

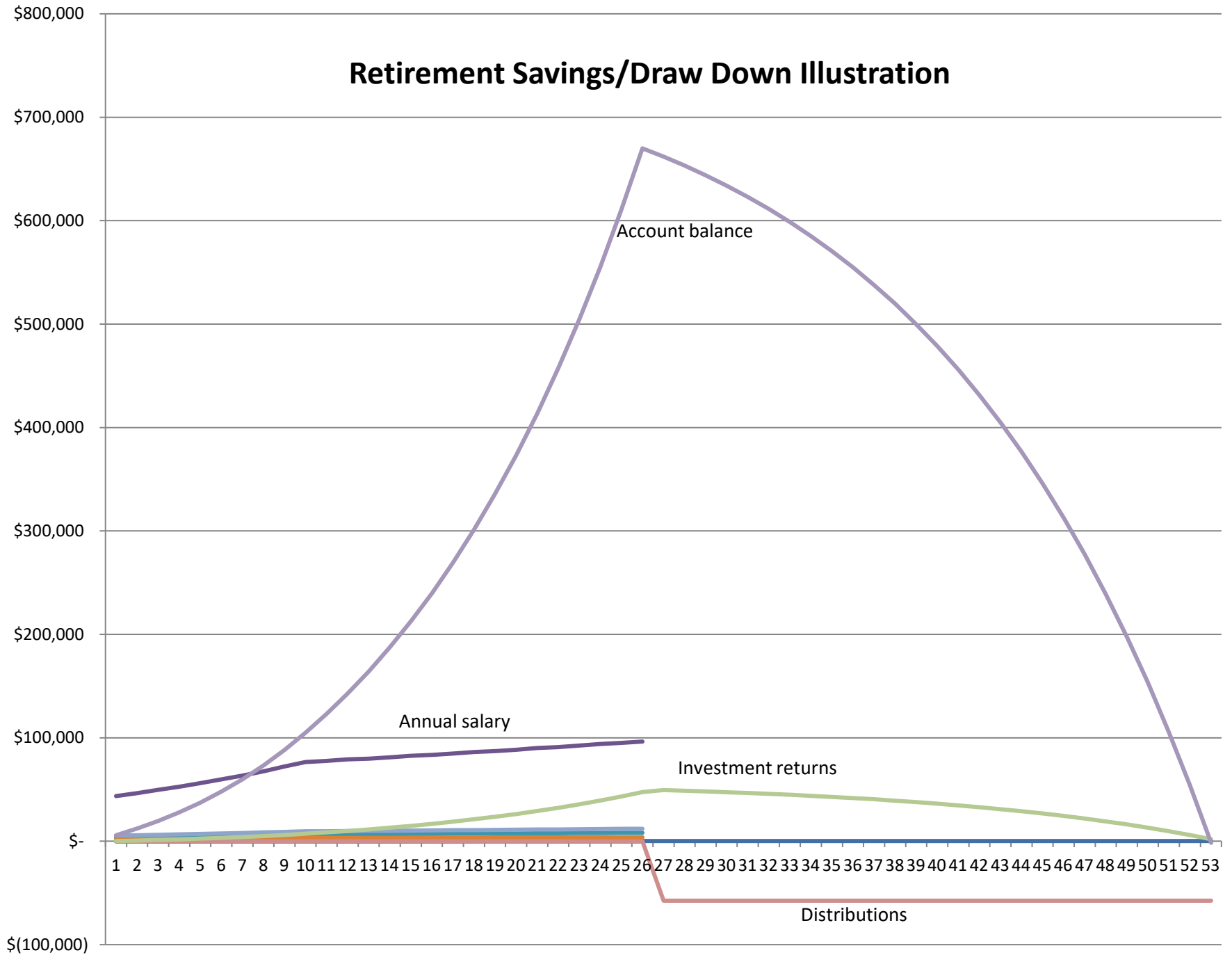
# **Evaluation of the Impact of Act 2019-132 (Tier 2 Conversion)**

