

# **PENSIONS: A STATE & LOCAL CHALLENGE**

A Report Prepared for the  
**Legislative Finance Committee**

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## INTRODUCTION

The typical pension system is funded from three sources: employee contributions, employer and state contributions, and investment earnings. About 60% of the total funding comes from investment income, with the remainder coming from employees, employers and the state.

This report is an introduction to the employer contribution pension funding model and the underlying policy choices of the legislature. It will describe:

- the data and its sources;
- the mechanics of how the model combines the data and assumptions to produce future cost estimates and determine employer contributions and liability for all entities in the retirement system; and
- the state's role in contributing to the retirement systems of local employees.

## BACKGROUND

The overall responsibility for each of the Montana public employee retirement plans is held by the state. This analysis examines current funding and the source of unfunded liability; to that end, the unfunded liability is allocated to local government entities based on their share of current wages. This allocation is an example of one way GASB may require the liability to be allocated to local government entities in the future for accounting statements. Two terms used repeatedly throughout this report are defined as follows:

- **Fractional Wage Share**—the unfunded liability in the June 2010 Actuarial Valuations for each of the retirement plans allocated by state and local share of wages of active members of the corresponding system
- **Implied Unfunded Liability**—the amount of unfunded liability that would be the responsibility of local government entities if each plan's unfunded liability were allocated on fractional wage share

This approach to examining the unfunded pension liability uses wages as a driver of liability rather than funding or assuming exclusive state responsibility. Given past funding of the liabilities, it is unclear how policy makers will choose to fund these unfunded liabilities. In the past, policy choices have used state funding for a portion of the local liability; further details on these policies are on pages 2 and 3.

## FUNDING MODEL

Two classes of data are used to determine the source of employer and state contributions, and the corresponding overall liability. The Public Employee Retirement System (PERS) and the Teachers Retirement System (TRS) provide annual reports of covered payroll that provides a comprehensive list of the state agencies, cities, counties, and school districts paying into the retirement system, as well as the system into which those entities are contributing. SABHRS data provides the funding breakout of the various retirement systems—general funds, federal funds or proprietary funds, for example. Comparing these two sources of data—the covered payroll reports and SABHRS data—allows for the funding breakout of employer and state contributions of each of the retirement systems, as well as an associated implied liability for each of the contributing entities.

## CONTRIBUTIONS BY SYSTEM, SOURCE AND COUNTY

The following tables shows which entities pay the employer contributions today. It uses the payroll and SABHRS data to determine the FY 2010 employer contributions to the various retirement systems. The first table lays out the data by retirement system and the second table lays out the data by government entity and funding source. The underlying data and the total contributions are the same in both tables.

<b>FY 2010 Funding by Retirement System</b>			
<b>Retirement System</b>	<b>Contributing Entities</b>		<b>Grand Total</b>
	<b>Local</b>	<b>State</b>	
Fire	\$4,700,296	\$10,813,494	\$15,513,790
Game Wardens		3,549,229	3,549,229
Highway Patrol		3,408,906	3,408,906
Judges		1,467,782	1,467,782
MUS		7,767,469	7,767,469
Police	5,389,088	10,983,866	16,372,954
Public Employees	34,457,262	82,058,998	116,516,260
Sheriffs	5,536,711	252,400	5,789,111
Teachers	43,486,832	40,044,804	83,531,635
<b>Grand Total</b>	<b>\$93,570,189</b>	<b>\$160,346,949</b>	<b>\$253,917,138</b>

