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November 12, 2012

Ms. Mary Bannister
Deputy Commissioner
Virginia State Corporation Commission
Tyler Building
1300 East Main Street
Richmond, Virginia 23219-3630

Re: 2012 Analysis of the Virginia Birth-Related Neurological Injury Compensation Program

Dear Mary,

Enclosed is the report summarizing Pinnacle Actuarial Resources, Inc.'s (Pinnacle's) actuarial analysis of the Virginia Birth-Related Neurological Injury Compensation Program (the Program), particularly the financial soundness of the Virginia Birth-Related Neurological Injury Compensation Fund (the Fund) overseen by the Program. Our analysis is based on Program benefits payments, assessments and investment results valued as of December 31, 2011. This report analyzes the indicated number ultimate of program participants, ultimate benefits payments and associated administrative expenses, and provides estimates of the future financial condition of the Fund.

We have enjoyed performing this analysis on behalf of the Virginia State Corporation Commission and look forward to discussing these findings with you further.

Respectfully submitted,

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Enclosures

Commonwealth of Virginia
State Corporation Commission – Bureau of Insurance

2012 Analysis of the Virginia Birth-Related Neurological Injury Compensation Program

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November 12, 2012

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EXECUTIVE SUMMARY

Through a review and analysis of a significant amount of data and information, Pinnacle Actuarial Resources, Inc. (Pinnacle) has come to a number of key conclusions regarding the Virginia Birth-Related Neurological Injury Program (Program) and the Virginia Birth-Related Neurological Injury Fund (Fund) administered by the Program. This report summarizes Pinnacle's actuarial analysis based on data valued as of December 31, 2011. Beyond our key findings, there are several recommendations related to the ongoing operations of the Program.

Findings

Finding 1. Estimated Unpaid Benefits Liability and Surplus Position as of December 31, 2011

Pinnacle estimates that, as of December 31, 2011, the Fund had an outstanding liability of $384.6 million related to future benefits payments for Program participants who have been born as of December 31, 2011, regardless of whether they have been admitted to the Program as of this date. This estimate also includes a provision for future claim administrative expenses. When compared to assets valued at $294.1 million, this results in an estimated Fund deficit of $90.5 million.

Table 1 – Estimated Fund Surplus/(Deficit) as of December 31, 2011

Estimated Financial Position as of 12/31/2011
($ in millions, on a present value basis)

Claimant Status	Estimated Ultimate Number of Claimants	Estimate of Future Claim Payments	Estimate of Future Claim Admin. Expenses	Value of Total Assets	Forecasted Surplus/ (Deficit)
All Claimants Admitted to the Program	169	266.9	15.8		
All Claimants Not Yet Admitted to the Program	41	97.5	4.4		
Grand Total	210	364.5	20.2	294.1	(90.5)

These compare to estimates of the financial position of the Fund as of December 31, 2011 in the October 2011 report using data as of December 31, 2010 of an outstanding liability of $369.9 million, a forecasted asset value of $306.4 million and a Fund deficit of $63.6 million. From an actuarial perspective, we consider differences of this magnitude to be relatively immaterial, recognizing the range of variability inherent in a program like the Fund.

Several factors contribute to these differences:

- A larger number of actual new Program admissions (14) than forecast (10).
- An increase in benefits payments during calendar year 2011 of $1.5 million from $10.2 million in 2010 to $11.7 million in 2011. This is the highest level of calendar year payments in the history of the Program.
- Significant increases in nursing and wage loss benefits payments in 2011 versus 2010 levels.
- Unfavorable investment income results during calendar year 2011 contributing to lower than expected asset values.
- A decrease in the assumed interest rate for discounting purposes from 5.50% to 5.25%.
- The expiration of legislated annual increases in assessment income from non-participating physicians and hospitals. Only participating physicians continue to have annual increases through 2013.

Finding 2. Actuarial Soundness of the Fund as of December 31, 2011

As a result of the estimated Fund deficit of $90.5 million as of December 31, 2011, we find that the Fund continues to not be actuarially sound as of this date. In essence, this means that the current value of the Fund's assets is less than the present value of its liabilities, most notably the present value of the future benefits obligations and related administrative expenses for all Program participants born on or before December 31, 2011, regardless of whether they have been admitted to the Program at this time or not.

This definition of actuarial soundness has been used with regard to the Program and the Fund since 1992. However, it is worth noting that the Fund does currently have sufficient assets as of December 31, 2011 ($294.1 million) to meet all expected future benefits obligations of participants

that have been admitted to the Program as of December 31, 2011 ($282.7 million, including future administrative expenses). This suggests that the Fund can be viewed as having sufficient funding for all currently admitted participants. While this is not sufficient for the Fund to be viewed as actuarially sound, it is a positive finding regarding the financial condition of the Fund.

