

**SUBMITTAL TO THE BOARD OF SUPERVISORS
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA**

349



SUBMITTAL DATE:
May 12, 2008

FROM: Paul McDonnell, Treasurer-Tax Collector
Chairman, Pension Advisory Review Committee (PARC)
SUBJECT: FY 2007/2008 Annual Report of the Pension Advisory Committee

RECOMMENDED MOTION: That the Board of Supervisors:

- 1.) Receive and file the FY 2007/2008 PARC report
- 2.) Adopt the recommendation to use existing monies in the liability management fund to reduce the County's CalPERS liability and authorize staff to redeem pension bonds, if available, and if not, to transfer funds to CalPERS.

BACKGROUND: In October 2003, the Board of Supervisors approved the formation of PARC to develop a better understanding of the County's defined benefit pension plan.

(Continued on page 2.)

Paul McDonnell
Treasurer-Tax Collector, Chairman

For

Bill Luna (Christopher Hans)
Assistant County Executive Officer, Member

Ron Komers
Asst. County Executive Officer, HR Director, Member

FINANCIAL DATA	Current F.Y. Total Cost:	\$ 0	In Current Year Budget:	N/A
	Current F.Y. Net County Cost:	\$ 0	Budget Adjustment:	N/A
	Annual Net County Cost:	\$ 0	For Fiscal Year:	2007/08

SOURCE OF FUNDS:	Positions To Be Deleted Per A-30	<input type="checkbox"/>
	Requires 4/5 Vote	<input type="checkbox"/>

C.E.O. RECOMMENDATION:

APPROVE

BY:
Gary M. Christmas

County Executive Office Signature

Dep't Recomm.: Consent Policy
Per Exec. Ofc.: Consent Policy

Prev. Agn. Ref.: _____ District: _____ Agenda Number: _____

ATTACHMENTS FILED
WITH THE CLERK OF THE BOARD

3.53

BOARD OF SUPERVISORS

Form 11: FY 2007/2008 Annual Report of the Pension Advisory Review Committee

May 12, 2008

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BACKGROUND: (Continued)

One of the responsibilities of PARC is to annually report to the Board on the performance of the plan, evaluate strategies to address under-funded and/or over-funded positions, and evaluate changes to the plan.

The Committee, with input from the County's independent actuary John Bartel, has prepared the following report for the Board. The report is the third annual report to be presented.

This report indicates favorable trends in funding status and contribution rate outlook for the County. The County's pension cost as a percentage of payroll for both the Safety and Miscellaneous pension plans have gone down and are not expected to increase. It also provides a recap of savings resulting from the prepayment financing, the refinancing of our prior CalPERS liability and prepayment savings to the General Fund now totaling \$8.6 million. The issuance of Pension Obligation Bonds has resulted in over \$125 million in savings to date.

A recap of the result of the Board policy position taken to eliminate the "implicit subsidy" and to create the OPEB Trust is provided as a result of all these steps. The actuarial Present Value of all Benefits (PVB) has declined from \$236.7 million to \$48.6 million.

SUMMARY: The Committee has recommended that the Board:

1. Receive and file the FY2007/2008 PARC report;
2. Adopt the recommendation to use existing monies in the liability management fund to reduce the County's CalPERS liability and authorize staff to redeem pension bonds, if available, and if not, to transfer funds to CalPERS.

Pension Advisory
Review Committee



2007 Annual Report

Riverside County
Pension Advisory Review Committee

May 12, 2008

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1. Bartel Associates Repot

I Executive Summary

Introduction

The County's Pension Advisory Review Committee (PARC) was established in the fall of 2003 to develop an institutional framework to help guide policy decisions about retirement benefits.

A key responsibility of the PARC is to produce an annual report. The report informs the Board and the public about important developments affecting county retirement benefit plans and provides information about projected costs and funding status. This is the third Annual Report.

Pension Plan Status

Funding status has improved due to the sustained higher investment rates over the past four years. The projected June 30, 2008 gross funding status is approximately 97.9 percent for the county's Safety and Miscellaneous plans. On a net basis, taking into account the outstanding Pension Obligation Bonds ("POBs") liability, the ratio is 89.7 percent, representing an improvement of 5.4 percent since June 2005.

CalPERS' investment performance over the previous four years was strong and has exceeded the system's assumed actuarial rate of return; performance over the previous four years averaged 14.9 percent, compared to 1.77 percent from 2001 to 2004.

The county's employer-rate outlook for FY 2008 will remain positive, based upon past investment performance, improved funding status and despite very recent sub par investment returns. CalPERS' new rate smoothing technique makes rates less volatile. Actuarial projections show that sustained deviation from the assumed rate of 7.75 percent will take seven to ten years to move rates up or down.

Financing Status report

Independent actuarial analysis indicates a **benefit of over \$125 million** since the issuance of Pension Obligation Bonds in 2005. One aspect of our POB structure was to capture a portion of the savings and use it to accelerate scheduled debt reduction. Thus, although we are 97.9 percent funded, the 2.1 percent unfunded portion equates to a \$202.3 million liability in addition to the \$392.9 million of Pension Obligation Bonds outstanding. In prior years the committee has recommended using the captured savings to pay down its unfunded pension liability with CalPERS. The committee recommended this year that the savings, estimated to be \$5.7 million, be used to retire outstanding POBs.

Annual Prepayment

Many pension systems, including CalPERS, have for years offered early payment discounts in lieu of periodic payments coinciding with payroll disbursements. PARC first recommended seizing this opportunity in 2004 and continues to do so. **This year's prepayment is expected to generate \$ 1.9 million in cash-flow benefit, coming on the heels of prior-year savings totaling \$8.2 million.**

OPEB Update

Independent actuary's report indicates that as a result of the Board policy position taken to eliminate the "implicit subsidy" and to create an OPEB trust, the county has reduced its actuarial Present Value of all Benefits (PVB) by \$ 177.9 million to \$48.6 million and is now in full compliance with the objectives of GASB 45.

Recommendations

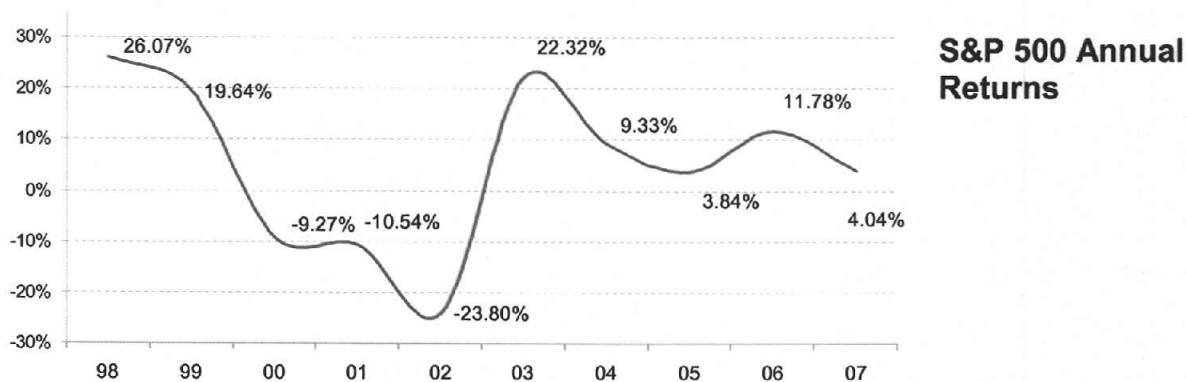
- 1 Receive and file the FY 2007/2008 PARC report.
- 2 Adopt the recommendation to use money in the liability management fund to reduce the county's CalPERS liability and authorize staff to redeem POB's, if available, and if not, to transfer funds to CalPERS. The amount available for transfer is estimated to be \$5.7 million for FY 07/08.

II Plan Funding Status

Funding status, the value of assets versus benefits payable, has increased due to sustained improvement in the investment returns.

Market Summary. The housing bubble finally imploded in late 2007. The economy decelerated to a 2.2 percent pace (Real GDP growth from the 2006 annual level to the 2007 annual level), as a result of a large decrease in residential construction caused by the fall of real estate prices.

- Negative equity returns in the last two months of the year turned what had been a strong year into a rather mediocre one. The S&P 500 was up approximately 4 percent for calendar year 2007.
- Fixed income yields changed dramatically during 2007. Credit spreads widened and the yield curve steepened. T-bill rates dropped by 166 basis points while the 30-year Treasury yield was down 36 basis points. The drop in rates drove the price of fixed income securities up.
- The real-estate market declined in 2007. Commercial real-estate mitigated some of the losses from the residential market sector.

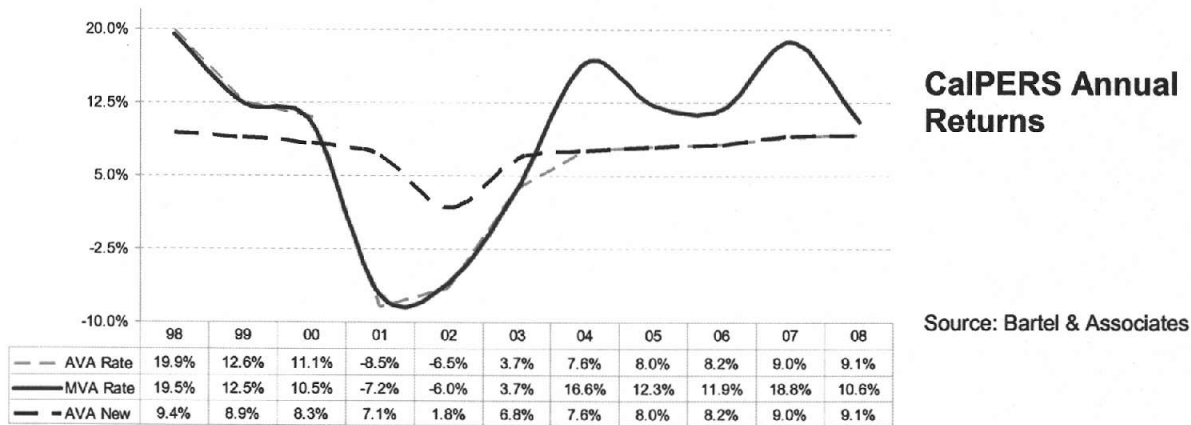


CalPERS earned an investment return of over 18.82 percent in 2007. The Portfolio market value reached a record \$244.8 billion in February 1, 2008. It was invested as follows:

1. \$71.1 billion or 29.04 percent of the portfolio in Cash, Global Fixed Income and Direct/Partnerships
2. \$ 152 billion or 62.09 percent of the portfolio in Domestic, International and Private Equities
3. \$19.8 billion or 8.09 percent of the portfolio in Real Estate
4. \$1.9 billion or 0.78 percent of the portfolio in Inflation Linked Funds

Current Return (MVA)¹. Investment returns through October 31, 2007 are estimated to be 10.6 percent annualized. Given recent weakness in the stock markets it is safe to assume that the FY 2008 investment returns will be lower than 10.6 percent. The actuarial rate of return is estimated to be 9.1 percent due to CalPERS smoothing technique which will incorporate more of the strong investment performance of recent years.

CalPERS' investment performance has generally mirrored performance in the capital markets.



The recently improved investment return has improved CalPERS' actuarial rate of return. For 2008, the projected annual market rate of return is greater than the assumed actuarial rate of return of 7.75 percent. This indicates that there will be an upward pressure on the current actuarial rate of 9 percent in the coming years. The following are five- and ten-year average market returns and actuarial returns.

	5 Year Average	10 Year Average
AVA Rate	8.4	5.4
MVA Rate	14.0	8.2

Market and Actuarial average rates

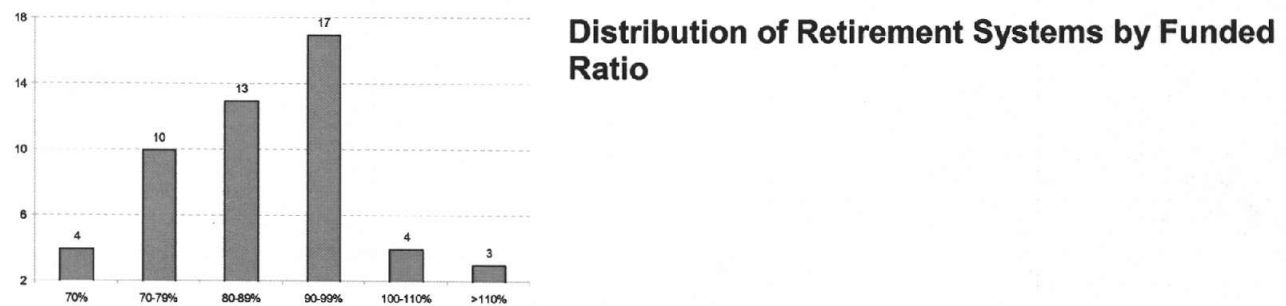
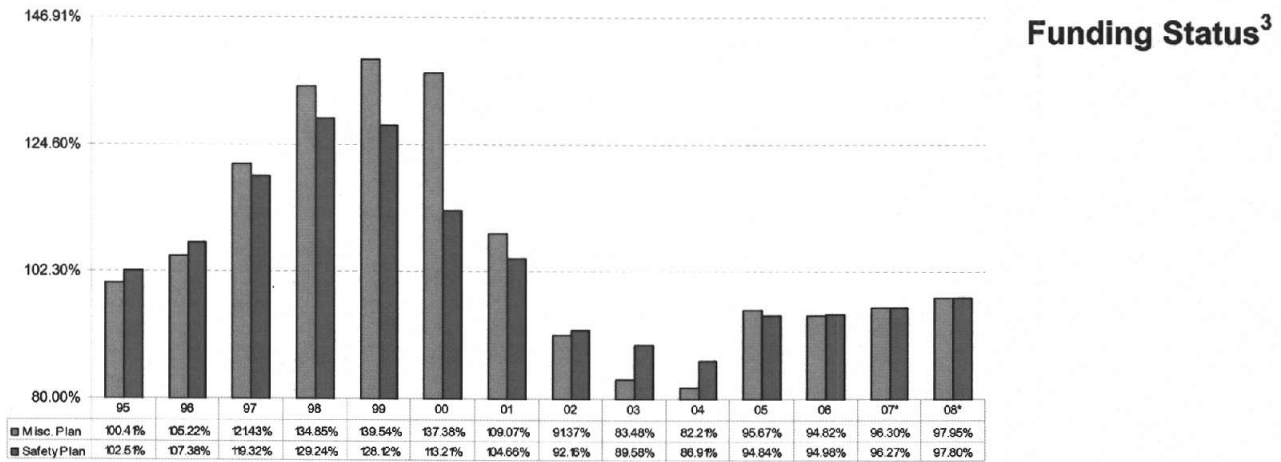
¹ CalPERS refers to the actual market return as MVA rate and the "actuarial rate of return" as AVA; the AVA is CalPERS "smoothed" rate of return and it is the rate used to value assets on deposit with CalPERS. AVA rates are provided for the miscellaneous plan; AVA rates for the Safety plan are similar and can be found in Appendix 1.

Current Funding Status. Bartel & Associates forecasts that as of June 30, 2008, the county will have an unfunded liability of \$138.7 million for the Miscellaneous plan and \$63.6 million for the Safety plan. The most recent CalPERS report has a valuation date of June 30, 2006, thus the need to forecast. (See Appendix.1)

The projected June 30, 2008 CalPERS funding status for the miscellaneous and safety plans are 98 percent and 97.8 percent, respectively. On a net basis (including the outstanding POB liability of \$388 million) the funding levels are 88.7 percent for the Miscellaneous plan and 92 percent for the Safety plan. The County's funding ratios compare favorably to other California pension plans.

The 2007 Wilshire Report on City & County Retirement Systems found that the 62 city and county retirement systems in its study that provided actuarial data on or after June 2006, on average, experienced a 3 percent improvement in funding levels as a result of strong investment returns².

The following graphs shows the Miscellaneous and Safety plans' funded status over the last several years (expressed as a ratio of asset to liability) and survey results from the Public Employee Post-Employment Benefits Commission:



² 2007 Report on City & County Retirement Systems: Funding Levels and Asset Allocation.

