTFOLIO

| Type of Investment | December 31, 2004 Market Value Amount | Percentage Distribution | December 31, 2003 Market Value Amount | Percentage Distribution |
|---|---|---|---|---|
| Cash Investments | $ 265,746,282 | 5.5% | $ 259,290,402 | 5.9% |
| Fixed Income Investments | $ 1,400,760,120 | 29.0% | $ 1,387,556,802 | 31.3% |
| Equity Investments | $ 3,050,981,015 | 63.2% | $ 2,780,564,193 | 62.8% |
| Real Estate Investments | $ 113,557,747 | 2.3% | $ 0 | 0.0% |
| Total Investments* | $ 4,831,045,164 | 100.0% | $ 4,427,411,397 | 100.0% |

* Total market value of assets (after adjusting for accruals) is $4,693,824,018 and $4,299,955,244 as of December 31, 2004 and 2003.

## SUMMARY STATEMENT OF INCOME AND DISBURSEMENTS FOR THE YEARS ENDED DECEMBER 31, 2004 AND 2003 (ACTUARIAL VALUE BASIS)

| | 2004 | | 2003 | |
|---|---|---|---|---|
| **Contribution Income:** | | | | |
| Employer Contributions | $ 60,264,416 | | $ 55,056,552 | |
| Employee Contributions | 61,412,824 | | 60,848,296 | |
| Other | 309,254 | | 307,236 | |
| Total Contribution Income | $ 121,986,494 | | $ 116,212,084 | |
| Less: Administrative Expenses | (1,644,382) | | (1,435,922) | |
| Net Contribution Income | | $ 120,342,112 | | $ 114,776,162 |
| **Investment Income:** | | | | |
| Interest and Dividends | $ 106,368,374 | | $ 117,141,004 | |
| Less: Investment Expenses | (9,681,500) | | (8,813,197) | |
| Net Interest and Dividends | $ 96,686,874 | | $ 108,327,807 | |
| Gross Write-Up of Assets | (212,970,118) | | (159,667,774) | |
| Expected Appreciation | 243,214,738 | | 178,991,767 | |
| Prior Year Adjustment No Longer Included | 0 | | 247,993,120 | |
| Net Adjustment for 20% Corridor Around Market Value | 0 | | 0 | |
| Net Investment Income | | 126,931,494 | | 375,644,920 |
| Net Income from Securities Lending | | 900,267 | | 879,222 |
| Total Income Available for Benefit Payments and Reserves | | $ 248,173,873 | | $ 491,300,304 |
| **Benefit Payments:** | | | | |
| Pension Benefits | $(192,632,851) | | $(176,365,723) | |
| Refunds | (9,139,323) | | (9,460,758) | |
| Total Benefit Payments | | (201,772,174) | | (185,826,481) |
| Addition to Reserve for Future Benefit Payments | | $ 46,401,699 | | $ 305,473,823 |
| Actuarial Value of Assets, Beginning of Year | | 4,657,897,625 | | 4,352,423,802 |
| Actuarial Value of Assets, End of Year | | $ 4,704,299,324 | | $4,657,897,625 |

## TABLE E

### PROGRESS OF THE FUND THROUGH DECEMBER 31, 2004
### (ACTUARIAL VALUE BASIS)

| Plan Year | Employer Contributions* | Employee Contributions | Administrative Expenses | Net Investment Income** | Benefit Payments | Transfers Out | Fund at Year End |
|---|---|---|---|---|---|---|---|
| 19 Years Through December 31, 2004 | $ 867,539,464 | $ 867,651,918 | $ (18,988,605) | $ 4,344,744,107 | $ (2,015,882,838) | $(106,998,719) | $ 4,704,299,324 |
| As of | | | | | | | |
| 12/31/1985 | -- | -- | -- | -- | -- | | 766,233,997*** |
| 12/31/1986 | 41,364,465 | 36,365,804 | (782,000) | 98,998,090 | (42,082,765) | | 900,097,591 |
| 12/31/1987 | 39,901,834 | 36,039,418 | (808,023) | 91,374,783 | (50,604,364) | | 1,016,001,239 |
| 12/31/1988 | 38,414,939 | 33,222,264 | (444,343) | 103,025,282 | (48,627,479) | | 1,141,591,902 |
| 12/31/1989 | 36,139,394 | 36,231,108 | (424,136) | 128,370,680 | (55,459,353) | | 1,286,449,595 |
| 12/31/1990 | 38,668,634 | 38,960,372 | (850,148) | 114,218,588 | (61,154,261) | | 1,416,292,780 |
| 12/31/1991 | 38,903,350 | 39,288,267 | (863,301) | 148,064,188 | (69,348,501) | | 1,572,336,783 |
| 12/31/1992 | 42,354,843 | 42,883,874 | (909,653) | 175,246,400 | (75,211,430) | | 1,756,700,817 |
| 12/31/1993 | 41,596,571 | 42,266,219 | (801,026) | 189,281,426 | (82,480,713) | | 1,946,563,294 |
| 12/31/1994 | 42,791,243 | 43,415,880 | (888,518) | 136,210,578 | (89,707,717) | | 2,078,384,760 |
| 12/31/1995 | 43,714,263 | 44,435,762 | (937,480) | 230,731,781 | (99,689,985) | | 2,296,639,101 |
| 12/31/1996 | 43,495,146 | 44,761,611 | (1,028,163) | 233,212,720 | (108,536,621) | | 2,508,543,794 |
| 12/31/1997 | 44,958,544 | 46,152,691 | (1,147,818) | 314,340,179 | (117,126,096) | | 2,795,721,294 |
| 12/31/1998 | 46,183,091 | 47,366,181 | (1,074,562) | 436,098,461 | (123,858,991) | | 3,200,435,474 |
| 12/31/1999 | 48,681,209 | 50,106,535 | (1,182,899) | 475,758,627 | (132,428,572) | | 3,641,370,374 |
| 12/31/2000 | 50,539,675 | 51,868,059 | (1,096,747) | 592,379,739 | (144,620,949) | | 4,190,440,151**** |
| 12/31/2001 | 56,517,377 | 53,792,429 | (1,387,930) | 439,286,379 | (156,189,100) | | 4,582,462,306 |
| 12/31/2002 | 57,377,428 | 58,234,324 | (1,281,554) | (66,209,697) | (171,160,286) | (106,998,719) | 4,352,423,802 |
| 12/31/2003 | 55,363,788 | 60,848,296 | (1,435,922) | 376,524,142 | (185,826,481) | | 4,657,897,625 |
| 12/31/2004 | 60,573,670 | 61,412,824 | (1,644,382) | 127,831,761 | (201,772,174) | | 4,704,299,324 |

* Includes other state funding sources.
** Net of Investment Expenses.
*** Includes contributions and investment income net of expenses and benefit payments through December 31, 1985.
**** Includes the effect of the change in actuarial asset method.

## SUMMARY OF INVESTMENT RESULTS
## (ACTUARIAL VALUE BASIS)

| Plan Year | Average Amount of Assets in Fund | Assumed Investment Income Amount | Assumed Investment Income % | Net Dividends & Interest Income* | Appreciation Recognized** | Total Investment Income Amount | Total Investment Income % | Investment Gain (Loss) |
|---|---|---|---|---|---|---|---|---|
| 1986 | $ 783,667,000 | $ 58,775,000 | 7.50% | $ 75,380,000 | $ 23,618,000 | $ 98,998,000 | 12.6% | $ 40,223,000 |
| 1987 | 912,362,000 | 68,427,000 | 7.50 | 76,183,000 | 15,192,000 | 91,375,000 | 10.0 | 22,948,000 |
| 1988 | 1,027,284,000 | 77,046,000 | 7.50 | 86,933,000 | 16,092,000 | 103,025,000 | 10.0 | 25,979,000 |
| 1989 | 1,149,835,000 | 86,238,000 | 7.50 | 88,865,000 | 39,506,000 | 128,371,000 | 11.7 | 42,133,000 |
| 1990 | 1,294,112,000 | 103,529,000 | 8.00 | 94,715,000 | 19,504,000 | 114,219,000 | 8.9 | 10,690,000 |
| 1991 | 1,420,283,000 | 113,623,000 | 8.00 | 99,550,000 | 48,514,000 | 148,064,000 | 10.4 | 34,441,000 |
| 1992 | 1,576,896,000 | 126,152,000 | 8.00 | 104,559,000 | 70,687,000 | 175,246,000 | 11.2 | 49,094,000 |
| 1993 | 1,757,392,000 | 140,591,000 | 8.00 | 106,022,000 | 83,259,000 | 189,281,000 | 10.8 | 48,690,000 |
| 1994 | 1,944,813,000 | 155,585,000 | 8.00 | 110,883,000 | 25,327,000 | 136,210,000 | 7.0 | (19,375,000) |
| 1995 | 2,072,615,000 | 165,809,000 | 8.00 | 117,721,000 | 113,011,000 | 230,732,000 | 11.1 | 64,923,000 |
| 1996 | 2,286,238,000 | 182,899,000 | 8.00 | 125,022,000 | 108,191,000 | 233,213,000 | 10.2 | 50,314,000 |
| 1997 | 2,495,225,000 | 199,618,000 | 8.00 | 123,671,000 | 190,669,000 | 314,340,000 | 12.6 | 114,722,000 |
| 1998 | 2,780,566,000 | 222,445,000 | 8.00 | 98,831,000 | 337,268,000 | 436,098,000 | 15.7 | 213,654,000 |
| 1999 | 3,183,615,000 | 254,689,000 | 8.00 | 133,493,000 | 342,266,000 | 475,759,000 | 14.9 | 221,070,000 |
| 2000 | 3,620,264,000 | 289,621,000 | 8.00 | 124,283,000 | 468,097,000 | 592,380,000 | 16.4 | 302,759,000*** |
| 2001 | 4,167,502,000 | 333,400,000 | 8.00 | 123,241,000 | 316,045,000 | 439,286,000 | 10.5 | 105,886,000 |
| 2002 | 4,501,189,000 | 360,095,000 | 8.00 | 112,650,000 | (178,860,000) | (66,210,000) | (1.5) | (426,305,000) |
| 2003 | 4,317,617,000 | 345,409,000 | 8.00 | 109,207,000 | 267,317,000 | 376,524,000 | 8.7 | 31,115,000 |
| 2004 | 4,617,183,000 | 369,375,000 | 8.00 | 97,587,000 | 30,245,000 | 127,832,000 | 2.8 | (241,543,000) |
| **Total Amount** | | $3,653,326,000 | | $ 2,008,796,000 | $ 2,335,947,000 | $ 4,344,743,000 | | $ 691,417,000 |
| **Average Rate of Investment Income Over Period** | | | | | | | 10.1% | |

* Includes securities lending income, and net of rebates, fees, and investment expenses.

** Recognizes write-up of assets on an actuarial value basis and any adjustments necessary to bring the actuarial value within the 80% to 120% of market value corridor.

*** Includes effect of change in actuarial asset method

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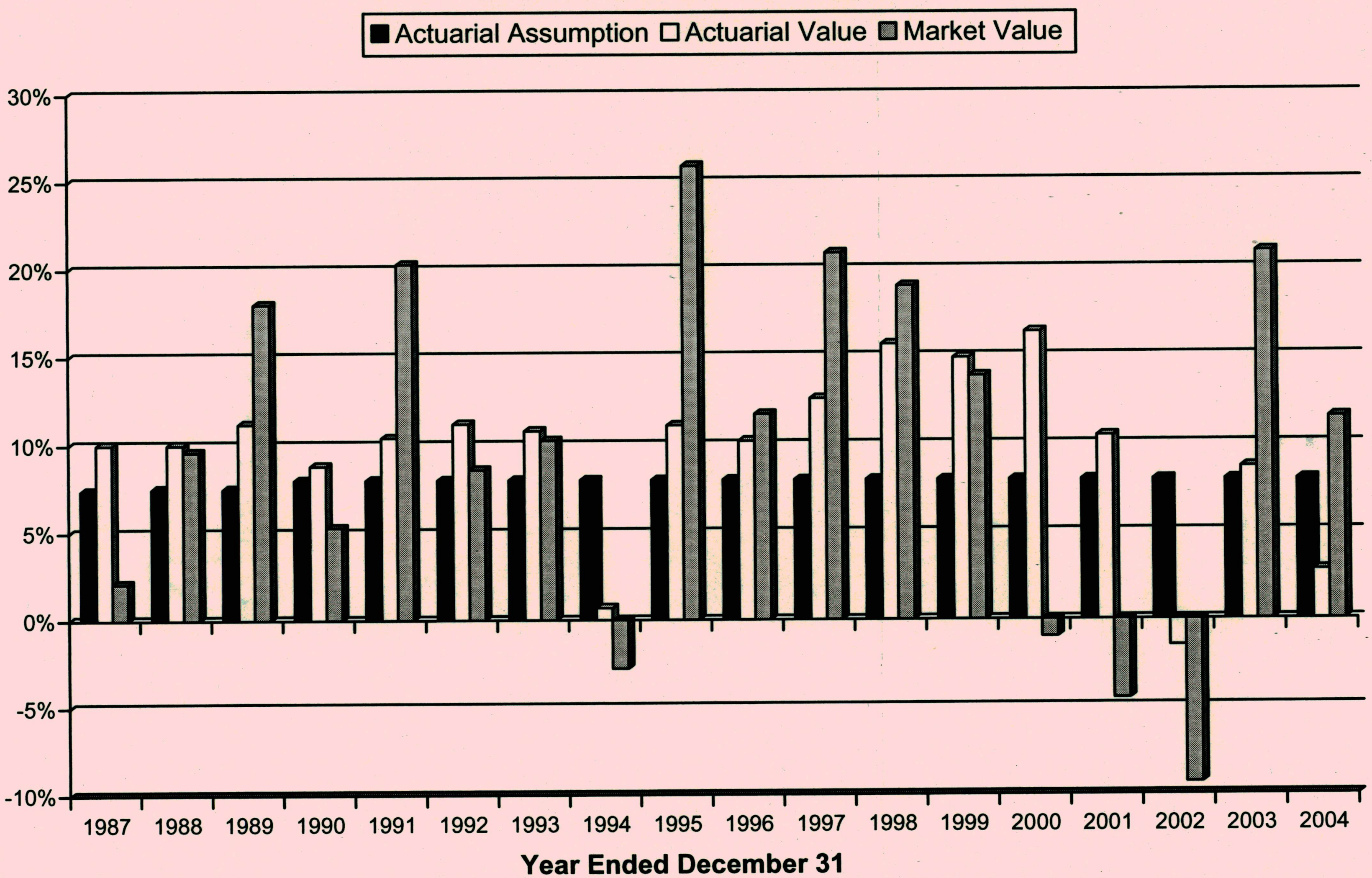
## Investment Rate of Return



## VI. RESULTS OF ACTUARIAL VALUATION

We have utilized an actuarial cost procedure known as the entry age normal cost method for funding all benefits. This method is used in situations where a cost is desired that will relatively remain level as a percentage of the participating payroll.

