

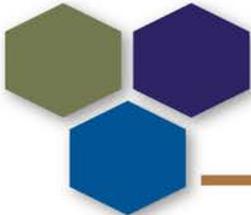


Bay County Employees' Retirement System December 31, 2014 Actuarial Valuation

Board of Trustees Meeting October 13, 2015

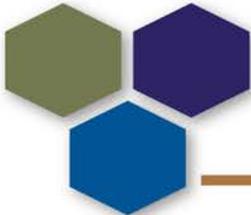


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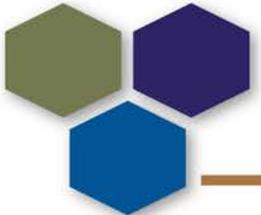
Agenda

- ◆ 2015 Headlines
- ◆ Actuarial Valuation Process
- ◆ Highlights of 2014 Bay County Actuarial Valuation
- ◆ Asset Performance
- ◆ Historical Contributions/Funded Ratios
- ◆ Looking Ahead



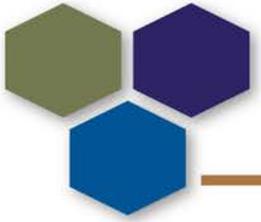
2015 Headlines

- ◆ New Mortality Tables will impact Pension Plan Management
- ◆ Actuarial Standards Board holds hearing on Public Pension Funding
- ◆ GASB releases new standards for Other Postemployment Benefit plans (OPEBs)
- ◆ Investment return assumptions

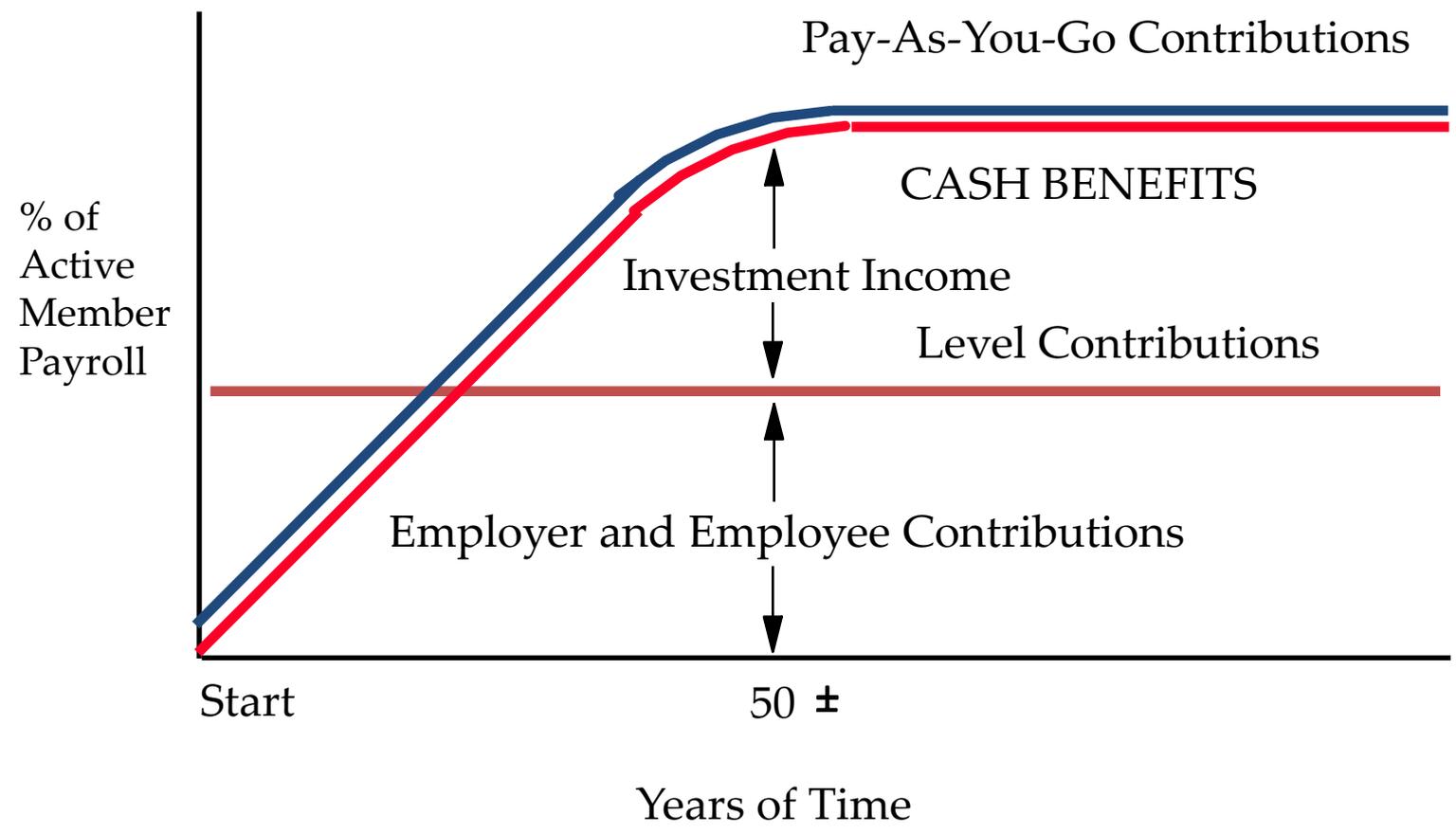


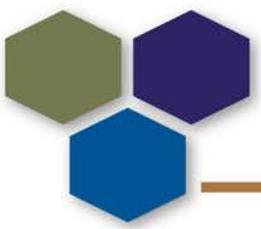
Valuation Process - Funding Objectives

- ◆ Intergenerational equity with respect to plan costs
- ◆ Stable or increasing ratio of assets to liabilities
- ◆ Stable pattern of contribution rates