³ Gross funding only. Accounting for bond liability reduces the net funding levels to 88.5 percent and 91.7 percent for the Miscellaneous plan and the Safety plan, respectively.

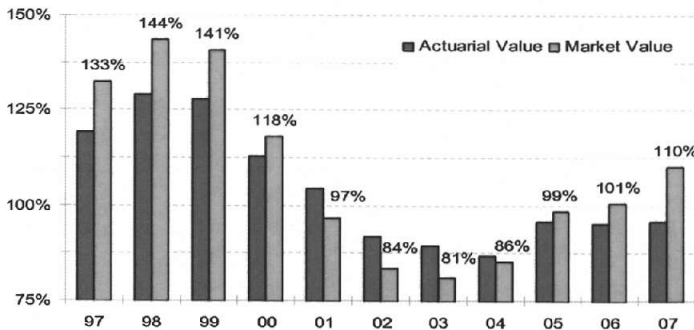
Unfunded Actuarial Liability. In absolute terms, the Miscellaneous and Safety plans unfunded liability increased by \$31.7 million and \$5.4 million, respectively, from the levels of June 30, 2005.

The increase of the actuarial unfunded liability in the Miscellaneous and Safety plans was caused by a higher than expected increase in salaries and higher than expected increase in the level of personnel (active, inactive and retirees). CalPERS requires that participating employers, on an annual basis, contribute an amount sufficient to cover currently accruing benefits. That amount is estimated and based on various actuarial assumptions. When the annual employer's contribution is made based on underestimated actuarial assumptions an unfunded liability is created.

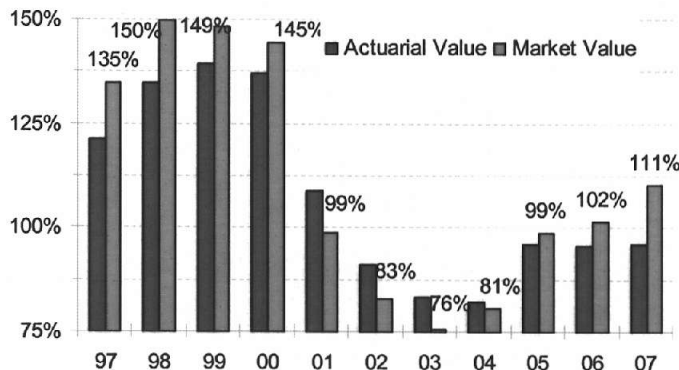
Actuarial Value Versus Market Value of Assets. For 2007, the Miscellaneous and Safety pension plan asset market values were \$615 million greater than their actuarial values. On a market value basis, the funding status for the Safety and Miscellaneous pension plans were 110% and 111% for 2007, 14% greater than their actuarial basis funding ratio.

This indicates that the actuarial based funding ratios for the County's pension plans will continue to increase despite lower investment returns. CalPERS values assets on an actuarial basis in order to reduce volatility in its valuations.

The following graph shows the Miscellaneous and Safety plans' funded status on a market value and actuarial value basis over the last several years (expressed as a ratio of assets to liability):



Safety Plan



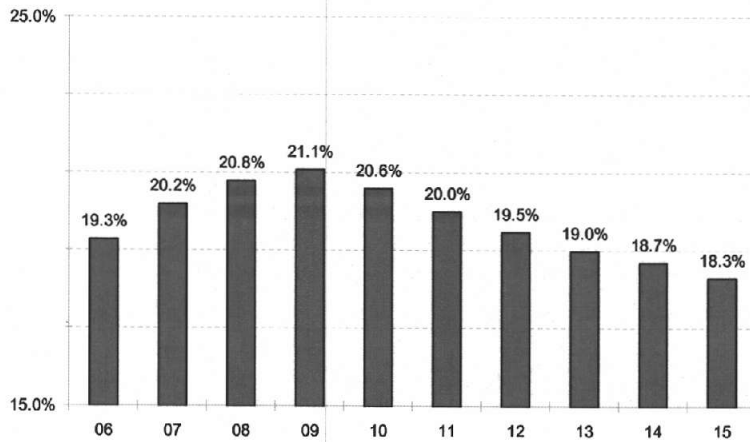
Miscellaneous Plan

III Employer Rate Outlook

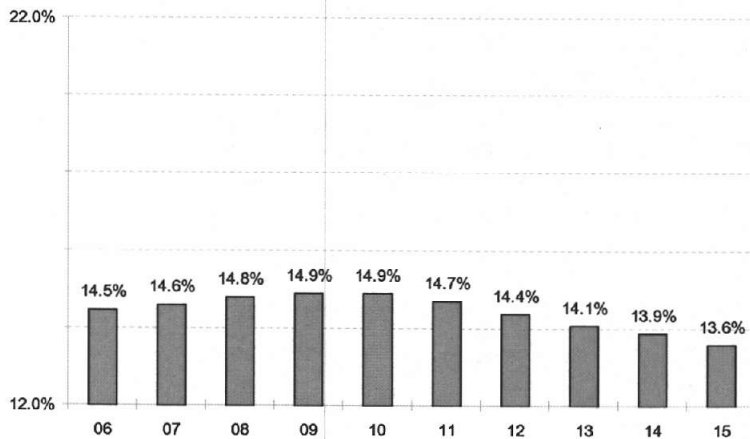
Actuarial projections show that sustained investment rate of return deviations from the assumed rate of 7.75 percent will take seven to 10 years to move the actual actuarial rates up or down. The county's employer-rate outlook is favorable, based on improved investment performance and a higher funding ratio.

If CalPERS were to underperform for a sustained period, the impact upon rates would be delayed and it would also take longer to return to the target rate which is based upon 7.75 percent. This is not an immediate concern, but the Committee will monitor this annually and could recommend making higher payments than CalPERS requires to mitigate the impact of sustained underperformance in such a case.

In the graphs below, employer pension contribution are shown as a percentage of Annual Payroll.



Projected Safety Contribution⁴

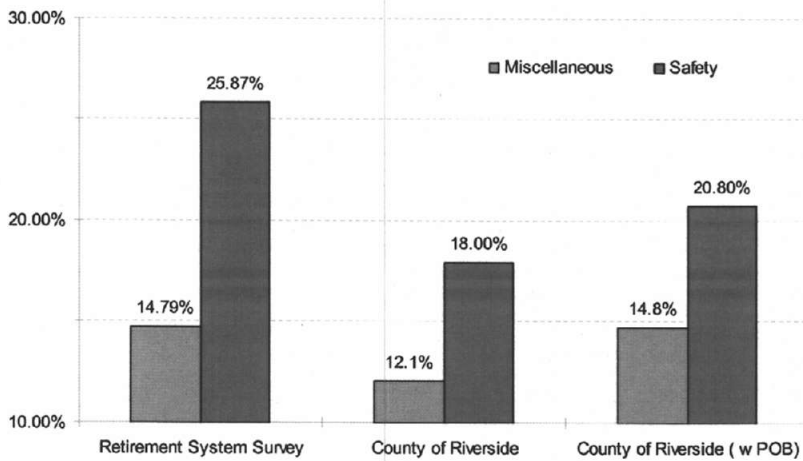


Projected Miscellaneous Contribution⁴

⁴ Includes POB debt service. The investment scenario corresponds to the 50% confidence. Additional investment scenarios are provided in Appendix 1.

Riverside County's annual pension cost, which includes employer contributions and POB debt service increased slightly from 2007 to 2008. Over the long run, annual pension costs are projected to decline slightly. Annual pension costs as a percentage of total payroll, for both the Safety plan and the Miscellaneous plan are projected to decline by 1.3 percent and 0.4 percent, respectively from FY 2008 to FY 2012.

The County's employer-rate outlook for FY 2008 compares well to survey results of the Public Employee Post-Employment Benefits Commission report. On a gross basis the County's Miscellaneous Plan employer contribution rate is 2.69 percent lower than the State's average employer contribution of 14.79 percent. The Safety Plan is 7.87 percent lower than the State's average employer contribution of 25.9 percent.



Comparison to Retirement System Survey for FY 2008

IV Financing Status Update

Pension Obligation Bonds. The county sold a \$400 Pension Obligation Bond (POB) in February 2005 and the county made its first payment on August 15, 2005. Contemporaneous projections show the POBs were expected to save \$161.8 million over the life of the bonds. The projections assumed CalPERS earns its 7.75 percent assumed actuarial rate of return over the life of the bonds. The "break-even" rate for the bond transaction is 4.91 percent, the rate on the POBs.

To date, based upon the analysis of independent actuary John Bartel, the county has saved \$125 million, as shown in the calculation below.

	Amount (millions)
CalPERS Investment Earnings ⁵	\$184.9
POB Interest Payments	(56.7)
<u>Cost of Issuance</u>	<u>(3.1)</u>
Net Savings	\$125.0

Analysis of Performance to Date⁶

Liability Management Fund. One key aspect incorporated into the POB structure is the liability management fund. The fund collects an amount representing 50 percent of the projected savings that would otherwise be passed on to departments. The purpose is to accelerate repayment of the county's pension liabilities, reducing pension costs in the long term and reducing the marginal risk associated with issuing POBs.

PARC policy dictates that at the end of the year the committee is to recommend whether the funds should pay down any liability at CalPERS or buy down POBs. As of December 31, 2007 there is \$3 million in the Liability Management Fund. It is projected that fiscal year ending balance will be \$5 million.

In prior years the committee has recommended using the captured savings to pay down its unfunded pension liability. The Unfunded Actuarial Liability's assumed rate of return is 7.75 percent and is more expensive than the Pension Obligation Bonds interest rate of 4.91 percent, the imputed rate of return.

The committee will recommend that the estimated \$5 million in savings be used to retire outstanding POBs, as the funding status of both pension plans are now trending to

⁵ On POB proceeds only.

⁶ Provided by Bartel Associates. It should be noted that there could be any number of alternative calculation methods. They all would produce substantial positive return.

100% funded. The ability to implement this strategy is a function of the availability of bonds in the secondary market. Should bonds not be available the funds will be sent to CalPERS.

CalPERS Annual Prepayment. One of the first steps PARC initiated was the annual prepayment program. CalPERS offers participants a discount for prepaying its projected annual employer's pension cost in a lump sum at the beginning of the fiscal year. The discount amounts to 50 percent of CalPERS' assumed actuarial return.

Since FY 2004 the general fund has netted approximately **\$8.2** million by executing the CalPERS prepayment program, which takes advantage of the prepayment discount and associated internal cash flows.

For FY 2008/09 the county is obligated to pay \$127.99 million, which is the employer's projected contribution for "normal" pension cost.

The PARC recommend's that two thirds of the projected \$127.99 million annual pension cost be prepaid. Savings for prepaying that portion of the normal cost for FY 2008/2009 is \$1.9 million. (See graph below for summary of prior year savings)

	FY 2005	FY 2006	FY 2007	FY 2008
Total Normal Cost	\$ 119.41	\$ 97.74	\$ 107.05	\$ 113.20
Normal Cost Prepaid	107.47	87.96	71.37	75.46

Summary Prepayment Savings (000,000's)

PERS discount	4.18	3.22	2.61	2.76
Interest earned	1.47	1.59	2.09	1.80
Net Borrowing cost	(2.73)	(3.31)	(2.46)	(2.69)
Savings	\$ 2.92	\$ 1.50	\$ 2.39	\$ 1.80

VI OPEB Liability

The PARC recommended that the County explore pre-funding options for the "hard liability" on its September 12, 2006 report to the Board and \$10 million was set aside to pre-fund the County's "hard liability." The "hard liability" represents the present value of the County's monthly contribution to retiree health care.

The liabilities and annual costs for the County's contribution promises to retirees are now calculated and reported in accordance with GASB 45. On 11/19/08 the County entered into an agreement with the California Employers Retirement Benefits Trust Program (CalPERS Trust) and made an initial deposit of \$10 million.

The CalPERS Trust offers several advantages over other trust arrangements including but not limited to CalPERS' experience in operating similar trusts and CalPERS' low cost. As a result of participation in the CalPERS Trust program higher investment returns are now projected and thus translate to a lower actuarial cost.

The liability pertaining to the implied subsidy resulting from the pooling of active and pre-65 retirees for purposes of health care insurance will be reported, but not funded. This liability is borne by active employees and does not represent a true county financial liability. In any case, the practice of pooling active and pre-65 retirees is being phased out within 32 months.

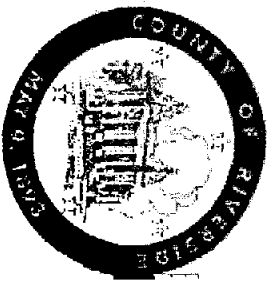
The independent actuary's report indicates that as a result of the Board policy position taken to eliminate the "implicit subsidy", to create the OPEB trust, and make an initial deposit of \$10 million, the actuarial Present Value of all Benefits (PVB) declined from \$236.7 million to \$48.6 million.

The Annual Required Contribution (ARC) declined from \$15.9 million to \$4.6 million since the last valuation report using the 30-year Entry Age Normal Cost Method.

VII Recommendations

- 1 Receive and file the FY 2007/2008 PARC report.
- 2 Adopt the recommendation to use money in the liability management fund to reduce the County's CalPERS liability and authorize staff to redeem POB's, if available, and if not, to transfer funds to CalPERS. The amount available for transfer is estimated to be \$5.7 million for FY 07/08.

APPENDIX 1
Bartel Associates Report



**COUNTY OF RIVERSIDE
SAFETY & MISCELLANEOUS PLANS**

CalPERS Actuarial Issues – 6/30/06 Valuation

JOHN E. BARTEL

BARTEL
ASSOCIATES, LLC

February 4, 2008

Agenda

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CalPERS Rate Smoothing

Agenda

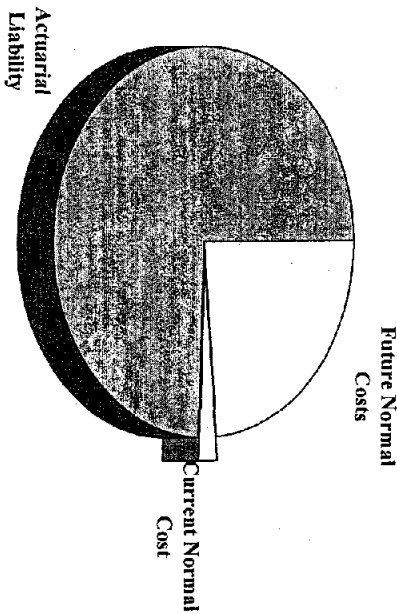
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Definitions

Present Value of Benefits

June 30, 2006



- **PVB - Present Value of all Projected Benefits:**
 - Discounted value (at valuation date - 6/30/06), of all future expected benefit payments based on various (actuarial) assumptions
- **Actuarial Liability:**
 - Discounted value (at valuation date) of benefits earned through valuation date [value of past service benefit]
 - Portion of PVB “earned” at measurement
- **Current Normal Cost:**
 - Portion of PVB allocated to (or “earned” during) current year
 - Value of employee and employer current service benefit

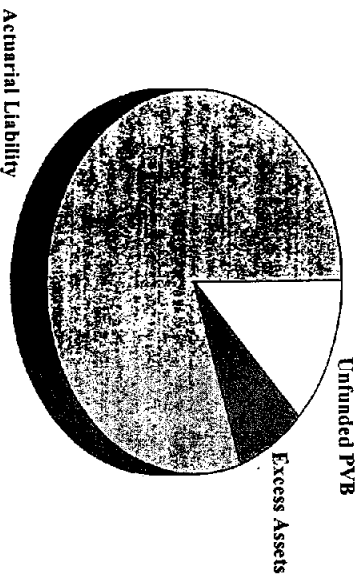
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February 4, 2008



Definitions

Present Value of Benefits
June 30, 2006



- **Target-** Have money in the bank to cover Actuarial Liability (past service)
- **Unfunded Liability** - Money short of target at valuation date
- **Excess Assets / Surplus:**
 - Money over and above target at that point in time.
 - Doesn't mean you're done contributing.
- **Super Funded:**
 - Assets cover whole pie (PVB)
 - If everything goes exactly like PERS calculated, you'll never have to put another (employer or employee) dime in.