Under the entry age normal method, the total contribution requirement has three components: an annual normal cost, an allowance for expenses and a payment with respect to the unfunded actuarial accrued liability (UAAL).

The annual normal cost is calculated as the level percentage of pay required over each employee's period of covered employment to fund the total expected benefits. If the average entry age remains stable, the total normal cost rate should remain a level percentage of payroll.

The normal cost payments are not sufficient to finance the benefit program because credit is given for periods of prior service during which the normal cost contributions were not paid. Additional actuarial liability was also created by changes in the benefits, actuarial assumptions, funding method and by experience which differed from that projected by the actuarial assumptions.

We have calculated the cost of funding (or amortizing) this unfunded actuarial accrued liability over an open period of 30 years as of January 1, 2005. The amortization method uses payments that are assumed to increase at 4.0% per annum, the rate at which total covered payroll is assumed to grow.

Also, the use of a level percentage of payroll amortization can result in an increase in cost on a percentage of payroll basis if the growth in aggregate payroll is less than assumed. This is because, in this situation, the amortization payment would be spread over a lower-than-expected aggregate payroll.

The contribution requirements are shown below.

**Contribution Requirements**

| **3.0% COLA** | **2005 Cost as a % of Salaries** | **2005 Dollar Cost*** | **2004 Cost as a % of Salaries** |
|---|---|---|---|
| 1. Entry Age Normal Cost | | | |
| a. Total employee and employer | 11.07% | $ 120,334,000 | 11.24% |
| b. Employee share | 5.57% | 60,531,000 | 5.57% |
| c. Employer share equals (a) - (b) | 5.50% | $ 59,803,000 | 5.67% |
| 2. Cost to Amortize Unfunded Actuarial Accrued Liability | 4.35% | 47,249,000 | 2.95% |
| 3. Administrative Expenses | 0.15% | 1,655,000 | 0.14% |
| 4. Total Employer Cost | 10.00% | $ 108,707,000 | 8.76% |
| 5. Total Cost (Employee + Employer) | 15.57% | $ 169,238,000 | 14.33% |

| **0.0% COLA** | **2005 Cost as a % of Salaries** | **2005 Dollar Cost*** |
|---|---|---|
| 1. Entry Age Normal Cost | | |
| a. Total employee and employer | 9.23% | $ 100,351,000 |
| b. Employee share | 5.57% | 60,531,000 |
| c. Employer share equals (a) - (b) | 3.66% | $ 39,820,000 |
| 2. Cost to Amortize Unfunded Actuarial Accrued Liability | (1.60%) | (17,436,000) |
| 3. Administrative Expenses | 0.15% | 1,655,000 |
| 4. Total Employer Cost | 2.21% | $ 24,039,000 |
| 5. Total Cost (Employee + Employer) | 7.78% | $ 84,570,000 |

* Dollar costs based on 2005 estimated payroll of $1,086,736,000.

## VI. RESULTS OF ACTUARIAL VALUATION (continued)

The total employer cost of $108,707,000 is 10.00% of payroll. This is more than the statutory contribution rate of 5.68% covered payroll. Hence, the current contribution does not meet the contribution requirements based upon the actuarial assumptions, actuarial method and financing objectives accepted by the Board.

Please note that the cost of the system exceeds its funding sources. There are three basic options for addressing this. First, increase contributions. Second, reduce benefits. Third, do nothing and hope that future experience is more favorable than assumed. The asset performance on a market value basis in 2004 was somewhat favorable but there are still unrecognized asset losses.

As of January 1, 2004, the employer cost rate was 8.76%. An explanation of the change since the previous actuarial valuation is as follows:

| | |
|---|---|
| Employer Cost Rate as of January 1, 2004 | 8.76% |
| Increase due to plan or assumption change | 0.87% |
| Increase due to actuarial investment return less than 8% | 1.55% |
| Increase due to contributions below the actuarially determined rate | 0.14% |
| Decrease due to increase in amortization period | (1.4%) |
| Increase due to other experience factors | 0.08% |
| Employer Cost Rate as of January 1, 2005 | 10.00% |

## VII. FUNDING STATUS

One measure of the progress of funding a retirement Plan is by benefit security ratios. The benefit security ratio is the ratio of Plan assets to Plan liabilities. The greater the ratio, the better funded the retirement Plan. This ratio can be calculated using different measures of the retirement Plan's liabilities.

### Funding Basis -- Actuarial Accrued Liability

This measure of liabilities is used in calculating pension costs. It uses the Entry Age Normal Actuarial Cost method that spreads costs as a level percentage of payroll over a participant's working career.

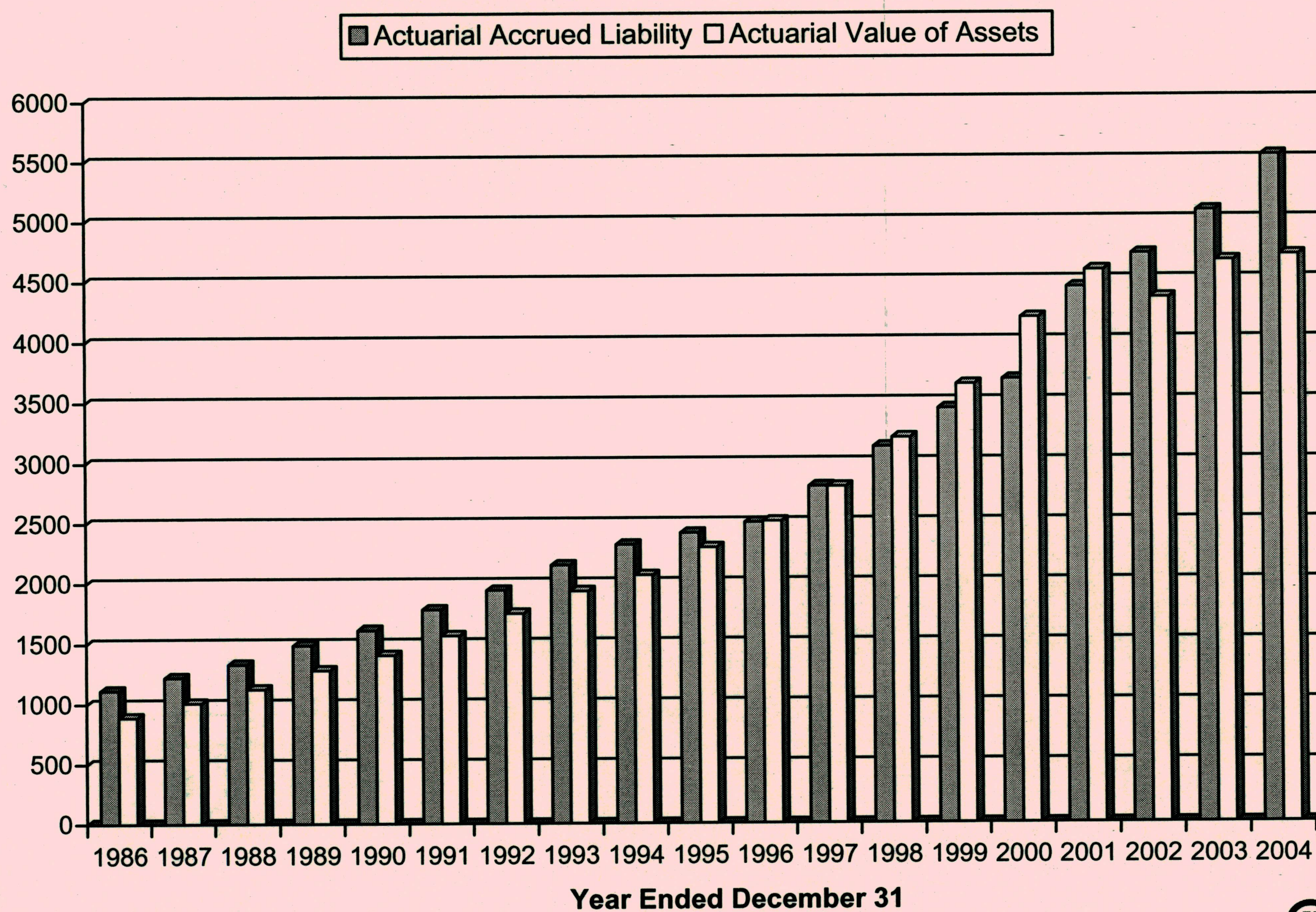
For determining Plan costs, a smoothed value of assets (called actuarial value) is used. Hence, for this ratio, the actuarial value of assets is used.

### Historical Results

A comparison of the Actuarial Accrued Liabilities and Actuarial Values of Assets for the last nineteen years are graphed in Chart 3. These ratios are developed in Table G. The graphs show that on a funding basis, the benefit security ratio has steadily improved until 2001. The benefit ratio has decreased since then due to benefit improvements and investment return lower than expected from 2000 through 2002.

Funding ratios change over time due to several factors. These factors include the level of contributions, actual experience (including investment returns), Plan amendments and changes in assumptions.

## Actuarial Accrued Liability vs Actuarial Value of Assets

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## BENEFIT SECURITY RATIOS

| As of Jan. 1 | Actuarial Accrued Liability | Actuarial Value of Assets | Unfunded Actuarial Accrued Liability (UAAL) | Benefit Security Ratio | Covered Payroll | UAAL as % of Covered Payroll |
|---|---|---|---|---|---|---|
| 1987 | $ 1,119,666,000 | $ 900,098,000 | $ 219,568,000 | 80.4% | $ 700,527,000 | 31.3% |
| 1988 | 1,225,515,000 | 1,016,001,000 | 209,514,000 | 82.9 | 679,401,000 | 30.8 |
| 1989 | 1,334,110,000 | 1,141,592,000 | 192,518,000 | 85.6 | 681,101,000 | 28.3 |
| 1990 | 1,482,235,000 | 1,286,450,000 | 195,785,000 | 86.8 | 712,693,000 | 27.5 |
| 1991 | 1,627,934,000 | 1,416,293,000 | 211,641,000 | 87.0 | 712,860,000 | 29.7 |
| 1992 | 1,777,417,000 | 1,572,337,000 | 205,080,000 | 88.5 | 743,632,000 | 27.6 |
| 1993 | 1,944,477,000 | 1,756,701,000 | 187,776,000 | 90.3 | 756,248,000 | 24.8 |
| 1994 | 2,151,784,000 | 1,946,563,000 | 205,221,000 | 90.5 | 760,859,000 | 27.0 |
| 1995 | 2,310,624,000 | 2,078,385,000 | 232,239,000 | 90.0 | 793,782,000 | 29.3 |
| 1996 | 2,408,980,000 | 2,296,639,000 | 112,341,000 | 95.3 | 789,639,000 | 14.2 |
| 1997 | 2,500,667,000 | 2,508,544,000 | (7,877,000) | 100.3 | 803,239,000 | (1.0) |
| 1998 | 2,799,891,000 | 2,795,721,000 | 4,170,000 | 99.9 | 827,991,000 | 0.5 |
| 1999 | 3,125,121,000 | 3,200,435,000 | (75,314,000) | 102.4 | 873,530,000 | (8.6) |
| 2000 | 3,440,152,000 | 3,641,370,000 | (201,218,000) | 105.8 | 862,512,000 | (23.3) |
| 2001 | 3,683,174,000 | 4,190,440,000 | (507,266,000) | 113.8 | 897,641,000 | (56.5) |
| 2002 | 4,442,033,000 | 4,582,462,000 | (140,429,000) | 103.2 | 964,121,000 | (14.6) |
| 2003 | 4,718,618,000 | 4,352,424,000 | 366,194,000 | 92.2 | 988,135,000 | 37.1 |
| 2004 | 5,077,443,000 | 4,657,898,000 | 419,545,000 | 91.7 | 1,032,259,000 | 40.6 |
| 2005 | 5,536,192,000 | 4,704,299,000 | 831,893,000 | 85.0 | 1,086,736,000 | 76.5 |

## VIII. ACTUARIAL ASSUMPTIONS AND COST METHOD

The actuarial assumptions and cost method used in this actuarial valuation are the same as that used in the previous valuation. The assumptions and cost method applied in the valuation are described below.