GFOAA

August 14, 2020

Retirement Savings Illustration			Average Final Salary		\$ 95,151		Total Contribution				
			DB Factor		2.0125%		Service				
			Service		30		30		Tier 1		Tier 2
			Annual Benefit		\$ 57,447 ~60%		25		10.45%		8.43%
			8.50%		4.01%		12.51%		7.70%		
Year	Age	Annual Increase	COLA	Annual Salary	Employee	Employer	Total	Distribution	Investment Return	Account Balance	
0	28	0.00%	0.00%	\$ 43,534	\$ 3,700	\$ 1,746	\$ 5,446	\$ 0	\$ 210	\$ 5,656	
1	29	5.00%	1.50%	\$ 46,364	\$ 3,941	\$ 1,859	\$ 5,800	\$ 0	\$ 659	\$ 12,115	
2	30	5.00%	2.00%	\$ 49,609	\$ 4,217	\$ 1,989	\$ 6,206	\$ 0	\$ 1,172	\$ 19,493	
3	31	5.00%	1.00%	\$ 52,586	\$ 4,470	\$ 2,109	\$ 6,579	\$ 0	\$ 1,754	\$ 27,826	
4	32	5.00%	1.50%	\$ 56,004	\$ 4,760	\$ 2,246	\$ 7,006	\$ 0	\$ 2,412	\$ 37,244	
5	33	5.00%	1.75%	\$ 59,784	\$ 5,082	\$ 2,397	\$ 7,479	\$ 0	\$ 3,156	\$ 47,879	
6	34	5.00%	1.00%	\$ 63,371	\$ 5,387	\$ 2,541	\$ 7,928	\$ 0	\$ 3,992	\$ 59,799	
7	35	5.00%	1.50%	\$ 67,490	\$ 5,737	\$ 2,706	\$ 8,443	\$ 0	\$ 4,930	\$ 73,172	
8	36	5.00%	2.00%	\$ 72,214	\$ 6,138	\$ 2,896	\$ 9,034	\$ 0	\$ 5,982	\$ 88,188	
9	37	5.00%	1.00%	\$ 76,547	\$ 6,506	\$ 3,070	\$ 9,576	\$ 0	\$ 7,159	\$ 104,923	
10	38	0.00%	1.50%	\$ 77,695	\$ 6,604	\$ 3,116	\$ 9,720	\$ 0	\$ 8,453	\$ 123,096	
11	39	0.00%	1.75%	\$ 79,055	\$ 6,720	\$ 3,170	\$ 9,890	\$ 0	\$ 9,859	\$ 142,845	
12	40	0.00%	1.00%	\$ 79,846	\$ 6,787	\$ 3,202	\$ 9,989	\$ 0	\$ 11,384	\$ 164,218	
13	41	0.00%	1.50%	\$ 81,044	\$ 6,889	\$ 3,250	\$ 10,139	\$ 0	\$ 13,035	\$ 187,392	
14	42	0.00%	2.00%	\$ 82,665	\$ 7,027	\$ 3,315	\$ 10,342	\$ 0	\$ 14,827	\$ 212,561	
15	43	0.00%	1.00%	\$ 83,492	\$ 7,097	\$ 3,348	\$ 10,445	\$ 0	\$ 16,769	\$ 239,775	
16	44	0.00%	1.50%	\$ 84,744	\$ 7,203	\$ 3,398	\$ 10,601	\$ 0	\$ 18,871	\$ 269,247	
17	45	0.00%	1.75%	\$ 86,227	\$ 7,329	\$ 3,458	\$ 10,787	\$ 0	\$ 21,147	\$ 301,181	
18	46	0.00%	1.00%	\$ 87,089	\$ 7,403	\$ 3,492	\$ 10,895	\$ 0	\$ 23,610	\$ 335,686	
19	47	0.00%	1.50%	\$ 88,395	\$ 7,514	\$ 3,545	\$ 11,059	\$ 0	\$ 26,274	\$ 373,019	
20	48	0.00%	2.00%	\$ 90,163	\$ 7,664	\$ 3,616	\$ 11,280	\$ 0	\$ 29,157	\$ 413,456	
21	49	0.00%	1.00%	\$ 91,065	\$ 7,741	\$ 3,652	\$ 11,393	\$ 0	\$ 32,275	\$ 457,124	
22	50	0.00%	1.50%	\$ 92,431	\$ 7,857	\$ 3,706	\$ 11,563	\$ 0	\$ 35,644	\$ 504,331	
23	51	0.00%	1.75%	\$ 94,049	\$ 7,994	\$ 3,771	\$ 11,765	\$ 0	\$ 39,286	\$ 555,382	
24	52	0.00%	1.00%	\$ 94,989	\$ 8,074	\$ 3,809	\$ 11,883	\$ 0	\$ 43,222	\$ 610,487	
25	53	0.00%	1.50%	\$ 96,414	\$ 8,195	\$ 3,866	\$ 12,061	\$ 0	\$ 47,472	\$ 670,020	
26	54						\$ 0	\$ (57,447)	\$ 49,380	\$ 661,953	
27	55						\$ 0	\$ (57,447)	\$ 48,759	\$ 653,265	
52	80						\$ 0	\$ (57,447)	\$ 1,942	\$ (1,560)	
				\$ 1,976,866	\$168,036	\$ 79,273	\$ 247,309	\$ (1,551,069)	\$ 1,302,200		
							12.51%				