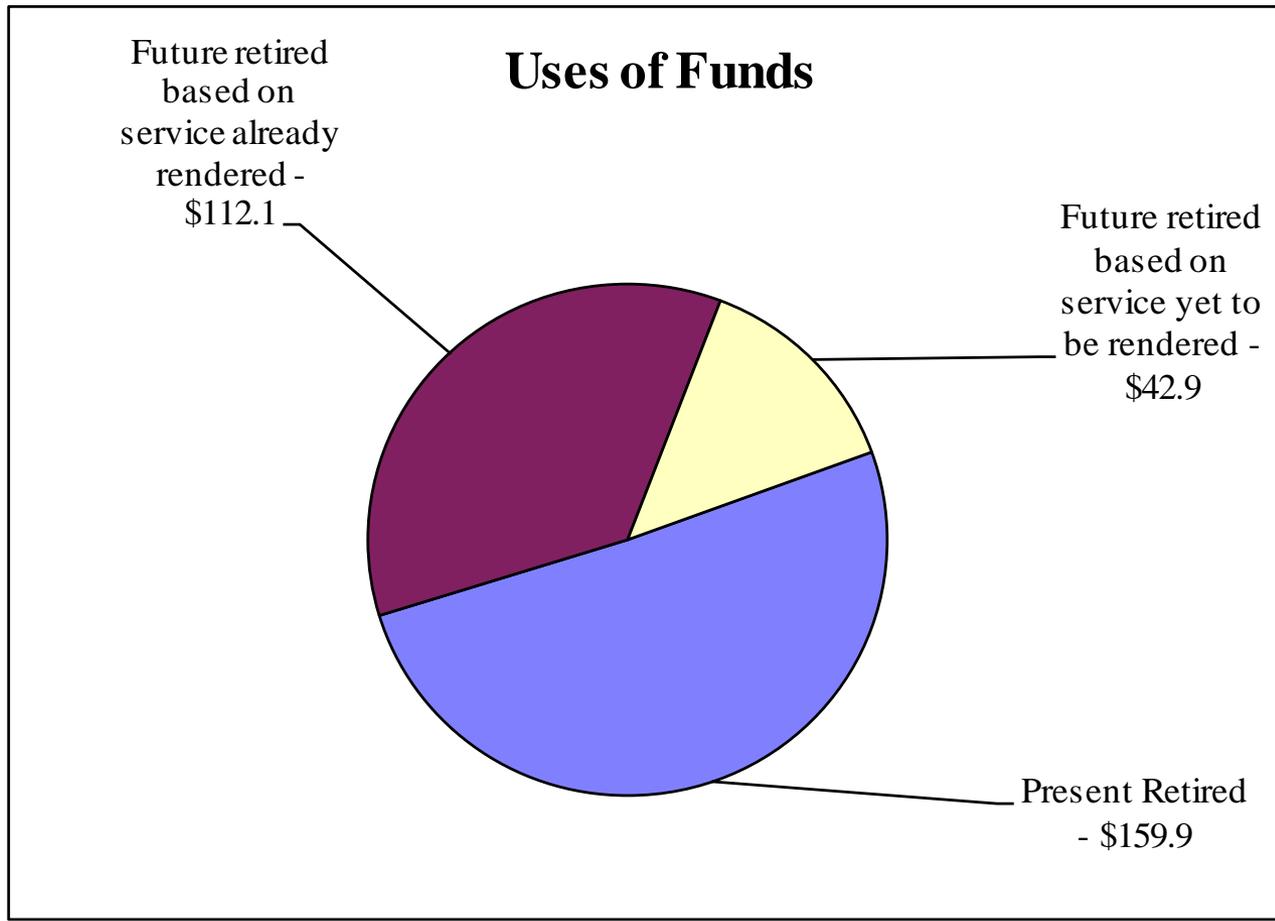


Financing Diagram

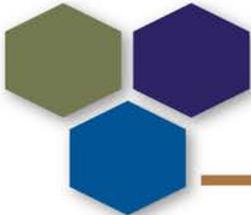




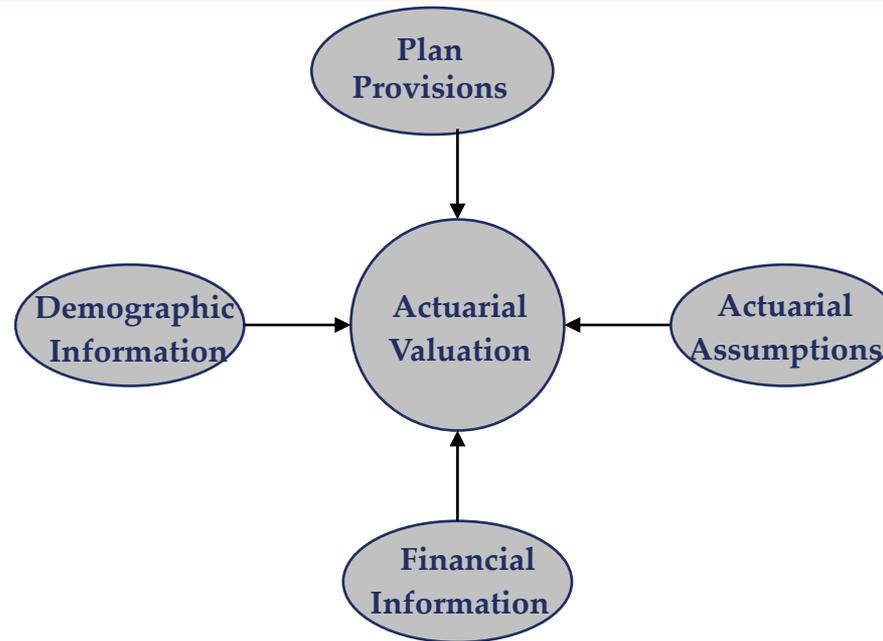
\$314.9 Million* of Benefit Promises to Present Active and Retired Members



* Present value of future benefits; all divisions combined.



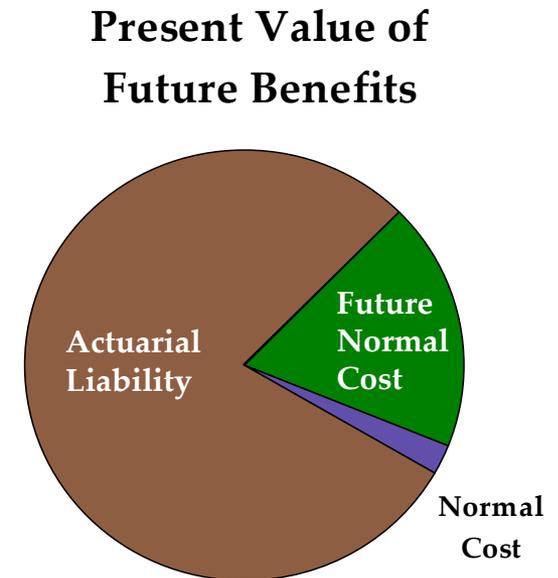
Actuarial Valuation Process

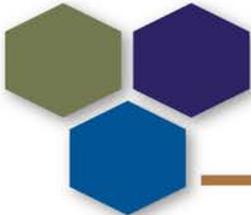


- ◆ Demographic Information, Financial Information & Plan Provisions are provided by the plan sponsor.
- ◆ Actuarial assumptions are recommended by the actuary and approved by the Board.
- ◆ The actuarial valuation is a mathematical process used to project future payments on account of specified benefit provisions. These projected payouts are converted to equivalent present value amounts and a corresponding level percent-of-payroll contribution is determined.

Actuarial Valuation Process

- ◆ Present Value of Future Benefits - Present Value (PV) of all future benefits payable to current participants (active, retired, terminated vested).
- ◆ Actuarial Liability - Portion of PV of Future Benefits allocated to prior years.
- ◆ Normal Cost - Portion of PV of Future Benefits allocated to current year.
- ◆ Future Normal Costs - Portion of PV of Future Benefits allocated to future years.