Finding 3. Forecasted Unpaid Benefits Liability and Surplus Position as of December 31, 2012

We forecast that the Fund will continue not being actuarially sound as of December 31, 2012, and will have unpaid benefits liabilities (including expenses) of $411.2 million and a Fund deficit that will grow slightly to approximately $95.8 million. This is shown in Table 2 below.

Table 2 – Estimated Fund Surplus/(Deficit) as of December 31, 2012

Estimated Financial Position as of 12/31/2012
($ in millions, on a present value basis)

Claimant Status	Estimated Ultimate Number of Claimants	Estimate of Future Claim Payments	Estimate of Future Claim Admin. Expenses	Value of Total Assets	Forecasted Surplus/ (Deficit)
All Claimants Admitted to the Program	179	286.2			
All Claimants Not Yet Admitted to the Program	41	104.7			
Grand Total	220	391.0	20.2	315.4	(95.8)

Our calculations indicate that the total number of participants as of December 31, 2012 will be 220. This is an increase of 10 participants from the total number of participants that we estimate as of December 31, 2011.

Finding 4. Forecasted Unpaid Benefits Liability and Surplus Position as of December 31, 2013 and December 31, 2014

Similar forecasts for the next two calendar year ends (i.e. 2013 and 2014) produce comparable results as the estimated Fund deficit will grow to $103.1 million at the end of 2013, and to $112.6 million at the end of 2014. This is shown in Tables 3 and 4, respectively, which follow. This modest worsening of the Fund deficit over the three year projection period is consistent with estimated assessment revenues and investment income not being quite sufficient to keep pace with

calendar year benefits payments and additional unpaid benefits liabilities associated with new eligible Program participants, whether admitted or not.

Table 3 – Estimated Fund Surplus/(Deficit) as of December 31, 2013

Estimated Financial Position as of 12/31/2013
($ in millions, on a present value basis)

Claimant Status	Estimated Ultimate Number of Claimants	Estimate of Future Claim Payments	Estimate of Future Claim Admin. Expenses	Value of Total Assets	Forecasted Surplus/ (Deficit)
All Claimants Admitted to the Program	188	306.9			
All Claimants Not Yet Admitted to the Program	42	112.9			
Grand Total	230	419.8	20.2	336.9	(103.1)

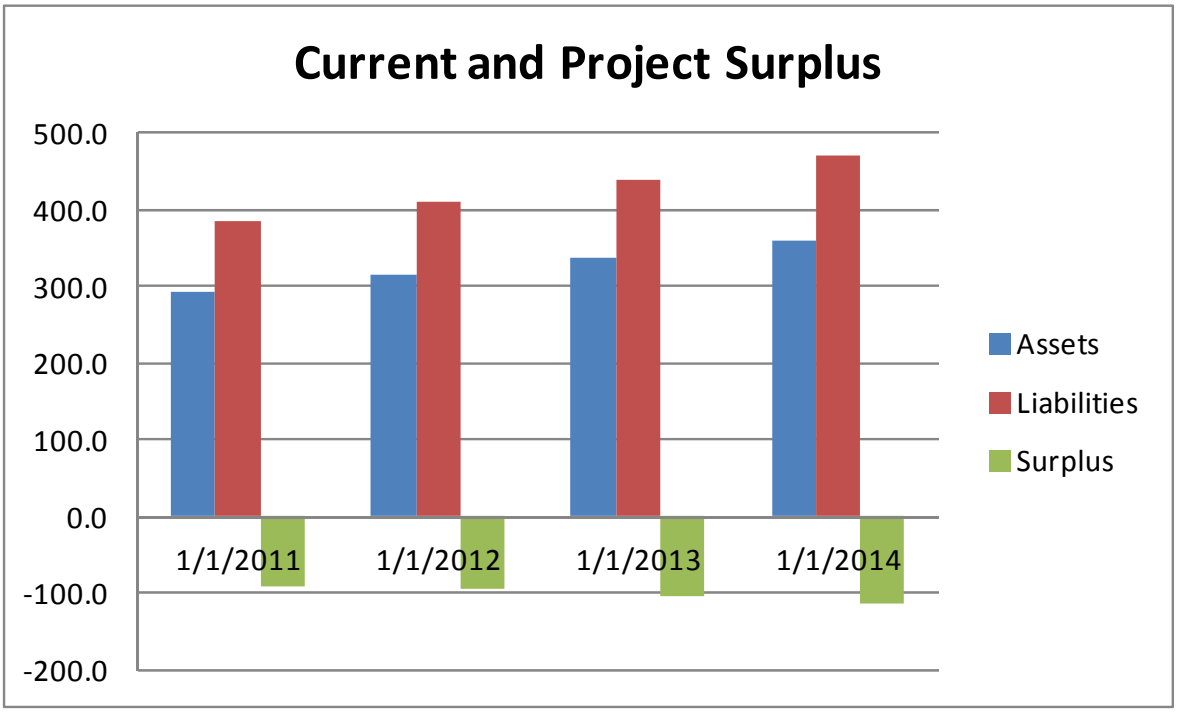
Table 4 – Estimated Fund Surplus/(Deficit) as of December 31, 2014