<b>FY 2010 Funding by Entity and Fund Source</b>			
<b>Funding Sources</b>	<b>Contributing Entities</b>		<b>Grand Total</b>
	<b>Local</b>	<b>State</b>	
<b>K-12</b>			
Federal Funds Schools (10%)	6,651,427		\$6,651,427
GTB State Average (25.2%)		16,761,597	16,761,597
Local Schools (64.8%)	\$43,101,248		43,101,248
Statutory Appropriation		16,434,813	16,434,813
<b>K-12 Total</b>	<b>49,752,675</b>	<b>33,196,409</b>	<b>82,949,085</b>
<b>Local</b>			
Community Colleges	768,572		768,572
Local Government	43,048,941		43,048,941
<b>Local Total</b>	<b>43,817,513</b>	<b>-</b>	<b>43,817,513</b>
<b>MUS</b>			
Current Unrestricted - Education		30,717,350	30,717,350
Current Unrestricted - Research		1,974,169	1,974,169
MUS Other		14,307,332	14,307,332
<b>MUS Total</b>	<b>-</b>	<b>46,998,851</b>	<b>46,998,851</b>
<b>State</b>			
Federal Funds		7,002,919	7,002,919
General Funds		45,791,021	45,791,021
Other		404,342	404,342
Proprietary Funds		4,848,601	4,848,601
State Special Revenue		22,104,805	22,104,805
<b>State Total</b>	<b>-</b>	<b>80,151,689</b>	<b>80,151,689</b>
<b>Grand Total</b>	<b>93,570,189</b>	<b>\$160,346,949</b>	<b>253,917,138</b>

A portion of the local liability for pensions is funded by the state for various policy reasons. A brief overview of funding requirements for each of the retirement systems is given below; Appendix A gives the statutory references for the funding of the pension systems.

## **K-12**

School funding is different than other local government funding, as the state has a constitutional funding obligation that is not afforded to other local government entities. Thus the state funds employer contributions to pension systems through separate components of school funding which are integral to the school funding formula.

Employer contribution rates of 7.47% for TRS and 6.8% for PERS are paid for by two sources:

- Federal funds for federal funded employees account for about 10% of the school district payment to the pension system.
- The district retirement fund is used to pay the districts' contribution to the pension system for all state and locally funded employees. It is funded with a county levy that is guaranteed by the state to generate a certain level of revenue (guaranteed tax base aid or GTB). The counties pay approximately 72% of this portion of the retirement fund expenses with a local levy and the state pays the remaining 28% with GTB.

The state maintains a statutory general fund appropriation to pay an additional contribution of 2.49% for TRS and 0.37% for PERS. The state pays these percentages whether the employees' wages are funded with state and local funds or with federal funds.

## **Local**

Employer contribution rates of 7.47% for community colleges, 14.36% for firefighters, 14.41% for police, 7.07% for city and county employees, and 10.115% for sheriffs are funded by local levies.

The state maintains statutory general fund appropriations to pay additional contributions of 32.61% for firefighters, 29.37% for police, and 0.1% for city and county employees. Note that the high percentages contributed by the state for fire fighters and police evolved over time. Original legislation set out somewhat lower rates and dedicated portions of the insurance premium tax to fund them.

For community colleges, like K-12 school districts, the state maintains a statutory general fund appropriation to pay an additional contribution of 2.49% for TRS. The state pays these percentages whether the employees' wages are funded with state and local funds or with federal funds.

## **Montana University System (MUS)**

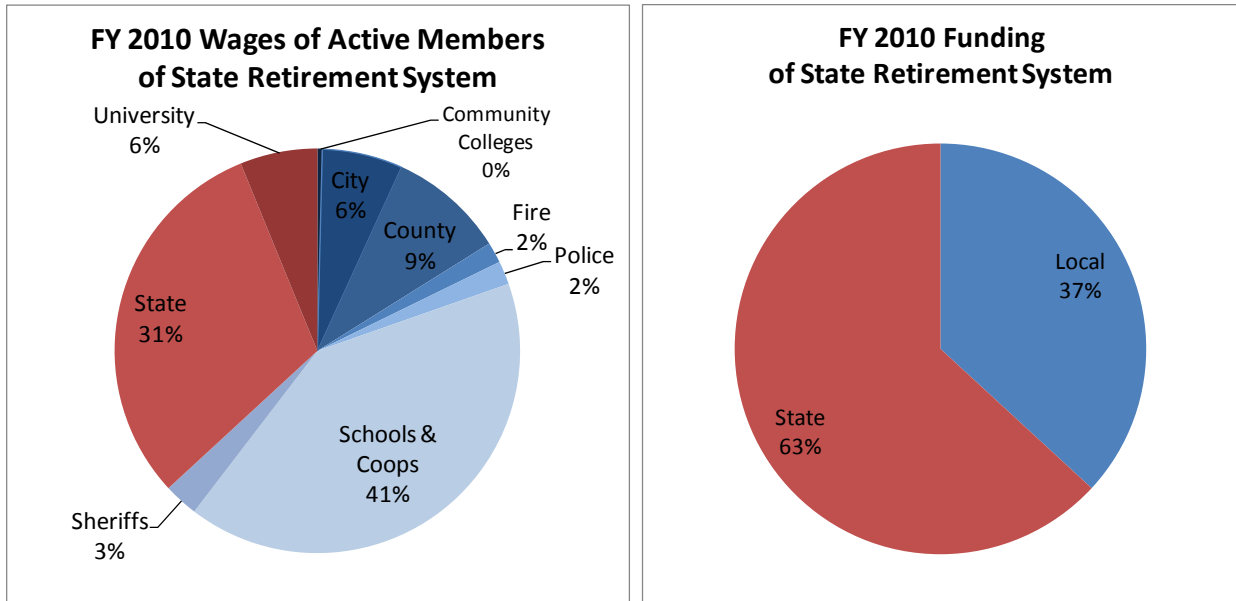
Employer contribution rates of 7.17% for public employees, 9.85% for teachers, 9.00% for game wardens, and 9.85% for the optional retirement plan are funded by current unrestricted and other MUS funds. The MUS contributes 4.72% of employees' salaries in the Optional Retirement Program (ORP) to amortize the unfunded liability of MUS employees that entered TRS before the establishment of ORP.