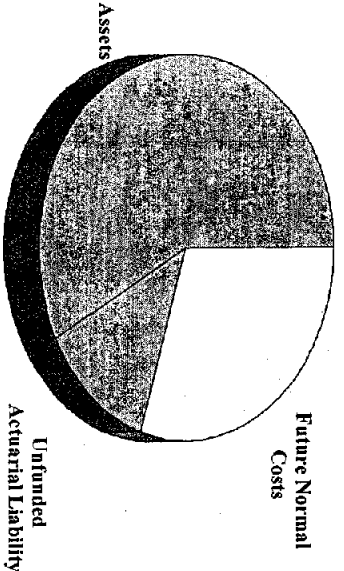


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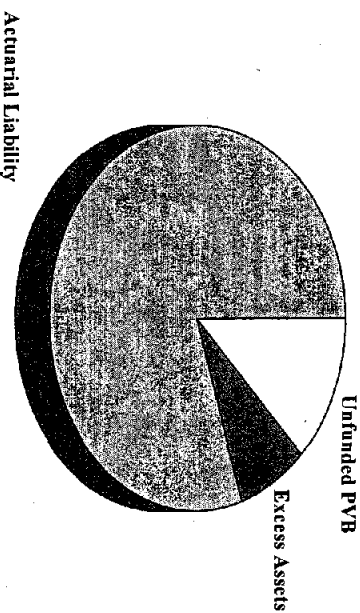


Definitions

Present Value of Benefits
June 30, 2006



Present Value of Benefits
June 30, 2006



- Contribution =
 - Normal Cost
 - + Unfunded Liability AmortizationOR
 - - Excess Asset Amortization



February 4, 2008



Plan Funded Status Safety

- Future events that might cause rate fluctuations:
 - Asset Gains/Losses:
 - Smoothing will not mitigate upcoming asset losses
 - Experience Gains/Losses (somewhat mitigated because of smoothing):
 - Disabilities
 - Salaries
 - Retirements
 - Air Time Service Purchase

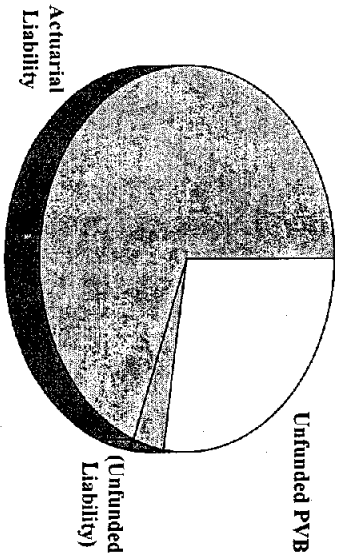


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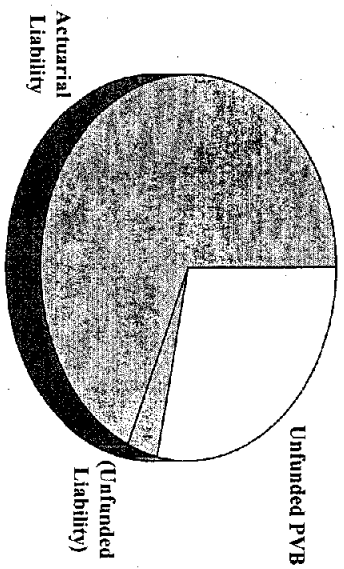


Plan Funded Status Safety

Present Value of Benefits
June 30, 2005



Present Value of Benefits
June 30, 2006



<u>June 30, 2005</u>	Unfunded PVB	<u>June 30, 2006</u>
\$ 447,200,000	Unfunded PVB	\$ 511,300,000
(58,200,000)	(Unfunded Liability)	(61,900,000)
<u>1,127,200,000</u>	Actuarial Liability	<u>1,232,000,000</u>
1,516,200,000	PVB	1,681,400,000



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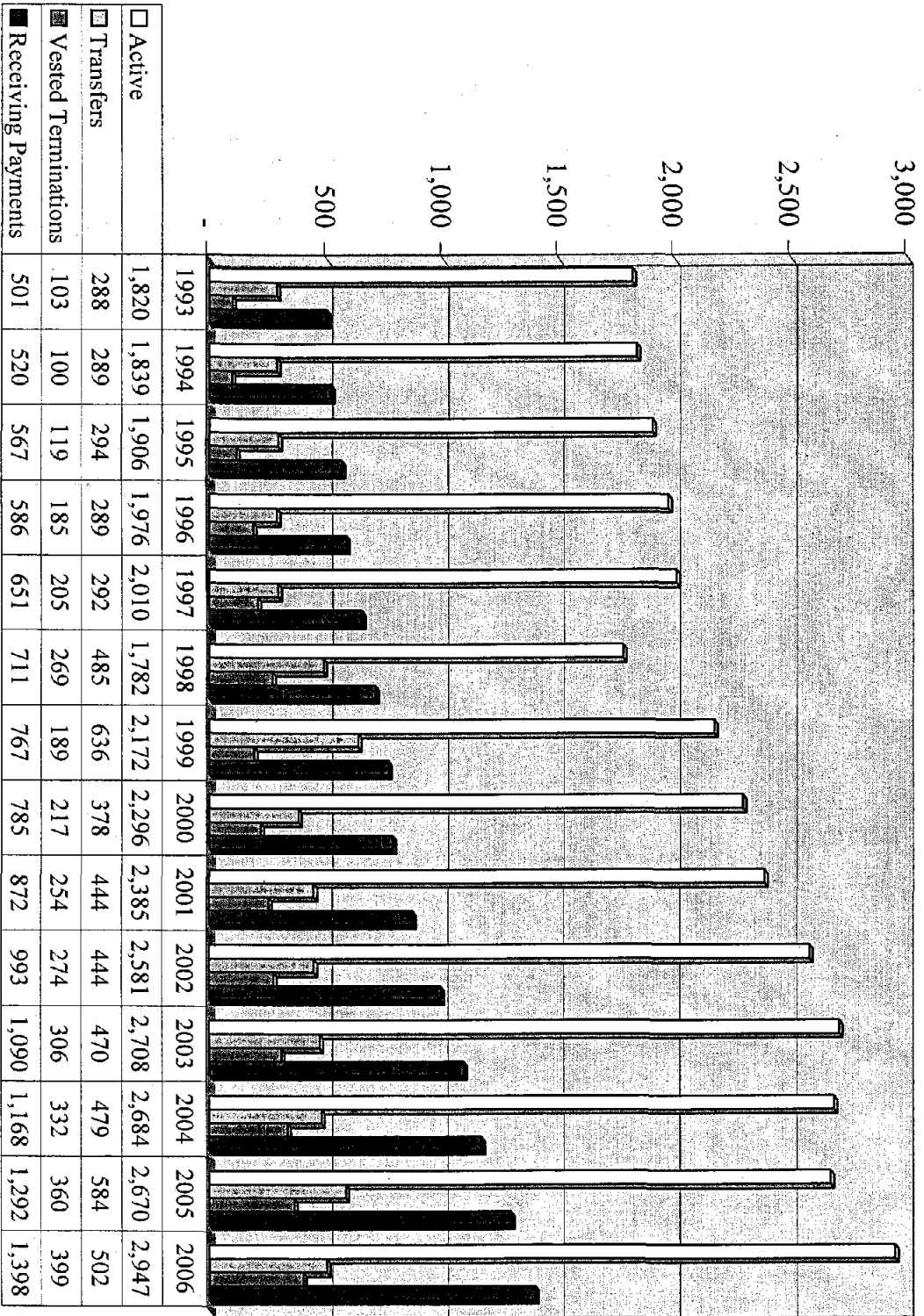
Plan Funded Status Safety

■ What happened between 6/30/05 and 6/30/06?

- Asset gain/(loss): ≈ 4.6 million
- Actuarial gain/(loss): ≈ (9.4) million
 - Average Salary \$63,200 → \$64,300
 - Number of Actives 2,670 → 2,947
 - Number of Inactives 944 → 901
 - Number of Retirees 1,292 → 1,398
- Contribution gain/(loss): ≈ 3.6 million
 - Expected ≈ (46.5)
 - Actual ≈ 50.1
- Expected UAL (Increase): ≈ (2.5) million



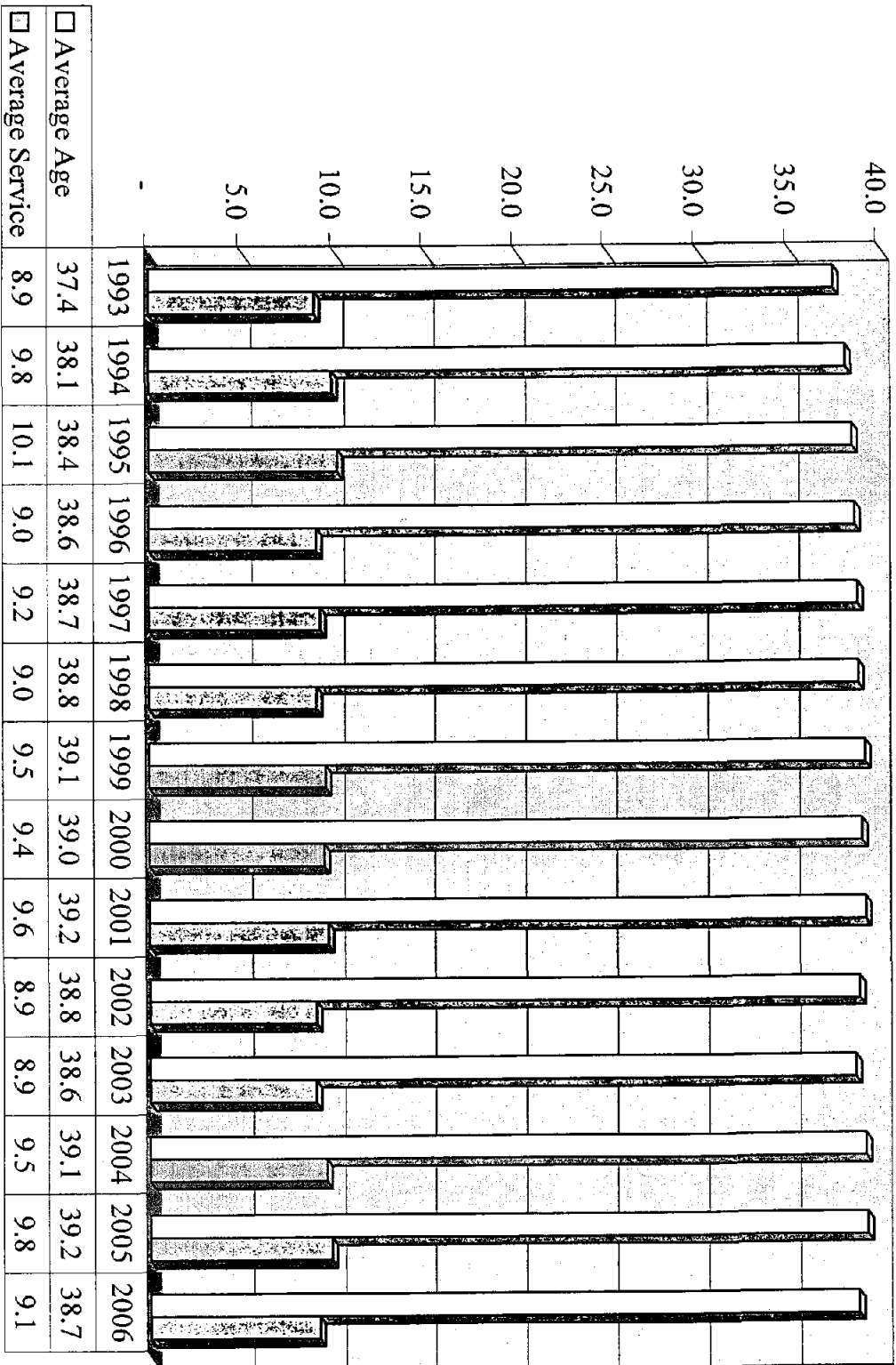
Members Included in Valuation Safety



February 4, 2008



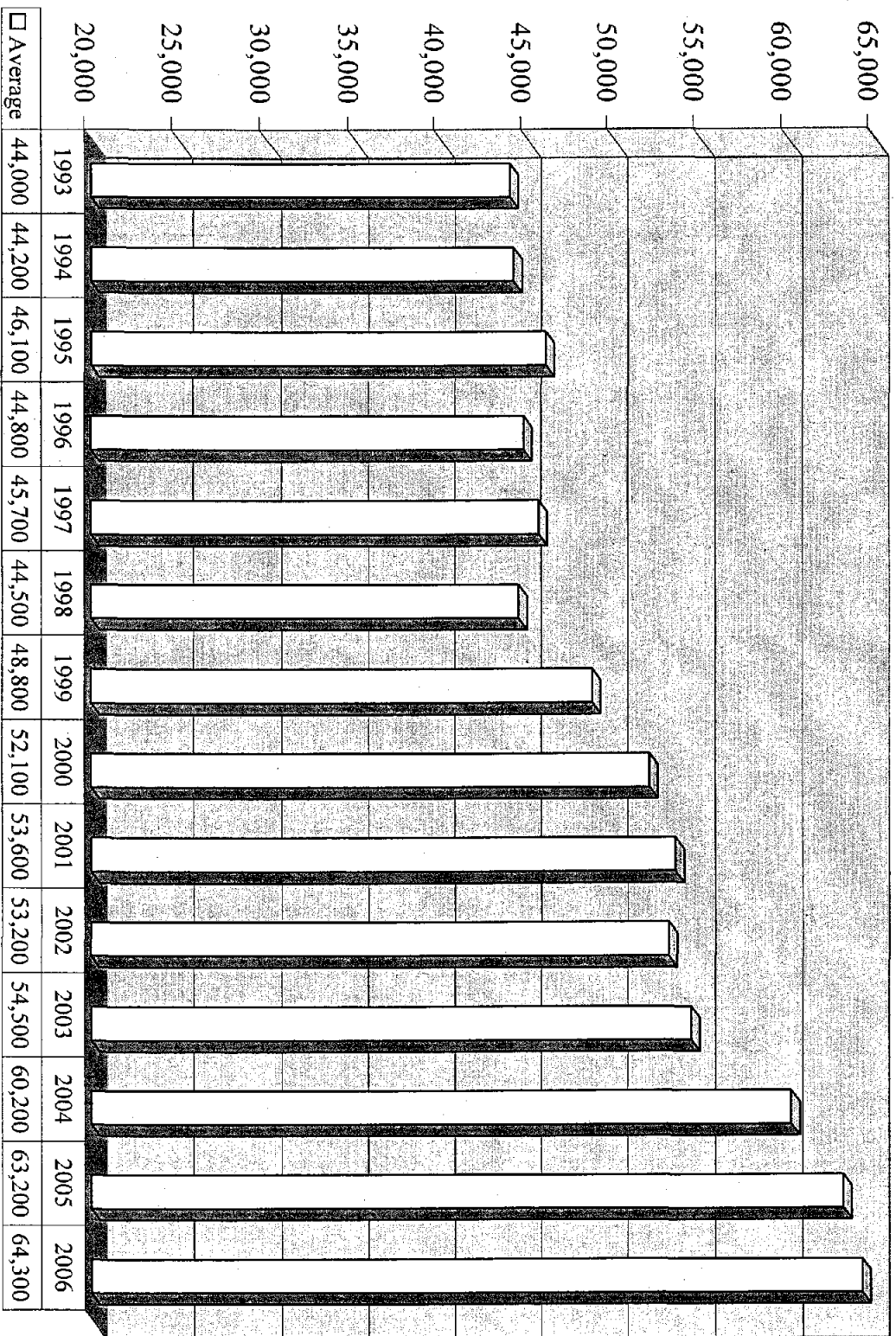
Average Age/Service Safety



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Average PERSable Wages Safety

