### Understanding and Using Weighted Average Salaries and Benefits

BEP Review Committee October 29, 2008



### Why do we look at this?

- In 2004, the BEP Review Committee recommended that in order to "provide a more comprehensive picture of total compensation" health insurance payments should be included.
- A disparity subcommittee suggested that weighted averages be included in the committee's disparity evaluation.
- Gives policy makers and others the ability to see differences in salary schedule strength.



# Weighted Averages Briefly

- Until 2004, published average salaries by system were the result of a combination of two things.
  - The training and experience levels of the teachers in the system.
  - The amount a system pays.
- Weighted averages eliminate differences in salaries caused by difference in training and experience from system to system.



# Methodology – Salary

- DOE and TEA submit a grid and assist in reconciling discrepancies the number of FTE teachers in the state.
  - Rows = teachers in each cell of years of experience from 0 to maximum.
  - Columns = degree obtained (B.A., M.A., etc.)



### **Example FTE Number Grid**

Exp.	BA	MA	MA+	EDS	PhD	Total
слр. 0	2433.9	449.95	14.62	14.99	9.6	3195
1	2317.7	668.44	27	18	5.6	3053
2	2354.3	876.88	46.38	34.31	10	3346
3	2184	1128.3	82.98	49	6.8	3446
4	2009.2	1234.4	111	83.65	14	3451
5	1545.1	1084.4	100.6	106.45	10.97	2823
6	1380.8	1134.5	133.2	137.85	16.7	2776
7	1066.9	1032.5	136.59	93.89	18.6	2325
8	974.56	904.04	135.81	113.22	15	2108
9	982.84	932.19	165.5	127.76	19	2183
10	905.01	872.96	145.05	128.91	21	2028
11	847.34	901.15	216.47	140.84	29	2056
12	687.3	657.37	167.98	95	24.5	1591
13	680.69	685.96	156.48	88.51	13	1573
14	597.44	614.09	165.73	94.4	14.2	1427
15	558.12	584.16	170.16	86.93	26	1372
16	599.36	624.05	196.3	84.94	26	1465
17	597.92	640.69	233.41	84	18	1501
18	562.27	623.31	205.5	93	19	1424
19	542.68	626.24	255	78	24	1445
20	516.4	600.41	249.09	76	17	1387
21	438.57	590.13	249.07	71.8	33.53	1306
22	429.62	588.76	210.51	87	26	1252
23	460.5	637.88	292.8	87	24.79	1407
24	493.6	688.77	353.99	95.78	32	1557
25	522.95	747.59	372.77	98	31.25	1635
26	481.14	675.86	346.58	82.5	38.76	1522
27	472.91	659.33	336.81	119.93	45.37	1499
28	493.12	701.58	426.49	99	40.43	1618
29	462.47	706.77	400.17	95.5	33	1574
30	385.49	643.67	387.26	94.99	34	1427
31	279.79	487.04	354.39	88.51	24.5	1124
32	258.95	474.5	301.94	56.5	30	1016
33	230.88	375.58	292.25	54	31	880
34	165.19	293.99	256.69	46	25.84	717
35	117.42	210.22	169.5	38.16	16	484
36	74.62	166	134	22	9	348
37	85	119.15	109.5	17	3	305
38	45.43	84	67.5	16.5	5	194
39	33.9	64.48	42	12	4	135
40	20	38.5	25	4.5	3	83
41	15	23	18	1	1	49
42	9	10	15.5	6	2	39
43	11	9	13	3	1	34
44	3.25	7	11	3	1	21
45	2	6	6	1	0	15
46	2	7	4	0	0	11
47	1	1	1	1	1	4
48	2	3	1	1	0	7
49	0	3	0	0	0	2
50	2	0	0	0	0	2
51	2	3	0	1	0	6
52	0	1	1	0	0	2
53	0	1	0	1	0	2
54	1	1	1	0	1	4
55 56	1	2	0	0	0	3
59	0	1	1	0	0	1
59	0	0	1	0	0	
60	U	U	U	U	U	U



# Methodology – Salary

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  - Rows = teachers in each cell of years of experience from 0 to maximum.
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- Raw numbers are changed into percentages in each cell and compressed into 0 yrs to 30+ yrs.



