COMMONWEALTH of VIRGINIA

Sara Redding Wilson
Director

Department of Human Resource Management

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October 15, 2013

The Honorable Lacey E. Putney, Chairman, House Appropriations Committee
The Honorable Walter A. Stosch, Chairman, Senate Finance Committee

Subject: Actuarial Review of the Impact of Including Employees of Local Governments and School Divisions in the State Employee Health Benefits Plan

Gentlemen:

The attached report is pursuant to Chapter 806, Item 83.I. of the 2013 Virginia Acts of the General Assembly.

Please contact me if there are any questions.

Sincerely,

Sara R. Wilson

Sara Redding Wilson

cc: The Honorable Lisa Hicks-Thomas
Secretary of Administration

October 15, 2013

Ms. Sara Redding Wilson, Director
Commonwealth of Virginia Department of Human Resource Management
Office of Health Benefits Programs
101 N. 14th Street
James Monroe Building, 12th Floor
Richmond, VA 23219

Re: State-wide Schools and Local Government Benefit Plan Project

Dear Ms. Wilson,

The Commonwealth of Virginia Department of Human Resource Management (DHRM) asked Aon Hewitt to complete an actuarial analysis of the viability and financial impact of bringing the school and local government employees into the state health plan, creating a state-wide schools and local government health benefit plan. Below we provide the results of our analysis and describe the data, assumptions and methods we used to develop the analysis.

Background

Health Benefits Current State

Virginia School Districts and Local Governments ("Local Entities") whose total compensation policy is to offer group health benefits to employees and dependents currently have two primary options that are entirely under their controlling authority:

- They may enter into an entity specific contract with a health benefits insurance carrier under a fully insured or self-insured arrangement. Plan design and cost components are negotiated solely between the entity and carrier. The financial risk to the entity is defined by the contract terms, but normally the risk and costs are primarily based on the entity's claims experience. Typically this is an arrangement favored by larger employee groups (1000+ employees) as the financial risk is more predictable, and the entity maintains complete control over benefit design.
- They may participate in the Commonwealth's The Local Choice (TLC) program. TLC has control of the plan design options, underwriting and employee contribution parameters and price rules. The decision to participate under the rules is under the local entity's controlling authority. The TLC Plan pools the claims experience, and assumes some financial risk to preclude large swings in annual premium. Typically, this program is favored by smaller entities whose claims experience is less predictable, and for budgetary purposes want to avoid wide swings in annual plan premium.

Virginia State Government employees are covered by the state employee plan which provides coverage only for employees of state government entities. This includes part-or full-time, salaried, classified employee; or regular, full-time or part-time salaried faculty. Eligible dependents also may be covered. Employee contribution requirements vary based on full or part time status.

Potential State-wide Plan

The state's budget bill contains a provision which requires DHRM to conduct a study as to the viability of bringing the Commonwealth's school and local government employees into the state health plan. To address the requirement, DHRM asked Aon to perform a review of the health costs of the school and local government populations. It is our understanding that the purpose of our review is to determine how the claim cost of the school and local government population compares to the claim cost of the state plan, whether bringing the new population in would change the expected cost of the state plan, and to outline considerations in implementing a state-wide plan if DHRM decides to do so.

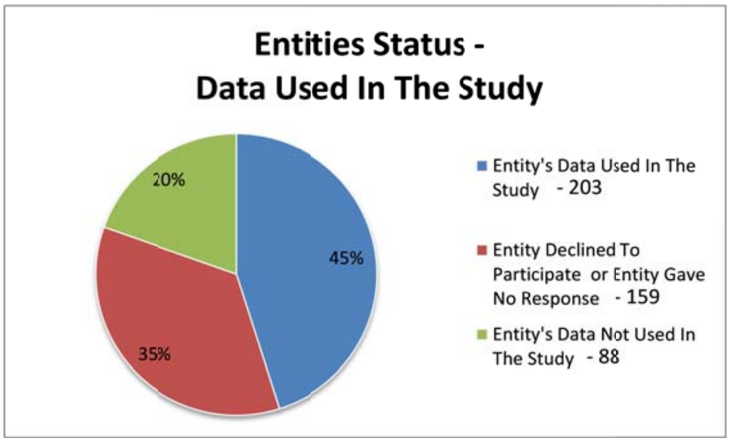
Analysis

Based on analysis using actual experience data for a sample of the school and local government population, the expected cost is similar to the state plan. However, the sample did not cover all potential entities to whom the plan could be available, and even within the sample there is potential variability in costs. In determining whether to allow the schools and local government to join the plan**,** the state **should strongly note and consider the potential for these cost variations**. In addition, consideration should be given to the other important fiscal implementation issues outlined below.