In addition, the state contributes 1% of ORP employees' salaries paid with current unrestricted funds to the employees' retirement accounts from the general fund.

## **State**

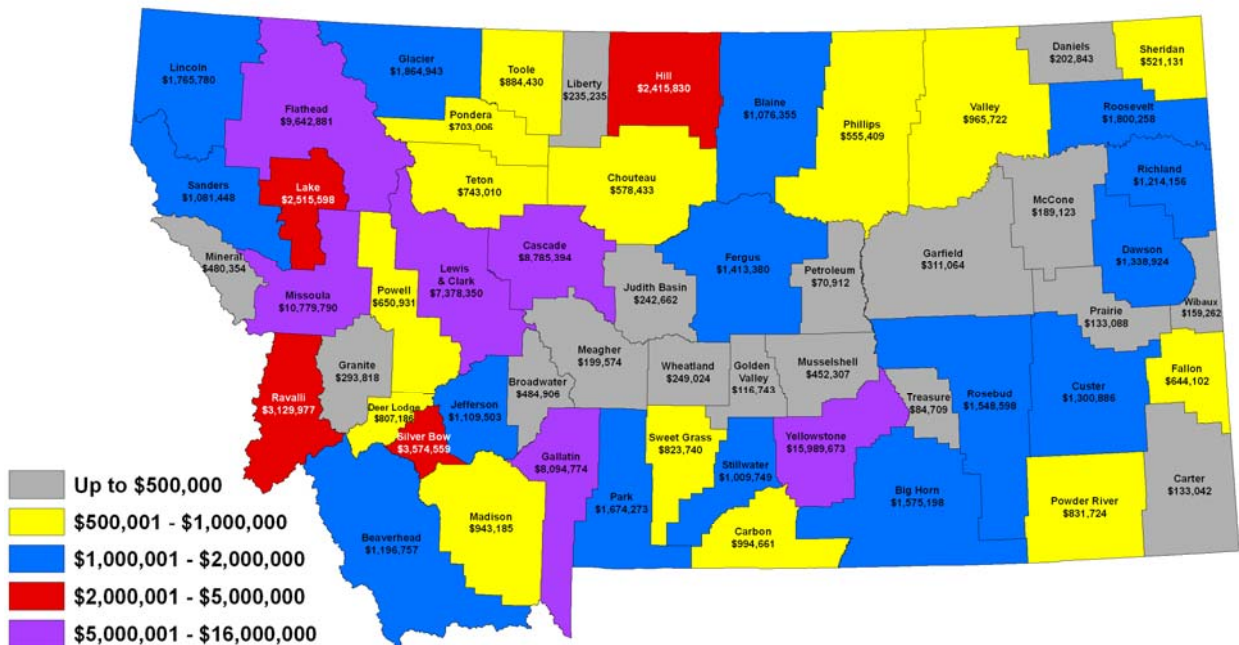
Employer contribution rates of 7.17% for public employees, 26.15% plus 10.18% for highway patrol, 9.00% for game wardens, 25.81% for judges, and 9.85% for the university system is funded by a mix of general, federal, state special, proprietary and other funds.