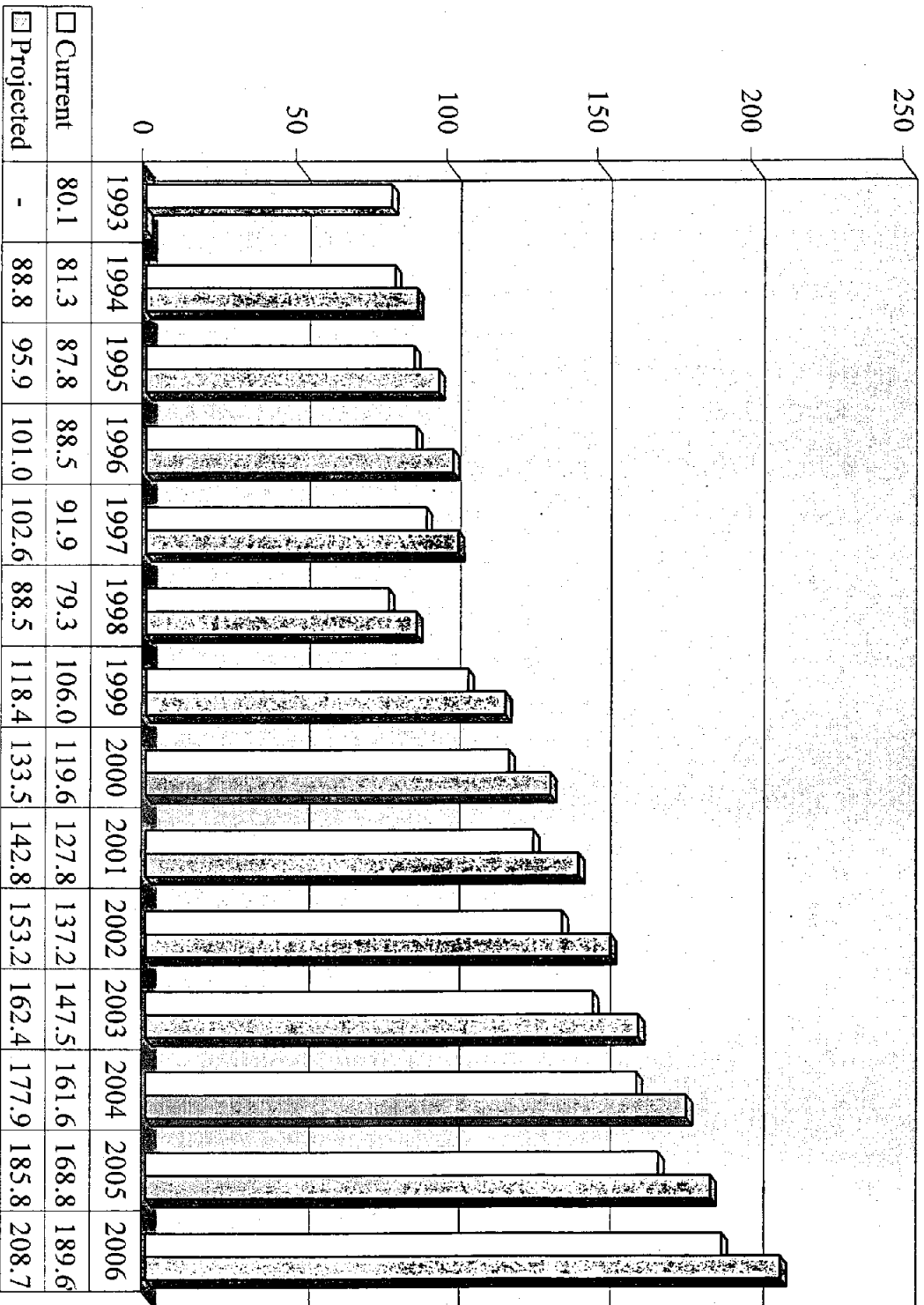


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Total Annual PERSable Wages (Millions)

Safety

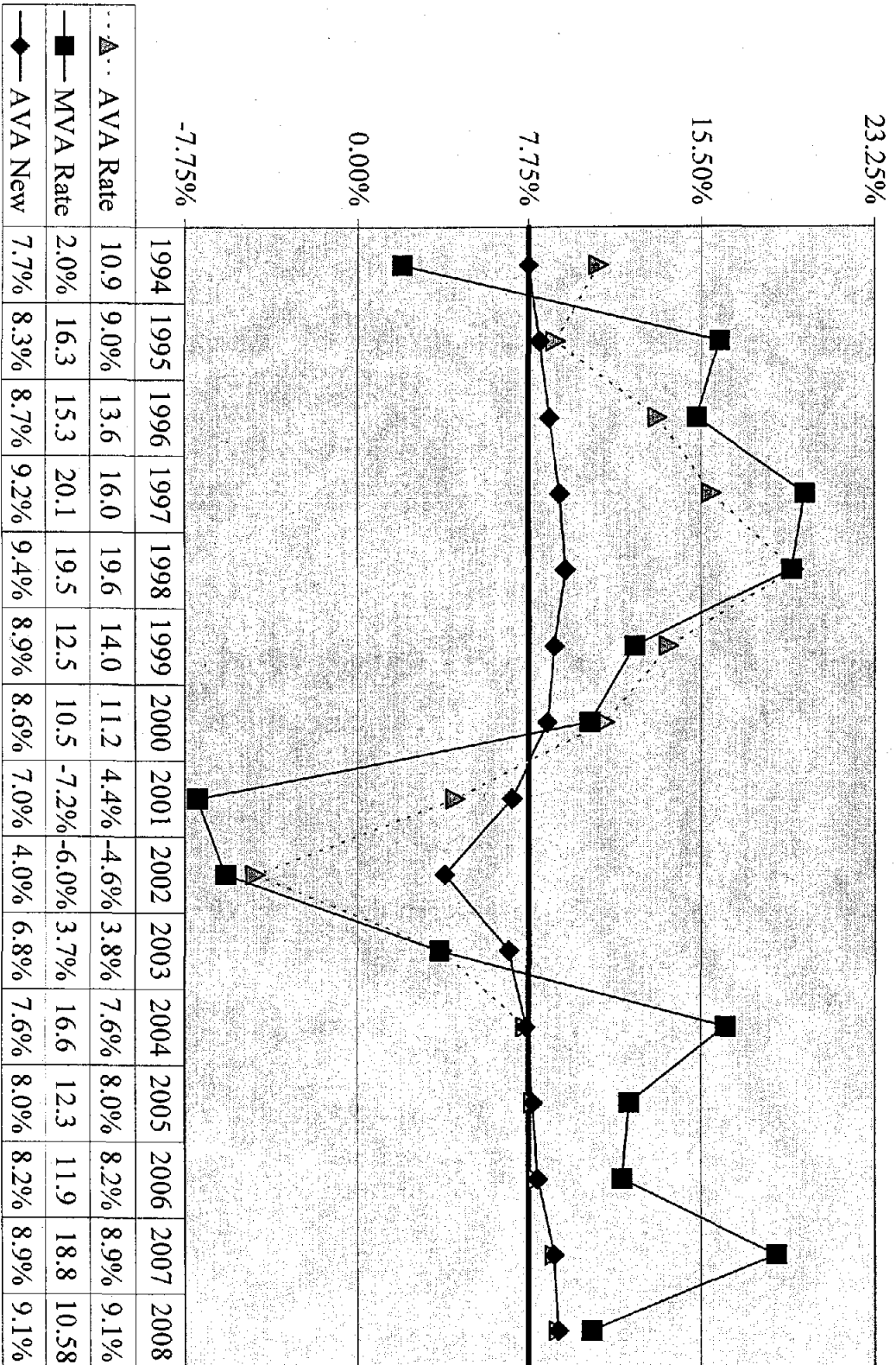


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February 4, 2008



Actuarial Investment Return Safety



February 4, 2008



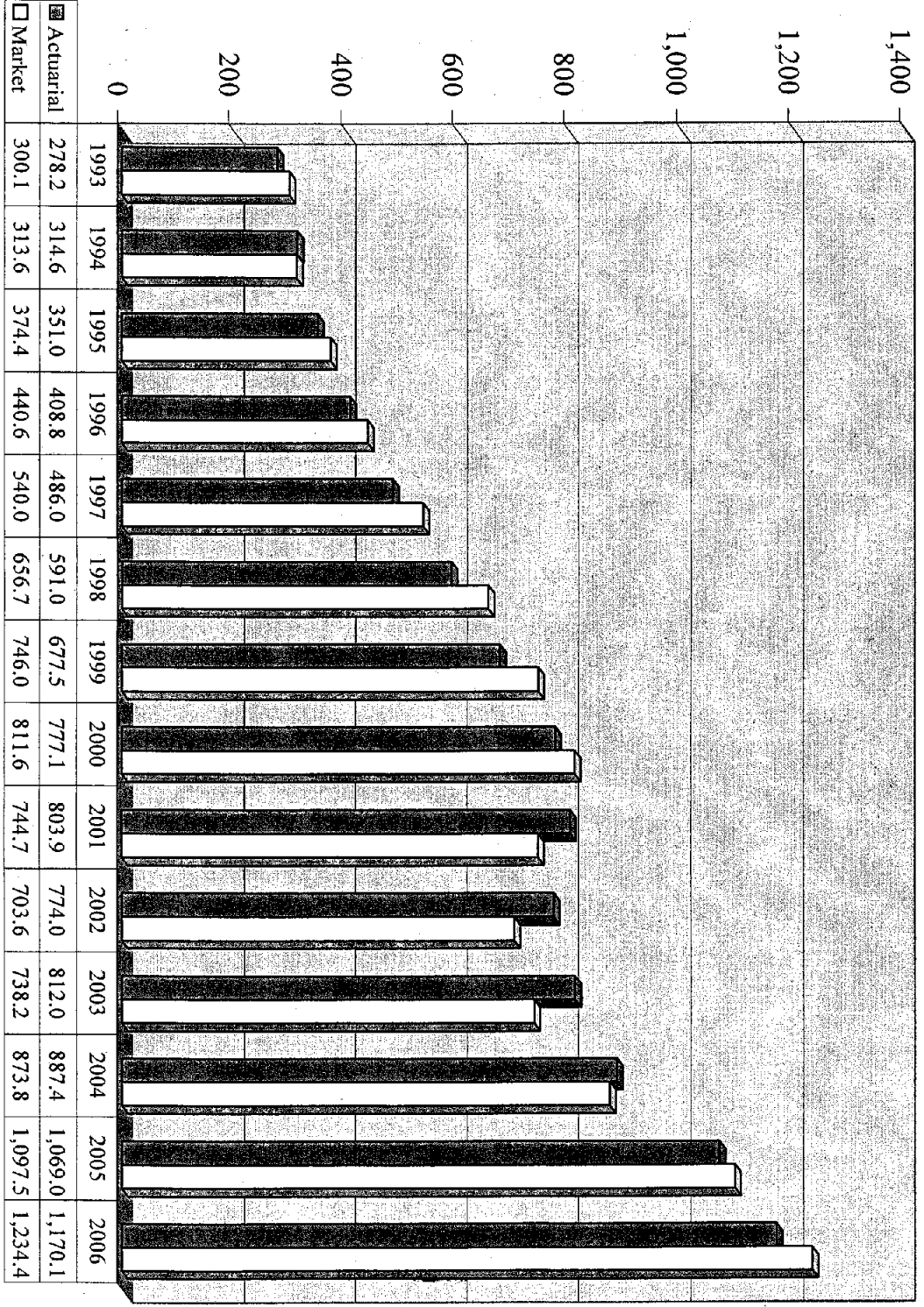
Actuarial Investment Return Safety

- Above assumes contributions, payments, etc. received evenly throughout year.
- 6/30/06:
 - Market Value return ≈ 11.94%
 - Actuarial Value return ≈ 8.2%
- 6/30/07:
 - Market Value return ≈ 18.82%
 - Actuarial Value return ≈ 8.9%
- 6/30/08:
 - Market Value return through 10/31/07 ≈ 5.21%
 - Estimated Annualized MVA Return ≈ 10.6%
 - Estimated Annualized AVA Return ≈ 9.1%



Asset Values (Millions)

Safety



February 4, 2008



Asset Values Safety

- 6/30/01 Actuarial Value \approx 108% Market
- 6/30/02 Actuarial Value \approx 110% Market
- 6/30/03 Actuarial Value \approx 110% Market
- 6/30/04 Actuarial Value \approx 101% Market
- 6/30/05 Actuarial Value \approx 98% Market
- 6/30/06 Actuarial Value \approx 95% Market
- 6/30/07 Actuarial Value will be \approx 87% Market

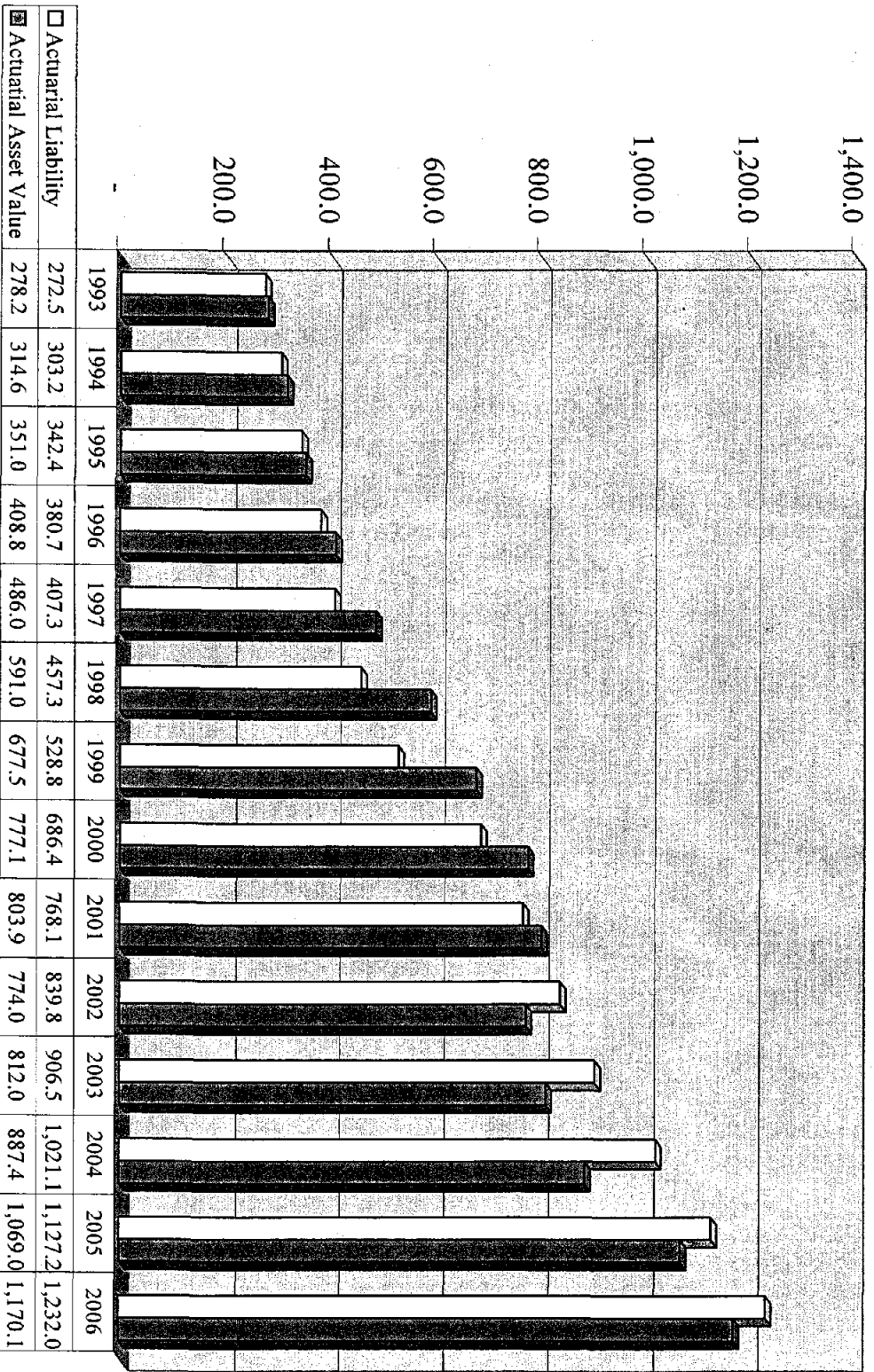


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Funded Status (Millions)