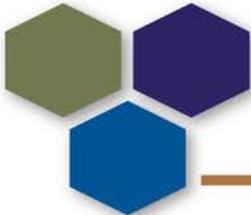




Actuarial Valuation Process

$$\begin{array}{r} \text{Actuarial Accrued Liability} \\ - \text{Actuarial Value of Assets} \\ \hline \text{Unfunded Actuarial Liability} \end{array}$$

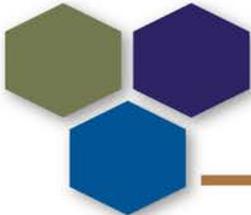
$$\text{Annual Contribution} = \text{Normal Cost} + \text{Amortization of the Unfunded Liability Requirement}$$



Highlights of 2014 BCERS Actuarial Valuation

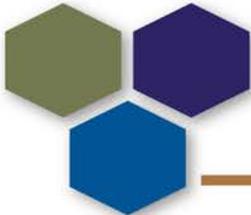
	<u>General</u>	<u>DWS</u>	<u>Library</u>	<u>BABH</u>	<u>Medical Care Facility</u>	<u>Sheriff's Department</u>	<u>Road Commission</u>	<u>Total</u>
Participants								
Active	365	40	36	220	361	79	59	1,160
Retired	346	32	40	119	214	70	95	916
Terminated Vested	37	1	7	26	14	3	1	89
Total	748	73	83	365	589	152	155	2,165
Payroll	\$ 14,709,914	\$ 2,197,529	\$ 1,613,739	\$ 10,219,867	\$ 10,609,021	\$ 4,059,143	\$ 3,085,204	\$ 46,494,417
Actuarial Accrued Liability	93,450,950	14,574,768	10,253,476	46,920,346	47,726,386	27,793,066	31,276,038	271,995,030
Actuarial Value of Assets	104,457,772	11,736,129	10,890,265	42,751,434	51,310,492	34,199,006	26,820,972	282,166,070
Unfunded Actuarial Accrued Liability	(11,006,822)	2,838,639	(636,789)	4,168,912	(3,584,106)	(6,405,940)	4,455,066	(10,171,040)
Funded Ratio	112%	81%	106%	91%	108%	123%	86%	104%
Contribution Requirement								
Employer Normal Cost	6.47 %	7.03 %	\$ 124,658	7.62 %	6.71 %	9.51 %	10.08 %	
Amortization Payment for ERIP [^]				3.46				
Amortization Payment	(8.39)	7.13	(90,393)	0.28	(3.84)	(18.19)	8.01	
Total	0.00 %	14.16 %	\$ 34,265	11.36 %	2.87 %	0.00 %	18.09 %	\$ 2,535,295

[^] Amortization payment associated with the Early Retirement Incentive Program (ERIP).



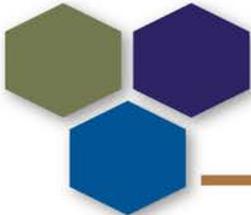
Highlights of 2014 BCERS Actuarial Valuation

Division	Valuation Year Fiscal Year	Contribution Rate	
		12/31/2013 1/1/2015	12/31/2014 1/1/2016
General County		0.03 %	0.00 %
DWS		15.72	14.16
Library		\$ 89,491	\$ 34,265
BABH		12.85 %	11.36 %
Medical Care Facility		4.20	2.87
Sheriff's Department		0.00	0.00
Road Commission		19.14	18.09



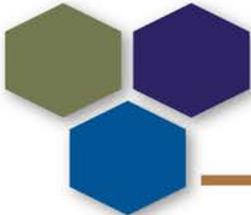
Highlights of 2014 BCERS Actuarial Valuation

- ◆ No changes to valuation assumptions or methods for the 2014 valuation.
- ◆ New tiers of benefits (lower multiplier, different retirement eligibility provisions) established for
 - ▶ BABH AFSCME hired on or after 10/1/2014,
 - ▶ BABH General hired after 1/1/2015, and
 - ▶ MCF United Steel Workers Local 15301, MCF Facility RN & LPN Nursing Council – USW 15301-01, and General MCF hired on or after July 30, 2015.
- ◆ Since there were no employees reported in the data under these tiers these benefit changes had no impact on this valuation.



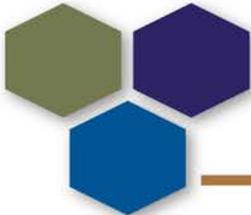
Highlights of 2014 BCERS Actuarial Valuation

- ◆ The aggregate experience during 2014 was favorable, with an overall gain of \$8,555,092.
 - ▶ A gain of \$9,850,536 was attributable to investment performance (based on the smoothed asset method).
 - ▶ A loss of \$1,295,444 was attributable to fewer retiree deaths than expected and an overall pay loss, from higher than expected payroll increases.



Highlights of 2014 BCERS Actuarial Valuation

- ◆ Contribution rates should trend toward the long-term cost or normal cost of the benefits over time.
 - ▶ Experience gains/losses will always serve to deviate contributions from pure normal cost
- ◆ All divisions have required employer contributions, except the General and Sheriff's department.

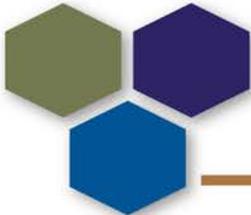


Highlights of 2014 BCERS Actuarial Valuation

- ◆ We developed the value of anticipated future benefit payments to retired members and their beneficiaries. We then compared this accrued liability to the reported value of the retirement reserve account. The figures below compare the retired liabilities and the reserves for each division.

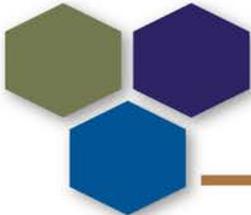
<u>Division</u>	<u>Accrued Liability</u>	<u>Reported Retiree Reserve</u>	<u>Unfunded Retiree Liability</u>
General	\$ 52,543,623	\$ 51,021,363	\$ 1,522,260
DWS	9,289,609	9,424,315	(134,706)
Library	6,056,777	5,345,376	711,401
BABH	28,965,273	29,985,837	(1,020,564)
Medical Care Facility	27,204,941	25,980,030	1,224,911
Sheriff's Department	14,957,695	16,563,367	(1,605,672)
Road Commission	20,894,422	18,943,094	1,951,328
Total	\$ 159,912,340	\$ 157,263,382	\$ 2,648,958

- ◆ As of the valuation date, there is a shortfall in the retiree reserve for all groups except DWS, BABH, and the Sheriff's Department.
- ◆ The valuation anticipates that the difference between the accrued liability and the reported reserve will be transferred from the Retirement System employer reserve to the retiree reserve effective January 1, 2015 to fully fund the retiree accrued liability.



Highlights of 2014 BCERS Actuarial Valuation

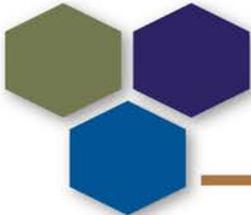
- ◆ The results shown reflect an asset transfer in the amount of \$181,804 from the General group to the Road Commission.
 - ▶ This transfer is recommended as a result of the membership transfer between the General group and the Road Commission.
- ◆ We recommend the Board approve the asset transfer in the amount of \$181,804 from the General group to the Road Commission.