Population Sampling

School and local government data used in the analysis is based on information provided for Aon Hewitt's use by the entities. The data used in the study represents a subset of all potential state and local government exposure, about 45% of school and local government entities. The sample data includes 49,200 average enrolled employees and 86,800 average enrolled members. We are unable to determine the portion of all potential employees or members since this information is not available for those entities that did not submit data.

While the sample data is used to determine the relative cost difference between the populations, it is important to note that costs for the entities without data could be materially different and could impact the results of the study.



Comparison of FY 2014 Cost Estimates

To evaluate the difference between the estimated population costs, Aon compared the costs for the population on a FY 2014 basis. The state benefit plan cost was based on the medical and prescription drug costs inherent in the FY 2014 actuarial budget rate for the COVA Care Basic Plan. Aon calculated estimated FY 2014 medical and prescription drug cost estimates on a per member per month (PMPM) basis from the sample school and government data (as described in the Methodology and Assumptions section below) and compared this estimate to the state Basic Plan PMPM cost. The following table summarizes the results for the aggregate populations:

TABLE 1

Estimated FY 2014 Cost PMPM			
	School/Gov't	**State Plan**	**Difference**
Low Trend	$415	$423	-1.9%
Best Estimate Trend	$423	$423	0.0%
High Trend	$431	$423	1.9%
Average Enrolled Members	86,796	192,324	

As shown in Table 1, the estimated cost for the sample school and government population is within 2% of the estimate FY 2014 cost for the state plan under a range of trend assumptions. The population costs are equal under best estimate trend assumptions.

Statistical analysis was performed on the sample results to test the reasonableness of the estimated cost, with an acceptable margin of error. Specifically, we tested whether the $423 PMPM average cost is a reasonable cost estimate for the sample population given the variation in costs by entity. From the statistical analysis, we determined with 95% confidence that $423 PMPM is a reasonable estimate of the aggregate sample entity cost. Since the expected cost of the state plan is also $423 PMPM, we conclude from the analysis that there is no statistically significant difference between the estimated costs of the two populations.