Safety



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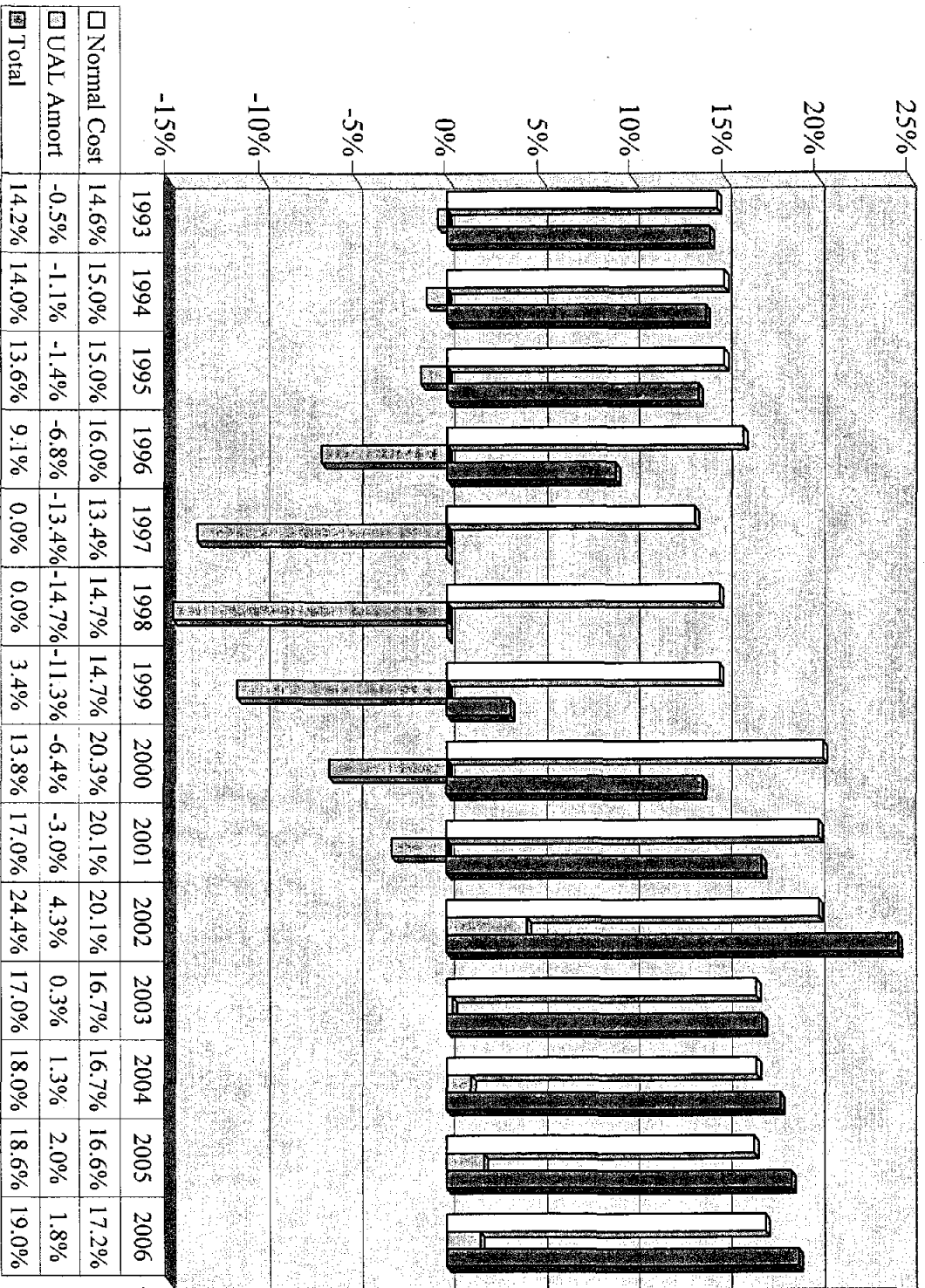


Funded Status Safety

- Actuarial assumptions:
 - Interest rate
 - General inflation 3.00%
 - Real rate of return 4.75
 - Total 7.75
 - Payroll growth 3.25%
 - Investment gains – Impact on funded status:
 - 6/30/07 [18.82% compared to 7.75%] +11.1%
 - Actuarial asset “reserve” 5.2%
 - Total estimated % gain 16.3%
 - Total estimated unrecognized gain \$ 200.9 million
[16.3% x \$1,234]
- | | <u>6/30/05</u> | <u>6/30/06</u> | <u>6/30/08</u> | <u>Projected</u> |
|------------------|----------------|----------------|----------------|------------------|
| ■ UAL (millions) | \$58.2 | \$61.9 | \$63.6 | \$99.9 |



Contribution Rates Safety



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Contribution Rates Safety

	6/30/05	6/30/06
■ Normal cost	<u>2007/2008</u> 16.6%	<u>2008/2009</u> 17.2%
■ Amortization bases:		
● (Gain)/Loss	2.2	2.0
● Fresh Start	<u>-0.2</u>	<u>-0.2</u>
Sub-total	<u>2.0%</u>	<u>1.8%</u>
● Total:	18.6%	19.0%
● Amortization period	30 years	30 years
■ What Happened from 6/30/05 to 6/30/06:		
● 2007/08 Rate	18.6%	
● (Gain)/Loss	<u>0.4</u>	
● 2008/09 Rate	19.0%	



Contribution Projections Safety

■ Market Value Investment Return:				
● June 30, 2007				18.82%
● June 30, 2008 - 2012				≈ 4.3%
			75% Confidence Limit*:	≈ 7.75%
			50% Confidence Limit:	≈ 11.6%
			25% Confidence Limit:	

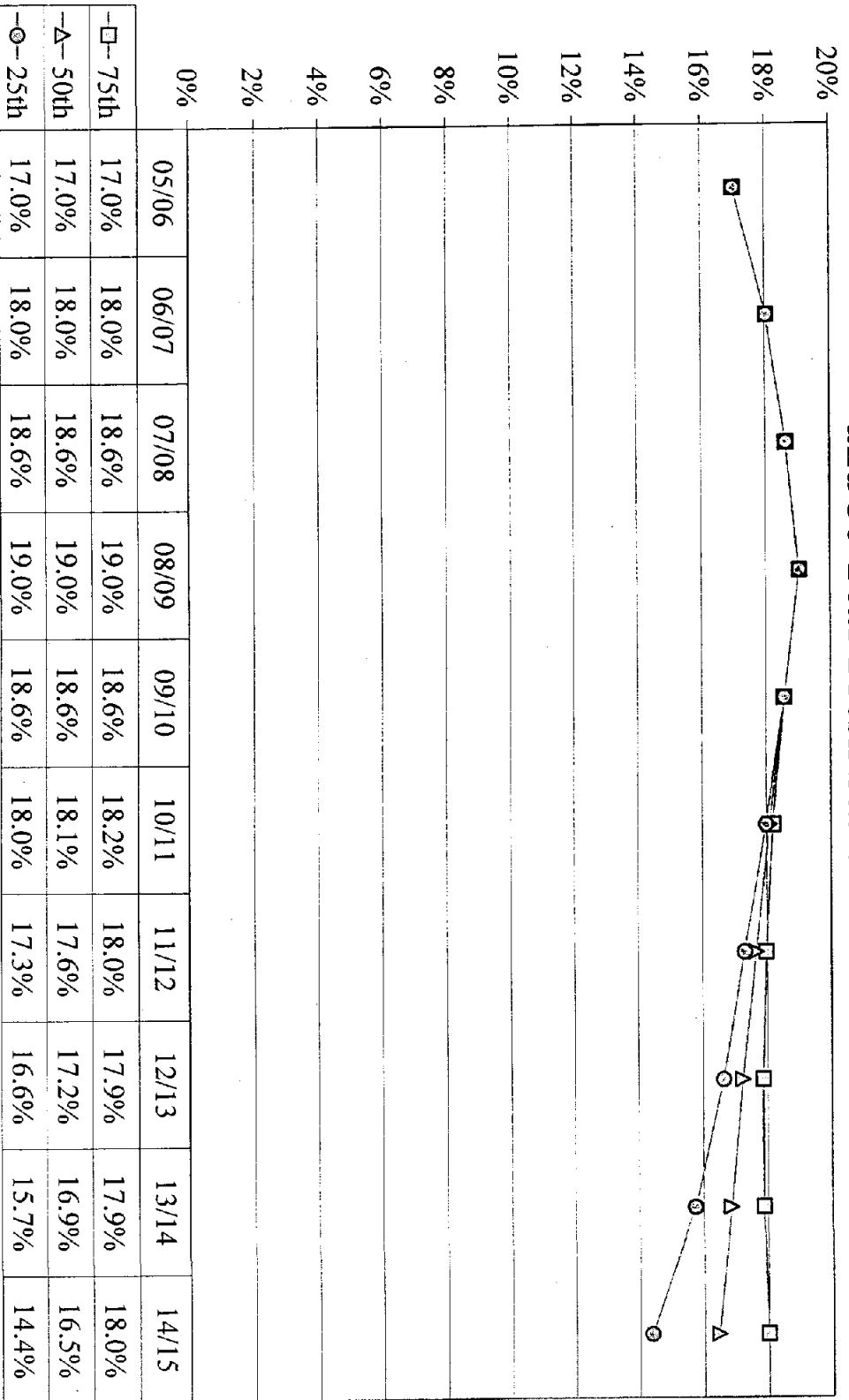
*Confidence Limits – Actual Return will exceed the given rate with indicated probabilities

- Fresh Starts:
 - 30 Year Fresh Start for 08/09
 - 15 Year +1.0% 20 Year +0.5% 25 Year +0.2%
- No Other:
 - Gains or Losses
 - Method or Assumption Changes
 - Benefit Improvements



Contribution Projections Safety

Investment Return Varies and 30 Year Fresh Start 08/09



Contribution Projections

Safety

■ Market Value Investment Return:

● June 30, 2007		18.82%
● June 30, 2008 - 2012	75% Confidence Limit*:	≈ 4.3%
	50% Confidence Limit:	≈ 7.75%
	25% Confidence Limit:	≈ 11.6%

*Confidence Limits – Actual Return will exceed the given rate with indicated probabilities

■ Fresh Starts:

● Includes **POB** debt service

■ No Other:

- Gains or Losses
- Method or Assumption Changes
- Benefit Improvements

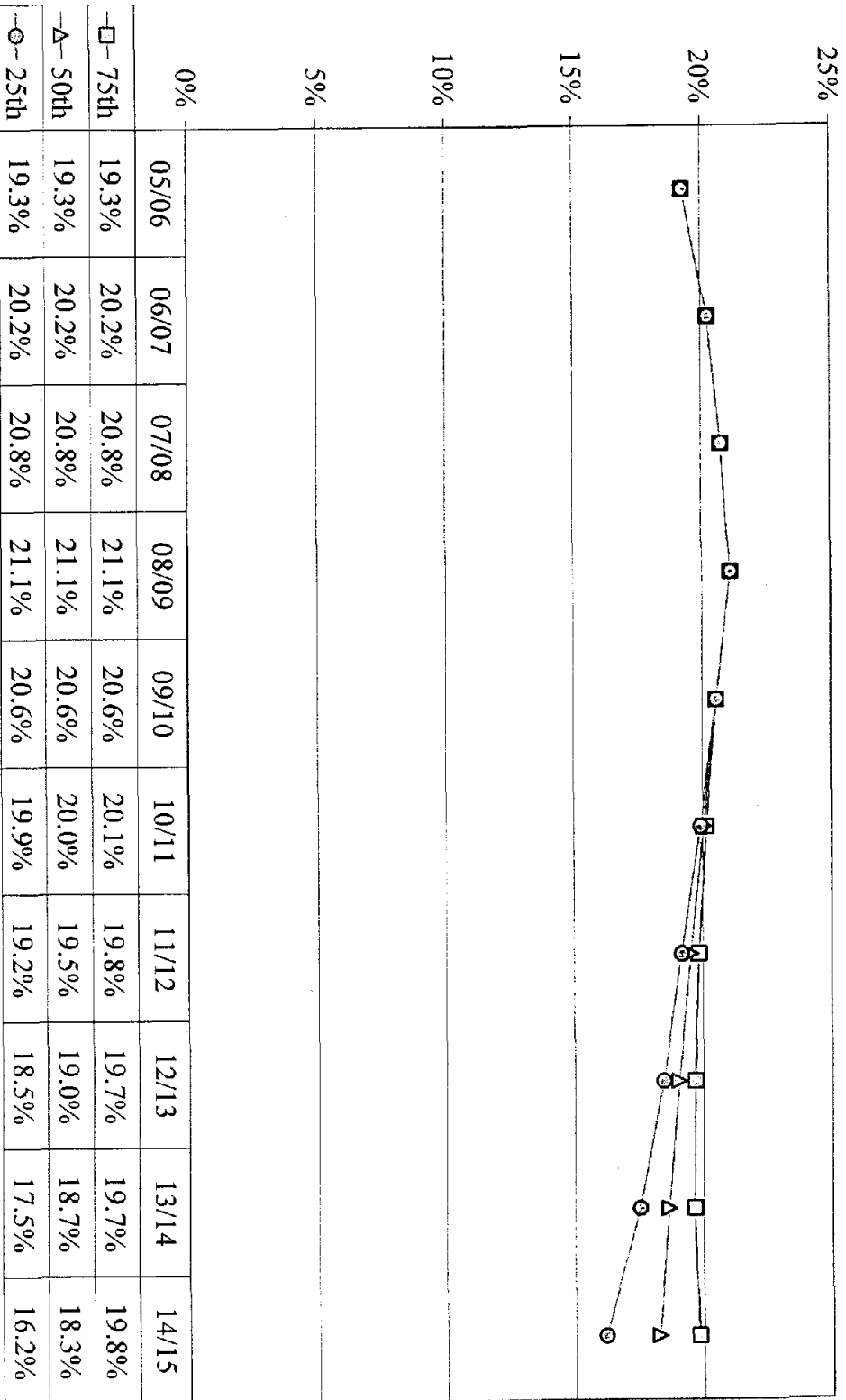
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Contribution Projections Safety

Investment Return Varies with POB Debt Service

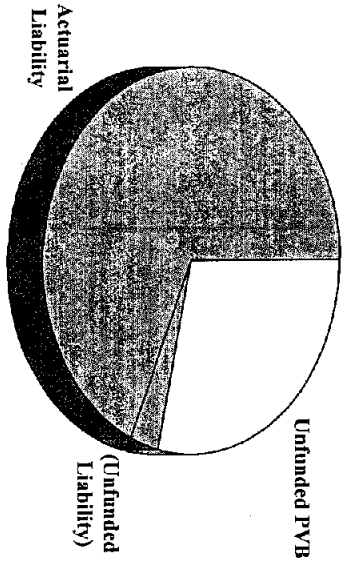


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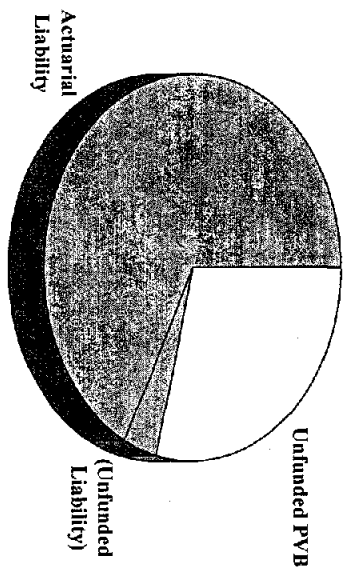


Plan Funded Status Miscellaneous

Present Value of Benefits
June 30, 2005



Present Value of Benefits
June 30, 2006



<u>June 30, 2005</u>	Unfunded PVB	<u>June 30, 2006</u>
\$ 1,035,900,000	Unfunded PVB	\$ 1,174,300,000
(107,000,000)	(Unfunded Liability)	(142,200,000)
<u>2,471,500,000</u>	Actuarial Liability	<u>2,741,800,000</u>
3,400,500,000	PVB	3,773,900,000