The contribution laws described above are reflected in the charts below that compare the state's share of retirement contributions to the state's share of wages for active members of the retirement system. The first pie chart shows the wages of employees by employer group. The second pie chart reflects the contributions shown in the tables above.



While the state and university account for only 37% of the wages of active members of the retirement system, the state pays for 63% of total employer contributions.

Local contributions can be detailed by county, as shown in the map below and subsequent chart. Note that school districts are counted in the county that corresponds to their city or town; this is not precise, as school districts can cross county lines, but it is assumed that these effects are negligible.



Local Government Employer Retirement Contributions by County & Retirement System Fiscal Year 2010						
County	Fire	Police	Public Emp.	Sheriff	Teachers	Grand Total
Beaverhead			712,082	45,914	438,762	1,196,757
Big Horn			534,294	66,516	974,388	1,575,198
Blaine			338,578	43,325	694,452	1,076,355
Broadwater			138,194	68,809	277,903	484,906
Carbon	30,556	38,125	336,067	43,742	546,172	994,661
Carter			66,794	13,356	52,891	133,042
Cascade	629,253	723,839	2,761,436	401,293	4,269,572	8,785,394
Chouteau		23,191	247,441	44,819	262,983	578,433
Custer	77,545	80,937	370,831	44,987	726,587	1,300,886
Daniels			88,237	13,842	100,764	202,843
Dawson	29,040	60,470	405,006	173,089	671,319	1,338,924
Deer Lodge	60,272	119,275	233,419	14,859	379,359	807,186
Fallon		63,570	258,755	28,059	293,718	644,102
Fergus	46,498	97,125	415,018	54,613	800,126	1,413,380
Flathead	394,505	386,446	2,647,172	507,076	5,707,682	9,642,881
Gallatin	515,745	599,577	2,556,448	392,231	4,030,773	8,094,774
Garfield			237,401	7,191	66,473	311,064
Glacier			531,448	79,990	1,253,505	1,864,943
Golden Valley			32,935	6,233	77,576	116,743
Granite			113,017	20,009	160,792	293,818
Hill	99,375	96,190	788,818	86,590	1,344,857	2,415,830
Jefferson			481,377	77,572	550,554	1,109,503
Judith Basin			85,115	15,261	142,286	242,662
Lake			605,604	175,244	1,734,750	2,515,598
Lewis & Clark	302,177	384,581	2,182,014	343,167	4,166,411	7,378,350
Liberty			99,389	19,689	116,157	235,235
Lincoln		37,747	530,259	142,491	1,055,282	1,765,780
Madison			475,020	58,197	409,968	943,185
McCone			87,308	15,611	86,204	189,123
Meagher			79,740	18,498	101,335	199,574
Mineral			142,884	29,413	308,057	480,354
Missoula	967,077	794,724	3,237,429	581,834	5,198,726	10,779,790
Musselshell			148,911	34,189	269,207	452,307
Park	109,186	85,727	499,694	99,576	880,090	1,674,273
Petroleum			26,251	3,719	40,943	70,912
Phillips			205,264	35,848	314,297	555,409
Pondera			219,223	48,972	434,810	703,006
Powder River		51,866	390,374	15,987	373,498	831,724
Powell			395,377	39,421	216,133	650,931
Prairie			61,542	10,375	61,170	133,088
Ravalli		67,031	865,036	209,286	1,988,624	3,129,977
Richland			527,182	63,277	623,697	1,214,156
Roosevelt		44,675	537,176	44,704	1,173,704	1,800,258
Rosebud			518,587	83,188	946,823	1,548,598
Sanders		19,305	338,216	56,699	667,228	1,081,448
Sheridan			238,808	30,637	251,686	521,131
Silver Bow	251,859	333,867	1,349,011	79,858	1,559,965	3,574,559
Stillwater			441,959	32,381	535,409	1,009,749
Sweet Grass			593,944	25,113	204,683	823,740
Teton			268,875	38,469	435,665	743,010
Toole			512,224	73,867	298,338	884,430
Treasure			27,313	5,932	51,465	84,709
Valley		61,497	339,526	50,439	514,260	965,722
Wheatland			71,877	30,340	146,807	249,024
Wibaux			79,244	11,160	68,858	159,262
Yellowstone	1,187,210	1,219,322	4,296,008	515,825	8,771,308	15,989,673
<b>Grand Total</b>	<b>4,700,296</b>	<b>5,389,088</b>	<b>34,771,149</b>	<b>5,272,784</b>	<b>57,829,052</b>	<b>107,962,371</b>