Estimated Financial Position as of 12/31/2014
($ in millions, on a present value basis)

Claimant Status	Estimated Ultimate Number of Claimants	Estimate of Future Claim Payments	Estimate of Future Claim Admin. Expenses	Value of Total Assets	Forecasted Surplus/ (Deficit)
All Claimants Admitted to the Program	198	330.2			
All Claimants Not Yet Admitted to the Program	42	120.6			
Grand Total	240	450.8	20.2	358.4	(112.6)

The steady growth of the Fund's assets and liabilities over the forecast period, as well as the slight deterioration in the Fund deficit, can be seen in the following graph.

Table 5 – Projected Fund Assets, Liabilities and Surplus/(Deficit) 2011-2014



Finding 5. Cash Position

The Fund is in a strong position to continue paying Program benefits for many years into the future. There does not appear to be a material risk of a cash shortfall for decades. This is based on a comparison of the current Fund asset value of $294.1 million compared to forecasted annual benefits payments in the range of $10 million to $20 million in the near future, before recognizing the impact of mortality and discounting for the time value of money. Although the Fund is not actuarially sound, it has sufficient assets to continue paying expected benefits and related administrative expenses for eligible claimants as of December 31, 2011, both admitted and non-admitted, for over thirty years**.**

Recommendations

In addition, there are several recommendations related to the ongoing operations of the Program that we find appropriate at this time. These recommendations are:

1. The Program should continue to assess the maximum levels permitted by law for participating and non-participating physicians and participating hospitals.

2. The Program should continue to assess liability insurers at the maximum amount permitted by law (currently 0.25% of net direct liability premiums written in Virginia).

3. The Program should continue investigating means of increasing Fund revenues, either through assessments or through the identification of other sources, to reduce the estimated deficit of the Program and to keep pace with inflationary pressures on Program benefits.

4. Reviews of the Program should be undertaken at least biennially by the Virginia State Corporation Commission, Bureau of Insurance (VA SCC) to assess the Fund's actuarial soundness. If a biennial comprehensive review is determined to be sufficient, an interim evaluation, on a smaller scale, to ascertain if any material changes impacting the Program have occurred may still be appropriate. These changes might include material changes in Program benefits payments or investment results, changes in Program administration or the legislation governing the Program, and/or other legislative or judicial changes at the state or federal level, including the implementation of the Patient Protection and Affordable Care Act (PPACA), that may materially impact Program benefits payments and, therefore, the Fund deficit.

5. The Program should continue to maintain payment history, claimant personal information and life plans for all Program participants, as well as Fund assessment information in formats suitable for future actuarial studies.

6. The Program should continue to maintain current copies of the claimants' insurance policies.

7. We recommend that the Program continue to evaluate potential changes in the estimated life expectancies for Program participants based on actual participant survival rates, changes in life plans, and changes in the life expectancies in the life plans. In addition, to continue to satisfy the legislative intent to consider individual participant costs, increases in estimated life expectancies have historically been a major source of adverse development for the Fund and remain potentially the single greatest risk factors for the Program going forward.

8. The Program should consider engaging a consultant to evaluate the potential impact of PPACA on the Program generally, potential changes in future benefits payments and, ultimately, the likely impact of PPACA on the indicated Fund surplus.

9. The Program should consider more detailed modeling of the growing impact of the wage loss benefit and the related issue of some participants losing Medicaid benefits. The Program incurs increased costs for medical-related benefits as a result of the latter impact.

SCOPE & BACKGROUND

Scope

Pinnacle Actuarial Resources, Inc. (Pinnacle has been retained by the Virginia State Corporation Commission, Bureau of Insurance (VA SCC) to perform an actuarial analysis of the Virginia Birth-Related Neurological Injury Compensation Program (the Program) and particularly the Virginia Birth-Related Neurological Injury Compensation Fund (the Fund) overseen by the Program.

This report summarizes Pinnacle Actuarial Resources, Inc.'s (Pinnacle's) actuarial analysis of the Program's funding adequacy as well as the financial soundness of the Fund. This actuarial report has five major objectives:

- Estimate the total unpaid benefits liabilities for all current and future Program participants born on or before December 31, 2011;
- Evaluate the surplus or deficit position of the Fund as of December 31, 2011;
- Project the surplus or deficit position of the Fund as of December 31st of 2012, 2013 and 2014;
- Evaluate the benefits paying ability of the Program in light of the current and projected Fund cash and invested assets, surplus/(deficit) position, and expected annual benefits payments; and
- Provide recommendations regarding assessment levels and other revenue sources for the Program in light of current operating results and financial conditions.