# Retirement Savings/Draw Down Illustration



# Assumption and Estimation Error Risks

- Death during employment
- Disability (early retirement)
- Under-estimating wages
- Under-estimating rate or return
- Inability to sustain contributions/hardship withdrawals
- Living longer than projected

**EMPLOYEES' RETIREMENT SYSTEM OF ALABAMA**  
**ACTUARIAL VALUATION AS OF SEPTEMBER 30, 2017**  
*Rates Effective for Period Beginning October 1, 2019*



**2460 MTB Mountain Brook City of**

Employer has elected to increase member contribution rates under Act 2011-676. These rates reflect that increase.

**Summary of Employee Census Data**

	<u>Tier 1</u>	<u>DROP</u>	<u>Tier 2</u>	<u>Total</u>
Number of active members:	158	0	39	197
Annual compensation:	\$11,400,693	\$ 0	\$1,513,844	\$12,914,536
	<u>Retirees</u>	<u>DROP</u>		<u>Total</u>
Number of retired members and beneficiaries:	108	0		108
Annual retirement allowances:	\$4,580,442	\$ 0		\$4,580,442
	<u>Vested</u>	<u>Non-vested</u>		<u>Total</u>
Number of inactive members:	1	2		3
Accumulated contributions with interest:	\$54,090	\$19,292		\$73,382

Normal cost 1.23%  
 FLC W/H 8.50%  
 Total Contrib 9.73%

2.8% less than the  
 12.5% from the  
 earlier illustration

Accrued liability  
 component is ~ 1.4  
 times the employee  
 W/H + normal cost  
 (14.04/9.73)

**Required Employer Contribution Rates**

**Tier 1 Employees**

(applies to all members hired before January 1, 2013)

Normal cost	1.23%	9/30/2018 1.30%
Accrued liability	14.04	14.35
Pre-retirement death benefit	0.02	0.02
Administrative expense	<u>0.35</u>	<u>0.35</u>
Total Employer Contribution Rate	15.64%	16.02% (2.4% increase)
7.5% Employer contribution factor (15.64%/7.5%)	2.085333	
8.5% Employer contribution factor (15.64%/8.5%)	1.840000	

Normal cost – annual employer cost of the  
 future liability associated with benefits  
 earned for the current year