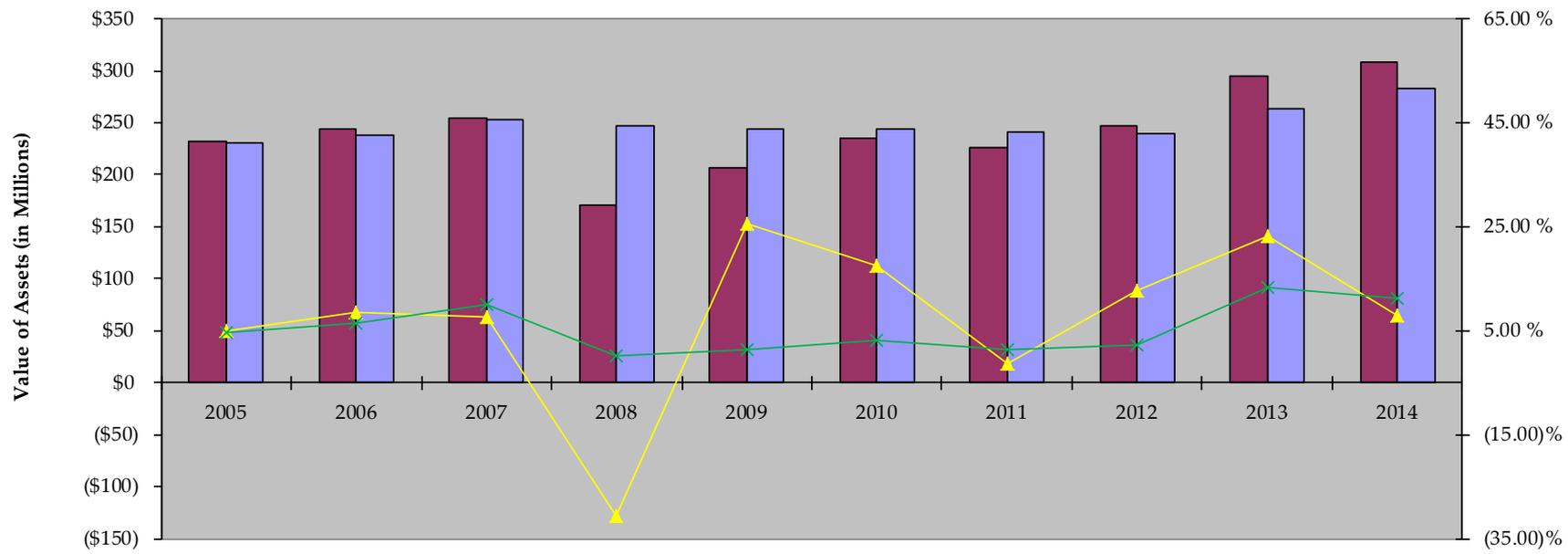
BCERS - Asset Performance

	December 31,									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Market Value of Assets*	\$231.4	\$243.6	\$254.2	\$170.2	\$206.0	\$235.4	\$225.7	\$246.9	\$295.4	\$308.1
Rate of Return	4.91 %	8.37 %	7.52 %	(30.62)%	25.46 %	17.63 %	(1.22)%	12.65 %	23.03 %	7.98 %
Actuarial Value of Assets*	230.2	237.7	253.5	246.6	243.3	244.7	241.2	239.3	263.4	282.2
Rate of Return	4.53 %	6.32 %	9.92 %	0.17 %	1.38 %	3.26 %	1.37 %	2.11 %	13.42 %	11.32 %

* Assets in millions of dollars.