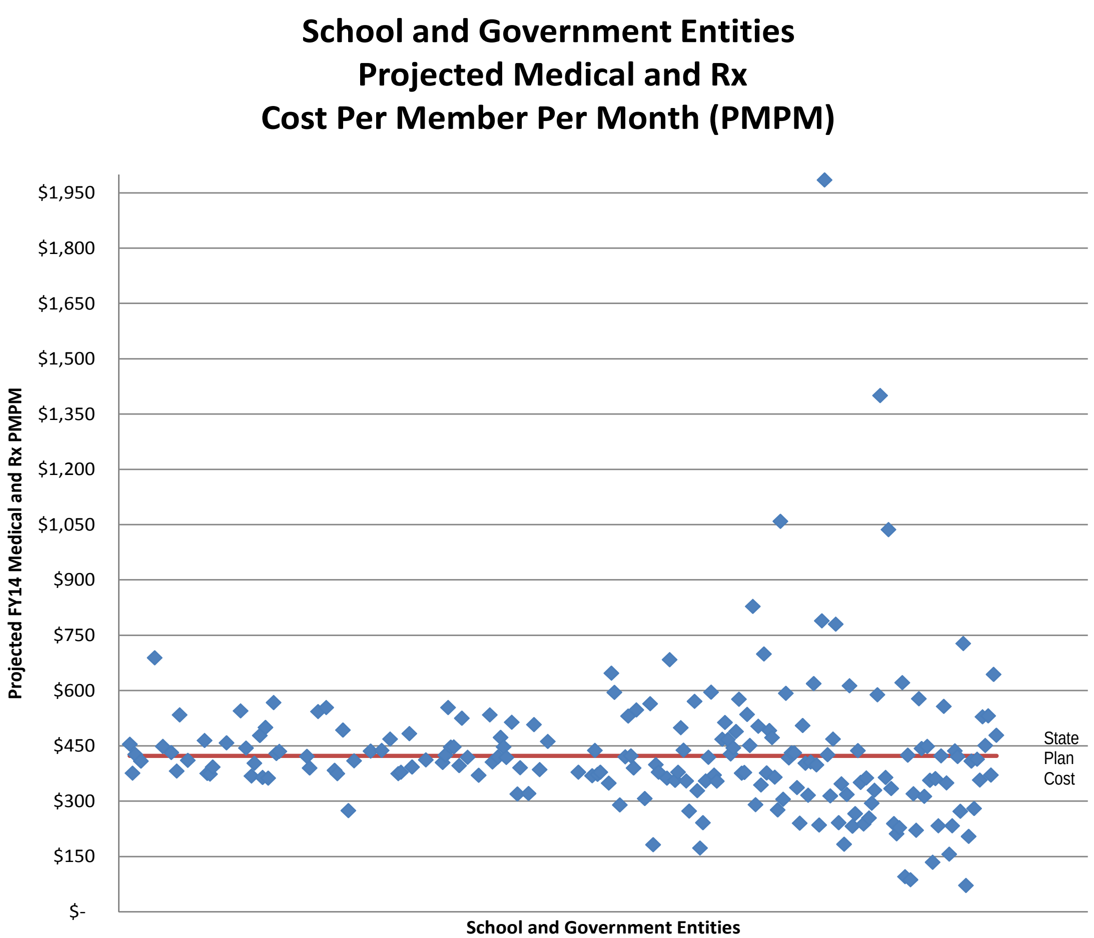
In addition to the expected average cost of the sample population, it is important to understand the potential variability in the average cost and the potential range of reasonable cost outcomes. Therefore, a statistical confidence interval was developed to show the range of reasonable outcomes. From the analysis, we determined with 95% confidence that the average aggregate cost of the sample school and government plans would be between $306 PMPM and $540 PMPM (assuming best estimate trend assumptions).

While costs are estimated to be the same for the sample population in aggregate, estimated cost differences were larger for some segments of the sample population as shown in Table 2. In addition, estimated costs varied significantly between the individual entities within the sample as shown in Table 3. While the average cost is approximately $423 PMPM, estimated costs ranged from $71 PMPM to $4,278 PMPM for the sample entities.

TABLE 2

	Estimated FY 2014 Cost PMPM			
	Schools	Gov't	Total	State Plan
TLC	$429	$429	$429	
Non-TLC	$420	$387	$417	
Total	$423	$421	$423	$423
Average Enrolled Members	64,131	22,665	86,796	192,324

TABLE 3



Note: One Entity with a projected Medical and Rx PMPM of $ 4,278 is not included in the graph above due to scale.

A comparison of the demographic characteristics of the populations shows that the sample entities have a slightly lower average age and a higher female mix vs. the state plan. The estimated combined age/gender cost impact between the populations is neutral using Aon Hewitt estimates for expected cost differences due to age/gender. Larger variations exist between the state plan and the school and government segments of the sample population. The estimated geographic cost differences using Aon Hewitt estimates for expected geographic cost differences are not material, as expected given the concentration of the members in the state. See Table 4.

TABLE 4

Demographic Comparison - Enrolled Employees				
	School	**Gov't**	**Total**	**State Plan**
Average Age	48.2	46.9	47.8	48.9
Female % of Total	76.3%	40.7%	66.8%	53.4%
Age/Gender Variance	1.025	0.932	1.000	1.000
Geographic Variance	1.008	0.998	1.006	1.000

Aggregation/Migration Impact

The sample school and local government population is about 45% of the size of the state plan population on an average enrolled member basis. If the entire sample population was aggregated with the state plan, it would make up about 30% of the new combined population. At this level of exposure, each 1% point difference between the sample population experience and the state plan would produce a 0.3% cost impact for the new blended population costs vs. the current state plan costs. Potential migration impacts are show in Table 5. For example, under the high trend assumption, costs for the school and government population are estimated to be about 1.9% higher than the state plan. If the entire sample population joined the state plan at this cost level, the new blended state plan cost would be approximately $425 PMPM, a 0.6% increase vs. the current state plan costs. Similarly, at the upper limit of the confidence interval, costs for the school and local government population are estimated to be $540 PMPM, 28% higher than the state plan. If the entire sample population joined the state plan at this cost level, the new blended state plan cost would be approximately $459 PMPM, an 8.6% increase vs. the current state plan costs.