### Investment Return

The actuarial calculations are based on the assumption that the effective return on the assets of the Retirement System will be 8.0% per annum net of investment expenses. This includes 3.0% for inflation and 5.0% real rate of return.

### Salary Increases and Inflation

A salary scale is used in an actuarial valuation to estimate the salary progression of employees in the future.

The long-term salary increase assumption is 5.0% per year. It includes 3.0% for inflation, as assumed in the investment yield. There is an allowance for 1.0% for standard-of-living growth per year and 1.0% annually for merit, promotion and longevity.

The salary scale used in this actuarial valuation does not necessarily take full account of general across-the-board increases in salaries resulting from inflation and other factors under short-term current conditions. This is because actuarial assumptions are meant to be reasonable over the long-term and should not be unduly influenced by short-term economic conditions.

The following is a summary of the long-term economic assumptions applied in this valuation:

| | |
|---|---|
| Investment yield | 8.00% |
| Salary increases | 5.00% |
| Inflation | 3.00% |

### Demographic Assumptions

Assumptions as to retirement incidence, withdrawal, disability and mortality are specified in Exhibit III of the actuarial certification.

### Funding Method

For purposes of determining pension costs, the entry age normal actuarial cost method has been used. It is used in situations where a cost is desired that will remain relatively level as a percentage of the participating payroll.

Under the entry age normal actuarial cost method, the total contribution requirement has three components: an annual normal cost, an operating expense component and a payment with respect to the unfunded actuarial accrued liability.

The annual normal cost is calculated for each employee as the level percentage of pay required over the employee's period of covered employment to pay the total expected benefits. If the actuarial assumptions remain unchanged and actuarial experience matches them, the normal cost rate for each employee will remain a level percentage of payroll.

## VIII. ACTUARIAL ASSUMPTIONS AND COST METHOD (continued)

Unfunded actuarial accrued liability amounts are created by actuarial losses, changes in the actuarial assumptions and liberalizations in the benefit provisions. The unfunded liability is amortized over an open 30-year period from January 1, 2005, using payments that rise 4.0% per annum. Such payments should remain a level percentage of aggregate salaries, since covered payroll is assumed to increase at the combined inflation and standard-of-living growth of 4.0% annually.

**Assets**

The assets are valued on a moving market-related basis for actuarial purposes. Interest and dividends are recognized immediately. The actuarial value includes the difference between expected appreciation and actual appreciation and depreciation, whether realized or not, spread over five years beginning with the year of occurrence. This procedure results in recognition of all changes in market value after five years. If the actuarial asset value is less than 80% of market value, or more than 120%, an adjustment will be made to bring it within that range.

Beginning January 1, 2001, the amount smoothed is the difference between the actual appreciation or depreciation and the expected appreciation, based on the market value of assets and on 8% total investment return.

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Human Resources & Investor Solutions

May 11, 2005

## STATE OF WYOMING RETIREMENT SYSTEM

### Actuarial Valuation Certificate

This is to certify that we have prepared an Actuarial Valuation of the Plan as of January 1, 2005, in accordance with generally accepted actuarial principles and practices.

The certificate contains the following attached exhibits:

I. Actuarial Valuation Results

II. Changes in Actuarial Assumptions and Methods

III. Actuarial Assumptions and Cost Method

IV. Plan Amendments

V. Summary of Plan Provisions

The valuation is based on information supplied by the Retirement Office with respect to participants and by McGee, Hearne & Paiz, LLP for financial data. We have not verified, and customarily would not verify, such information, but we have had no reason to doubt its substantial accuracy.

In our opinion, the assumptions used in the aggregate: (a) are reasonably related to the experience of the Plan and to reasonable expectations; and (b) represent our best estimate of anticipated experience under the Plan.

David H. Slishinsky

David H. Slishinsky, ASA, EA, MAAA
Principal and Consulting Actuary

Elena Black

Elena V. Black, FSA, EA, MAAA
Senior Consultant, Actuary

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## ACTUARIAL VALUATION RESULTS

| | 3.0% COLA | 0.0% COLA |
|---|---|---|
| 1. Actuarial Accrued Liability on January 1, 2005: | | |
| a. Active employees | $ 2,944,033,000 | $ 2,371,088,000 |
| b. Retired members and beneficiaries | 2,344,578,000 | 1,820,116,000 |
| c. Inactive nonretired members | 247,581,000 | 206,097,000 |
| d. Total | $ 5,536,192,000 | $ 4,397,301,000 |
| 2. Assets of the Fund on December 31, 2004 at actuarial value* | $ 4,704,299,000 | $ 4,704,299,000 |
| 3. Unfunded actuarial accrued liability -- equals (1) - (2) | $ 831,893,000 | $ (306,998,000) |
| 4. Employee and employer normal cost for ensuing year | $ 120,334,000 | $ 100,351,000 |
| 5. Estimated annual salaries of covered employees | $ 1,086,736,000 | $ 1,086,736,000 |
| 6. Employee normal cost | $ 60,531,000 | $ 60,531,000 |
| 7. Employer normal cost for ensuing year equals (4) - (6) | $ 59,803,000 | $ 39,820,000 |
| 8. Amortization payment - equals 30-year amortization of item (3) as a level percent of aggregate salary | $ 47,249,000 | $ (17,436,000) |
| 9. Expected Administrative expenses | $ 1,655,000 | $ 1,655,000 |
| 10. Total employer cost for ensuing year -- equals (7) + (8) + (9) | $ 108,707,000 | $ 24,039,000 |
| 11. Total employer cost as percentage of payroll -- equals (10) ÷ (5) | 10.00% | 2.21% |

* $4,693,824,018 at market value.

The current statutory contribution rate is sufficient to fund an annual cost-of-living adjustment (COLA) of 1.42% per year on an actuarially sound basis. When liabilities are measured with a COLA of 1.42%, the funded ratio on an Actuarial Value of Assets basis is 96.0%, while on a Market Value of Assets basis it is 95.8%.

## CHANGES IN ACTUARIAL ASSUMPTIONS & METHODS

It was adopted by the WRS Retirement Board during the May 21, 2004 Board Meeting to apply an open 30-year amortization period to amortize the Unfunded Actuarial Accrued Liability starting with the January 1, 2005 valuation.

One of the strong recommendations of Milliman's Actuarial Audit was to change the method of valuing deferred vested participants benefits. They felt that valuing this group's liability by using their accumulated contributions with interest was understating the true liability for this population. Their recommendation in absence of calculating all deferred vested benefits was to apply a loading multiplicative factor to the accumulated contributions to estimate the present value of the deferred benefits for this population. To improve the accuracy of measuring liabilities for deferred vested participants, starting with the January 1, 2005 valuation we have included a load on accumulated member contributions. We estimated this load factor by comparing the present value of deferred benefits versus their accumulated contributions with interest for the group of new vested terminations during the past two years for the State System.

# ACTUARIAL ASSUMPTIONS AND COST METHOD

**Mortality Rates:**

Healthy Lives: 1994 Group Annuity Mortality Table (with margins)

Disabled Lives: 1979 PBGC Disabled Lives Receiving Social Security

**Termination Rates before retirement:**

Sample Rates:

| | RATE | | | | |
|---|---|---|---|---|---|
| | Death | | | Withdrawal | |
| Age | Male | Female | Disability | Male | Female |
| 25 | .07% | .03% | -- | 31.91% | 36.56% |
| 30 | .08% | .04% | .01% | 18.38% | 22.50% |
| 35 | .09% | .05% | .01% | 10.03% | 13.10% |
| 40 | .11% | .07% | .01% | 7.61% | 10.72% |
| 45 | .16% | .10% | .06% | 7.29% | 10.32% |
| 50 | .26% | .14% | .16% | 6.32% | 8.43% |
| 55 | .44% | .23% | .40% | 4.62% | 6.2% |
| 60 | .80% | .44% | -- | -- | -- |

**Retirement Rates:**

| Age | Rate of Retirement (Examples Shown) |
|---|---|
| 50 | 2% |
| 55 | 6% |
| 60 | 15% |
| 62 | 25% |
| 65 | 33% |
| 70 | 100% |

## ACTUARIAL ASSUMPTIONS AND COST METHOD

| | |
|---|---|
| **Interest Rate:** | 8.0% per annum, net of investment expenses |
| **Salary Scale:** | 5.0% per annum |
| **Payroll Growth:** | 4.0% per annum |
| **Inflation:** | 3.0% per annum |
| **Increase in Section 415 Maximum Pension and Section 401(a)(17) Limit on Compensation:** | 3.0% per annum |
| **Interest on Member Contributions:** | 5.5% per annum |
| **Cost Method:** | Entry Age Normal Actuarial Cost Method |

**Liability for Vested Inactive Non Retired Members:**

No data is available for members entitled to deferred benefits. The present value of benefits expected to be paid to vested inactive nonretired members is approximated as (a) 190% of accumulated member contribution balances for benefits valued with a 3% COLA, and (b) 160% of accumulated member contribution balances for benefits valued with no (0%) COLA.

**Actuarial Value of Assets:**

Adjusted market value that immediately recognizes interest and dividends. The procedure recognizes 20% of each plan year's total appreciation (depreciation) in excess of the expected return on a market value basis beginning with the year of occurrence. After five years, the appreciation (depreciation) is fully recognized. If the adjusted market value is less than 80% of market value, or more than 120%, an adjustment will be made to bring it within that range.

**Administrative Expenses:**

Annual administrative expenses are assumed to increase 5% per year. Expenses for the valuation year are projected at this rate based on the prior two years' average adjusted expenses.

**Cost-of-Living Adjustments:**

It is assumed that the maximum 3.0% COLA will be awarded every year. In addition, results are presented assuming no future COLAs are granted. Whenever the maximum COLA cannot be provided, we include the COLA level that can be provided on an actuarially sound basis.

**Benefit Commencement Age:**

It is assumed that members who terminate with a vested deferred benefit will commence payment at age 60.

## PLAN AMENDMENTS

As of January 1, 2005, there were no amendments to the plan provisions since the last actuarial valuation as of January 1, 2004.

## SUMMARY OF PLAN PROVISIONS

Following are the major benefit provisions of the State of Wyoming Retirement System. This summary is not intended to be a complete statement of all provisions of the Retirement System.

**1. Service Retirement**

Eligibility Members may retire from active service with age 60 and at least four years of service or combined age plus service of 85 or more points and receive full benefits. Members may take early retirement at age 50 with at least four years of service, or any age with at least 25 years of service, with benefits reduced by 5.0% per year for retirement prior to 60.

Benefit Calculated in two parts, (A) plus (B)

A. ***Pre-1975 Benefits.*** The larger of the monthly benefits calculated under the following two formulas (1) and (2):

1. The amount of employee and matching employer contributions, with interest (currently 5.5%), is used to *purchase* an annuity based upon a unisex actuarial factor. The monthly benefit thus obtained is increased as approved by the 1967, 1973 and 1975 legislature as follows:

- 1967 increase -- 25% (but not more than $25 per month)
- 1973 increase -- 40%
- 1975 increase -- 20%

2. Calculate pre-1975 benefits as 2.125% of the average earnings for the three highest years of service, times years of service prior to July 1, 1975, for the first 15 years of service credit, plus 2.25% of the average earnings for the three highest years of service for any years of service credit exceeding 15 years. This amount is reduced by 5.0% per year for retirement prior to age 60. However, members retiring with a combined age and service of 85 receive an unreduced benefit prior to age 60.

B. ***Post-1975 Benefits.*** The larger of the monthly benefits calculated under the following two formulas (1) and (2):

1. The same formula as for 1953-1975 benefits, except that the 20% increase does not apply.

2. 2.125% of the average earnings for the three highest years of service, times years of service after July 1, 1975, for the first 15 years of service credit, plus 2.25% of the average earnings for the three highest years of service for any years of service credit exceeding 15 years. This amount is reduced by 5.0% per year for retirement prior to age 60. However, members retiring with a combined age and service of 85 receive an unreduced benefit prior to age 60.

**NOTE:** Employees hired on and after July 1, 1981 will only be entitled to the benefit described under B.2. above.

**2. Options**

Option 1 Monthly benefit for life, with a lump-sum death benefit equal to the excess (if any) of the employee contributions with interest over the total monthly benefits received. A choice of any option other than Option 1 changes the monthly benefit payable.