## LIABILITIES BY SYSTEM AND COUNTY

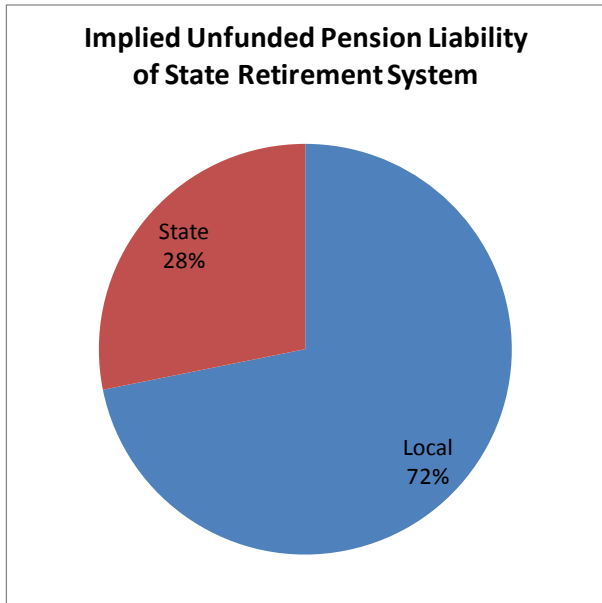
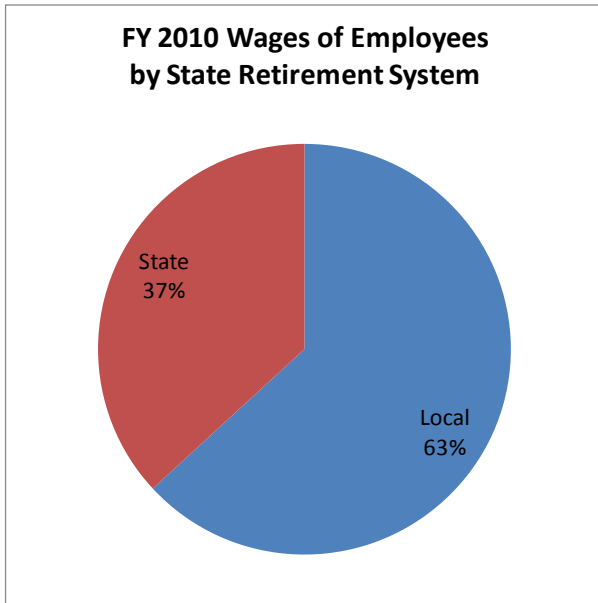
PERS and TRS payroll data are matched with the SABHRS data to determine the employer and state contributions to each of the retirement systems, as well as the wages of current members of the retirement systems. The associated implied unfunded liability for each of the systems is calculated by applying the fractional wage share to the actuarial unfunded liability.

Since these liabilities are determined using the actuarial data of the June 2010 valuation, they are based on the same assumptions. Actual investment and payroll growth in FY 2011, as well as changes in retirement patterns, will result in changes to the forecast liability.

<b>FY 2010 Wages by Retirement System</b>			
<b>Retirement System</b>	<b>Contributing Entities</b>		<b>Grand Total</b>
	<b>Local</b>	<b>State</b>	
Fire	\$33,160,060		\$33,160,060
Game Wardens		\$39,435,882	39,435,882
Highway Patrol		13,035,971	13,035,971
Judges		5,686,874	5,686,874
Police	37,398,873		37,398,873
Public Employees	447,344,825	636,435,041	1,083,779,866
Sheriffs	54,680,650		54,680,650
Teachers	690,204,711	42,726,368	732,931,078
<b>Grand Total</b>	<b>\$1,262,789,118</b>	<b>\$737,320,135</b>	<b>\$2,000,109,253</b>