TABLE 5

Estimated FY 2014 Cost PMPM				
	New Entrants	State Plan	New Total	Vs. State Plan
Total Sample	$423	$423	$423	0.0%
Average Enrolled Members	86,796	192,324	279,120	45.1%
Total Sample - Low Trend	$415	$423	$421	-0.6%
Average Enrolled Members	86,796	192,324	279,120	45.1%
Total Sample - High Trend	$431	$423	$425	0.6%
Average Enrolled Members	86,796	192,324	279,120	45.1%
Total Sample - High CI Limit	$540	$423	$459	8.6%
Average Enrolled Members	86,796	192,324	279,120	45.1%

Implementation Considerations / Program Protections

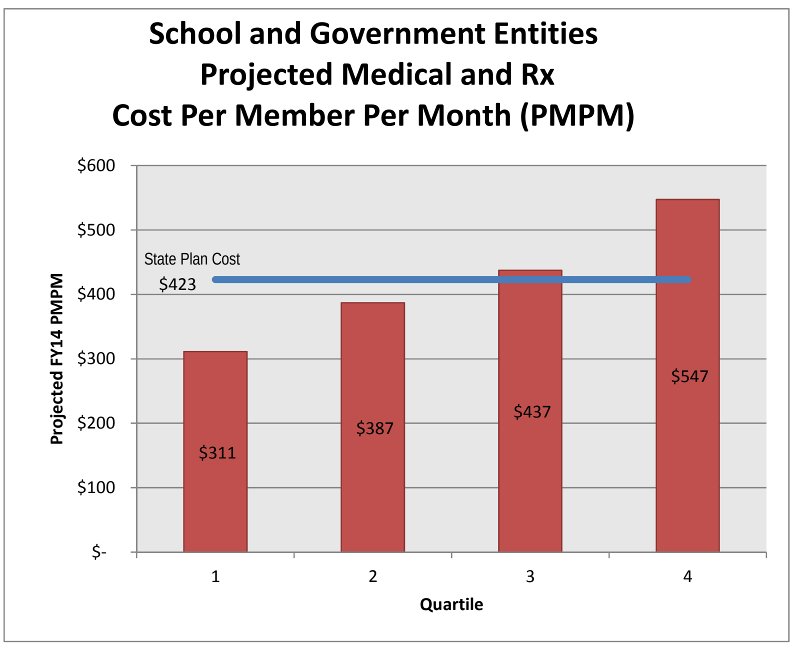
If the Commonwealth does allow school and local government employees into the state plan, there are a number of issues to consider. The analysis completed shows that the cost of the sample population is similar to the state plan cost. The margin of error for the analysis has also been described. Some implementation considerations / protections are outlined below to help ensure that the cost result achieved would be in line with the expected results and to limit adverse impact to the cost of the current state plan. The tightest controls will afford the most protection against adverse financial impact.

<u>General Selection Considerations</u>

If the state plan is made optional, it may not attract a broad mix of exposure as represented in the sample data from the group of all eligible entities. The entities could compare the cost of the state plan benefit offering vs. what they can negotiate independently in the market and may only choose the state plan if it provides a lower cost that other options available. As a result the state plan may get a disproportionate share of higher cost entities. This is referred to as the selection impact.

To demonstrate the potential impact, the entities in the sample were segmented into quartiles based on estimated cost. Entities are ranked from lowest to highest based on estimated cost. The 1st quartile represents the 25% of entities with the lowest cost, while the 4th quartile represents the 25% of entities with the highest cost. See Table 6 below and additional detail in Appendix Table 10.