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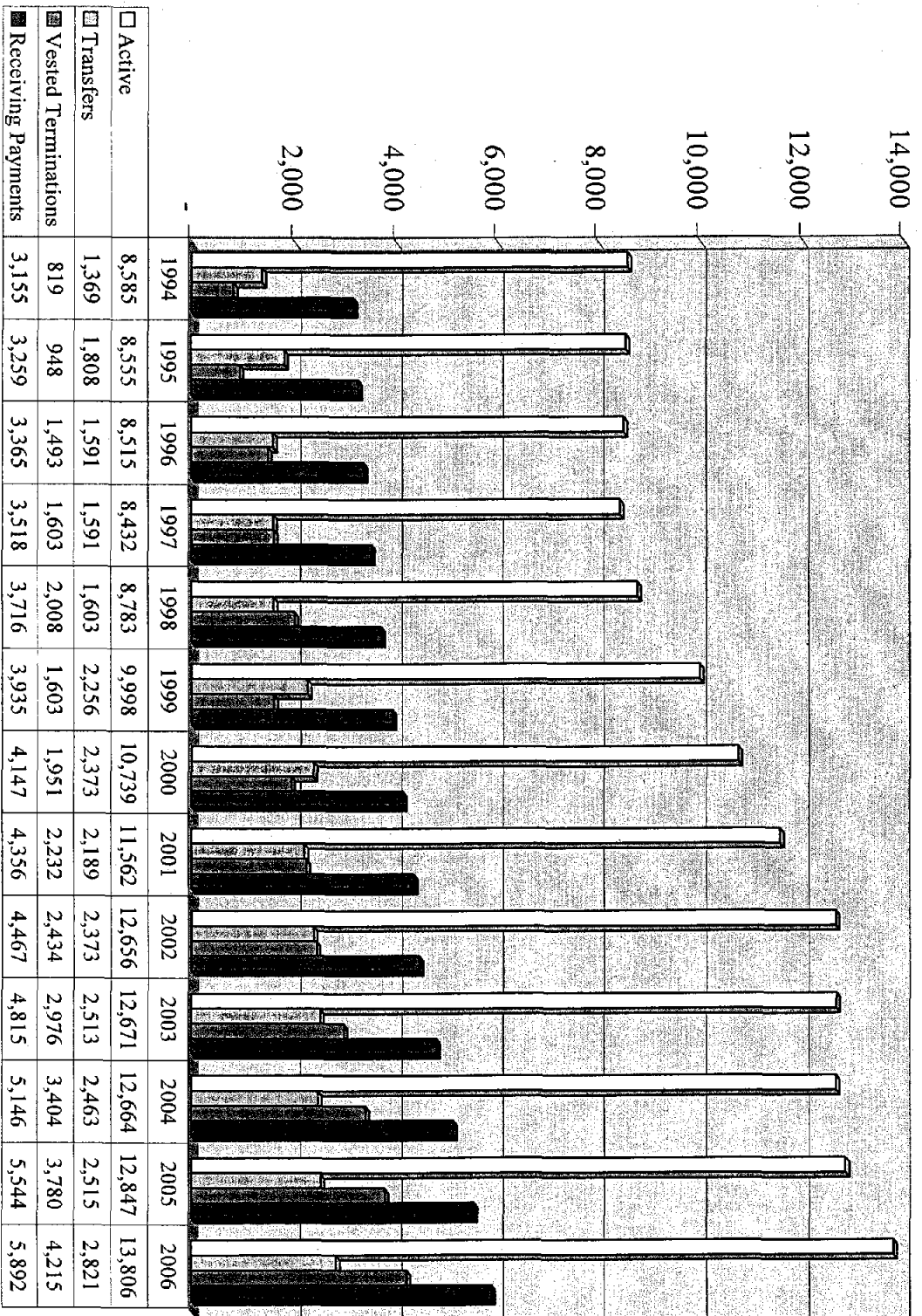
Plan Funded Status Miscellaneous

■ What happened between 6/30/05 and 6/30/06?

- Asset gain/(loss): ≈ 11.0 million
- Actuarial gain/(loss): ≈ (47.0) million
 - Average Salary \$46,100 → \$47,800
 - Number of Actives 12,847 → 13,806
 - Number of Inactives 6,295 → 7,036
 - Number of Retirees 5,544 → 5,892
- Contribution gain/(loss): ≈ 0.7 million
 - Expected ≈ (122.9)
 - Actual ≈ 123.6
- Expected UAL (Increase): ≈ (0.1) million



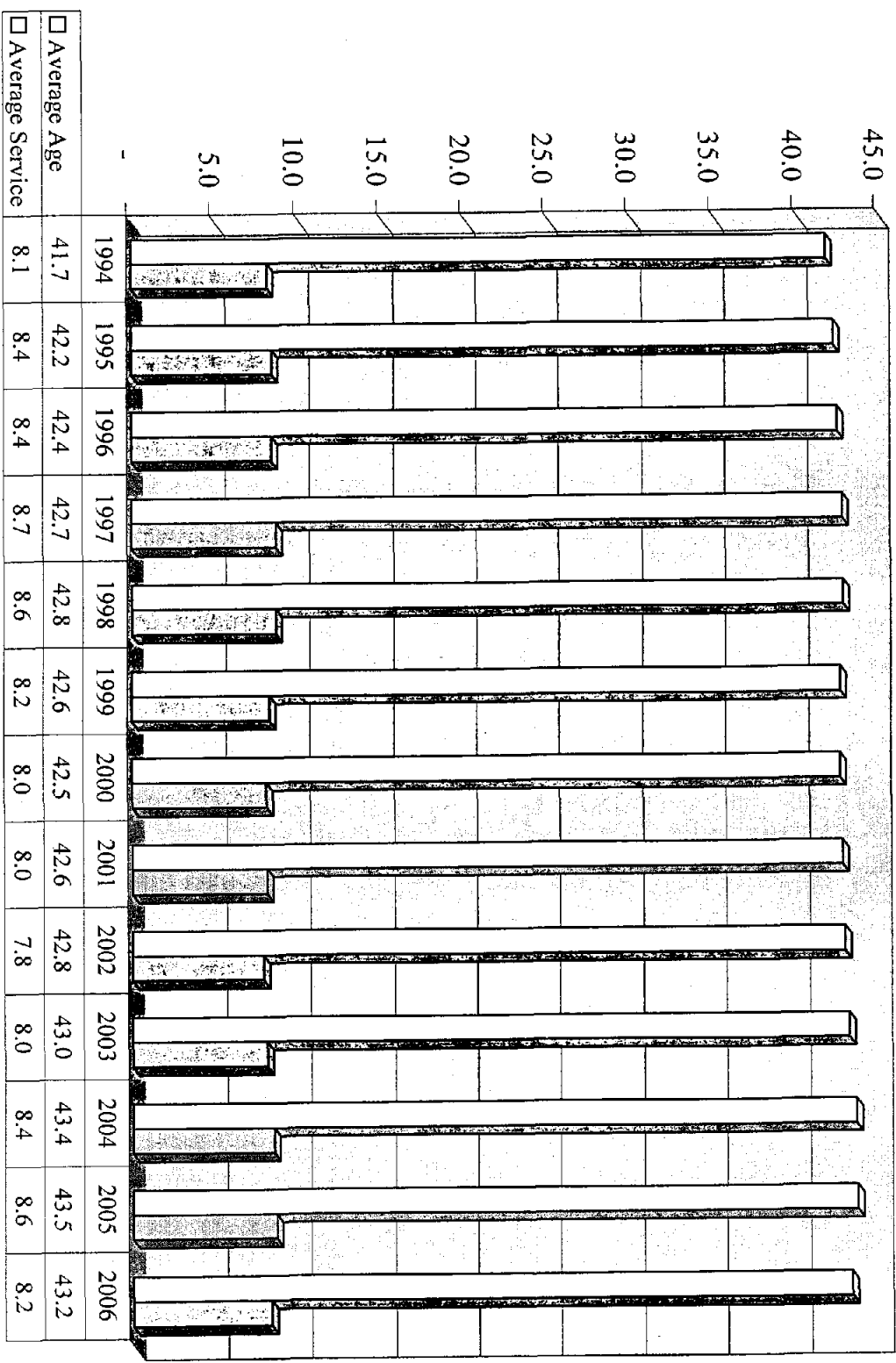
Members Included in Valuation Miscellaneous



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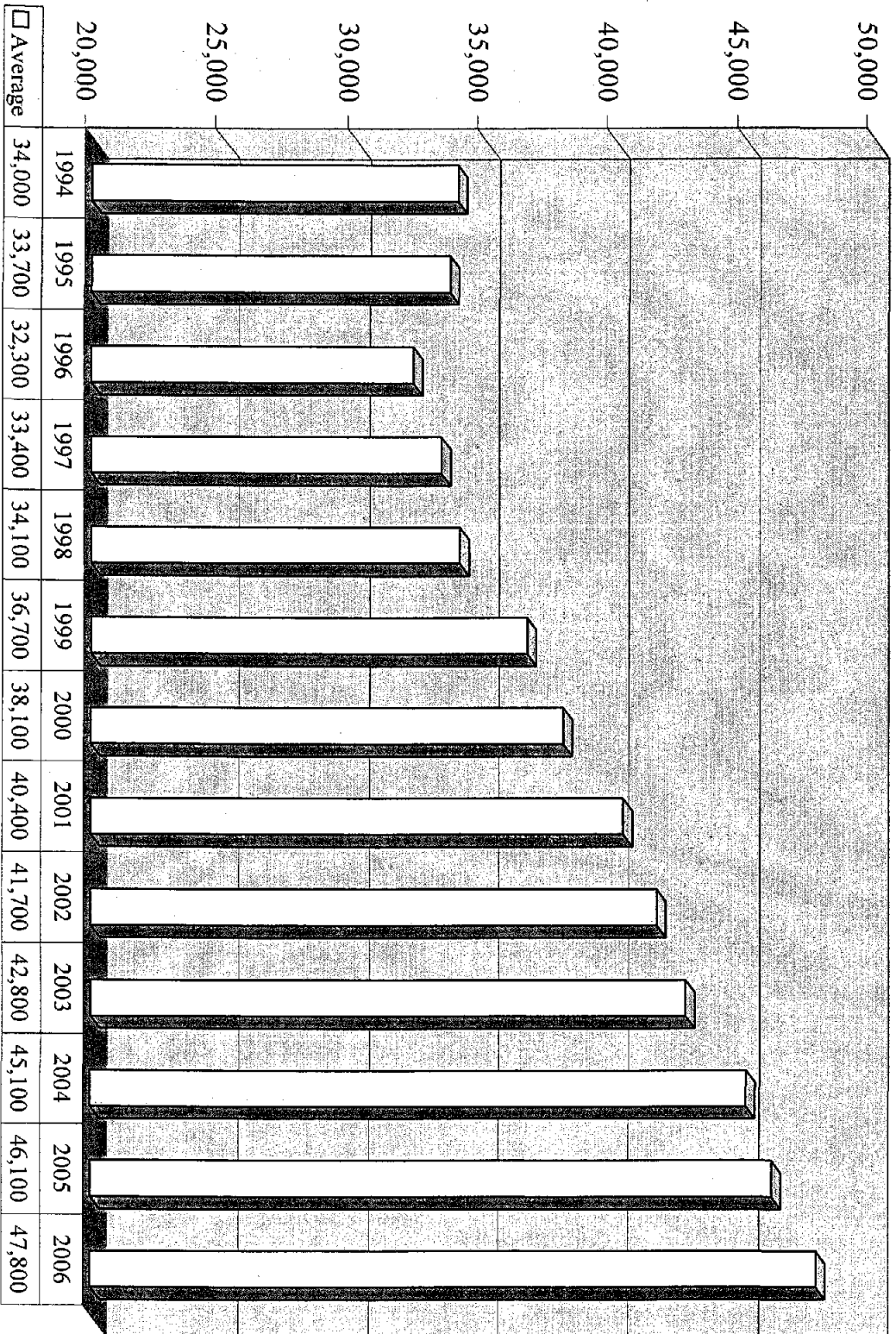
Average Age/Service Miscellaneous



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Average PERSable Wages Miscellaneous