<b>Implied Unfunded Pension Liability by Retirement System</b>			
<b>Retirement System</b>	<b>Contributing Entities</b>		<b>Grand Total</b>
	<b>Local</b>	<b>State</b>	
Fire	\$122,000,000		\$122,000,000
Game Wardens		\$29,000,000	29,000,000
Highway Patrol		54,000,000	54,000,000
Judges		(19,000,000)	(19,000,000)
Police	168,000,000		168,000,000
Public Employees	536,592,615	763,407,385	1,300,000,000
Sheriffs	46,000,000		46,000,000
Teachers	1,469,059,480	90,940,520	1,560,000,000
<b>Grand Total</b>	<b>\$2,341,652,095</b>	<b>\$918,347,905</b>	<b>\$3,260,000,000</b>

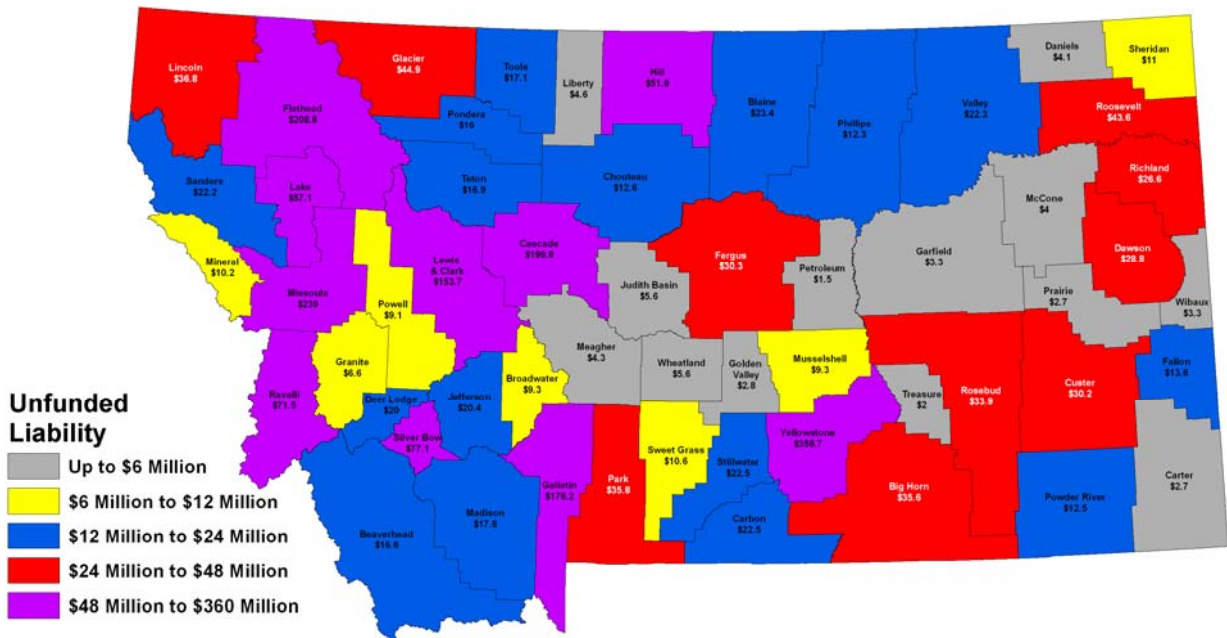
The charts below illustrate the state's share of implied unfunded retirement liability versus the state's share of wages for active members of the retirement system. Details on the breakout between state and local wages and implied unfunded liability are in the preceding tables.



Although the implied pension liability is allocated by the same ratio as wages of active members of the retirement system, the local share of implied liability is larger than its share of current wages because of the higher unfunded liability in the corresponding retirement systems.

The most significant driver of the shift shown in these charts is the relatively less funded status of the TRS pension system. Note that a significant portion of the TRS unfunded liability has been amortized with contributions in statute and reflected in current law funding. Because much of TRS is amortized, solutions to the current funding challenges will be more concerned with other, less amortized, portions of the retirement system.