Table 6



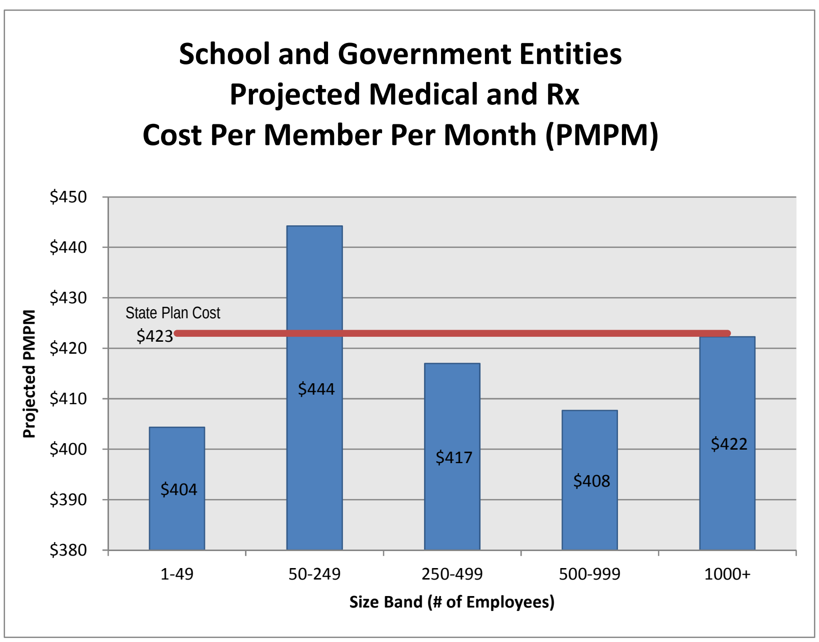
For the highest cost quartile, estimated benefit costs are almost 30% higher than the sample average and the state plan costs. If only the highest cost sample entities joined the plan, the new state plan aggregate cost would increase by about 1.4% based on the enrollment in the highest cost quartile in the sample population. By contrast, if only the lowest cost sample entities joined the plan, the new state plan aggregate cost would decrease by about 0.6%. See Table 7 below.

TABLE 7

Estimated FY 2014 Cost PMPM				
	New Entrants	State Plan	New Total	Vs. State Plan
Highest Cost Quartile	$547	$423	$429	1.4%
Average Enrolled Members	9,438	192,324	201,762	4.9%
Number of Local Entities	51			
Lowest Cost Quartile	$311	$423	$420	-0.6%
Average Enrolled Members	4,432	192,324	196,756	2.3%
Number of Local Entities	50			

The focus of the study is to assess the cost impact to the state plan if the school and local government entities are allowed to join. In the current state, smaller school and local government entities with insured arrangements pay a premium that includes insurer retention costs for administration, premium tax, and profit/risk charge. For smaller groups this retention charge can be 15% to 20% of the total premium (based on minimum loss ratio requirements of the Affordable Care Act). This compares to a typical administrative cost load of about 5% in the state's self-insured programs. For these entities, the difference in administration costs / loads can produce savings, even if the underlying claim costs are higher in the self-insured cost pool. An assessment of the cost impact from the local entity point of view was outside of the scope the analysis. To demonstrate the potential impact to the state plan, the entities in the sample were segmented based on the average group size (average enrolled employees). See Table 8 below and additional detail in Appendix Table 11.

Table 8



If only the sample entities with < 250 employees joined the plan, the new state plan aggregate cost would increase by about 0.4%. See Table 9.

TABLE 9

Estimated FY 2014 Cost PMPM				
	New Entrants	State Plan	New Total	Vs. State Plan
Entities < 250 Employees	$441	$423	$425	0.4%
Average Enrolled Members	19,488	192,324	211,812	10.1%
Number of Local Entities	153			

The state may wish to implement certain protections for the state plan to mitigate the effect of selection on the state plan pool experience. The effect of selection is the primary challenge of an insurance mechanism that competes with more sophisticated risk attributers in the marketplace, as purchasers will look to take advantage of rates that do not fully reflect their risk, and are therefore underpriced on an expected cost basis.

<u>Potential Protections</u>

- State Plan Becomes Mandatory: All school and local government entities would be offered the state plan with rates and similar, preferably identical contribution parameters determined by DHRM. There would be one combined risk pool. All other plans including TLC would be eliminated. This option offers the most protection against adverse impact due to entity selection dynamics.