Our analysis is based on assessment revenue, participant counts, benefits payments, investment returns, Program administrative costs, and participant life expectancies and life plans data valued as of December 31, 2011. Estimates at subsequent annual valuation are also provided in the report.

This actuarial report summarizes our analysis and recommendations. The exhibits and analysis supporting our recommendations are contained in the enclosed set of exhibits. These exhibits detail many of our methodologies, assumptions, selections and findings. As such, the exhibits should be considered an integral part of this report.

Background

The Virginia Birth-Related Neurological Injury Compensation Program was created in 1987 to provide the exclusive remedy for covered birth-related neurological injuries in Virginia for births on or after January 1, 1988. Injury must have resulted from oxygen deprivation or mechanical injury during labor, delivery, or resuscitation in the immediate post delivery period in a hospital. The injury must result in both physical and mental impairment. In addition, either the obstetrical services related to the birth must be provided by a participating physician or they must have occurred in a participating hospital, or both. Participation is voluntary for physicians, registered nurses, midwives and hospitals. The Virginia Workers' Compensation Commission is the exclusive venue for hearings to determine whether a claimant will be admitted to the Program. The Virginia Office of the Attorney General supports the Program by providing requested legal services.

Benefits provided include:

- Unlimited actual, medically necessary medical expenses including physicians, nursing, hospital, rehabilitation and therapy, prescription medications, medical equipment and appliances, and related travel expenses. This also includes certain housing and transportation expenses.
- Loss of earnings from the age of 18 to age 65 based on 50% of the average weekly wage in the Commonwealth for workers in the private, non-farm sector.
- Reasonable attorney fees and other expenses associated with the application for admittance.

The birth fund legislation in Virginia also explicitly specifies that several expenses are not covered. A ten-year statute of limitations applies to all claims for Program benefits.

The Program is governed by a nine-member Board of Directors. The Board is appointed by the Governor with six citizen representatives and one representative each of participating physicians, participating hospitals, and liability insurers. The Board's powers are clearly delineated in the Program's enabling legislation. Day-to-day operations are managed by an Executive Director, George Deebo, and the Deputy Director, Candace Thomas, both hired by the Board. The Executive Director is supported by additional staff as needed.

The Program is funded through the Virginia Birth-Related Neurological Injury Compensation Fund (the Fund), which is organized as a segregated account (i.e., trust fund). The assets of the Fund are administered by the Board of Directors of the Program. The Board has retained investment advisors to manage the Program's assets.

The Program uses a variety of funding approaches. First, participating physicians are required to pay an assessment. In 2012, this assessment is $6,100. Annual increases of $100 will be applied until assessments reach $6,200 in 2013. In addition, all licensed physicians that do not participate in the Program are required to pay a fee of $300 annually as a condition of being licensed in Virginia. Hospitals pay an assessment of $55 per live birth to participate, subject to a maximum of $200,000 in assessments annually. A number of exclusions to the assessments apply for physicians with extenuating circumstances. Finally, if, and only if, the Program is determined not to be actuarially sound, an assessment of up to 0.25% of all "net direct premiums written" by liability insurers in Virginia may be charged. These assessments of liability insurers have been charged at the maximum amount for many years. All changes in assessment levels require a legislative action.

Medical professional liability insurers in the Commonwealth of Virginia are required by law to provide a discount for hospitals and healthcare providers that participate in the Program. These discounts typically range from 10% to 15% of otherwise indicated premiums.

Several legislative changes have been made to the Program in the last decade. Many of the changes have been in response to the increasing estimated deficits for the Fund. While a detailed description of these changes is beyond the scope of our engagement, a brief summary of elements of each legislative action follows:

> Effective July 1, 2003 – Provided for the payment of legal expenses for applicants not admitted to the Program and allowed an award of $100,000 to the families of children who died within 180 days of birth.
>
> Effective July 1, 2004 – Removed the benefit for the payment of legal expenses for applicants not admitted to the Program created in 2003 and increased assessments.

Effective July 1, 2006 – Allowed an additional opportunity for claim reporting for births between January 1, 1988 and July 1, 1993, and made minor changes governing investment controls.