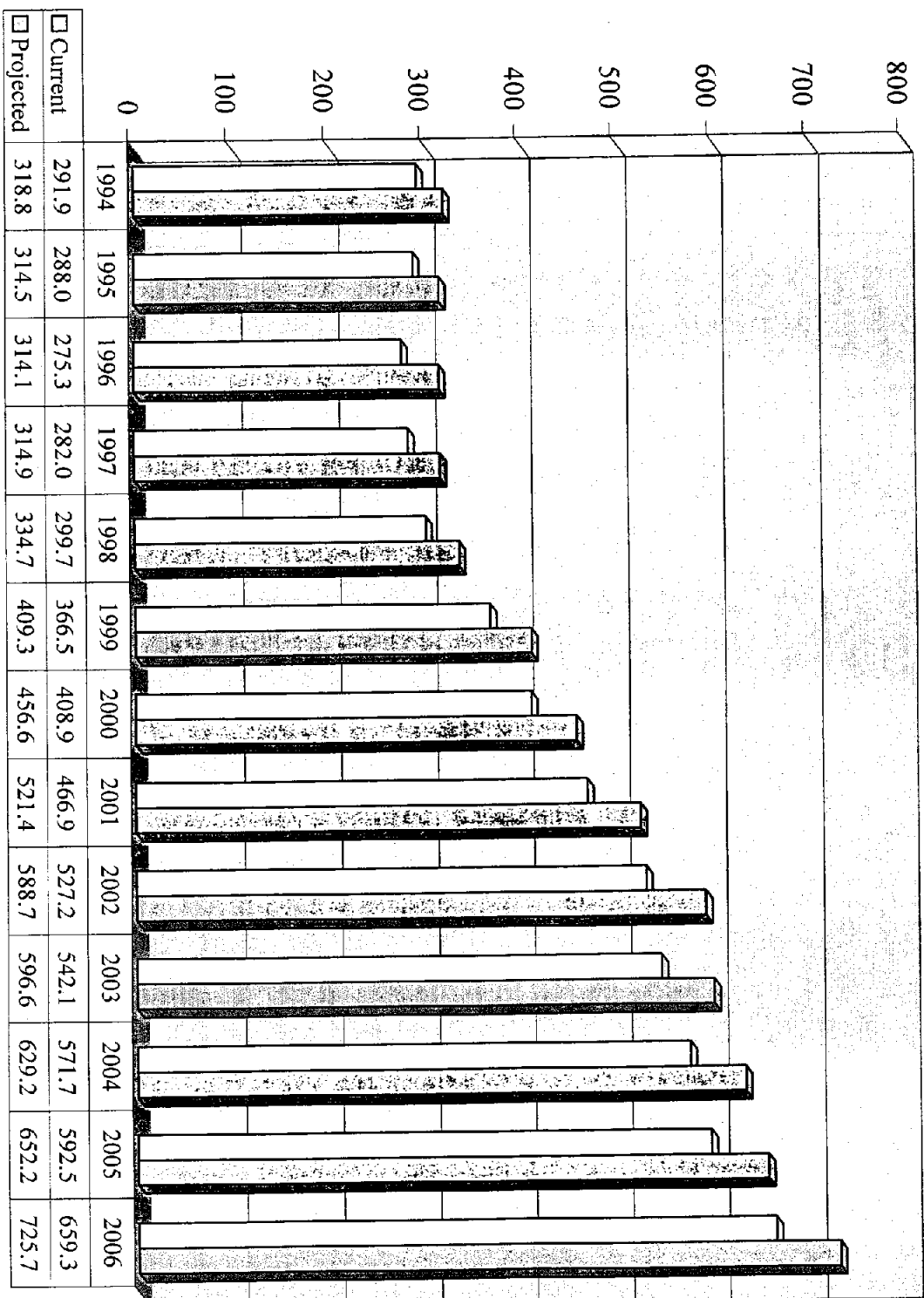


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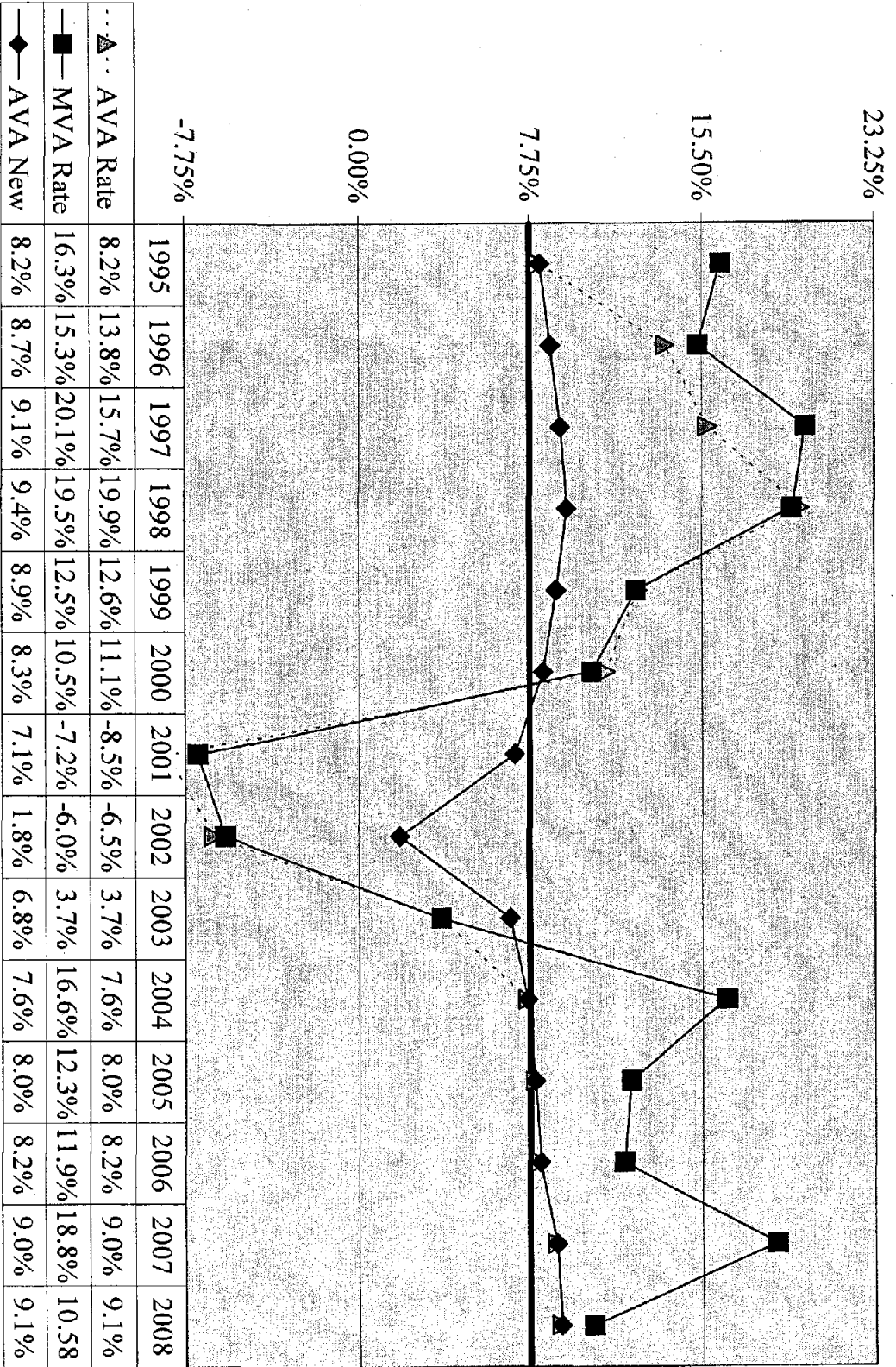
Total Annual PERSable Wages (Millions) Miscellaneous



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Actuarial Investment Return Miscellaneous



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Actuarial Investment Return Miscellaneous

- Above assumes contributions, payments, etc. received evenly throughout year.

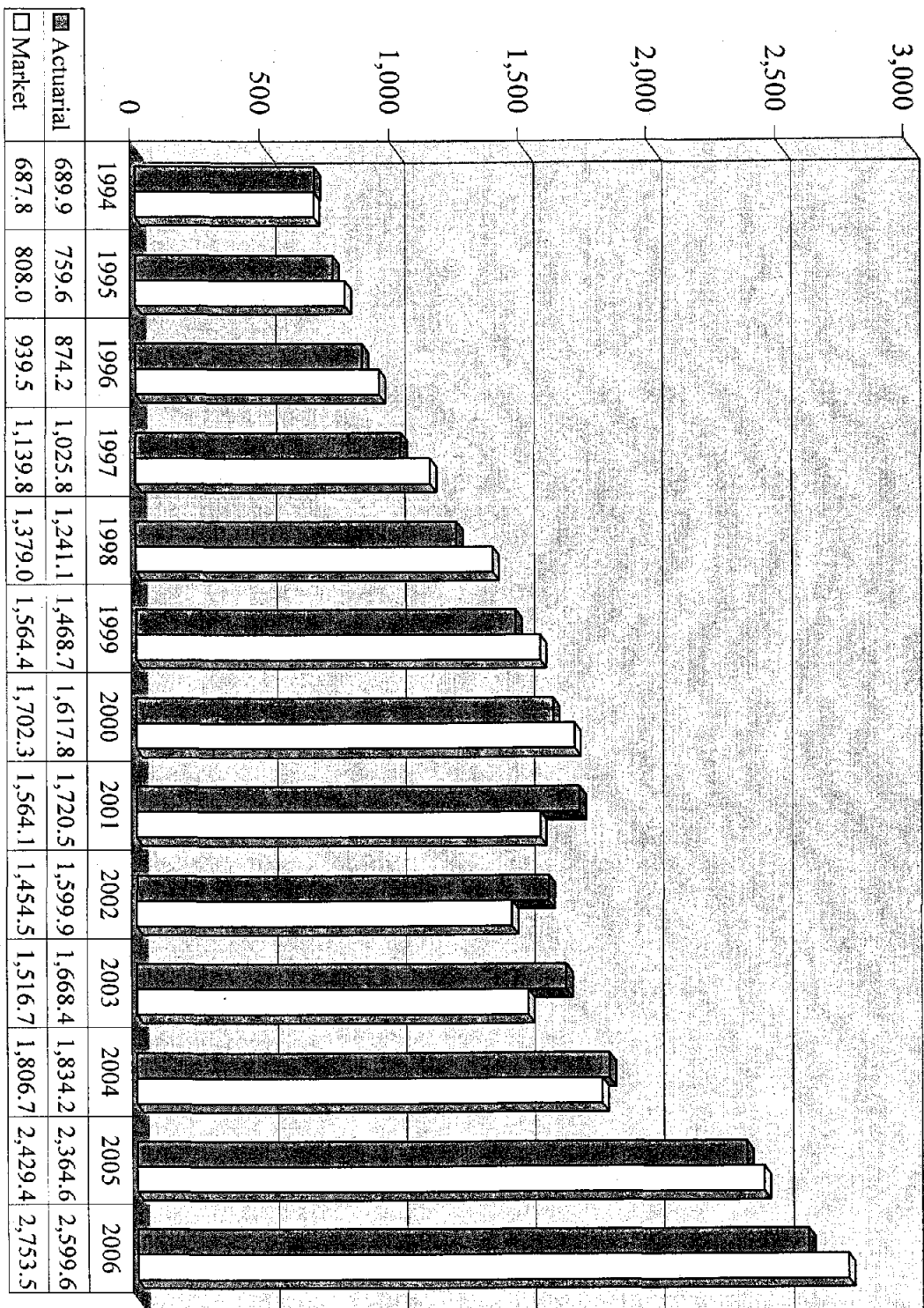
- 6/30/06:
 - Market Value return $\approx 11.94\%$
 - Actuarial Value return $\approx 8.2\%$

- 6/30/07:
 - Market Value return $\approx 18.82\%$
 - Actuarial Value return $\approx 9.0\%$

- 6/30/08:
 - Market Value return through 10/31/07 $\approx 5.21\%$
 - Estimated Annualized MVA Return $\approx 10.6\%$
 - Estimated Annualized AVA Return $\approx 9.1\%$



Asset Values (Millions) Miscellaneous



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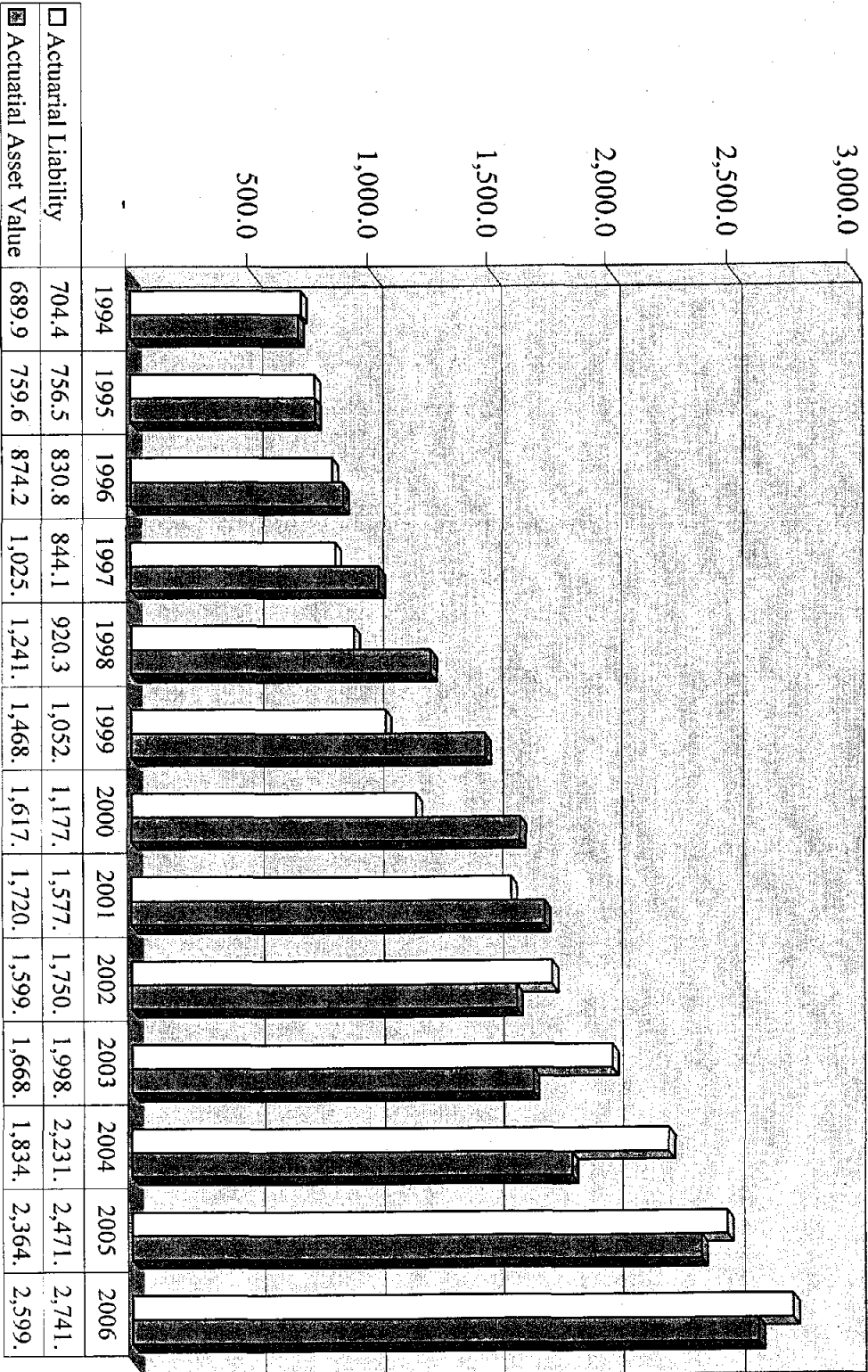


Asset Values
Miscellaneous

- 6/30/01 Actuarial Value ≈ 110% Market
- 6/30/02 Actuarial Value ≈ 110% Market
- 6/30/03 Actuarial Value ≈ 110% Market
- 6/30/04 Actuarial Value ≈ 101% Market
- 6/30/05 Actuarial Value ≈ 98% Market
- 6/30/06 Actuarial Value ≈ 94% Market
- 6/30/07 Actuarial Value will be ≈ 87% Market



Funded Status (Millions) Miscellaneous



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Funded Status Miscellaneous

- Actuarial assumptions:
 - Interest rate
 - General inflation 3.00%
 - Real rate of return 4.75
 - Total 7.75
 - Payroll growth 3.25%

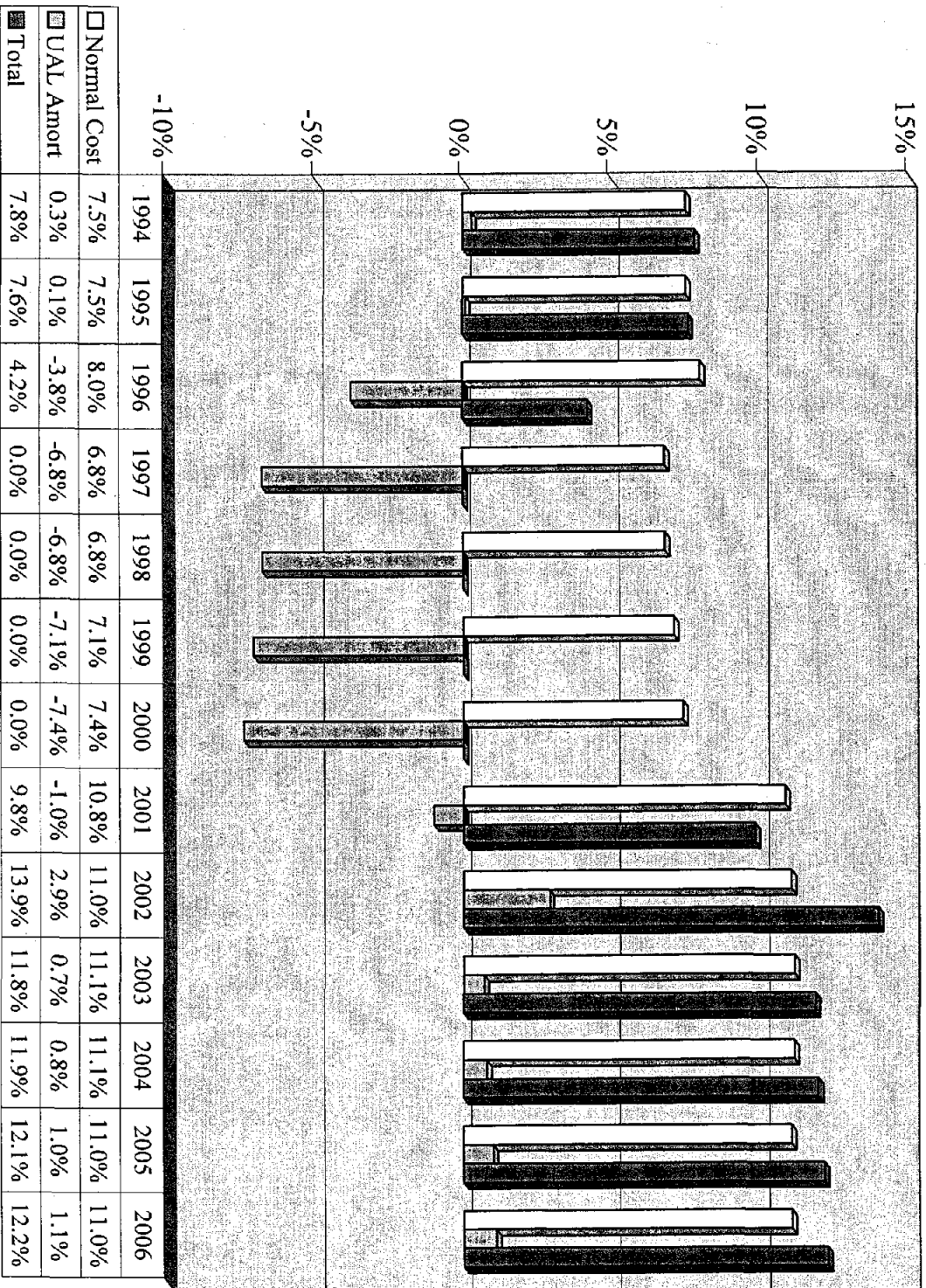
- Investment gains – Impact on funded status:
 - 6/30/07 [18.82% compared to 7.75%] +11.07%
 - Actuarial asset “reserve” 5.6%
 - Total estimated % gain 16.7%
 - Total estimated unrecognized gain \$ 458.7 million
[16.7% x \$2,754]