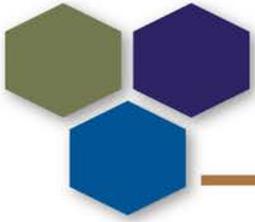


BCERS - Asset Performance

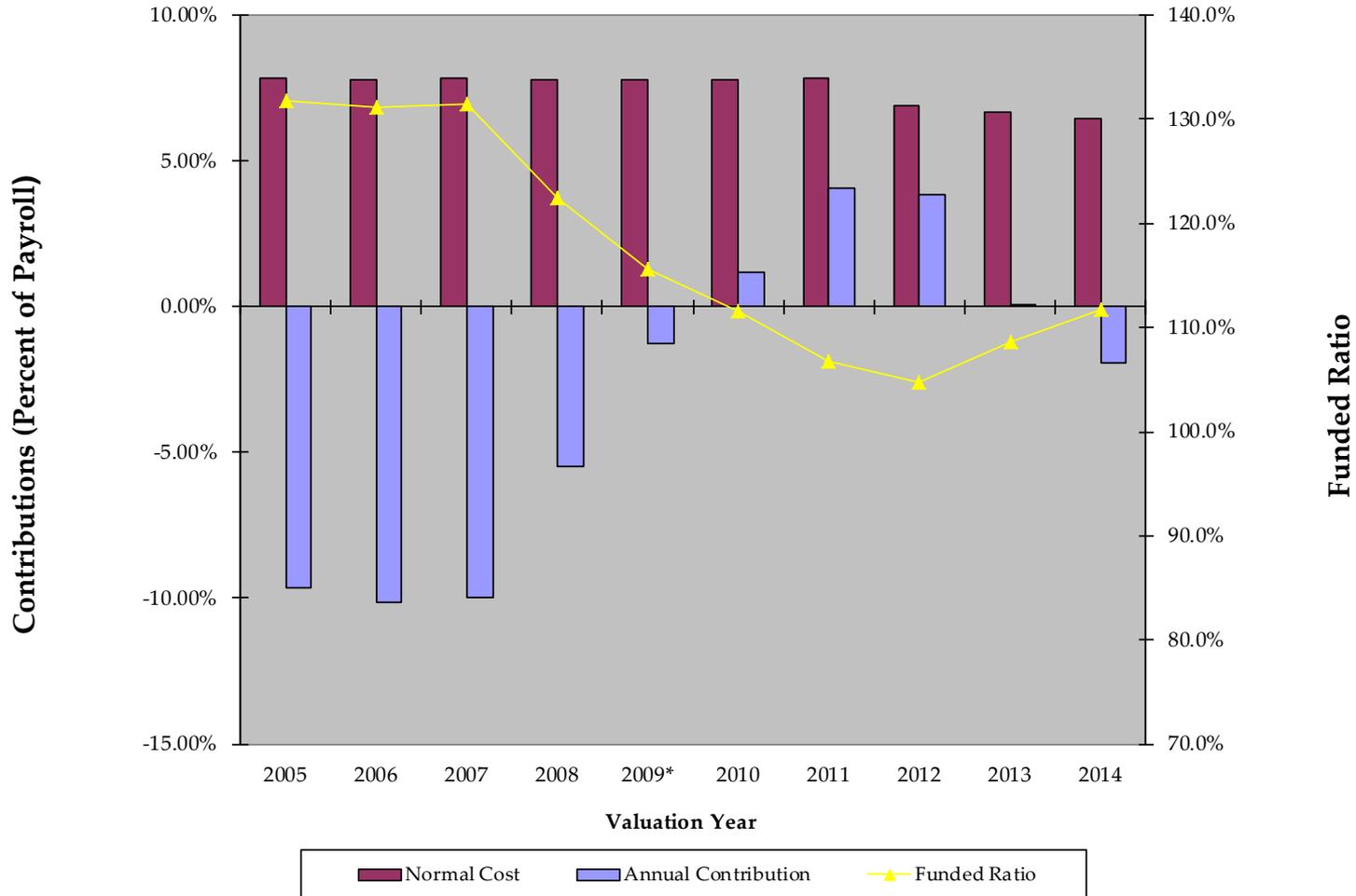


Valuation as of December 31,

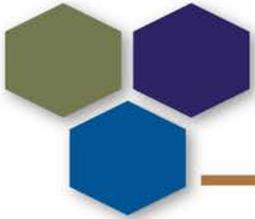




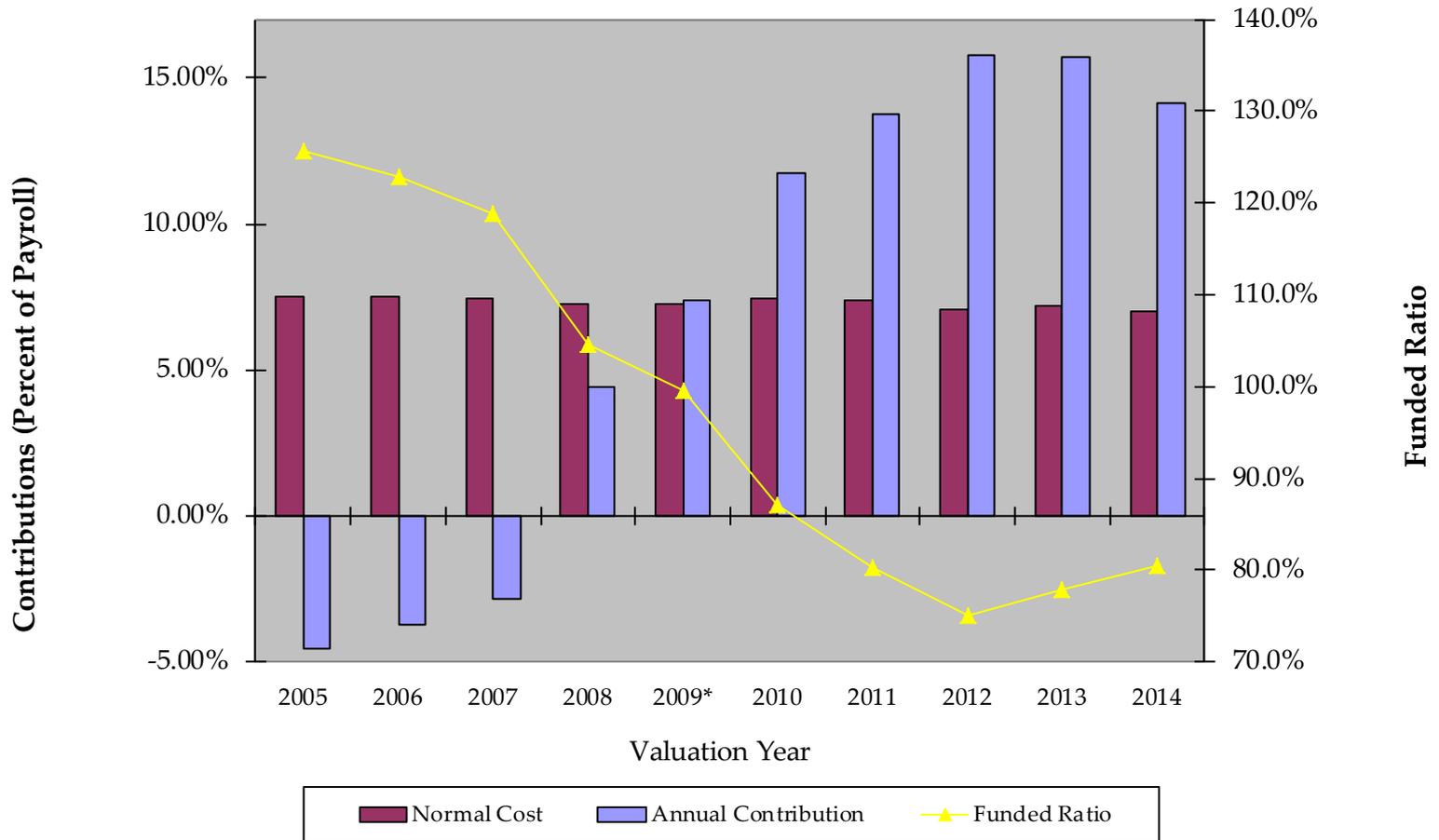
Historical Information – General



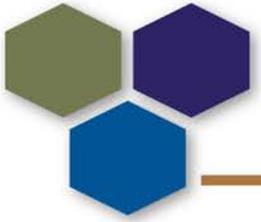
* 2009 valuation implemented a 1-year lag – results used for FY 2010 and FY 2011.