### **Example Percentage Grid**

Exp.	BA	MA	MA+	EDS	PhD	Total
0	3.550%	0.656%	0.021%	0.022%	0.014%	4.26%
1	3.380%	0.975%	0.039%	0.026%	0.008%	4.43%
2	3.434%	1.279%	0.068%	0.050%	0.015%	4.85%
3	3.185%	1.646%	0.121%	0.071%	0.010%	5.03%
4	2.930%	1.800%	0.162%	0.122%	0.020%	5.04%
5	2.254%	1.582%	0.147%	0.155%	0.016%	4.15%
6	2.014%	1.655%	0.194%	0.201%	0.024%	4.09%
7	1.556%	1.506%	0.199%	0.137%	0.027%	3.43%
8	1.421%	1.319%	0.198%	0.165%	0.022%	3.13%
9	1.434%	1.360%	0.241%	0.186%	0.028%	3.25%
10	1.320%	1.273%	0.212%	0.188%	0.031%	3.02%
11	1.236%	1.314%	0.316%	0.205%	0.042%	3.11%
12	1.002%	0.959%	0.245%	0.139%	0.036%	2.38%
13	0.993%	1.000%	0.228%	0.129%	0.019%	2.37%
14	0.871%	0.896%	0.242%	0.138%	0.021%	2.17%
15	0.814%	0.852%	0.248%	0.127%	0.038%	2.08%
16	0.874%	0.910%	0.286%	0.124%	0.038%	2.23%
17	0.872%	0.934%	0.340%	0.123%	0.026%	2.30%
18	0.820%	0.909%	0.300%	0.136%	0.028%	2.19%
19	0.792%	0.913%	0.372%	0.114%	0.035%	2.23%
20	0.753%	0.876%	0.363%	0.111%	0.025%	2.13%
21	0.640%	0.861%	0.363%	0.105%	0.049%	2.02%
22	0.627%	0.859%	0.307%	0.127%	0.038%	1.96%
23	0.672%	0.930%	0.427%	0.127%	0.036%	2.19%
24	0.720%	1.005%	0.516%	0.140%	0.047%	2.43%
25	0.763%	1.090%	0.544%	0.143%	0.046%	2.59%
26	0.702%	0.986%	0.506%	0.120%	0.057%	2.37%
27	0.690%	0.962%	0.491%	0.175%	0.066%	2.38%
28	0.719%	1.023%	0.622%	0.144%	0.059%	2.57%
29	0.675%	1.031%	0.584%	0.139%	0.048%	2.48%
30	2.549%	4.427%	3.229%	0.683%	0.281%	11.17%



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- Raw numbers are changed into percentages in each cell and compressed into 0 yrs to 30+ yrs.
- The Department of Education and TEA then submit salary schedule grids for each system.



### Example Salary Grid

Volunteer County School District					
Yrs.	BA	MA	MA+30	EDS	PhD
Exp.	Schedule	Schedule	Schedule	Schedule	Schedule
0	26,730	29,725	31,665	32,965	35,835
1	27,230	30,245	32,185	33,475	36,350
2	27,230	30,245	32,185	33,475	36,350
3	27,645	30,725	32,695	34,015	36,950
4	28,185	31,355	33,345	34,710	37,725
5	28,770	32,035	34,065	35,435	38,505
6	29,530	32,900	34,975	36,400	39,560
7	30,150	33,615	35,715	37,185	40,400
8	31,025	34,620	36,765	38,300	41,625
9	31,680	35,360	37,560	39,125	42,525
10	31,820	35,520	37,730	39,290	42,685
11	32,505	36,290	38,550	40,125	43,600
12	32,655	36,440	38,690	40,300	43,780
13	33,340	37,235	39,530	41,160	44,725
14	33,495	37,410	39,690	41,330	44,880
15	34,205	38,215	40,535	42,220	45,850
16	34,205	38,215	40,535	42,220	45,850
17	34,780	38,875	41,240	42,965	46,680
18	34,780	38,875	41,240	42,965	46,680
19	35,370	39,555	41,965	43,730	47,530
20	35,370	39,555	41,965	43,730	47,530
21	35,370	39,555	41,965	43,730	47,530
22	35,370	39,555	41,965	43,730	47,530
23	35,370	39,555	41,965	43,730	47,530
24	35,370	39,555	41,965	43,730	47,530
25	35,370	39,555	41,965	43,730	47,530
26	35,370	39,555	41,965	43,730	47,530
27	35,370	39,555	41,965	43,730	47,530
28	35,370	39,555	41,965	43,730	47,530
29	35,370	39,555	41,965	43,730	47,530
30	35,370	39,555	41,965	43,730	47,530