Effective July 1, 2008 – Allowed that "any claimant who timely filed a claim and after timely seeking and being denied an opportunity to … confront or cross-examine witnesses and was denied an award of benefits, shall have the right to have the determination against them vacated and the claim redetermined De Novo. By filing a petition … on or before July 1, 2009." Added a requirement to "account for individual participant costs and injury characteristics" in the unpaid benefits liability assessment. Allowed reimbursement of nursing and attendant care from a relative or legal guardian. Provided additional annual increases in assessments.

An annual audit by a certified public accountant selected by the Board is a required element of the Program's financial controls. In addition, a biennial actuarial study on the financial soundness of the program and recommended assessment rates is required. The actuarial study is funded and directed by VA SCC. From the inception of the Program through 2010, these actuarial studies were performed by Oliver Wyman Actuarial Consulting, Inc. (Oliver Wyman). Detailed information regarding these prior studies is contained in the 2010 Oliver Wyman report. Pinnacle has provided actuarial services to VA SCC since 2011. This is our second study of the Program and Fund. Previous to this, Pinnacle provided a variety of actuarial services to the Program itself from 2003 through 2010.

Pinnacle is an Illinois corporation owned by five members of its professional staff. It has been providing property/casualty actuarial consulting services since it was formed in 2003, although many of our client relationships predate this reorganization. Our 18 consultants make Pinnacle one of the largest property/casualty actuarial consulting firms in the U.S. We specialize in insurance pricing, loss reserving, alternative markets, legislative costing, market analysis and financial risk modeling. Our headquarters are located in Bloomington, IL.

Pinnacle has established a reputation as a provider of unbiased, independent, actuarially sound analyses and reports. This reputation is demonstrated in the variety of clients that have engaged us for projects similar to this one. Clients that have engaged Pinnacle in similar assignments include patient compensation funds, birth-related neurological injury funds, joint underwriting associations and state insurance regulators in a wide variety of states including Connecticut, Florida, Illinois, Indiana, Iowa, Maine, Michigan, New Mexico, New York, Ohio, Oregon, Texas, Virginia, and Wisconsin. Specifically, Pinnacle currently also serves the Florida Neurological Injury Compensation Association, the Wisconsin Injured Patients and Families Compensation Fund, and advises the New York State Insurance Department regarding the New York Medical Indemnity Fund.

DATA SOURCES

Pinnacle was provided a significant amount of material from the Fund and from VA SCC's former actuarial consultants, Oliver Wyman Actuarial Consulting, Inc. This information was primarily provided by Candace Thomas, CGFM, the Program's Deputy Director. The data provided included:

- Detailed benefits by participant, year and benefit category,
- Detailed life plans for almost all Program participants,
- Mortality tables previously used by Oliver Wyman, including Shavelle life tables for almost all Program participants,
- Historical assessment income by year and source (participating physicians, non-participating physicians, participating hospitals, and insurance company premium-based assessments),
- Fund Investment Reports from 2010 through 2012,
- Historical data regarding the number of live births in Virginia from the Virginia Department of Health,
- Historical administrative expenses for the Program,
- Projections of future wage loss benefits,
- A detailed nursing cost trends analysis, and
- The 2010 audit report for the Program produced by KPMG.

The historical benefits payments by Program participant were organized into detailed categories:

- Nursing costs (by far the largest individual category)
- Medical expenses
    - Hospital and physician
    - Physical therapy
    - Medical equipment
    - Prescription drugs
- Non-medical expenses
    - Vans

    - Housing benefits
    - Incidental expenses
    - Automobile and health insurance
- Wage loss benefits
- Admission expenses
    - Medical review/intake
    - Legal fees

The data is appropriate for the intended purpose of the analysis. There were no additional records that Pinnacle required to complete its analysis and issue this report.

METHODS & ASSUMPTIONS

Overview

The general approach taken to estimate the unpaid benefits liability of the Fund as of December 31, 2011 is quite similar to the approach used by Pinnacle in our previous report; however, a number of specific methods and assumptions have changed. The steps in developing this estimate are as follows:

1) Estimate the ultimate number of participants born on or before December 31, 2011 that will ultimately be admitted to the Program.
2) Forecast the expected benefits payments and claims administration expenses for each participant by benefit type and year, assuming that the participant survives until that year.
3) Adjust these future benefits payments for two factors:
   a. The probability that the participant will survive until that year, and
   b. Discounting to reflect the time value of money and the expected investment income the Fund should realize between December 31, 2011 and the payment of the benefits.

This information can be combined with actual assessment income, investment income, administrative expenses and benefit payments from 2011 to estimate the surplus or deficit balance of the Fund as of December 31, 2011.

In addition, once the estimates of future benefits payments have been made and the December 31, 2011 surplus or deficit estimate is developed, this information can be combined with estimates of future assessment revenue, along with the number of new eligible births by year and their associated lifetime costs to estimate the likely surplus or deficit of the Fund as of future annual valuations.