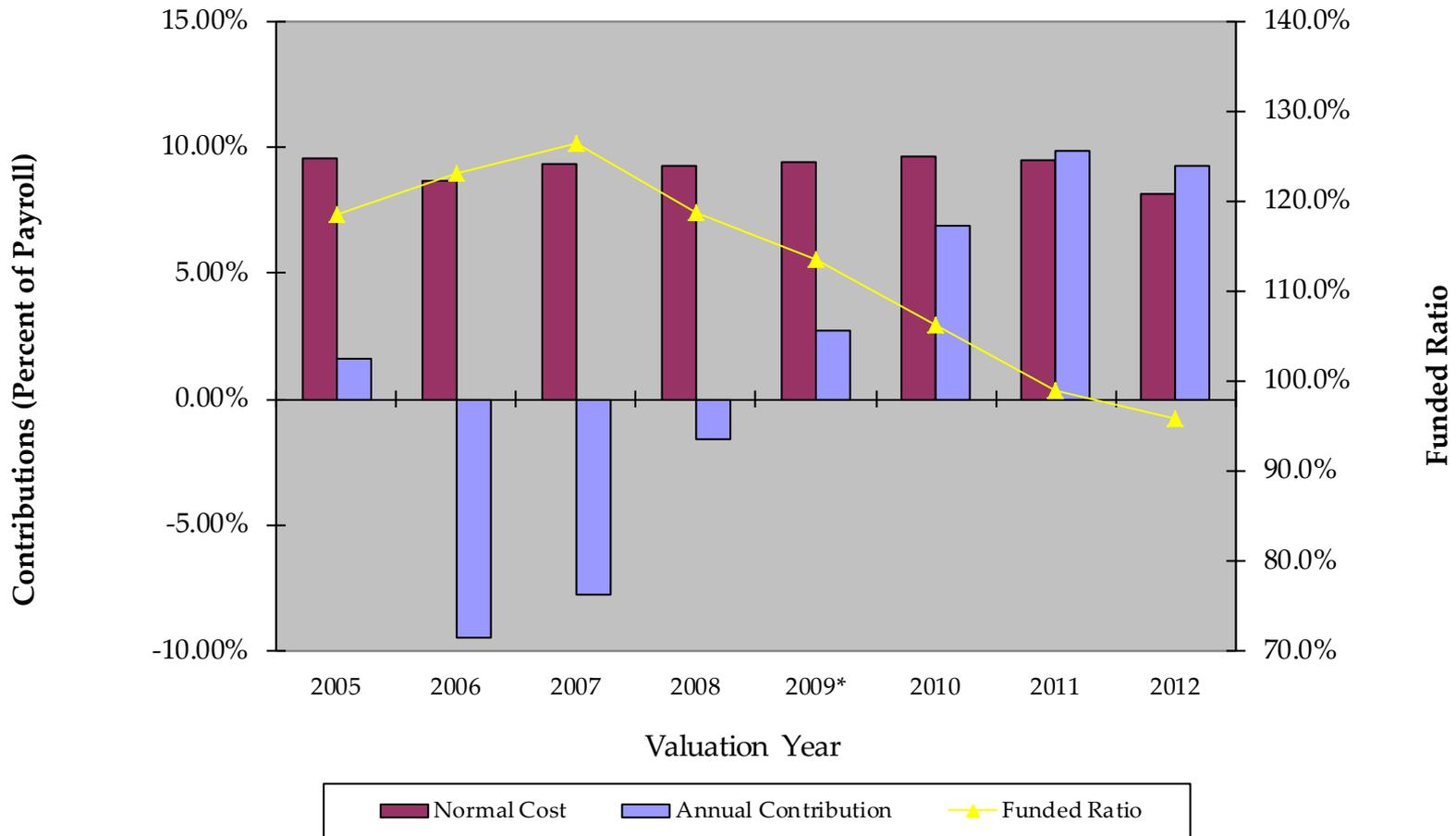
Historical Information – DWS



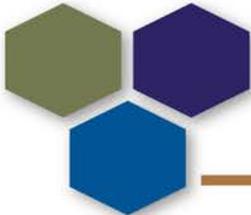
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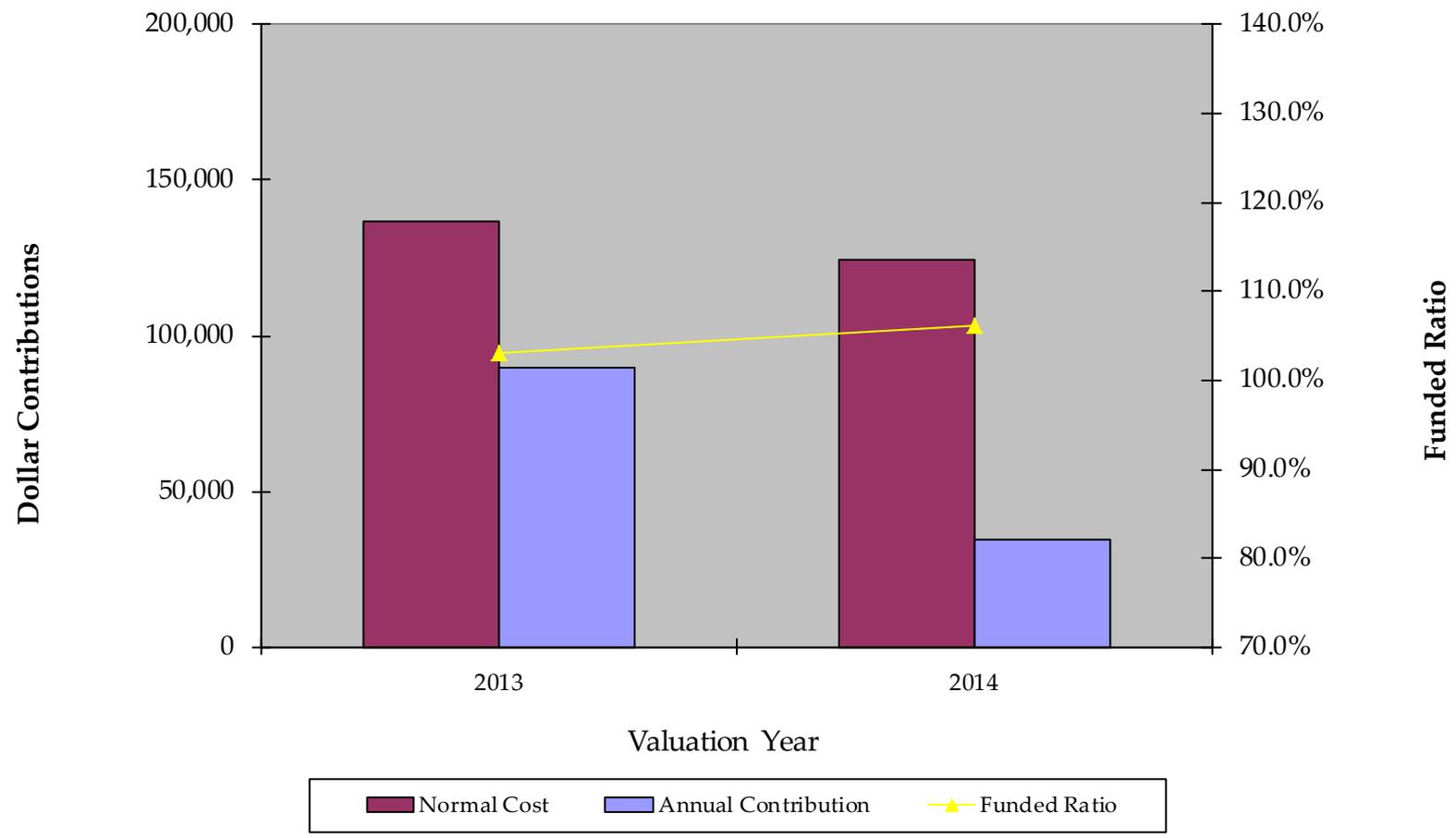
Historical Information – Library



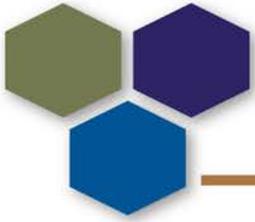
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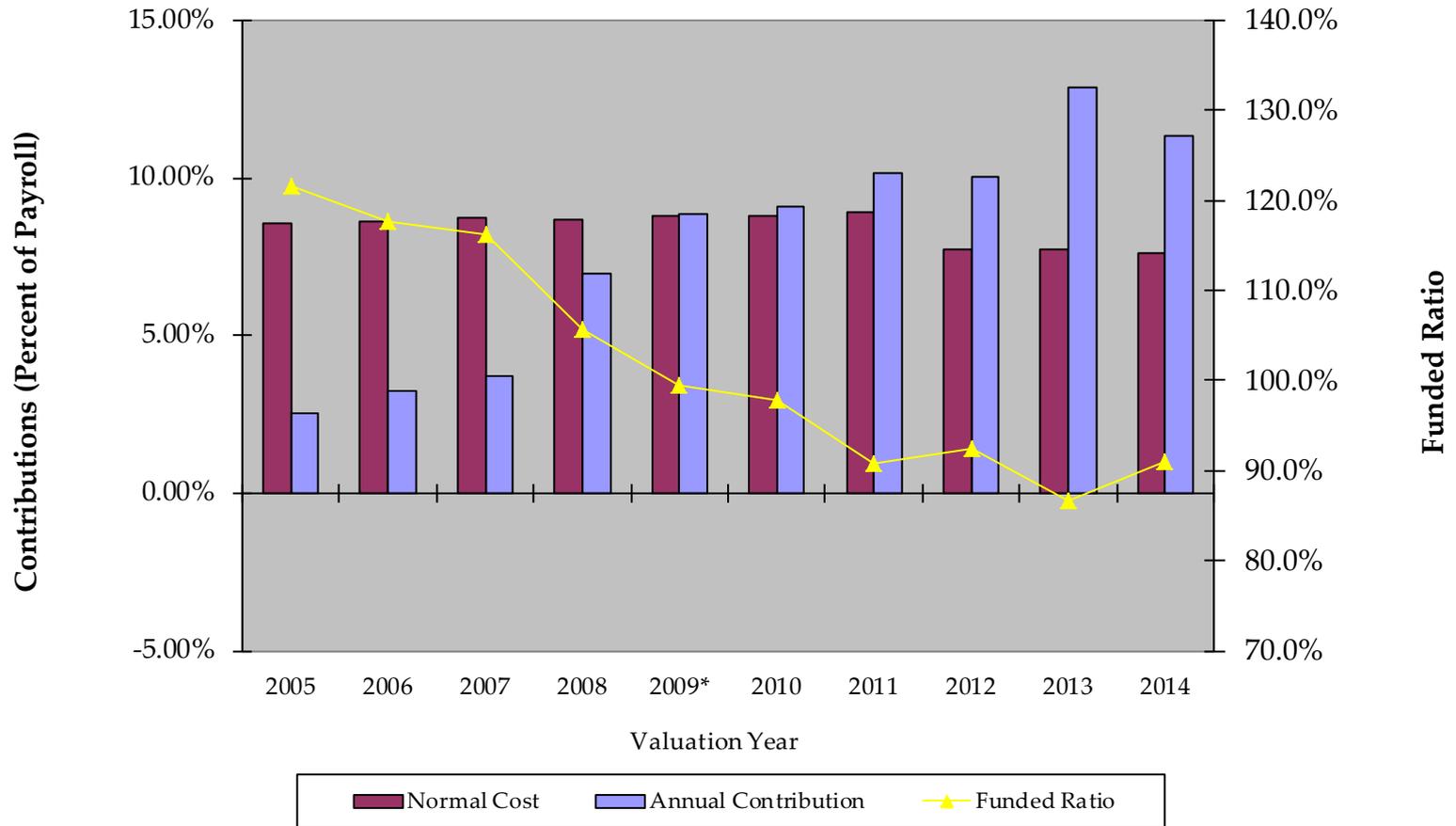
Historical Information – Library (Concluded)



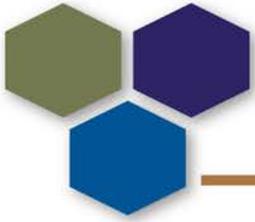
2013 valuation reflects closure of plan to new hires – contribution expressed as level dollar amount.