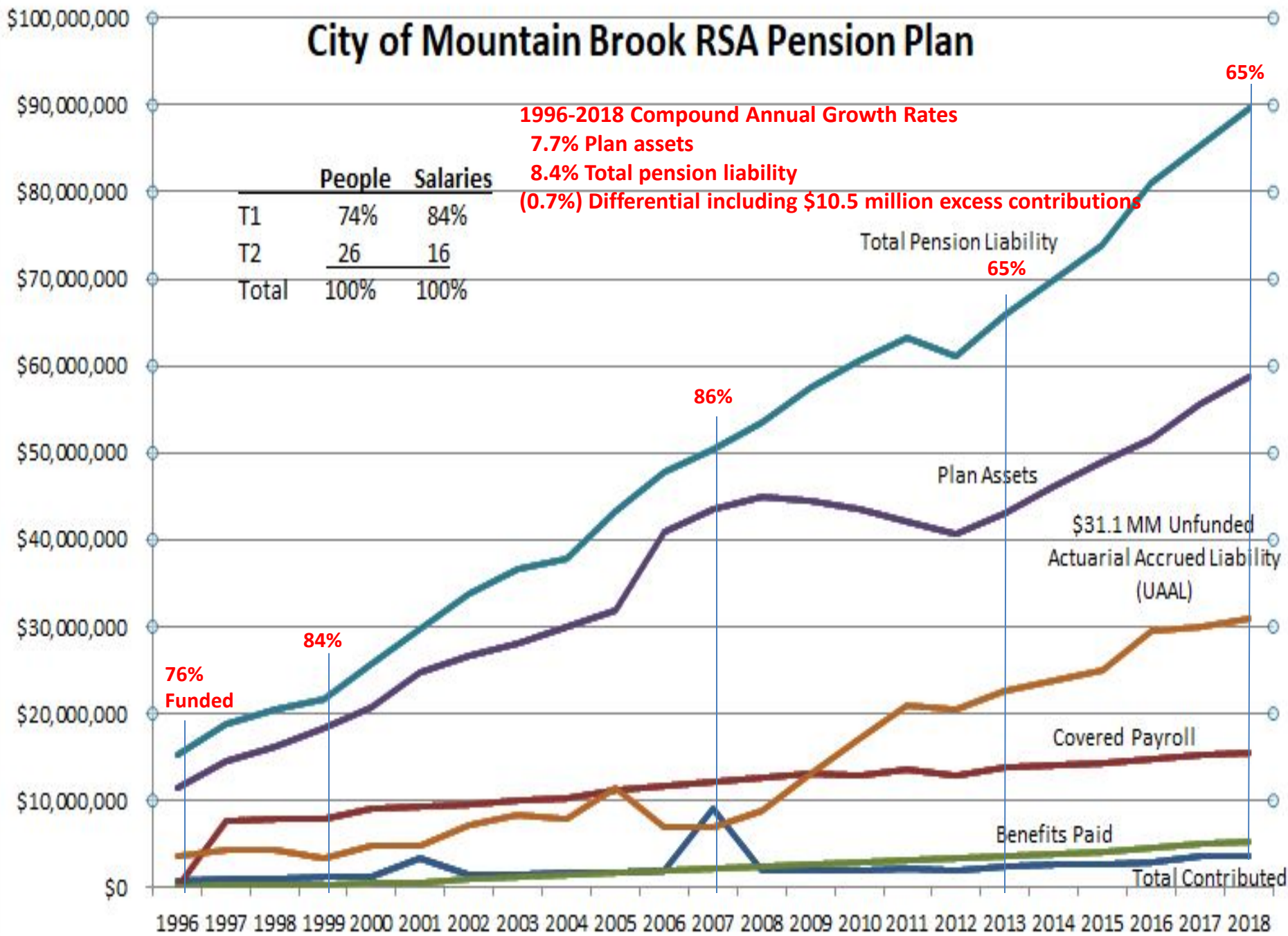
**1.2% difference**  
 all attributable to the  
 normal cost component

**Tier 2 Employees**

(applies to all members hired on or after January 1, 2013)

Normal cost	0.03%
Accrued liability	14.04
Pre-retirement death benefit	0.02
Administrative expense	<u>0.35</u>
Total Employer Contribution Rate	14.44%
6% Employer contribution factor (14.44%/6%)	2.406667
7% Employer contribution factor (14.44%/7%)	2.062857

# City of Mountain Brook RSA Pension Plan



## Comparison of Tier 1 and Tier 2 Plans

Description	Tier 1	Tier 2
Benefit expressed as a % of defined salary	2.0125% 22% greater than T2	1.65% 18% less than T1
Hazardous duty addendum	FLC employees credited with 6 years of service for every 5 years (or portion thereof) worked	Not applicable
Minimum age to retire	Any age with 25 years of service or age 60 with 10 years' service	62 civilians or 56 (FLC) with at least 10 years of service
Service credit for sick leave	Allowed if authorized by employer	Not allowed
Overtime	Limited to 20% of base salary	Limited to 25% of base salary

- Tier 1 FLC benefits are **46%** greater than Tier 2 benefits
- Tier 1 Civilian benefits are **22%** greater than Tier 2 Civilians
- Mtn Brook's weighted average difference between Tier 1 and Tier 2 benefits is **35%+**

# RSA Case Study Summarized

1. Immediate increase in the UAAL by

**\$334,000** (retroactive Tier 3 service credit)

2. Year 1 increase in City's pension cost of

**\$80,500** (due to prospective 35%+ increased Tier 3 pension benefit)

**Is that all?**

Case Study Results

2.10% City

4.05% Park Board

0.82% Library

2.06% Weighted Average  
(years 1-15)

1.90% Weighted Average  
(years > 15)