Option 2 Monthly benefit for life, with 100% of the benefit continuing for the life of the beneficiary.

Option 3 Monthly benefit for life, with 50% of the benefit continuing for the life of the beneficiary.

Option 4 Monthly benefit for life, with a guarantee of 120 monthly payments.

Option 5 Monthly benefit for life, with no death benefit. The choice of this option increases the monthly benefit slightly.

Option 6 Monthly benefit for life, with 100% of the benefit continuing for the life of the beneficiary. Benefit reverts to Option 1 amount but without cash refund feature at beneficiary's death.

Option 7 Monthly benefit for life, with 50% of the benefit continuing for the life of the beneficiary. Benefit reverts to Option 1 amount but without cash refund feature at beneficiary's death.

**3. Disability Retirement**

Eligibility Disability prior to age 60, after 10 or more years of service.

Benefit 100% of the service retirement benefit, calculated using Option 1 as if the employee were 60 years of age and service as of date of disability.

4. **Vesting**

An employee who terminates after at least 48 months of service can elect either to leave his contributions in the Retirement System and receive a service retirement benefit as described above, or to receive a lump-sum return of his contributions (including employer subsidies) with interest. An employee who terminates with less than 48 months of service is eligible only for the lump-sum benefit.

5. **Preretirement Death Benefit**

The beneficiary of a vested employee can elect either to receive a monthly benefit based on the beneficiary's age and the calculation method described above for service retirement, or to receive a lump-sum payment of two times the employee contributions, with interest. The beneficiary of an employee who dies prior to achieving vested status is eligible for the lump-sum benefit only.

6. **Contributions**

Currently 5.57% of salary by employee and 5.68% of salary by employer. The employer may subsidize all or part of the employee contributions. Interest is currently being credited at the rate of 5.50% on accumulated contributions.

7. **Ad Hoc Benefit Increases to Retirees**

Ad hoc adjustments have been made to benefit payments. The most recent one was effective July 2001, for all retirees and beneficiaries. This increased pensions by $3 monthly per year of service.

8. **Cost-of-Living Adjustments**

Benefits will increase by the lesser of 3.0% per year, or the increase in the Consumer Price Index. The Board may elect not to grant the full cost-of-living increase in any given year if the System's actuary determines such increases would not be actuarially sound. If the increase in the CPI exceeds the actual COLA granted in any year, the excess increase will be set aside and applied toward any future year in which the CPI increase is less than 3.0%. The first increase for a retiree is on the July 1 following two years of retirement. The first adjustments occurred in 1991.

# CENSUS TABLES

| | Table Designation |
|---|---|
| I. Active Employees | |
| A. Number of active employees grouped by five-year age and service cells | |
| Males | 1-A |
| Females | 1-B |
| Males and Females, combined | 1-C |
| B. Salaries of active employees grouped by five-year age and service cells | |
| All Members | 2 |
| II. Inactive Participants | |
| A. Number of inactive participants grouped by five-year age and service cells | |
| Males | 3-A |
| Females | 3-B |
| Males and Females, combined | 3-C |
| III. Retired Participants | |
| A. Summary of all retired participants by benefit option and sex | 4 |
| B. Distribution of pensions in force by amount of benefit and benefit option | 5 |
| C. Distribution of pensions in force by age and benefit option | |
| Males | 6-A |
| Females | 6-B |
| Males and Females, combined | 6-C |
| D. Distribution of pensions awarded during 2004 by amount of benefit and benefit option | 7 |
| E. Distribution of pensions awarded during 2004 by age and benefit option | 8 |
| F. Average monthly benefit by years elapsed since retirement and years of service at retirement | 9 |
| G. Distribution of retired participants by date of retirement | 10 |

**NOTE:** See page 30 for description of benefit options by Code number.

## CENSUS OF EMPLOYEES IN ACTIVE SERVICE ON DECEMBER 31, 2004

### MALES

| Age Last Birthday | Years of Service | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | Over 34 | Total |
| 15-19 | 20 | - | - | - | - | - | - | - | **20** |
| 20-24 | 279 | 4 | - | - | - | - | - | - | **283** |
| 25-29 | 634 | 92 | - | - | - | - | - | - | **728** |
| 30-34 | 549 | 350 | 60 | - | - | - | - | - | **959** |
| 35-39 | 507 | 339 | 294 | 81 | 2 | - | - | - | **1,223** |
| 40-44 | 494 | 303 | 277 | 257 | 150 | 12 | - | - | **1,493** |
| 45-49 | 502 | 291 | 257 | 297 | 413 | 129 | 5 | - | **1,894** |
| 50-54 | 464 | 270 | 257 | 307 | 357 | 415 | 78 | - | **2,148** |
| 55-59 | 402 | 217 | 231 | 242 | 271 | 261 | 169 | 34 | **1,827** |
| 60-64 | 186 | 127 | 92 | 109 | 107 | 74 | 57 | 49 | **801** |
| Over 64 | 107 | 67 | 48 | 29 | 27 | 22 | 7 | 11 | **318** |
| **Total** | **4,144** | **2,060** | **1,518** | **1,322** | **1,327** | **913** | **316** | **94** | **11,694** |

Average Age = 46.8 Average Service = 11.4

## CENSUS OF EMPLOYEES IN ACTIVE SERVICE ON DECEMBER 31, 2004

### FEMALES

| Age Last Birthday | Years of Service | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | Over 34 | Total |
| 15-19 | 33 | - | - | - | - | - | - | - | 33 |
| 20-24 | 588 | 4 | - | - | - | - | - | - | 592 |
| 25-29 | 1,229 | 150 | 1 | - | - | - | - | - | 1,380 |
| 30-34 | 1,089 | 522 | 103 | 1 | - | - | - | - | 1,715 |
| 35-39 | 1,079 | 490 | 347 | 83 | 5 | - | - | - | 2,004 |
| 40-44 | 1,211 | 767 | 428 | 338 | 168 | 9 | - | - | 2,921 |
| 45-49 | 1,084 | 828 | 653 | 476 | 492 | 260 | 9 | - | 3,802 |
| 50-54 | 788 | 706 | 632 | 588 | 609 | 479 | 119 | 1 | 3,922 |
| 55-59 | 513 | 390 | 416 | 418 | 461 | 365 | 141 | 16 | 2,720 |
| 60-64 | 196 | 152 | 149 | 181 | 193 | 132 | 53 | 21 | 1,077 |
| Over 64 | 90 | 37 | 56 | 32 | 23 | 18 | 11 | 7 | 274 |
| **Total** | **7,900** | **4,046** | **2,785** | **2,117** | **1,951** | **1,263** | **333** | **45** | **20,440** |

Average Age = 45.8 Average Service = 10.1

## CENSUS OF EMPLOYEES IN ACTIVE SERVICE ON DECEMBER 31, 2004

### MALES AND FEMALES COMBINED

| Age Last Birthday | Years of Service | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | Over 34 | Total |
| 15-19 | 53 | - | - | - | - | - | - | - | **53** |
| 20-24 | 867 | 8 | - | - | - | - | - | - | **875** |
| 25-29 | 1,863 | 242 | 3 | - | - | - | - | - | **2,108** |
| 30-34 | 1,638 | 872 | 163 | 1 | - | - | - | - | **2,674** |
| 35-39 | 1,586 | 829 | 641 | 164 | 7 | - | - | - | **3,227** |
| 40-44 | 1,705 | 1,070 | 705 | 595 | 318 | 21 | - | - | **4,414** |
| 45-49 | 1,586 | 1,119 | 910 | 773 | 905 | 389 | 14 | - | **5,696** |
| 50-54 | 1,252 | 976 | 889 | 895 | 966 | 894 | 197 | 1 | **6,070** |
| 55-59 | 915 | 607 | 647 | 660 | 732 | 626 | 310 | 50 | **4,547** |
| 60-64 | 382 | 279 | 241 | 290 | 300 | 206 | 110 | 70 | **1,878** |
| Over 64 | 197 | 104 | 104 | 61 | 50 | 40 | 18 | 18 | **592** |
| **Total** | **12,044** | **6,106** | **4,303** | **3,439** | **3,278** | **2,176** | **649** | **139** | **32,134** |

Average Age = 46.1 Average Service = 10.5

## SALARIES OF EMPLOYEES IN ACTIVE SERVICE ON DECEMBER 31, 2004

### ALL MEMBERS

| Age Last Birthday | | Years of Service 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | Over 34 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 15-19 | Number | 53 | - | - | - | - | - | - | - | **53** |
| | Tot Salary | 524,819 | | | | | | | | **524,819** |
| | Avg. Salary | 9,902 | | | | | | | | **9,902** |
| 20-24 | Number | 867 | 8 | - | - | - | - | - | - | **875** |
| | Tot. Salary | 16,394,717 | 191,493 | | | | | | | **16,586,210** |
| | Avg. Salary | 18,910 | 23,937 | | | | | | | **18,956** |
| 25-29 | Number | 1,863 | 242 | 3 | - | - | - | - | - | **2,108** |
| | Tot. Salary | 46,841,880 | 7,433,474 | 96,677 | | | | | | **54,372,031** |
| | Avg. Salary | 25,143 | 30,717 | 32,226 | | | | | | **25,793** |
| 30-34 | Number | 1,638 | 872 | 163 | 1 | - | - | - | - | **2,674** |
| | Tot. Salary | 41,465,360 | 30,055,626 | 5,967,895 | 28,928 | | | | | **77,517,809** |
| | Avg. Salary | 25,315 | 34,467 | 36,613 | 28,928 | | | | | **28,989** |
| 35-39 | Number | 1,586 | 829 | 641 | 164 | 7 | - | - | - | **3,227** |
| | Tot. Salary | 39,151,849 | 28,266,812 | 26,476,101 | 6,747,308 | 250,836 | | | | **100,892,906** |
| | Avg. Salary | 24,686 | 34,097 | 41,304 | 41,142 | 35,834 | | | | **31,265** |
| 40-44 | Number | 1,705 | 1,070 | 705 | 595 | 318 | 21 | - | - | **4,414** |
| | Tot. Salary | 40,241,707 | 31,902,592 | 26,512,656 | 25,419,766 | 14,124,605 | 827,250 | | | **139,028,576** |
| | Avg. Salary | 23,602 | 29,816 | 37,607 | 42,722 | 44,417 | 39,393 | | | **31,497** |
| 45-49 | Number | 1,586 | 1,119 | 910 | 773 | 905 | 389 | 14 | - | **5,696** |
| | Tot. Salary | 39,626,072 | 32,810,446 | 31,706,844 | 31,446,157 | 42,876,210 | 17,687,004 | 563,943 | | **196,716,676** |
| | Avg. Salary | 24,985 | 29,321 | 34,843 | 40,681 | 47,377 | 45,468 | 40,282 | | **34,536** |
| 50-54 | Number | 1,252 | 976 | 889 | 895 | 966 | 894 | 197 | 1 | **6,070** |
| | Tot. Salary | 31,946,623 | 27,595,114 | 31,062,421 | 34,699,492 | 43,155,937 | 44,918,621 | 9,944,245 | 33,412 | **223,355,865** |
| | Avg. Salary | 25,516 | 28,274 | 34,941 | 38,770 | 44,675 | 50,245 | 50,478 | 33,412 | **36,797** |
| 55-59 | Number | 915 | 607 | 647 | 660 | 732 | 626 | 310 | 50 | **4,547** |
| | Tot. Salary | 24,467,342 | 18,397,665 | 22,594,527 | 25,208,912 | 31,095,467 | 29,543,181 | 16,022,328 | 2,603,392 | **169,932,814** |
| | Avg. Salary | 26,740 | 30,309 | 34,922 | 38,195 | 42,480 | 47,194 | 51,685 | 52,068 | **37,373** |
| 60-64 | Number | 382 | 279 | 241 | 290 | 300 | 206 | 110 | 70 | **1,878** |
| | Tot. Salary | 9,426,147 | 7,716,323 | 7,312,564 | 10,565,918 | 11,835,307 | 8,904,206 | 5,960,854 | 3,622,001 | **65,343,320** |
| | Avg. Salary | 24,676 | 27,657 | 30,343 | 36,434 | 39,451 | 43,224 | 54,190 | 51,743 | **34,794** |
| Over 64 | Number | 197 | 104 | 104 | 61 | 50 | 40 | 18 | 18 | **592** |
| | Tot. Salary | 3,113,579 | 2,458,231 | 3,141,555 | 2,073,637 | 1,803,692 | 1,583,156 | 915,795 | 934,412 | **16,024,057** |
| | Avg. Salary | 15,805 | 23,637 | 30,207 | 33,994 | 36,074 | 39,579 | 50,877 | 51,912 | **27,068** |
| **Total** | **Number** | **12,044** | **6,106** | **4,303** | **3,439** | **3,278** | **2,176** | **649** | **139** | **32,134** |
| | **Tot. Salary** | **293,200,095** | **186,827,776** | **154,871,240** | **136,190,118** | **145,142,054** | **103,463,418** | **33,407,165** | **7,193,217** | **1,060,295,083** |
| | **Avg. Salary** | **24,344** | **30,597** | **35,991** | **39,602** | **44,278** | **47,548** | **51,475** | **51,750** | **32,996** |