The current invested assets of the Fund and the historical and estimated annual benefit payment and administrative expenses cash flows can also be used to support an evaluation of the benefits paying ability of the Program.

Finally, the current surplus or deficit balance of the Fund, along with annual assessment income and benefits payments, provide information that is necessary to make recommendations regarding future assessment levels and other revenue sources for the Program.

This ***Methods & Assumptions*** section of the report will go through the analysis process described above (in order) and provide additional detail and support for key methods and assumptions underlying our analysis.

Number of Program Participants

Because of the ten-year statute of limitations for applying for admittance to the Program, participants may not be known by the Program until many years after their birth. As a result, estimates of the ultimate number of participants admitted to the Program for the last ten birth years must be developed. The Fund carries a liability on its balance sheet for children that have already been born and will eventually be admitted as participants to the Program. The analysis used to estimate these currently non-admitted participants is documented in Exhibit 4.

Three methods were used to estimate the number of ultimate Program participants by birth year. The first method, often called a loss development method in the insurance industry, examines the pattern of Program admissions by birth year and the calendar year of the admission. This information is shown in Exhibit 4, Page 2. These historical admissions patterns were then used to extrapolate the ultimate number of participants by birth year. The estimated number of claims by birth year is shown in Exhibit 4, Page 1, column 4.

The second method, known as an expected loss or expected count method, estimates the long-term average number of Program participants per 100,000 live births in Virginia. The selected ultimate ratio is shown in column 10 of Exhibit 4, Page 1. While this ratio was in excess of ten claims per 100,000 live births in the late 1990s and early 2000's, it has appeared to decreased significantly in more recent years. We have selected an expected rate of 9.5 admitted participants per 100,000 births for this method. The estimated number of participants by birth year is shown in Exhibit 4, Page 1, column 5.

The final method, called the Bornhuetter-Ferguson (B-F) method, combines the loss development and expected loss techniques. The purpose of the expected loss approach is to add stability to ultimate loss estimates in years where a substantial amount of development on admissions is expected or where a small portion of the expected admissions has emerged. If:

A = Admitted Participants to Date
B = Expected Percentage of Ultimate Participants Admitted to Date
C = # of Live Births (in 100,000s)
D = Expected Participant Rate per 100,000 Live Births

then the estimated ultimate participants using the expected loss technique is:

$$A + [C \times D \times (1 - B)]$$

The estimated number of participants by birth year is shown in Exhibit 4, Page 1, column 6.

Our estimate of the ultimate number of Program participants by birth year was then selected based on these methods and is shown in column 8. The number of currently non-admitted participants is then computed in column 9.

Benefit Payments by Cohort

In the Oliver Wyman analyses, Program participants were segregated into three cohorts:

- Group A – Participants who had been in the Program for at least three years.
- Group B – Participants who had been admitted to the Program for less than three years.
- Group C – Participants who had been already been born, but who were not yet admitted to the Program.

Estimates for future benefits payments for Group A participants were heavily reliant on benefits payments in the last three years, either individually or collectively depending on the benefit. Averages for the Group A participants then formed the basis for future benefits estimates for Groups B and C.

While this delineation worked reasonably well, it presents several opportunities for improvement. For example, benefits payments from periods prior to the last three years were largely ignored. The recent payment activity for Group B members is also given little or no consideration. Individual participants with exceptionally large annual benefits payments, and often lower than average life expectancies, may need more customized treatment in developing the overall unpaid benefits estimates. Finally, no consideration appears to be given to the current physical condition of the individual participant and the impact this may have on annual benefits payments and/or life expectancies.