# Financial Impact of Act 2019-132

## UAAL (for T3 retroactive benefit increases)

- **\$334,000** one-time increase in the UAAL (as of 9/30/2018)

## Future City Contributions

- **\$30,500/year** for 15-years  
0.18% of payroll added to the Accrued Liability component of the contribution
- Plus **\$50,000** in year one of implementation
- The long-term difference:

Unit	Incr in Normal Cost	Pens Wages	Incr in Employer Cost
City	1.92%	\$ 13,703,353	\$ 263,104
Library	0.60%	1,625,954	9,756
Parks	3.71%	732,217	27,165
		<u>\$ 16,061,524</u>	<u>\$ 300,025</u>

# The Tier 2 Conversion Only Gets More Costly

1. After implementation, pension costs will increase annually
2. As Tier 1 employees retire, instead of being replaced with Tier 2 workers they will be replaced with Tier 3 workers whose benefits are 35%+ greater than the Tier 2's
3. Mountain Brook's expense differential after the Tier 3 transformation will be **\$300,000+** annually based on the RSA case study estimates
4. Mountain Brook's total cost (employee + City) after the Tier 3 transformation will be **\$540,000+** annually
5. Mountain Brook has already increased its Tier 1 employee withholdings (Act 2011-676). How does this action make its RSA case study results different from another city's who has not?

# Everyone Else

1. Another city could see a pension expense decrease once they implement Tier 3 plan based on their RSA case study
2. The savings will be achieved by transferring a portion (2.5%) of its pension cost to the Tier 1 employee
3. This cost transfer does not impact in any way the total cost of the pension plan—only who is paying the cost
4. Tier 1 wages will decrease over time as they retire and so will this 2.5% cost transfer savings
5. Mountain Brook has been there and done that, what happened?

# City's Annual Required Contribution %, Tier 1 Civilian Withholding % and Additional Amounts Deposited by City

City of Mountain Brook T1 Pension Contribution History

Year	City	Employee	Total	Extra Paid by City
1995	5.48%	5.00%	10.48%	
1996	5.48%	5.00%	10.48%	
1997	6.70%	5.00%	11.70%	
1998	8.25%	5.00%	13.25%	
1999	9.45%	5.00%	14.45%	
2000	9.45%	5.00%	14.45%	
2001	9.45%	5.00%	14.45%	\$ 2,000,000
2002	9.45%	5.00%	14.45%	
2003	8.31%	5.00%	13.31%	
2004	9.83%	5.00%	14.83%	
2005	10.90%	5.00%	15.90%	
2006	10.90%	5.00%	15.90%	
2007	11.51%	5.00%	16.51%	\$ 7,000,000
2008	7.98%	5.00%	12.98%	\$ 300,000
2009	9.06%	5.00%	14.06%	
2010	8.84%	5.00%	13.84%	
2011	9.96%	5.00%	14.96%	
2012	8.42%	7.50%	15.92%	Act 2011-676
2013	9.65%	7.50%	17.15%	
2014	11.70%	7.50%	19.20%	
2015	12.39%	7.50%	19.89%	
2016	12.55%	7.50%	20.05%	
2017	13.30%	7.50%	20.80%	\$ 600,000
2018	13.30%	7.50%	20.80%	\$ 610,000
2019	15.47%	7.50%	22.97%	\$ 638,000
2020	15.64%	7.50%	23.14%	\$ 640,000
2021	16.02%	7.50%	23.52%	
				<b>\$ 11,788,000 and Counting</b>

2012-2021: 7.5% compound annual growth rate

**Increased Pension Cost**  
 \$350,000 2019  
 \$280,000 2020  
 \$650,000 2021  
 \$1.3 million increase 2019-2021

# CONCERNS:

1. Considering the increasing City pension cost trends, is the current 2-tiered plan sustainable?
2. The Tier 2 conversion plan is substantially more expensive than Tier 2. If Tier 2 is questionable, how can a Tier 2 conversion to Tier 1 be justified considering the greater cost?