Average Age = 46.1 Average Service = 10.5

## CENSUS OF DEFERRED VESTED PARTICIPANTS ON DECEMBER 31, 2004

### MALES

| Age Last Birthday | Years of Service | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | Over 34 | Total |
| 15-19 | - | - | - | - | - | - | - | - | - |
| 20-24 | - | - | - | - | - | - | - | - | - |
| 25-29 | 6 | 1 | - | - | - | - | - | - | 7 |
| 30-34 | 20 | 24 | 1 | - | - | - | - | - | 45 |
| 35-39 | 25 | 57 | 16 | - | - | - | - | - | 98 |
| 40-44 | 38 | 93 | 43 | 20 | - | - | - | - | 194 |
| 45-49 | 31 | 113 | 73 | 58 | 20 | 1 | - | - | 296 |
| 50-54 | 50 | 175 | 105 | 62 | 30 | 13 | 1 | - | 436 |
| 55-59 | 48 | 136 | 92 | 43 | 22 | 8 | 1 | - | 350 |
| 60-64 | 21 | 69 | 26 | 8 | 4 | 2 | 1 | - | 131 |
| Over 64 | 23 | 30 | 10 | - | 1 | - | - | - | 64 |
| **Total** | **262** | **698** | **366** | **191** | **77** | **24** | **3** | **-** | **1,621** |

Average Age = 51.5        Average Service = 10.1

## CENSUS OF DEFERRED VESTED PARTICIPANTS ON DECEMBER 31, 2004

### FEMALES

| Age Last Birthday | Years of Service | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | Over 34 | Total |
| 15-19 | - | - | - | - | - | - | - | - | - |
| 20-24 | - | - | - | - | - | - | - | - | - |
| 25-29 | 10 | 14 | - | - | - | - | - | - | **24** |
| 30-34 | 38 | 72 | 1 | - | - | - | - | - | **111** |
| 35-39 | 43 | 139 | 27 | 2 | - | - | - | - | **211** |
| 40-44 | 82 | 177 | 91 | 14 | 4 | - | - | - | **368** |
| 45-49 | 103 | 289 | 162 | 55 | 20 | 1 | - | - | **630** |
| 50-54 | 93 | 372 | 194 | 86 | 55 | 12 | - | - | **812** |
| 55-59 | 93 | 276 | 172 | 93 | 31 | 12 | 1 | - | **678** |
| 60-64 | 37 | 121 | 51 | 20 | 7 | 3 | 1 | - | **240** |
| Over 64 | 41 | 77 | 23 | 9 | 1 | 1 | - | - | **152** |
| **Total** | **540** | **1,537** | **721** | **279** | **118** | **29** | **2** | **-** | **3,226** |

Average Age = 51.3 Average Service = 9.4

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## CENSUS OF DEFERRED VESTED PARTICIPANTS ON DECEMBER 31, 2004

### MALES AND FEMALES COMBINED

| Age Last Birthday | Years of Service | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | Over 34 | Total |
| 15-19 | - | - | - | - | - | - | - | - | - |
| 20-24 | - | - | - | - | - | - | - | - | - |
| 25-29 | 16 | 15 | - | - | - | - | - | - | 31 |
| 30-34 | 58 | 96 | 2 | - | - | - | - | - | 156 |
| 35-39 | 68 | 196 | 43 | 2 | - | - | - | - | 309 |
| 40-44 | 120 | 270 | 134 | 34 | 4 | - | - | - | 562 |
| 45-49 | 134 | 402 | 235 | 113 | 40 | 2 | - | - | 926 |
| 50-54 | 143 | 547 | 299 | 148 | 85 | 25 | 1 | - | 1,248 |
| 55-59 | 141 | 412 | 264 | 136 | 53 | 20 | 2 | - | 1,028 |
| 60-64 | 58 | 190 | 77 | 28 | 11 | 5 | 2 | - | 371 |
| Over 64 | 64 | 107 | 33 | 9 | 2 | 1 | - | - | 216 |
| **Total** | **802** | **2,235** | **1,087** | **470** | **195** | **53** | **5** | **-** | **4,847** |

Average Age = 50.8 Average Service = 9.2

## RETIREES AS OF DECEMBER 31, 2004

| | NUMBER | | | MONTHLY AMOUNT | | |
|---|---|---|---|---|---|---|
| | Male | Female | Total | Male | Female | Total |
| Pensioners | | | | | | |
| Option 1 | 1,618 | 4,479 | **6,097** | $ 1,870,718 | $ 3,807,065 | **$ 5,677,783** |
| Option 2 | 2,876 | 1,389 | **4,265** | 3,906,727 | 1,162,728 | **5,069,455** |
| Option 3 | 486 | 279 | **765** | 860,077 | 299,117 | **1,159,194** |
| Option 4 | 282 | 398 | **680** | 315,477 | 300,110 | **615,587** |
| Option 5 | 296 | 1,001 | **1,297** | 337,751 | 792,438 | **1,130,189** |
| Option 6 | 515 | 476 | **991** | 675,881 | 486,437 | **1,162,318** |
| Option 7 | 145 | 173 | **318** | 263,393 | 234,601 | **497,994** |
| Total | 6,218 | 8,195 | **14,413** | 8,230,024 | 7,082,496 | **15,312,520** |
| Beneficiaries | 238 | 1,300 | **1,538** | 175,094 | 1,152,927 | **1,328,021** |
| **Grand Total** | **6,456** | **9,495** | **15,951** | **8,405,118** | **8,235,423** | **16,640,541** |

## RETIREE BENEFITS IN FORCE BY AMOUNT AND OPTION TYPE

| | Total | PENSION OPTION 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| ***Males*** | | | | | | | | |
| Under $200 | 456 | 141 | 195 | 9 | 28 | 42 | 39 | 2 |
| $200-$399 | 768 | 246 | 349 | 24 | 37 | 39 | 65 | 8 |
| $400-$599 | 779 | 242 | 335 | 44 | 43 | 44 | 63 | 8 |
| $600-$799 | 644 | 182 | 279 | 48 | 36 | 34 | 53 | 12 |
| $800-$999 | 515 | 150 | 237 | 33 | 19 | 25 | 41 | 10 |
| $1,000-$1,499 | 997 | 270 | 454 | 103 | 53 | 37 | 60 | 20 |
| $1,500-$1,999 | 757 | 160 | 386 | 72 | 32 | 27 | 60 | 20 |
| $2,000-$2,499 | 692 | 116 | 352 | 79 | 18 | 30 | 73 | 24 |
| $2,500 & Over | 848 | 177 | 400 | 108 | 26 | 31 | 65 | 41 |
| Total | 6,456 | 1,684 | 2,987 | 520 | 292 | 309 | 519 | 145 |
| ***Females*** | | | | | | | | |
| Under $200 | 1,101 | 535 | 256 | 16 | 61 | 183 | 47 | 3 |
| $200-$399 | 1,805 | 915 | 438 | 65 | 95 | 204 | 78 | 10 |
| $400-$599 | 1,531 | 798 | 357 | 53 | 66 | 166 | 68 | 23 |
| $600-$799 | 1,232 | 641 | 288 | 60 | 55 | 113 | 57 | 18 |
| $800-$999 | 844 | 421 | 196 | 47 | 41 | 71 | 48 | 20 |
| $1,000-$1,499 | 1,379 | 654 | 356 | 84 | 50 | 129 | 69 | 37 |
| $1,500-$1,999 | 727 | 347 | 177 | 40 | 17 | 66 | 51 | 29 |
| $2,000-$2,499 | 501 | 222 | 123 | 29 | 22 | 46 | 43 | 16 |
| $2,500 & Over | 375 | 182 | 75 | 9 | 13 | 47 | 29 | 20 |
| Total | 9,495 | 4,715 | 2,266 | 403 | 420 | 1,025 | 490 | 176 |
| ***Males & Females*** | | | | | | | | |
| Under $200 | 1,557 | 676 | 451 | 25 | 89 | 225 | 86 | 5 |
| $200-$399 | 2,573 | 1,161 | 787 | 89 | 132 | 243 | 143 | 18 |
| $400-$599 | 2,310 | 1,040 | 692 | 97 | 109 | 210 | 131 | 31 |
| $600-$799 | 1,876 | 823 | 567 | 108 | 91 | 147 | 110 | 30 |
| $800-$999 | 1,359 | 571 | 433 | 80 | 60 | 96 | 89 | 30 |
| $1,000-$1,499 | 2,376 | 924 | 810 | 187 | 103 | 166 | 129 | 57 |
| $1,500-$1,999 | 1,484 | 507 | 563 | 112 | 49 | 93 | 111 | 49 |
| $2,000-$2,499 | 1,193 | 338 | 475 | 108 | 40 | 76 | 116 | 40 |
| $2,500 & Over | 1,223 | 359 | 475 | 117 | 39 | 78 | 94 | 61 |
| Total | 15,951 | 6,399 | 5,253 | 923 | 712 | 1,334 | 1,009 | 321 |

## PENSIONS IN FORCE ON DECEMBER 31, 2004
## BY OPTION AND NEAREST AGE ON THAT DATE

### MALES

| Age Last Birthday | Pension Option | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Total |
| 0-49 | 8 | 8 | 2 | 1 | - | - | - | **19** |
| 50-54 | 37 | 61 | 5 | 10 | 3 | 18 | 3 | **137** |
| 55-59 | 147 | 254 | 26 | 26 | 29 | 89 | 21 | **592** |
| 60-64 | 301 | 568 | 74 | 67 | 58 | 179 | 45 | **1,292** |
| 65-69 | 326 | 674 | 114 | 50 | 80 | 137 | 43 | **1,424** |
| 70-74 | 284 | 581 | 115 | 47 | 49 | 77 | 23 | **1,176** |
| 75-79 | 273 | 433 | 102 | 56 | 49 | 17 | 10 | **940** |
| 80-84 | 186 | 252 | 63 | 23 | 25 | 1 | - | **550** |
| Over 84 | 122 | 156 | 19 | 12 | 16 | 1 | - | **326** |
| **Total** | **1,684** | **2,987** | **520** | **292** | **309** | **519** | **145** | **6,456** |

## PENSIONS IN FORCE ON DECEMBER 31, 2004 BY OPTION AND NEAREST AGE ON THAT DATE

### FEMALES

| Age Last Birthday | Pension Option | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Total |
| 0-49 | 24 | 28 | 4 | 4 | 1 | 1 | - | **62** |
| 50-54 | 106 | 69 | 3 | 24 | 12 | 28 | 4 | **246** |
| 55-59 | 328 | 188 | 32 | 59 | 64 | 136 | 27 | **834** |
| 60-64 | 743 | 394 | 59 | 91 | 148 | 167 | 66 | **1,668** |
| 65-69 | 937 | 391 | 82 | 87 | 218 | 109 | 53 | **1,877** |
| 70-74 | 812 | 373 | 83 | 77 | 192 | 37 | 19 | **1,593** |
| 75-79 | 737 | 369 | 67 | 36 | 188 | 10 | 5 | **1,412** |
| 80-84 | 504 | 254 | 48 | 31 | 111 | 1 | 2 | **951** |
| Over 84 | 524 | 200 | 25 | 11 | 91 | 1 | - | **852** |
| **Total** | **4,715** | **2,266** | **403** | **420** | **1,025** | **490** | **176** | **9,495** |

## PENSIONS IN FORCE ON DECEMBER 31, 2004
## BY OPTION AND NEAREST AGE ON THAT DATE

### MALES & FEMALES COMBINED

| Age Last Birthday | Pension Option | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Total |
| 0-49 | 32 | 36 | 6 | 5 | 1 | 1 | 0 | **81** |
| 50-54 | 143 | 130 | 8 | 34 | 15 | 46 | 7 | **383** |
| 55-59 | 475 | 442 | 58 | 85 | 93 | 225 | 48 | **1,426** |
| 60-64 | 1,044 | 962 | 133 | 158 | 206 | 346 | 111 | **2,960** |
| 65-69 | 1,263 | 1,065 | 196 | 137 | 298 | 246 | 96 | **3,301** |
| 70-74 | 1,096 | 954 | 198 | 124 | 241 | 114 | 42 | **2,769** |
| 75-79 | 1,010 | 802 | 169 | 92 | 237 | 27 | 15 | **2,352** |
| 80-84 | 690 | 506 | 111 | 54 | 136 | 2 | 2 | **1,501** |
| Over 84 | 646 | 356 | 44 | 23 | 107 | 2 | 0 | **1,178** |
| **Total** | **6,399** | **5,253** | **923** | **712** | **1,334** | **1,009** | **321** | **15,951** |