Local implied unfunded liability can be detailed by county, as shown in the map below and subsequent chart. As stated previously, school districts are counted in the county that corresponds to their city or town; this is not precise, as school districts can cross county lines, but it is assumed that these effects are negligible.





Local Government Implied Unfunded Pension Liability by County & Retirement System Fiscal Year 2010						
County	Fire	Police	Public Emp.	Sheriff	Teachers	Grand Total
Beaverhead			4,289,052	400,551	11,920,450	16,610,053
Big Horn			8,672,030	580,293	26,387,766	35,640,088
Blaine			5,482,589	377,966	17,527,616	23,388,171
Broadwater			2,224,625	600,289	6,480,305	9,305,220
Carbon	793,104	1,188,491	5,425,859	381,606	14,720,712	22,509,771
Carter			1,076,864	116,520	1,507,049	2,700,433
Cascade	16,332,763	22,564,673	44,538,577	3,500,902	112,820,871	199,757,786
Chouteau		722,941	3,997,680	391,000	7,493,251	12,604,872
Custer	2,012,734	2,523,085	5,963,835	392,472	19,304,738	30,196,864
Daniels			1,421,982	120,762	2,514,113	4,056,857
Dawson	753,749	1,886,353	6,515,287	1,510,034	18,156,657	28,822,080
Deer Lodge	1,564,409	3,718,244	3,757,765	129,632	10,809,192	19,979,242
Fallon		1,981,711	4,159,737	244,791	7,262,576	13,648,814
Fergus	1,206,898	3,029,101	6,719,365	476,445	18,901,548	30,333,357
Flathead	10,239,706	12,046,908	42,615,090	4,423,749	139,481,678	208,807,130
Gallatin	13,386,569	18,690,958	41,186,634	3,421,843	99,527,593	176,213,597
Garfield			1,363,122	62,734	1,894,008	3,319,864
Glacier			8,669,844	697,839	35,484,808	44,852,491
Golden Valley			535,888	54,374	2,210,375	2,800,638
Granite			1,819,310	174,559	4,581,493	6,575,362
Hill	2,579,358	2,998,596	12,834,240	755,418	32,692,727	51,860,339
Jefferson			4,908,287	676,743	14,825,462	20,410,493
Judith Basin			1,378,727	133,142	4,054,186	5,566,054
Lake			9,841,543	1,528,839	45,744,006	57,114,389
Lewis & Clark	7,843,247	11,988,784	35,107,368	2,993,803	95,783,936	153,717,137
Liberty			1,595,178	171,766	2,805,144	4,572,087
Lincoln		1,176,720	8,546,605	1,243,101	25,824,701	36,791,126
Madison			7,631,083	507,711	9,696,527	17,835,321
McCone			1,403,972	136,195	2,456,239	3,996,407
Meagher			1,284,138	161,381	2,887,381	4,332,900
Mineral			2,304,938	256,599	7,680,520	10,242,058
Missoula	25,101,259	24,774,383	52,128,384	5,075,947	131,943,808	239,023,781
Musselshell			2,411,766	298,267	6,599,217	9,309,250
Park	2,834,013	2,672,542	8,062,411	868,708	21,336,918	35,774,592
Petroleum			425,571	32,442	1,000,707	1,458,720
Phillips			3,313,279	312,740	8,699,532	12,325,551
Pondera			3,542,502	427,237	11,986,547	15,956,285
Powder River		1,616,846	2,611,772	139,471	8,139,550	12,507,639
Powell			3,194,715	343,911	5,544,163	9,082,789
Prairie			990,616	90,516	1,571,438	2,652,570
Ravalli		2,089,604	13,992,998	1,825,821	53,574,855	71,483,278
Richland			8,493,461	552,034	17,549,358	26,594,852
Roosevelt		1,392,679	8,727,369	389,996	33,120,868	43,630,912
Rosebud			8,420,149	725,740	24,777,620	33,923,509
Sanders		601,818	5,462,068	494,643	15,646,802	22,205,331
Sheridan			3,848,659	267,275	6,906,276	11,022,210
Silver Bow	6,537,198	10,407,831	21,701,434	696,682	37,774,358	77,117,502
Stillwater			7,208,660	282,491	15,040,488	22,531,639
Sweet Grass			4,583,491	219,087	5,832,100	10,634,678
Teton			4,333,732	335,609	12,202,920	16,872,261
Toole			8,214,250	644,423	8,258,765	17,117,439
Treasure			435,736	51,749	1,466,402	1,953,887
Valley		1,917,092	5,498,002	440,028	14,421,871	22,276,993
Wheatland			1,159,463	264,686	4,183,032	5,607,181
Wibaux			1,273,375	97,358	1,961,984	3,332,718
Yellowstone	30,814,993	38,010,637	69,287,541	4,500,081	216,082,275	358,695,526
<b>Grand Total</b>	<b>122,000,000</b>	<b>168,000,000</b>	<b>536,592,615</b>	<b>46,000,000</b>	<b>1,469,059,480</b>	<b>2,341,652,095</b>