- State Plan is Optional with Three Year Lock-in / Lock-out: Entities opting to join the state plan would become part of one combined risk pool with rates and contribution parameters determined by the state. Entities opting to join must stay in for 3 years. Entities opting not to join or to leave the state plan would be locked out for 3 years. This option helps to mitigate potential volatility due to population fluctuation and selection impact as entities "shop" the market. The local entities would still have the ability to obtain external coverage.

- State Plan is Mandatory or Optional with Adjusted Community Rating Basis: Entities joining the state plan would comprise a separate risk pool. A simplified underwriting approach could be used to adjust for demographic variations between groups. The state would determine base rates and contribution parameters. This could be implemented on either a mandatory or optional basis with the considerations as outlined above. The current state plan and its risk pool would not be impacted.

- State Plan is Optional with TLC-like Underwriting Control Structure: Entities joining the state plan would comprise a separate risk pool. Premium rates would be determined via underwriting guidelines similar to those which exist in the current TLC framework; underwriting varies by group size and some protection is offered against high cost claim exposure. The current state plan and its risk pool would not be impacted.

Additional Considerations

- Loss of Autonomy In Benefit Plan Management: Schools and local governments currently have authority for benefit design determination, contribution setting and contracting with health plan benefit insurance carriers. Entities joining the state plan would have to accept state plan design and contribution parameters. They would no longer be allowed to choose design or set entity specific contributions outside of any underwriting requirements that are established.

- State Plan Contingency Reserve: Currently the state holds a claims contingency reserve that is approximately 8% of incurred claims for its self-insured health benefit plans. The dollar amount of the reserve held would need to increase as enrollment in the state plan and potential claim exposure increased.

Data

Aon used the following information to conduct the analysis:

- Paid medical and prescription drug claims by enrollee type (active, cobra, pre-65 retiree) and benefit plan option for the two most recent years available for each entity
- Medical and prescription drug enrollment by enrollee type (active, cobra, pre-65 retiree) and benefit plan option for the two most recent years available for each entity
- Recent census information for the local entities and the state plan
- FY 2014 budget expected claim costs for the state plan (COVA Care Basic plan excluding dental benefits)

The source of the information varied by entity:

- For Non-TLC school and local government plans included in the study: Claims and enrollment data was provided by the medical and prescription drug vendor. Census and plan design information was provided by the entity.
- For TLC school and local government plans included in the study: Claims, enrollment, and census data was obtained from the claim data base maintained by Aon Hewitt on behalf of the Commonwealth. Plan design information was provided by Anthem.

Data for 203 school and local government entities was used in the study vs. a total local entity count of 450. Data for 88 entities was provided but not used in the study due to data or other issues. Note that data for 2 of the school entities was combined with other entities in the same county and could not be separated. Therefore, in some of the result summaries below, the entity count will total 201.

Aon reviewed the data for reasonableness and consistency. We do make several key assumptions about the data as noted in the Methodology and Assumptions section below.

We relied on the accuracy and completeness of the data and information provided by the entities and vendors to develop our analysis. If the data or the information is not accurate or incomplete, the results may be different.