## PENSIONS AWARDED IN 2004 BY OPTION AND MONTHLY AMOUNT

## MALES & FEMALES COMBINED

| Monthly Amount | Pension Option | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Total |
| 0-199 | 22 | 14 | | 5 | 8 | 20 | 1 | **70** |
| 200-399 | 32 | 20 | 1 | 5 | 4 | 18 | 3 | **83** |
| 400-599 | 30 | 23 | 4 | 3 | 8 | 15 | 4 | **87** |
| 600-799 | 25 | 20 | 4 | 1 | 11 | 12 | 3 | **76** |
| 800-999 | 22 | 24 | 1 | 2 | 5 | 10 | - | **64** |
| 1000-1499 | 43 | 40 | 3 | 2 | 13 | 16 | 5 | **122** |
| 1500-1999 | 38 | 39 | 6 | 1 | 9 | 23 | 6 | **122** |
| 2000-2499 | 31 | 28 | 8 | 2 | 7 | 25 | 7 | **108** |
| Over 2499 | 34 | 75 | 9 | 9 | 10 | 18 | 6 | **161** |
| **Total** | **277** | **283** | **36** | **30** | **75** | **157** | **35** | **893** |

## PENSIONS AWARDED IN 2004
## BY OPTION AND NEAREST AGE ON THAT DATE

### MALES & FEMALES COMBINED

| Nearest Age | Pension Option | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Total |
| 0-49 | 2 | 8 | 1 | - | - | - | - | **11** |
| 50-54 | 28 | 32 | 3 | 5 | 8 | 22 | 2 | **100** |
| 55-59 | 76 | 81 | 14 | 10 | 21 | 53 | 14 | **269** |
| 60-64 | 124 | 119 | 16 | 10 | 29 | 65 | 15 | **378** |
| 65-69 | 43 | 30 | 2 | 3 | 14 | 17 | 4 | **113** |
| 70-74 | 3 | 12 | - | 2 | 2 | - | - | **19** |
| 75-79 | 1 | 1 | - | - | 1 | - | - | **3** |
| 80-84 | - | - | - | - | - | - | - | **-** |
| Over 84 | - | - | - | - | - | - | - | **-** |
| **Total** | **277** | **283** | **36** | **30** | **75** | **157** | **35** | **893** |

## AVERAGE MONTHLY BENEFIT OF RETIREES AS OF DECEMBER 31, 2004, BY YEARS ELAPSED SINCE RETIREMENT AND BY YEARS OF SERVICE AT RETIREMENT (EACH CELL INCLUDES NUMBER OF RETIREES AND AVERAGE BENEFIT)

| Service at Retirement | | Years Elapsed Since Retirement | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | Over 34 | Total |
| 0-4 | Number | 153 | 176 | 169 | 186 | 124 | 42 | 12 | - | **862** |
| | Avg. Benefit | 188.00 | 207.42 | 148.87 | 163.92 | 172.24 | 171.95 | 211.18 | | **176.37** |
| 5-9 | Number | 569 | 543 | 591 | 567 | 324 | 198 | 90 | 3 | **2,885** |
| | Avg. Benefit | 360.88 | 319.47 | 304.34 | 321.96 | 289.20 | 276.69 | 257.79 | 212.38 | **316.66** |
| 10-14 | Number | 610 | 727 | 690 | 519 | 239 | 193 | 62 | 9 | **3,049** |
| | Avg. Benefit | 600.11 | 597.80 | 564.16 | 551.67 | 455.64 | 456.07 | 385.99 | 440.57 | **557.91** |
| 15-19 | Number | 675 | 779 | 524 | 438 | 229 | 103 | 62 | 3 | **2,813** |
| | Avg. Benefit | 935.65 | 904.09 | 865.00 | 846.76 | 693.34 | 617.18 | 595.26 | 693.42 | **860.76** |
| 20-24 | Number | 667 | 601 | 366 | 374 | 156 | 116 | 30 | 1 | **2,311** |
| | Avg. Benefit | 1,330.92 | 1,290.49 | 1,227.16 | 1,195.37 | 915.41 | 835.90 | 765.95 | 751.67 | **1,221.56** |
| 25-29 | Number | 685 | 557 | 283 | 296 | 141 | 43 | 11 | 2 | **2,018** |
| | Avg. Benefit | 1,972.14 | 1,824.58 | 1,804.55 | 1,544.41 | 1,196.53 | 984.53 | 951.52 | 825.70 | **1,763.23** |
| 30-34 | Number | 540 | 426 | 281 | 244 | 68 | 14 | 3 | - | **1,576** |
| | Avg. Benefit | 2,603.67 | 2,486.94 | 2,498.29 | 2,115.74 | 1,644.31 | 1,195.25 | 859.29 | | **2,420.56** |
| 35-39 | Number | 116 | 87 | 113 | 43 | 12 | 6 | 6 | 3 | **386** |
| | Avg. Benefit | 3,199.09 | 2,979.64 | 2,986.75 | 2,390.90 | 2,040.52 | 1,145.98 | 1,214.86 | 1,250.17 | **2,883.51** |
| 40 and over | Number | 14 | 15 | 6 | 7 | 3 | 5 | 1 | - | **51** |
| | Avg. Benefit | 3,581.40 | 3,328.59 | 2,345.54 | 2,475.61 | 1,812.54 | 1,350.47 | 1,403.47 | | **2,844.40** |
| **Total** | **Number** | **4,029** | **3,911** | **3,023** | **2,674** | **1,296** | **720** | **277** | **21** | **15,951** |
| | **Avg. Benefit** | **1,314.86** | **1,152.99** | **1,012.56** | **901.58** | **645.05** | **532.30** | **473.97** | **611.24** | **1,043.33** |

Average Service at Retirement = 17.5

Average Years Since Retirement = 11.5

## DISTRIBUTION OF RETIRED PARTICIPANTS BY DATE OF RETIREMENT BASED ON CALENDAR YEARS

| Year of Retirement | Counts | Year of Retirement | Counts |
|---|---|---|---|
| 1956 | 1 | 1981 | 255 |
| 1957 | 0 | 1982 | 234 |
| 1958 | 0 | 1983 | 258 |
| 1959 | 0 | 1984 | 357 |
| 1960 | 0 | 1985 | 410 |
| 1961 | 0 | 1986 | 468 |
| 1962 | 0 | 1987 | 716 |
| 1963 | 2 | 1988 | 568 |
| 1964 | 2 | 1989 | 512 |
| 1965 | 2 | 1990 | 517 |
| 1966 | 2 | 1991 | 541 |
| 1967 | 6 | 1992 | 678 |
| 1968 | 3 | 1993 | 621 |
| 1969 | 3 | 1994 | 666 |
| 1970 | 9 | 1995 | 1,062 |
| 1971 | 65 | 1996 | 690 |
| 1972 | 45 | 1997 | 712 |
| 1973 | 70 | 1998 | 711 |
| 1974 | 88 | 1999 | 736 |
| 1975 | 95 | 2000 | 721 |
| 1976 | 119 | 2001 | 792 |
| 1977 | 146 | 2002 | 766 |
| 1978 | 173 | 2003 | 858 |
| 1979 | 187 | 2004 | 892 |
| 1980 | 192 | | |

**Total: 15,951**

# Key Findings of Actuarial Valuation

- Investments returned 11.5% in 2004 measured on Market Value
- On smoothed basis, a.k.a. Actuarial Value, investments returned 2.8%
- Funding levels acceptable in Paid Fire systems, but others are in shortfall
  - Maximum COLA's not affordable except for Law Enforcement
- This is due to recent improvements in benefits along with two years of negative returns being recognized
- Wyoming Retirement System Funding Margin shortfall is 4.32% (based on 3% COLA)
- Reduced COLA's need to be considered again this year
- Continued rebound in assets for positive funding margin needed to grant maximum COLA

# Actuarial Valuation Review

- What is it?
  - A snapshot of the actuarial position of a pension plan at a given point in time
  - Includes a measurement of the benefit obligation
  - Calculations performed on each member and summed
  - Compares benefit obligation with financial resources
  - Determines annual contribution or actuarial soundness
- What does it provide?
  - A basis for the projection of the long term cost of benefit obligations
  - Understanding and confidence in the current financial soundness of a pension system
  - Early warning system for potential funding problems

# Actuarial Valuation Review

- What does the process include?
  - Membership data.
  - Financial data.
  - Benefit structure.
  - Actuarial assumptions.
  - Cost method.
  - Asset valuation method.
- What it doesn't tell you:
  - Actuarial position on future dates.
  - Effect of future new members.
  - Impact of future plan changes.