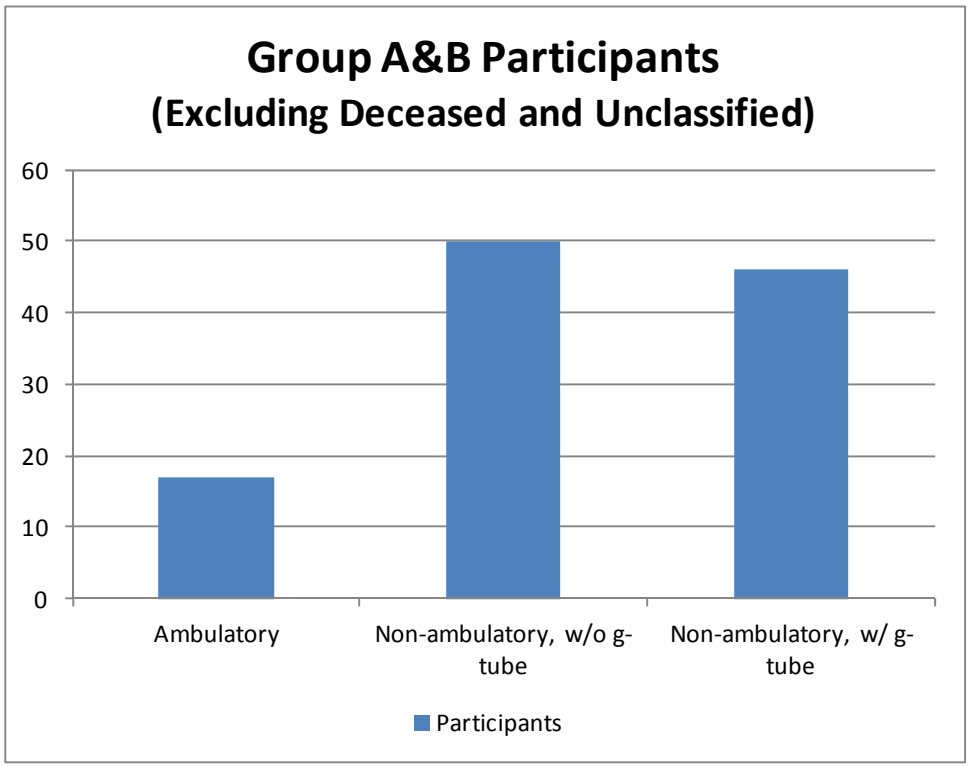
To address some of these opportunities, Pinnacle made several changes to how the data was organized to develop our future benefits payments. First, older years of benefits payments for Group A members were included in our assessment of historical benefits payments. For example, we examined not only three year averages, but also five year and all admitted year averages to develop our assumptions regarding future benefits payments levels. Group B data, although only for a limited number of years, was included to increase the credibility of the benefits payment data in recent years. For many benefits categories, individual participants with average annual benefits of more than twice the average for that benefit type were individually modeled for future years.

However, the most significant change in the organization of the historical benefits payment data by cohort may deal with the incorporation of information regarding the physical condition of the participant. The life plans provided for each admitted Program participant, contained five specific items regarding each child's condition: their ambulatory status; whether they have a gastric feeding tube (g-tube), ventilator, or tracheostomy tube (trach tube); and, their ability to lift their head. Based on previous work and experience, Pinnacle organized the admitted participants into three categories based on their ambulatory and g-tube status for the purpose of estimating average annual benefits payments:

1) Ambulatory – all ambulatory participants regardless of whether they have a g-tube (only three ambulatory participants have g-tubes)
2) Non-ambulatory without g-tube
3) Non-ambulatory with g-tube

One point of clarification: new participants (Group B participants) whose life plans have not been completed are modeled similarly to Group C due to the lack medical condition information. The current distribution of admitted Program participants (Groups A and B) by these three categories, excluding those that have died and those who have not been classified to date due to their recent admission, is as follows:

Table 6 – Distribution of Group A & B Participants by Ambulatory and G-Tube Status



* Excludes participants who are deceased and those who have yet to be classified.

It is also noteworthy that based on the current participant life plans and the related Shavelle mortality tables, these three groups have markedly different life expectancies as will be discussed further in a later section.

For several of the benefits categories, these groups have markedly different historical average annual benefits payments. This suggests that different assumptions for future payments by category may be appropriate. Further, these groups have significantly different remaining life expectancies. Interestingly, the non-ambulatory with g-tube group has remained a steady proportion (approximately 40%) of the total admitted participant population for the last decade. More detailed

discussion on how this impacted our assumptions by benefit type will be provided in the appropriate part of the ***Methods & Assumptions*** section.

Claimants Who Are Deceased at the Time of Acceptance

Historically, a small number of Program participants have died prior to the completion of the admission process. For the purposes of our analysis of the Fund's unpaid benefits liabilities and surplus/(deficit) position, we modeled the approximate number of Group C claimants that will pass away prior to admission and their benefits. We have continued to accept the Oliver Wyman assumption that 5% of participants will pass away within 180 days of birth. This assumption seems reasonable given the limited amount of data available. For each of these Group C claimants, we have assumed their families will receive the $100,000 benefit prescribed by law. This benefit is over and beyond legal and medical intake expenses related to the admission process which are contemplated in the analysis of those benefits categories.