Methodology and Assumptions

- For each entity, historical medical and prescription drug costs for each year of data provided were trended to FY 2014 and adjusted for benefit differences using Aon Hewitt's relative value model to make them comparable to the state plan benefits. Results for the two years were blended with 60% weight on the most recent year of experience. Results were aggregated across the entities.
- To develop a consistent comparison between the school and local government sample data in the analysis and the FY 2014 State COVA Care Basic plan medical and prescription drug cost estimate, we did the following before aggregating the data.
    1. All entities' plan designs and the current state Basic Plan were evaluated using the same relative value model with the same underlying assumptions. The benefit ratios for the combined medical and prescription drug benefits were used.
    2. The historical medical and prescription drug claims were trended forward from the respective experience mid-points to the mid-point of the projection period (1/1/2014) based on selected annual medical and prescription drug trends.
    3. Historical claims were adjusted to the level of the current state Basic Plan level using the benefit ratio results from the relative value model.
    4. Total claims were converted to a per member per month (PMPM) basis.
- Medical and prescription drug trends were developed from FY 2011 – FY 2013 claim experience for the state and TLC plans. The best estimate trend assumptions for medical and prescription drug based on the experience were 7.0% and 7.75% respectively. High and low estimates used for sensitivity testing were set equal to best estimate +/- 1%.
- Only entities with at least 12 months of experience data were included in the analysis. If an entity offered multiple plan options or switched plan options, each plan option had to have at least 2 months of experience to be included in the analysis.
- Active, cobra, and pre-65 retirees are included in the analysis, consistent with the pricing population base for the state Basic Plan. Retiree data for entities that did not separate pre-65 and post-65 retirees was generally not used unless there was a clear indication that the retiree data was for pre-65 only.
- Only medical and prescription drug claims are included in the analysis.
- Current demographic information was summarized for entities that provided the complete census information on enrollment, date of birth, gender, and geographic location. Age, for purposes of demographic comparisons, is calculated as of 7/1/2014.
- For entities that provided historical plan design information, we matched the plan designs with the claim experience splits. For TLC groups, we had 2011-2013 plan designs. For entities that only provided the most recent plan designs, we assumed that the historical claims reflected the benefits in the most recent design for each benefit plan option.
- Entity claim data was adjusted to approximate the benefit levels of the state Basic Plan using actuarial benefit ratios from the relative value model. No adjustment was made for potential changes in utilization for changes in benefit level. No adjustment was made for cost structure difference due to network discounts or network utilization differences.

The school and local government data used in the study does not represent all potential exposure as data was not available or not usable for all entities. We have assumed the data provided is a representative sample for comparison purposes.

We believe that the assumptions used in completion of the analysis are reasonable.

Limitations

It should be noted that Aon Hewitt's conclusions are based on certain assumptions that appear reasonable at this time. Actual experience can vary from projected experience, and this difference may be material.

The information contained in this document, including any enclosures, has been prepared for DHRM for the purpose of evaluating the viability and impact of a State-wide Schools and Local Government health benefit plan. The information may not be appropriate for any other purpose. This report is intended for the sole use of DHRM. Reliance on information contained within this report by anyone for other than the intended purposes puts the relying entity at risk of being misled because of confusion or failure to understand applicable assumptions, methodologies, or limitations of the report's conclusions. To the extent this information is provided to third parties, the document should be distributed in its entirety. We strongly recommend that any use and interpretation of the data be supported by a certain level of expertise in actuarial science and rate development to avoid misinterpretation of the data presented.

Conclusion

Based on analysis using actual experience data for a sample of the school and local government population, the expected cost is similar to the state plan. However, the sample did not cover all potential entities to whom the plan could be available, and even within the sample there is potential variability in costs. In determining whether to allow the schools and local government to join the plan, the state should strongly note and consider the potential for these cost variations. In addition, consideration should be given to the other implementation issues outlined above.

Please call us if you have any questions regarding this analysis or the methods that were used in the calculation.

Sincerely,

Lisa M. Williams FSA, MAAA
Senior Vice President

cc: Gene Raney, Commonwealth of Virginia, DHRM
Paul Mack, Aon Hewitt
Pam Hazelgrove, Aon Hewitt

APPENDIX

Additional Cost Comparisons

Estimated Cost by Quartile

TABLE 10

Estimated FY 2014 Cost PMPM				
Quartile	**Entity Count**	**Avg. Members**	**PMPM**	**Vs. Total**
1	50	4,432	$311	-26.4%
2	50	34,505	$387	-8.4%
3	50	38,422	$437	3.4%
4	51	9,438	$547	29.4%
Total	201	86,796	$423	

Estimated Cost by Size Band (Average Employee Count)

TABLE 11

Estimated FY 2014 Cost PMPM				
Size Band	**Entity Count**	**Avg. Members**	**PMPM**	**Vs. Total**
1-49	71	1,824	$404	-4.4%
50-249	82	17,665	$444	5.0%
250-499	25	14,665	$417	-1.4%
500-999	12	14,418	$408	-3.6%
1000+	11	38,225	$422	-0.1%
Total	201	86,796	$423	

Additional Census Comparison – Based on Snapshots provided by the entities

TABLE 12

Enrolled Employee Mix by Status			
	School/Gov't	**State Plan**	**Difference**
ACTIVE	93.6%	91.1%	2.4%
COBRA	0.5%	0.3%	0.2%
PRE 65 RETIREE	6.0%	8.6%	-2.6%