**EMPLOYEES' RETIREMENT SYSTEM OF ALABAMA  
ACTUARIAL VALUATION AS OF SEPTEMBER 30, 2017**

**2460 MTB Mountain Brook City of**

(Continued)

**Schedule of Funding Progress**

Actuarial Valuation	Actuarial Value of Assets*	Actuarial Accrued Liability (AAL) Entry Age	Unfunded AAL (UAAL)	Funded Ratio	Covered Payroll	UAAL as a Percentage of Covered Payroll
Date	(a)	(b) <sup>1</sup>	(b-a)	(a/b)	(c)	((b-a)/c)
9/30/2012 <sup>2,4</sup>	\$36,438,570	\$56,446,649	\$20,008,079	64.6%	\$11,092,983	180.4%
9/30/2013 <sup>2,5</sup>	\$38,510,729	\$60,783,082	\$22,272,353	63.4%	\$11,976,227	186.0%
9/30/2014 <sup>2</sup>	\$41,141,583	\$64,602,214	\$23,460,631	63.7%	\$12,121,321	193.5%
9/30/2015 <sup>2</sup>	\$43,506,508	\$68,234,247	\$24,727,739	63.8%	\$12,421,007	199.1%
9/30/2016 <sup>2,3</sup>	\$45,611,767	\$74,738,929	\$29,127,162	61.0%	\$12,684,182	229.6%
9/30/2017 <sup>2,3</sup>	\$49,017,389	\$78,386,118	\$29,368,729	62.5%	\$12,914,536	227.4%

<sup>1</sup> Reflects liability for cost of living benefit increases granted on or after October 1, 1978.  
<sup>2</sup> Reflects the impact of Act 2011-676, which increases the member contribution rates by 2.25% beginning October 1, 2011 and by an additional 0.25% beginning October 1, 2012.  
<sup>3</sup> Reflects changes in actuarial assumptions.  
<sup>4</sup> Reflects changes to interest smoothing methodology.  
<sup>5</sup> Reflects implementation of Board Funding Policy.

\* The actuarial value of assets was set equal to the market value of assets as of September 30, 2012.  
 Market Value of Assets as of September 30, 2017: \$50,490,591

Valuation date	9/30/2017
Actuarial cost method	Entry Age
Amortization method	Level percent closed
Remaining amortization period	27.9 years
Asset valuation method	5-year smoothed market
Actuarial assumptions:	
Investment rate of return**	7.75%
Projected salary increases**	3.25 - 5.00%
**Includes inflation at	3.00%
Cost-of-living adjustments	None

9/30/2018    9/30/2016  
27.8 years    28.4 years

# General Fund Expense Summary

Line Item	09/30/2019 Amount	% of Total Expenses	% of Salaries
Salaries/Overtime	\$16,327,056	41%	
Longevity	440,000	1%	
FICA	1,243,149	3%	7%
<b>Pension (ARC)</b>	<b>2,165,767</b>	<b>5%</b>	<b>13%</b>
<b>Pension (Extra)</b>	<b>647,000</b>	<b>2%</b>	<b>4%</b>
Medical (Employees)	1,712,833	4%	10%
Medical (Retirees)	354,303	1%	2%
Medical (OPEB Trust)	300,000	1%	2%
Work Comp	204,238	1%	
All Other	186,463	0%	
<b>Total Labor Cost</b>	23,580,809	59%	<u>59%</u>
All Other Expenses	16,368,483	41%	
<b>Total General Funds Expenses and Transfers</b>	<u>\$39,949,292</u>	<u>100%</u>	

Compound annual growth rate 10%+  
(7.5% rate increase plus 3% wage growth)

Medical trend per OPEB actuaries 5.5%+

# Mountain Brook Unit Comparisons

	City	Library	Parks & Rec
AVA	\$51,685,086	\$4,928,942	\$2,067,529
AAL	<u>82,056,406</u>	<u>5,235,765</u>	<u>2,326,148</u>
UAAL	<b>\$30,371,320</b>	<b>\$ 306,823</b>	<b>\$ 258,619</b>
Funded %	<b>63.0%</b>	<b>94.1%</b>	<b>88.9%</b>

	T1			T1			T1		
	<u>ARC</u>	<u>A/H</u>	<u>Total</u>	<u>ARC</u>	<u>W/H</u>	<u>Total</u>	<u>ARC</u>	<u>W/H</u>	<u>Total</u>
Civilian rates	16.02%	7.50%	23.52%	2.91%	7.50%	10.41%	4.67%	7.50%	12.17%
	T2			T2			T2		
Civilian rates	14.66%	6.00%	20.66%	2.30%	6.00%	8.30%	2.90%	6.00%	8.90%
Difference	1.36%			0.61%			1.77%		
Case Study > 15 years	1.92%			0.60%			3.71%		