# Actuarial Balance

Projected Benefit Obligation

Projected Financial Resources

Valuation Date

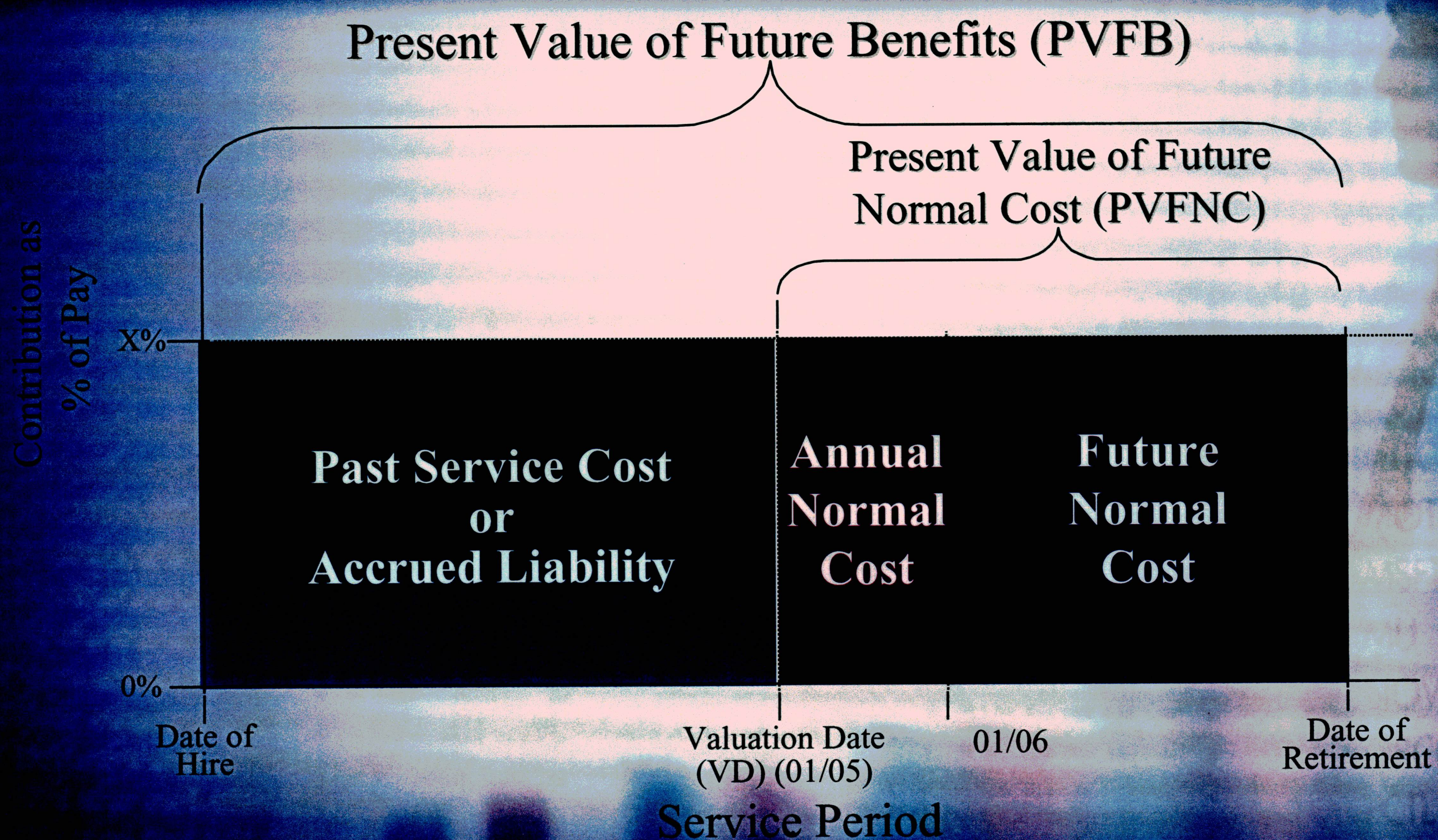
*Over the life of a pension system,*

*Benefits + Expenses = Contributions + Investment Return*

# Actuarial Methods

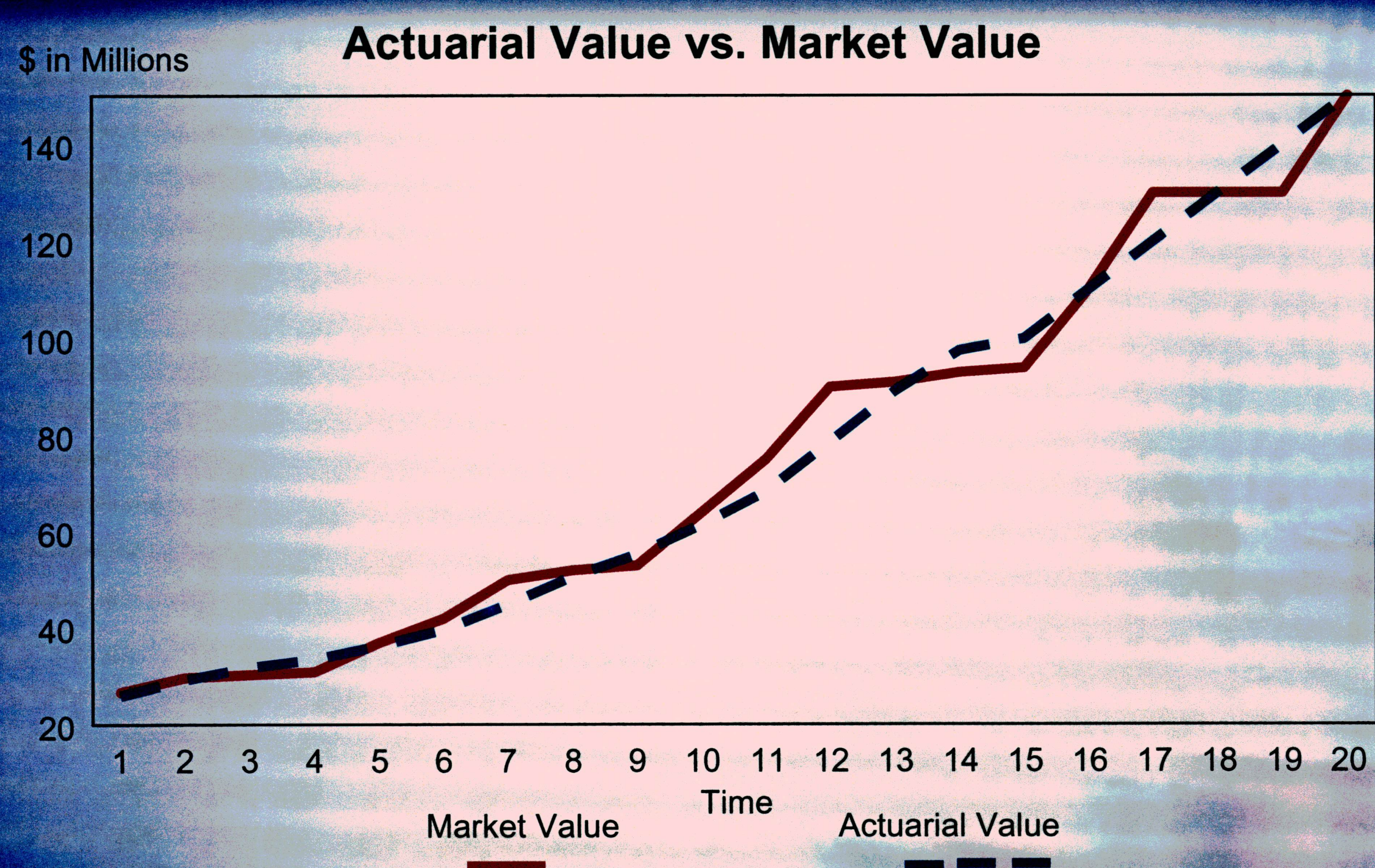
- Entry Age Normal Cost Method
  - Unfunded liability
  - Normal cost
  - Gains/Losses adjust unfunded
- Unfunded Liability is amortized over rolling 30-year period
  - Total payroll assumed to increase 4.0% annually for ongoing, pay related plans
  - Amortization methodology meets GASB parameters
- Asset Valuation Method
  - 5-Year smoothing of appreciation or depreciation
- Actuarial Contribution is equal to the Normal Cost plus an amortization payment toward the Unfunded Liability

# Funding Process




Accrued Liability - Assets = Unfunded/(Surplus)

# Example of Asset Smoothing Method

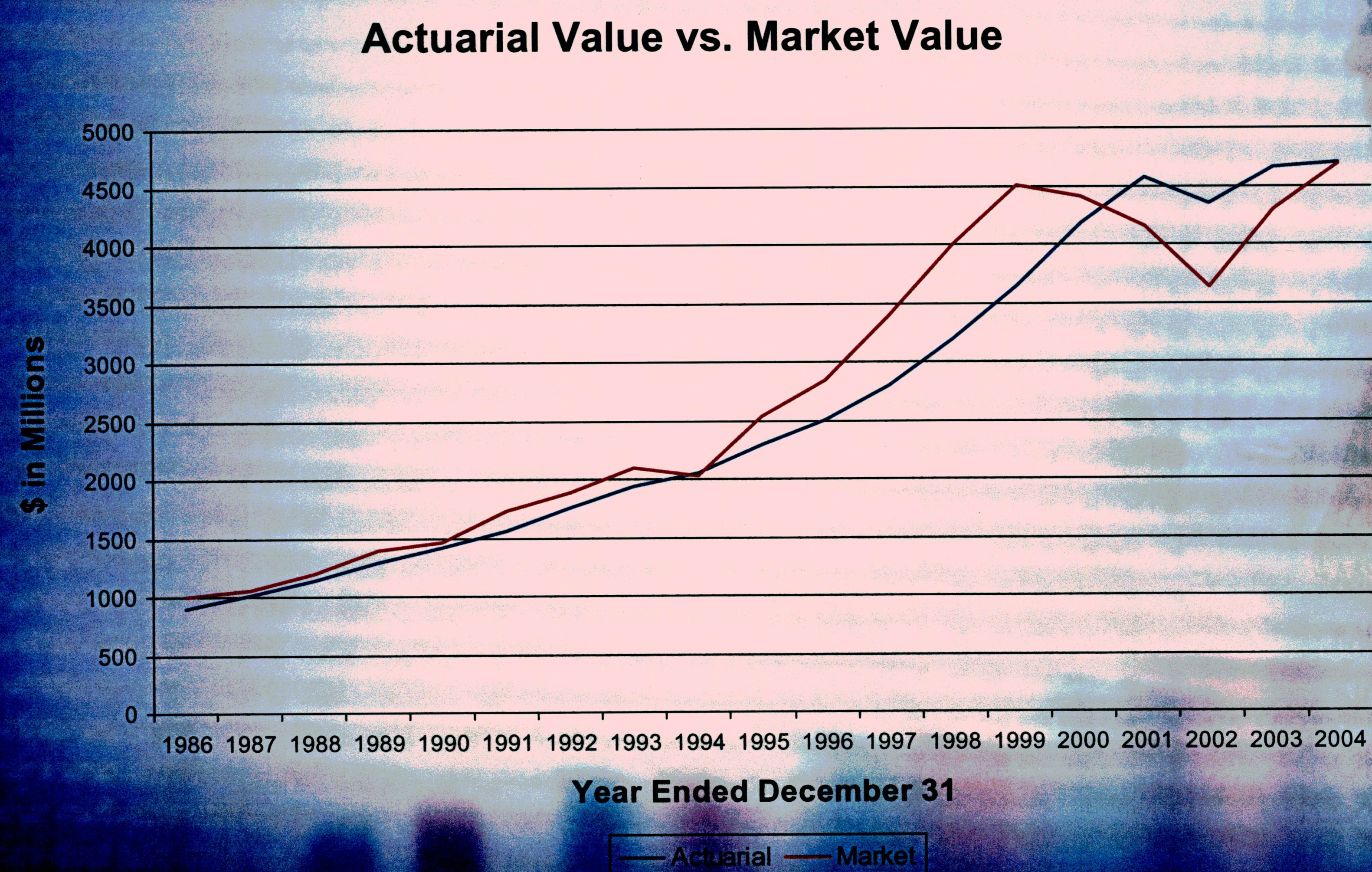



Actuarial Value is expected to be:

- Below Market when market is doing well
- Above Market when market is doing poorly

# Wyoming Retirement System

## Actual History (1986 – 2004)



# Wyoming Retirement System Plans

## Summary of Funding Position

| | Actuarial Value of Assets | Actuarial Accrued Liability | Funded Percentage* |
|---|---|---|---|
| ***As of January 1, 2005*** | | | |
| - Wyoming Retirement System | $4,704 | $5,536 | 85% |
| - Law Enforcement | 231 | 260 | 89% |
| - Paid Fire Plan A | 192 | 186 | 103% |
| - Paid Fire Plan B | 47 | 41 | 115% |
| - Warden and Patrol | 86 | 96 | 90% |
| - Judicial | 5 | 9 | 59% |
| ***As of January 1, 2004*** | | | |
| - Wyoming Retirement System | $4,658 | $5,077 | 92% |
| - Law Enforcement | 205 | 236 | 87% |
| - Paid Fire Plan A | 200 | 181 | 110% |
| - Paid Fire Plan B | 43 | 35 | 123% |
| - Warden and Patrol | 85 | 90 | 94% |
| - Judicial | 4 | 8 | 43% |

Based on giving COLA's allowed Max

All $ figures are in millions

Some numbers do not match the report due to rounding.



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# Principal Actuarial Assumptions Big System

- Investment Return — 8.0%, net of investment expenses
- Salary Increases — 5.0% individual; 4.0% system-wide
- Retirement Age — Varying retirement rates, ages 50-70
- Cost of Living — Up to 3% maximum annual increase
- Mortality — 1994 Group Annuity Mortality table, sex distinct
- Termination and Disability — Experience tables

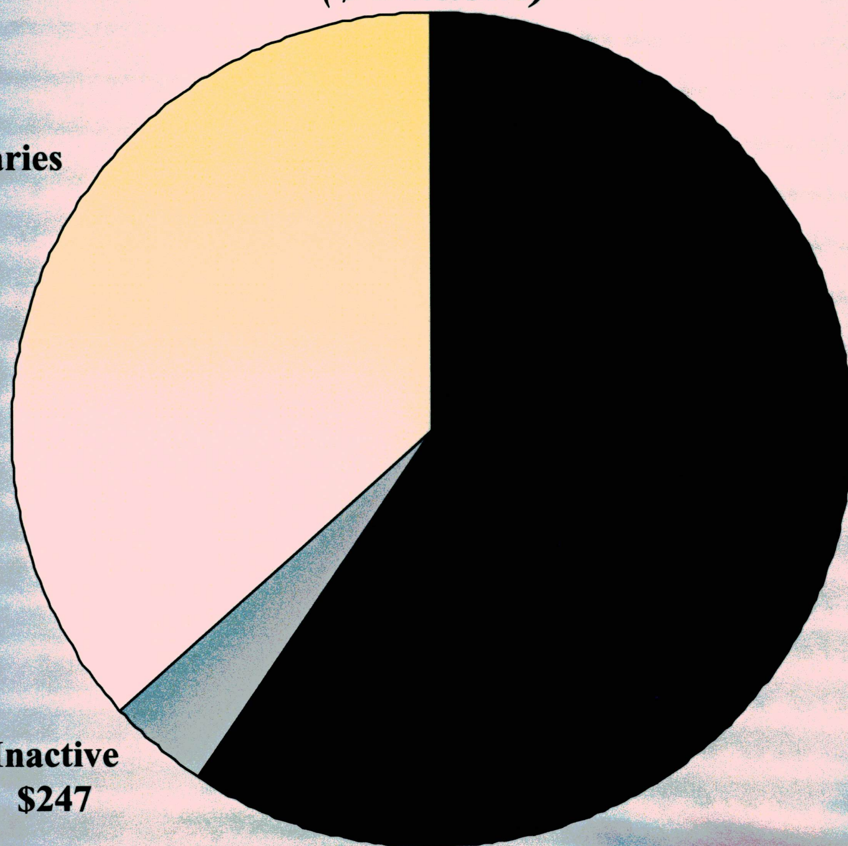
# What Does an Actuarial Valuation Tell You?