# Methodology – Salary

- DOE and TEA submit a grid and assist in reconciling discrepancies the number of FTE teachers in the state.
  - Rows = teachers in each cell of years of experience from 0 to maximum.
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- Raw numbers are changed into percentages in each cell and compressed into 0 yrs to 30+ yrs.
- The Department of Education and TEA then submit salary schedule grids for each system.
- The respective system salary for each cell is then multiplied by the statewide percentage of teachers in that cell.
- Those numbers are summed together and a weighted average salary is obtained. (See Exhibit #1)



# Methodology – Insurance

- DOE and Department of Finance and Administration submit the number of teachers by insurance plan chosen.
  - Three insurance provider options. (PPO, POS, and HMO)
  - Two types of plans. (single, family)



#### Example Insurance Contract Grid

		Jan-00
Big Green HMO Plan		Number of
		Contracts
Retired Dependent Only		0
Retired Dependent Only		0
Active Family		1,221
Retired Family		0
Active Single		1,535
Retired Single		0
Retired Spouse Only		0
	Total	2,756

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## Methodology – Insurance

- DOE and Department of Finance and Administration submit the number of teachers by insurance plan chosen.
  - Three insurance provider options. (PPO, POS, and HMO)
  - Two types of coverage. (single, family)
- TEA submits the state and local shares of the cost of the insurance plans.



#### **Example Insurance Payment Grid**

Individual Coverage - Preferred Provider Plans						
SCHOOL SYSTEM	TOTAL	STATE	EMPLOYER			
Volunteer County	\$4,798.80	\$2,159.46	\$1,200.06			
Tennessee City	\$4,798.80	\$2,159.46	\$1,535.58			
Rural County	\$4,798.80	\$2,159.46	\$1,919.58			
Blue Raider SSD	\$4,798.80	\$2,159.46	\$1,499.58			
Urban County	\$4,798.80	\$2,159.46	\$2,639.34			
Tiger City	\$4,798.80	\$2,159.46	\$1,046.70			
Moccasin County	\$4,860.00	\$2,187.00	\$2,673.00			
Buccaneer County	\$4,798.80	\$2,159.46	\$2,514.54			
Small SSD	\$3,520.80	\$1,584.36	\$1,936.44			
Smaller SSD	\$4,798.80	\$2,159.46	\$2,639.34			
Another SSD	\$4,798.80	\$2,159.46	\$1,927.74			
Family Coverage -	Preferred Prov	/ider Plans				
SCHOOL SYSTEM	TOTAL	STATE	EMPLOYER			
Volunteer County	\$11,976.84	\$5,389.58	\$0.00			
Tennessee City	\$11,976.84	\$5,389.58	\$598.78			
Rural County	\$11,976.84	\$5,389.58	\$2,639.26			
Blue Raider SSD	\$11,976.84	\$5,389.58	\$1,562.74			
Urban County	\$11,976.84	\$5,389.58	\$4,191.94			
Tiger City	\$11,976.84	\$5,389.58	\$1,550.02			
Moccasin County	\$8,038.92	\$3,617.51	\$582.49			
Buccaneer County	\$11,976.84	\$5,389.58	\$0.00			
Small SSD	\$11,976.84	\$5,389.58	\$1,926.46			
Smaller SSD	\$11,976.84	\$5,389.58	\$0.00			
Another SSD	\$11,976.84	\$5,389.58	\$2,639.38			