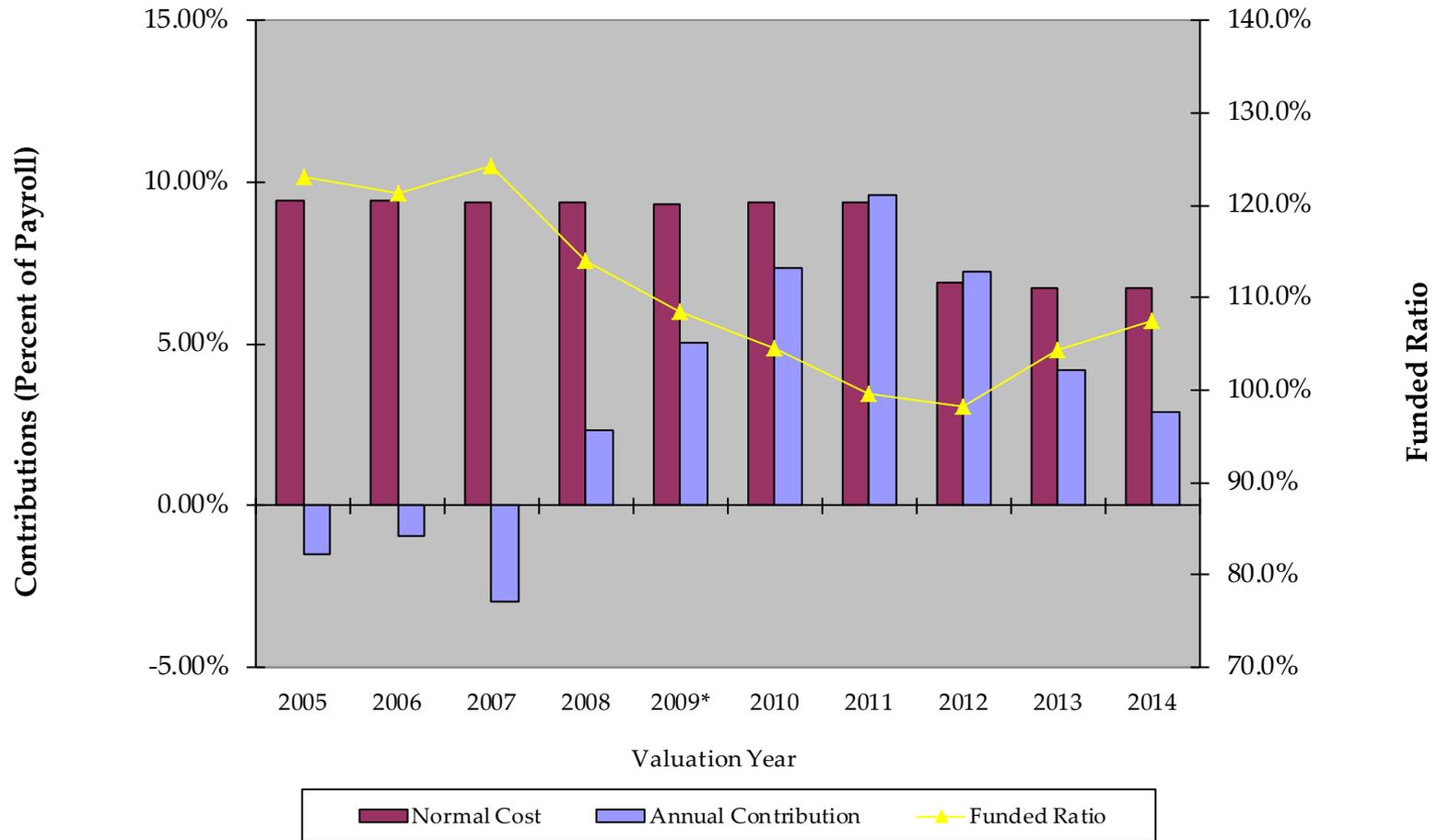
Historical Information – BABH



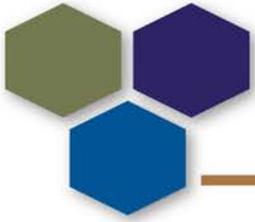
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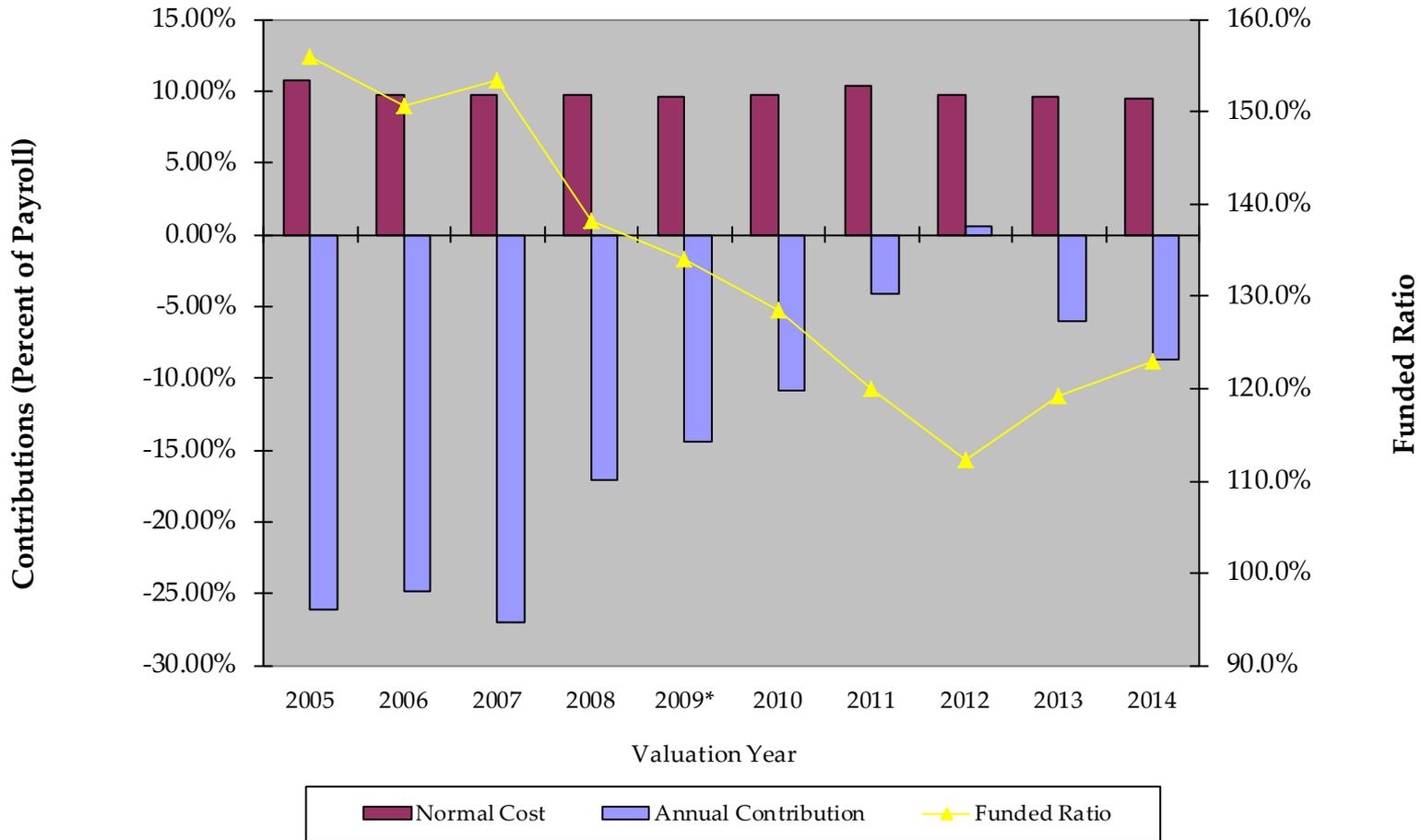
Historical Information – Medical Care Facility