- Present Value of Expected Future Benefit Payments, based on:
  - Expected Future Benefit Payments
  - 8% Discount Rate
  - 3% COLA
- Normal Cost tells you the cost of accruing benefits
- Actuarial Accrued Liability tells you where Funding should be if experience was as assumed
- An Unfunded Liability means your funding is currently behind expected levels
- A Surplus, or negative Unfunded Liability means your funding is ahead of expected levels

# Wyoming Retirement System

## Present Value of Future Benefits

*($ millions)*




***TOTAL PRESENT VALUE: $6,382 million***

***TOTAL ACTUARIAL VALUE OF ASSETS: $4,704 million***

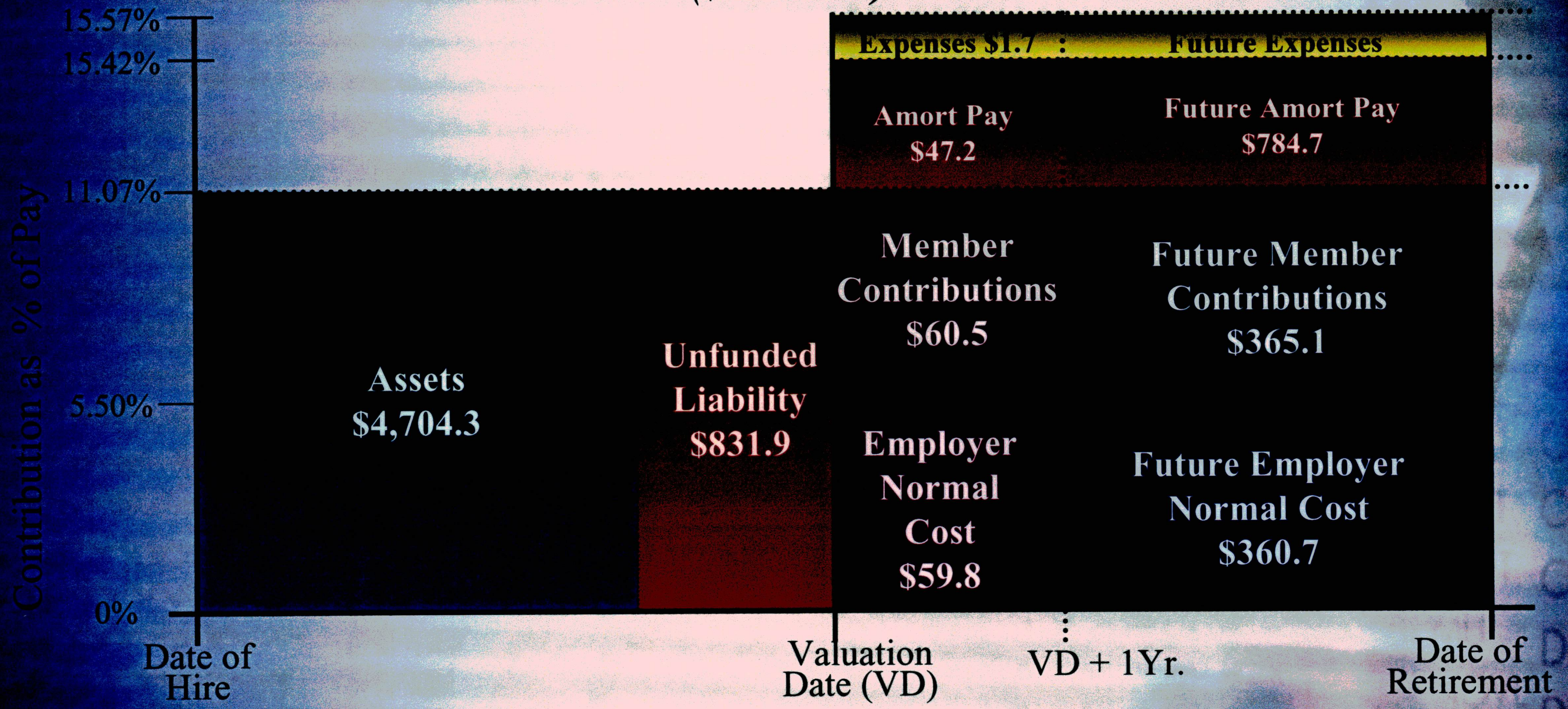
***TOTAL MARKET VALUE OF ASSETS: $4,694 million***

# Wyoming Retirement System

## Funding Progress at January 1, 2005

## Funding for Maximum 3% COLA

*($ millions)*




**Service Period**

**Accrued Liability - Assets = Unfunded/(Surplus)**

**$5,536.2 - $4,704.3 = $831.9**

**Funding Percent: 85.0%**

# Wyoming Retirement System
## Changes Resulting From Actuarial Audit

- Deferred vested member liability increased to consider higher expected value of monthly benefit payments
  - Increased Actuarial Accrued Liability by 2.1% for 3% COLA, or $112.6 million
- Other minor programming changes made and recognition of securities lending income considered in Actuarial Value of Assets did not have a material impact on the actuarial results

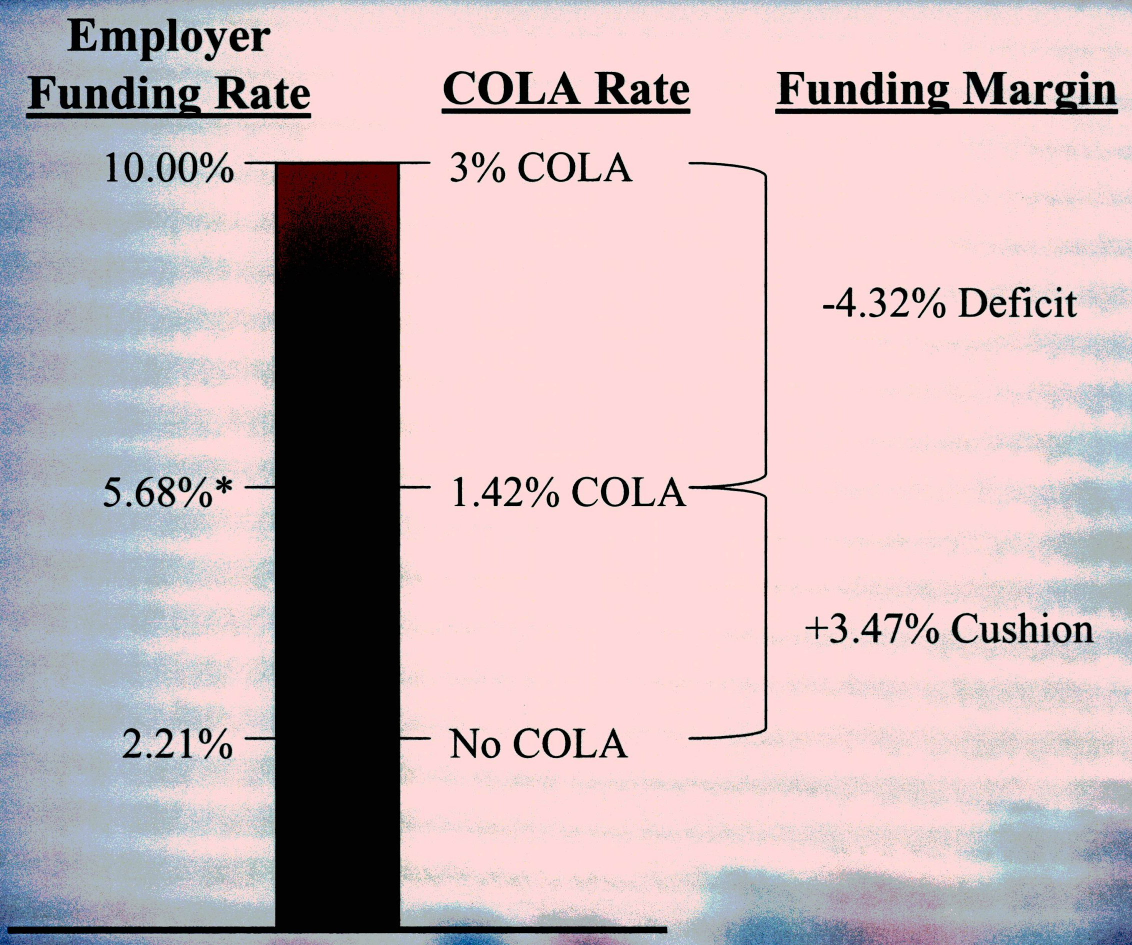
# What About COLA Increase Assumptions?

- Actuarial valuation performed using 3% COLA assumption
- 3% assumption not affordable in the long run
  - Based on current actuarial valuation
  - Based on current asset levels
  - Based on 8% future return
  - Based on future demographic changes as assumed
- Actuarial results support a 1.42% COLA
- The 1.42% COLA can be maintained long-term and meets the Board's funding policy; therefore, the plan is actuarially sound

# Wyoming Retirement System
## Development of Funding Margin

| | 3% COLA |
|---|---|
| • Normal Cost | 11.07% |
| • Member Contributions | 5.57% |
| • Employer Share of Normal Cost | 5.50% |
| • Amortization of Unfunded Liability (30 years) | 4.35% |
| • Administrative Expenses | 0.15% |
| • Total Employer Cost | 10.00% |
| • Statutory Employer Contribution | 5.68% |
| • Funding Margin/(Deficit) | (4.32%) |

# Wyoming Retirement System
## Illustration of Funding Margin




*Current Statutory Employer Rate

# What COLA Policy Should The Board Adopt?

- The 1.42% COLA can be maintained long-term and meets the Board's funding policy; therefore, the plan is actuarially sound
- We propose 1.4% COLA for this year
- Continued annual monitoring
- If experience continues as expected, the 1.4% COLA can be maintained in future years
- If situation improves enough, will be able to grant full 3.0% again
- If situation deteriorates further, lower COLA's will be granted in the future

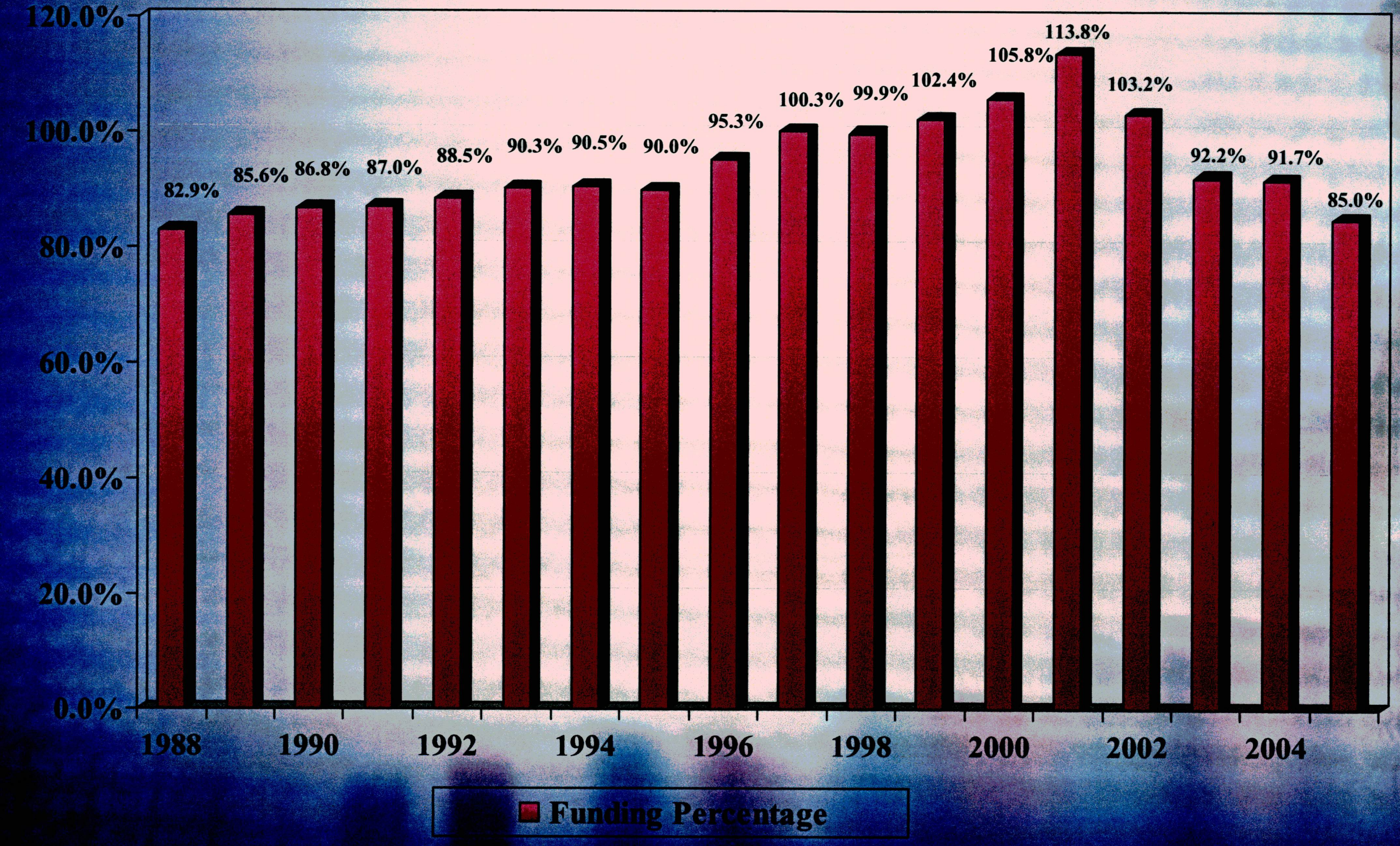
# Wyoming Retirement System

## Comparative Summary of Key Demographic Information

| | Valuation Date | | Change |
|---|---|---|---|
| | 01/01/04 | 01/01/05 | |
| ***Number of Members*** | | | |
| - Active | 31,494 | 32,134 | + 640 |
| - Retirees, Disableds and Beneficiaries | 15,392 | 15,951 | + 559 |
| - Inactive Vested Members | 4,745 | 4,847 | + 102 |
| Total | 51,631 | 52,932 | + 1,301 |
| ***Projected Payroll ($ millions)*** | $ 1,032 | $ 1,087 | + 55 |
| ***Active Averages*** | | | |
| - Age (years) | 45.9 | 46.1 | + 0.2 years |
| - Service (years) | 10.5 | 10.5 | + 0.0 years |
| ***Annual Disbursements (Prior Year)*** | | | |
| - Pensions ($millions) | *$ 176.4* | *$ 192.6* | + *$16.2* |
| - Refunds ($millions) | *$ 9.5* | *$ 9.1* | - *$0.4* |

# Wyoming Retirement System

## History of Funding Percentage



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