# Methodology – Insurance

- DOE and Department of Finance and Administration submit the number of teachers by insurance plan chosen.
  - Three insurance provider options. (PPO, POS, and HMO)
  - Two types of coverage. (single, family)
- TEA submits the state and local shares of the cost of the insurance plans.
- Statewide percentages of total insurance contract takeup are multiplied by employer share.
  - If system does not offer provider option, one is not assumed for them.
  - Percentages obtained by what they do offer. (See Exhibit #3)

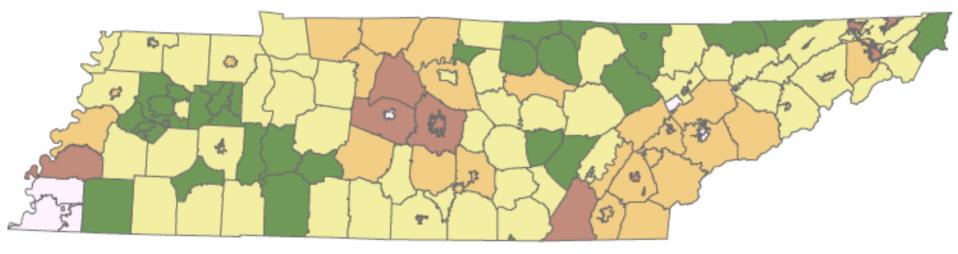


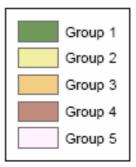
### Why is this useful?

- Gives policy makers ability to compare strength of weighted average total compensation paid based upon the current available labor pool.
  - Factors show percentage of statewide weighted average.
  - Percentage of insurance package helps display what local system contributes.
- Assists in defining competitive regions.
  - How do we compare to our peer LEAs?

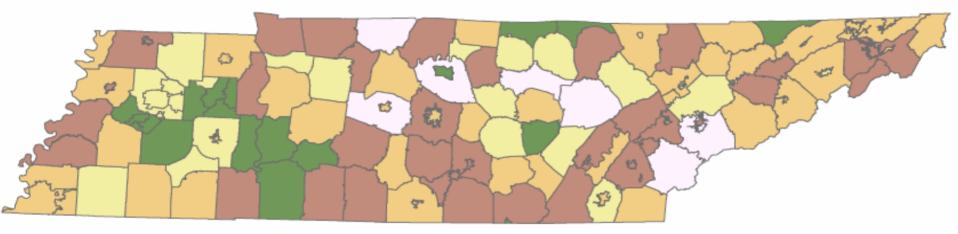


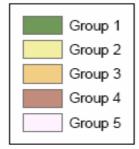
### State Weighted Average Compensation Map



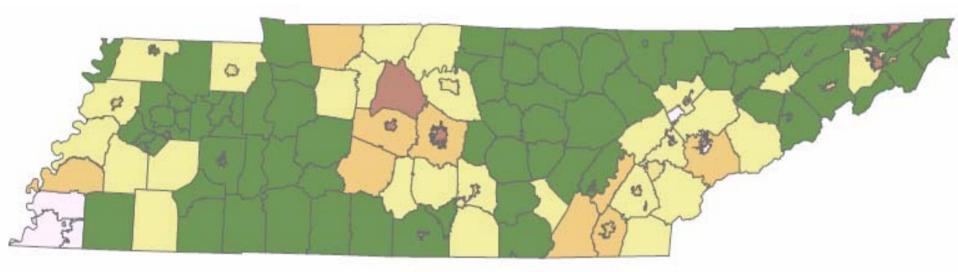


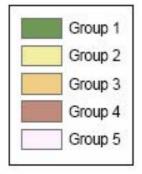
### Weighted Average Insurance Payment Map





# Weighted Average Salary Map





### Why is this useful?

- Gives policy makers ability to compare strength of weighted average total compensation paid based upon the current available labor pool.
  - Factors show percentage of statewide weighted average.
  - Percentage of insurance package helps display what local system contributes.
- Assists in defining competitive regions.
  - How do we compare to our peer systems?
- Compare compensation policy changes and priorities over time.
- (See Exhibit #2)



# Questions?

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