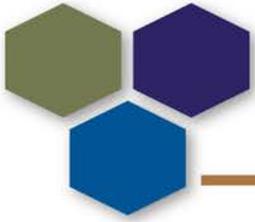
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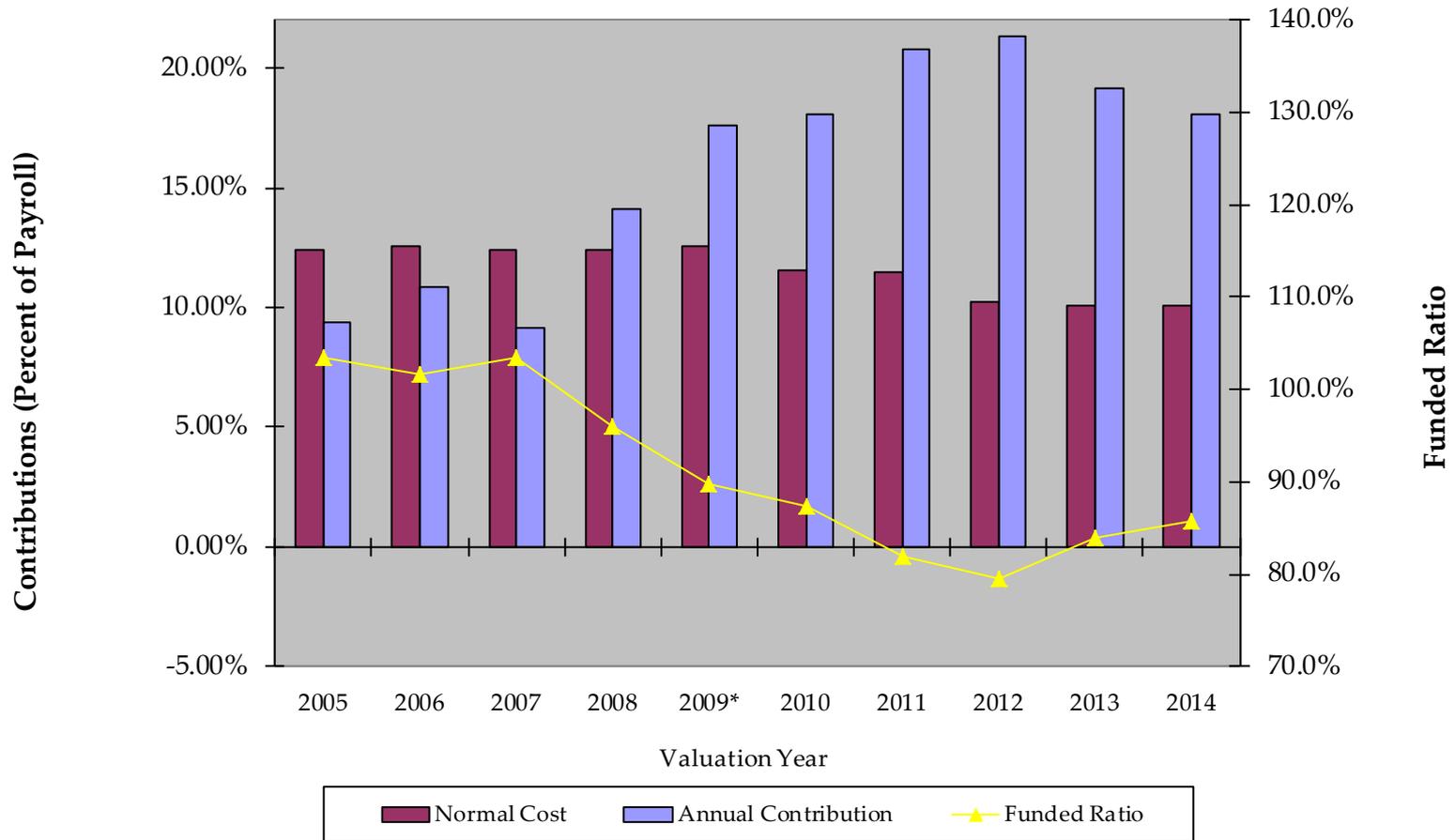
Historical Information – Sheriff's Department



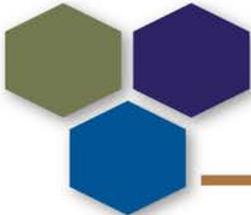
* 2009 valuation implemented a 1-year lag – results used for FY 2010 and FY 2011.



Historical Information – Road Commission

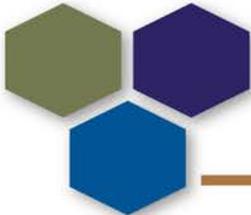


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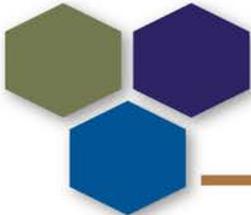
Looking Ahead - Contributions

- ◆ Asset smoothing helps reduce the volatility of the employer contributions.
- ◆ The Retirement System will continue to mature.
 - ▶ More retirees than active employees.
 - ▶ Normal for a prefunded retirement system.



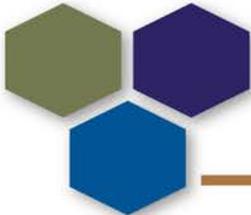
Looking Ahead - Contributions

- ◆ In the short-term, meeting the 7.5% assumed market return will put downward pressure on employer contributions due to the remaining phase-in of past market gains.
- ◆ Favorable investment performance in recent years.
 - ▶ The funding value of assets was 92% of market value.



Disclaimers

- ◆ This presentation is one of many documents comprising the December 31, 2014 actuarial valuation of the Bay County Employees' Retirement System. This presentation should not be relied on for any purpose other than the purpose described in the valuation report.
- ◆ Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.



Disclaimers

- ◆ This presentation shall not be construed to provide tax advice, legal advice or investment advice.
- ◆ James D. Anderson and Shana M. Neeson are independent of the plan sponsor, are Members of the American Academy of Actuaries (MAAA), and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.