## **ITEMS FOR FURTHER STUDY**

- Update information with FY 2011 Actuarial Valuation data
- Compare employer contributions and implied unfunded pension liability to government entity total budget
- Estimate the effect on budgets of increasing employer contribution
- Relate retirement funding and implied unfunded pension liability to average taxable value by county to get an estimate of potential property tax impact
- Estimate the general fund share under various assumptions
- Analyze recent legislative changes to pension funding; in particular, allocate estimated impact to various government entities

## APPENDIX A

### FUNDING MODEL

Two classes of data are used to determine the source of employer and state contributions, and the corresponding overall liability. The Public Employee Retirement System (PERS) and the Teachers Retirement System (TRS) provide annual reports of covered payroll that provides a comprehensive list of the state agencies, cities, counties, and school districts paying into the retirement system, as well as the system into which those entities are contributing. SABHRS data provides the funding breakout of the various retirements systems—general funds, federal funds or proprietary funds, for example. Comparing these two sources of data—the covered payroll reports and SABHRS data—allows for the funding breakout of employer and state contributions of each of the retirement systems, as well as an associated implied liability for each of the contributing entities.

### Example—Teachers Retirement System Funding

Entity	System	Funding Law				Funding Source	FY 2010	
		Employee	State	Local	Other		Funding	Percentage
State	TRS	<a href="#">19-20-602</a>	<a href="#">19-20-604</a>	<a href="#">19-20-607</a>	<a href="#">19-20-605</a>	<a href="#">19-20-621</a>	<b>Unfunded Liability</b>	
State	TRS						541,485	0.65%
State	TRS						14,391,713	17.23%
State	TRS						17,810	0.02%
State	TRS						148,367	0.18%
State	TRS						93,381	0.11%
State	TRS						2,698	0.00%
State	TRS						5,872,901	7.03%
State	TRS						381,520	0.46%
State	TRS						2,160,118	2.59%
State	TRS						768,572	0.92%
Schools	TRS						37,007,262	44.30%
State	TRS						5,710,997	6.84%
State	TRS						16,434,813	19.67%
State	TRS						40,044,804	47.94%
							83,531,635	

Although most teachers are locally employed, the state ultimately pays for nearly half of TRS total contributions. This is due to the various policy choices the legislature has made to increase the state's contribution to benefits for K-12 schools.

### FUNDING LAW

MCA Reference					
System	Contributor				
	Employee	State	Local	Other	
Public Employees	<a href="#">19-3-315</a>	<a href="#">19-3-316</a>	<a href="#">19-3-319</a>		
Teachers	<a href="#">19-20-602</a>	<a href="#">19-20-604</a>	<a href="#">19-20-607</a>	<a href="#">19-20-605</a>	<a href="#">19-20-621</a>
Sheriffs	<a href="#">19-7-403</a>	<a href="#">19-7-404</a>			
Police	<a href="#">19-9-710</a>	<a href="#">19-9-702</a>		<a href="#">19-9-703</a>	
Firefighters	<a href="#">19-13-601</a>	<a href="#">19-13-604</a>		<a href="#">19-13-605</a>	
Highway Patrol	<a href="#">19-6-402</a>	<a href="#">19-6-404</a>			
Game Wardens	<a href="#">19-8-502</a>	<a href="#">19-8-504</a>			
Judges	<a href="#">19-5-402</a>	<a href="#">19-5-404</a>			
MUS Optional Retirement		<a href="#">19-20-621</a>			