Projected

	<u>6/30/05</u>	<u>6/30/06</u>	<u>6/30/08</u>	<u>6/30/38</u>
■ UAL (millions)	\$107.0	\$142.2	\$138.7	\$217.8



Contribution Rates Miscellaneous



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Contribution Rates Miscellaneous

	6/30/05 <u>2007/2008</u>	6/30/06 <u>2008/2009</u>
■ Normal cost	11.0%	11.0%
■ Amortization bases:		
● (Gain)/Loss	1.1%	1.2%
● Fresh Start	<u>-0.1%</u>	<u>-0.1%</u>
Sub-total	<u>1.0%</u>	<u>1.1%</u>
● Total:	12.1%	12.2%
● Amortization period	30 years	30 years
■ What Happened from 6/30/05 to 6/30/06:		
● 2007/08 Rate	12.1%	
● (Gain)/Loss	<u>+0.1</u>	
● 2009/09 Rate	12.2%	

(B4)



Contribution Projection Miscellaneous

- Market Value Investment Return:
 - June 30, 2007 18.82%
 - June 30, 2008 – 2012
 - 75% Confidence Limit*: ≈ 4.3%
 - 50% Confidence Limit: ≈ 7.75%
 - 25% Confidence Limit: ≈ 11.6%

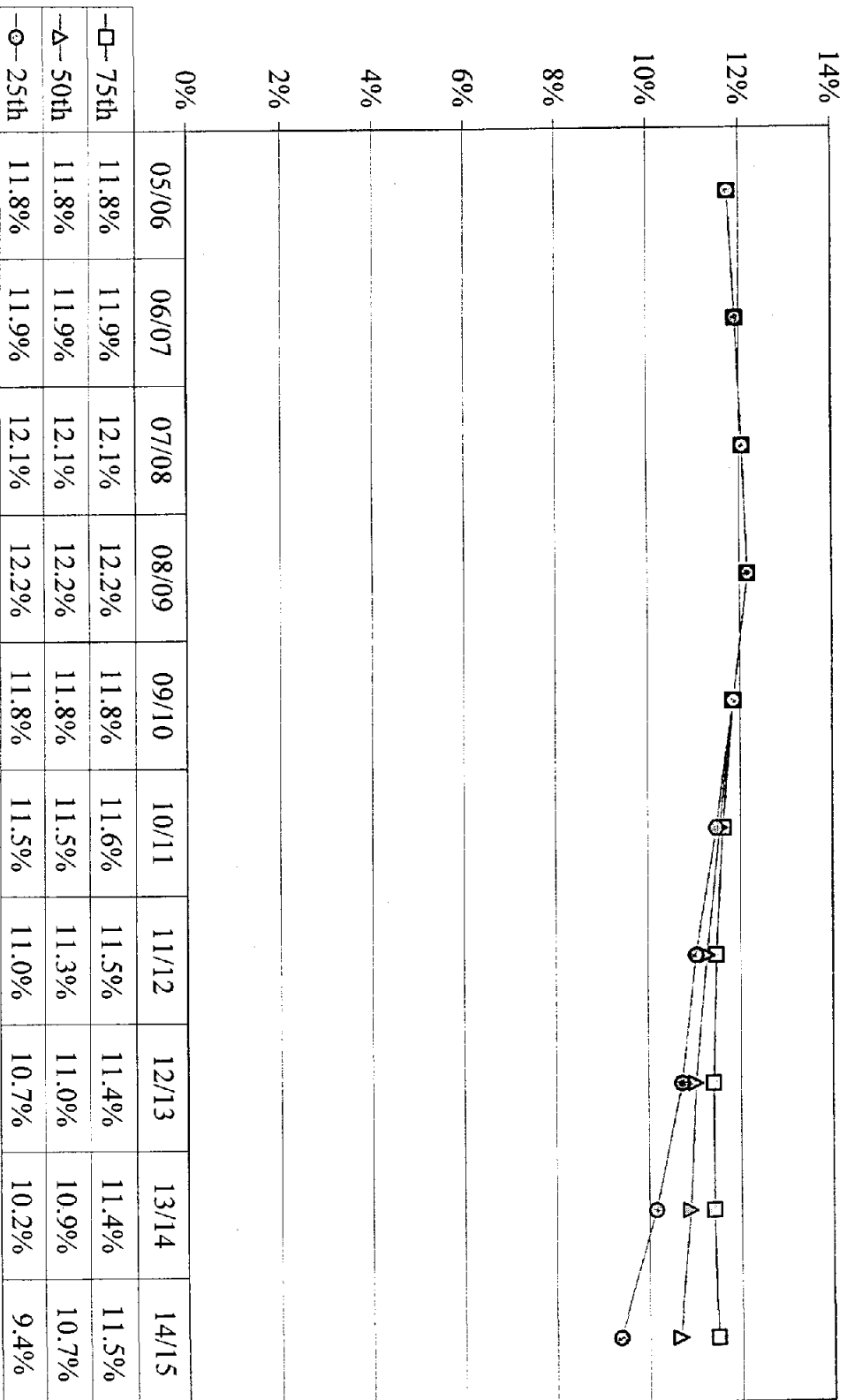
*Confidence Limits – Actual Return will exceed the given rate with indicated probabilities

- Fresh Starts:
 - 30 Year Fresh Start for 08/09
 - 15 Year +0.7% 20 Year +0.3% 25 Year +0.2%
- No Other:
 - Gains or Losses
 - Method or Assumption Changes
 - Benefit Improvements



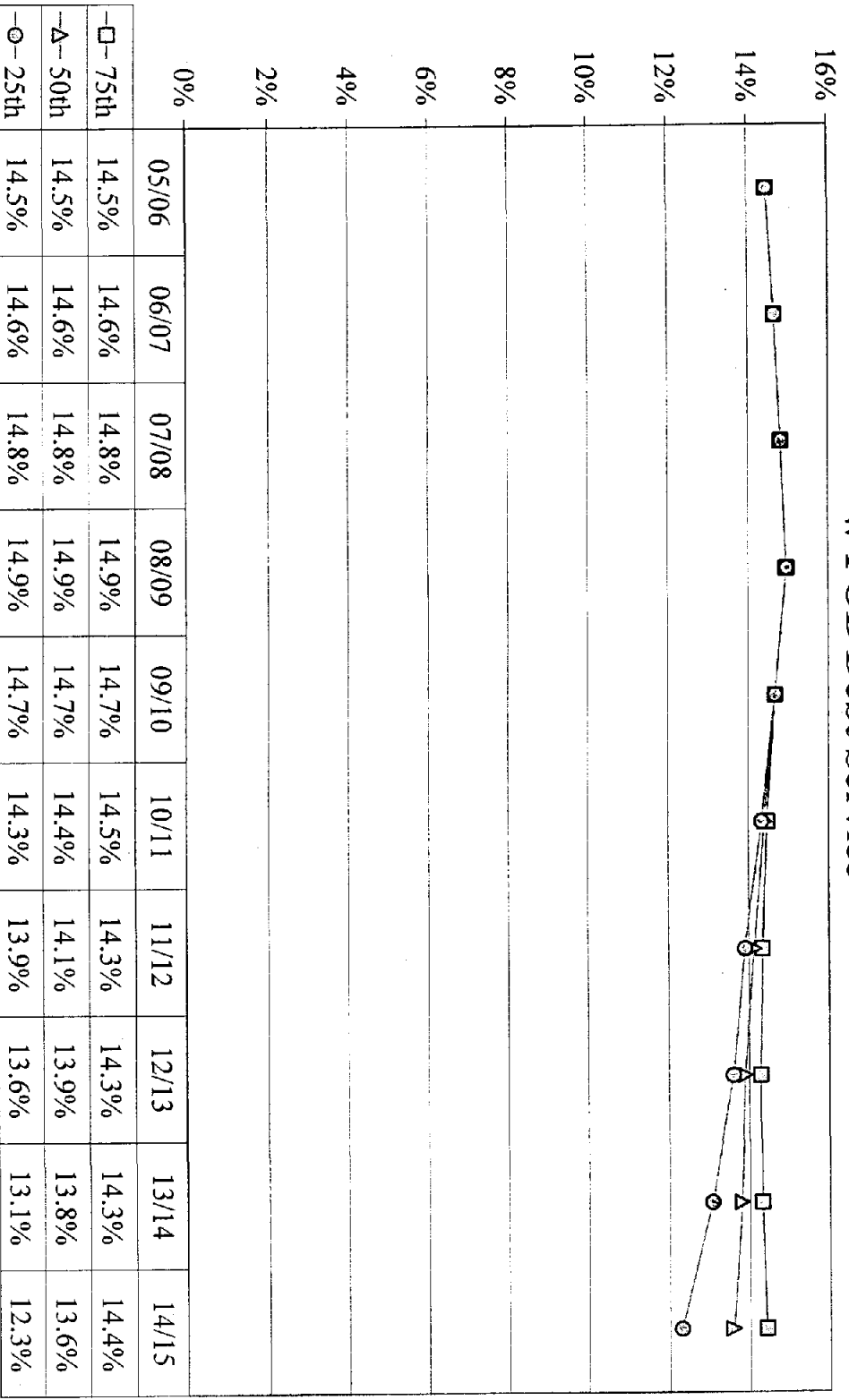
Contribution Projection Miscellaneous

**Investment Return Varies
and 30 Year Fresh Start 08/09**



Contribution Projection Miscellaneous

Investment Return Varies w POB Debt Service



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POB (Millions)
CalPERS Proceeds - Estimated Balance

	<u>Safety</u>	<u>Miscellaneous</u>	<u>Total</u>
■ POB @ 2/16/05	\$85.7	\$311.2	\$396.9
■ Earnings to 6/30/05 ¹	3.8	13.8	17.6
■ Amortization Payment through 6/30/05 ²	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
■ Balance @ 6/30/05	89.5	325.0	414.5
■ Earnings to 2/15/06 ¹	6.5	23.7	30.3
■ Amortization Payment through 2/15/06 ²	<u>(3.4)</u>	<u>(12.2)</u>	<u>(15.6)</u>
■ Balance @ 2/15/06	92.7	336.5	429.2

¹ Estimated based on CalPERS market value returns: 12.2% for 04/05, 11.9% for 05/06, and 18.8% for 06/07.

² Based on a fixed 30-year amortization except CalPERS 6/30/04 reports show no reduction in 04/05 contribution

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POB (Millions)
CalPERS Proceeds - Estimated Balance

	<u>Safety</u>	<u>Miscellaneous</u>	<u>Total</u>
■ Earnings 2/16 - 6/30/06 ¹	4.0	14.5	18.5
■ Amortization payment through 6/30/06 ²	<u>(2.0)</u>	<u>(7.3)</u>	<u>(9.3)</u>
■ Balance @ 6/30/06	94.7	343.7	438.4
■ Earnings 7/1/06 - 2/15/07 ¹	10.8	39.1	49.9
■ Amortization payment through 2/15/07 ²	<u>(3.6)</u>	<u>(12.9)</u>	<u>(16.5)</u>
■ Balance @ 2/15/07	101.9	369.9	471.8

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POB (Millions)
CALPERS Proceeds - Estimated Balance

	<u>Safety</u>	<u>Miscellaneous</u>	<u>Total</u>
■ Earnings 2/16 - 6/30/07 ¹	6.8	24.7	31.5
■ Amortization payment through 6/30/07 ²	<u>(2.3)</u>	<u>(8.3)</u>	<u>(10.6)</u>
■ Balance @ 6/30/07	106.4	386.3	492.7
■ Earnings 7/1/07 - 2/15/08 ³	8.0	29.1	37.1
■ Amortization payment through 2/15/08 ²	<u>(4.0)</u>	<u>(14.5)</u>	<u>(18.5)</u>
■ Balance @ 2/15/08	110.4	400.9	511.3

³ Estimated based on CALPERS 10/31/07 5.21% Market Value return from 6/30/07 through 10/31/07 and assumed 7.75% from 11/1/07 through 2/15/08.

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**POB (Millions)
Bond Proceeds Balance**

	<u>Payments</u>			
	<u>Principal</u>	<u>Interest</u>	<u>Total</u>	<u>Balance</u>
■ 2/17/05	n/a	n/a	n/a	\$400.0
■ 8/15/05	n/a	9.4	9.4	400.0
■ 2/15/06	3.2	9.5	12.7	396.8
■ 8/15/06	n/a	9.5	9.5	396.8
■ 2/15/07	4.0	9.5	13.4	392.9
■ 8/15/07	n/a	9.4	9.4	392.9
■ 2/15/08	4.9	9.4	14.3	388.0



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**POB (Millions)
Estimated Savings**

■	Net Estimated Savings:	
	A. CalPERS Estimated Balance	\$ 511.3
	B. Bond Proceeds Balance	388.0
	C. Cash Flow Savings/(Deficit)	
	[Payments that would be paid to CalPERS less POB debt service]	<u>(1.7)</u>
	D. Net [(A) – (B) + (C)]	125.0
■	Net Estimated Savings:	
	E. CalPERS Investment Earnings	\$184.9
	F. POB Interest Payments	56.7
	G. Cost of Issuance	<u>3.1</u>
	H. Net [(E) – (F) – (G)]	125.0
■	Above estimates based on market rate of return. Savings based on actuarial rate of return would be lower.	

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POB (Millions)
Projected Net Funding Ratio

Based on 6/30/06 Valuation

	Safety		Miscellaneous		Total	
	<u>6/30/07</u>	<u>6/30/08</u>	<u>6/30/07</u>	<u>6/30/08</u>	<u>6/30/07</u>	<u>6/30/08</u>
(1) AAL	\$ 1,339	\$ 1,452	\$ 3,000	\$ 3,274	\$ 4,339	\$ 4,726
(2) AVA	<u>1,289</u>	<u>1,420</u>	<u>2,889</u>	<u>3,207</u>	<u>4,178</u>	<u>4,628</u>
(3) UAL [(1) - (2)]	50	32	110	67	160	99
(4) Funding Ratio [(2)/(1)]	96.3%	97.8%	96.3%	98.0%	96.3%	97.9%
(5) POB Balance					393	388
(6) Net AVA [(2) - (5)]					3,785	4,240
(7) Net Funding Ratio [(6)/(1)]					87.3%	89.7%



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CALPERS Rate Smoothing

	Old Method	New Method
6/30/2005:		
Market Value	100.0	100.0
Actuarial Value	98.0	98.0
6/30/2006:	11.94%	11.94%
Market Value	111.9	111.9
Actuarial Value:		
1. Project @ 7.75%	105.6	105.6
2. Adjust:	107.7	106.0
[(MV-AV) x (Old: 1/3; New: 1/15)]		
3. Limited by corridor	107.7	106.0
Actuarial Rate of Return	9.9%	8.2%
Ratio of Actuarial Value to Market Value	96.2%	94.7%

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CALPERS Rate Smoothing

	Old Method	New Method
Actuarial Asset Values		
● Project Assets forward	7.75%	7.75%
● Asset Gain/Losses Recognized	3 Years	15 Years
● Ratio of Actuarial to Market Value of Assets	90-110%	80-120%
Actuarial Asset Methods		
● Amortization		
○ Years	12.7 Years	30 Years
○ Factor	10%	6%
● Minimum	None	Normal Cost less 30 Year Amortization of Surplus