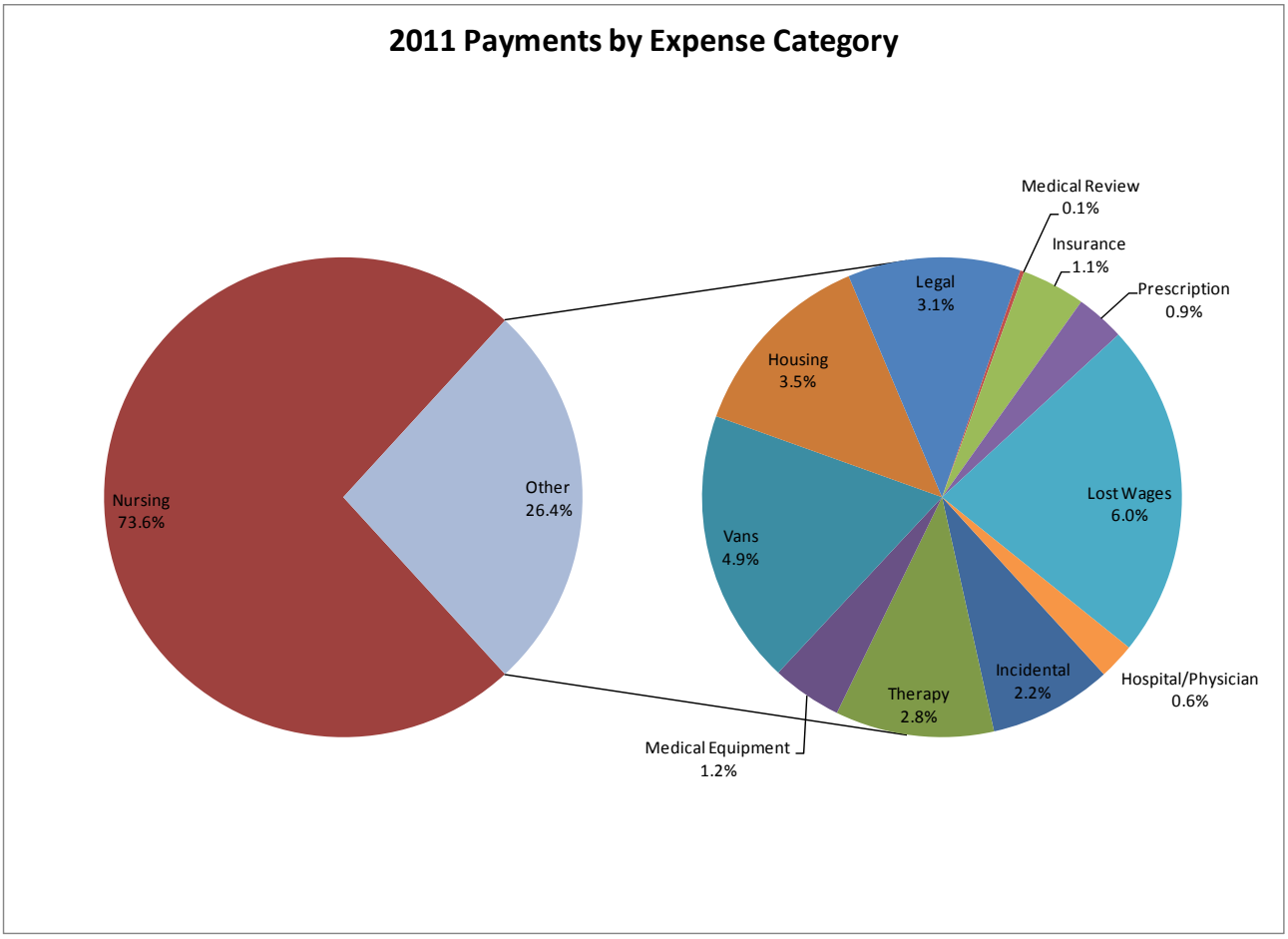
Benefit Payments by Benefit Type

The approach used to estimate future benefits payments varies somewhat according to the specific type of benefit being evaluated. The following sections will review each benefit type individually. A brief recap of historical Fund benefits payments by benefit type is shown in Table 7 and the accompanying chart that follows. In 2011, the increases in lost wages and nursing costs are noteworthy.

Table 7A – Summary of Benefits Payments in 2010, 2011 and All Years Combined

Total Benefits Payments Through 12/31/2011						
Expense Category	Payments Through 12/31/2011	Percentage of Total Payments	Payments In 2010	Percentage of 2010 Payments	Payments In 2011	Percentage of 2011 Payments
Nursing	72,010,946	61.90%	7,954,097	74.94%	8,599,065	73.58%
Hospital/Physician	2,120,457	1.82%	77,531	0.73%	75,138	0.64%
Physical Therapy	3,033,225	2.61%	313,304	2.95%	330,680	2.83%
Medical Equipment	2,402,960	2.07%	159,659	1.50%	146,005	1.25%
Prescription Drugs	1,315,524	1.13%	125,895	1.19%	101,702	0.87%
Incidental	4,138,469	3.56%	439,342	4.14%	256,394	2.19%
Housing	18,628,354	16.01%	427,095	4.02%	406,249	3.48%
Vans	6,713,757	5.77%	387,213	3.65%	571,825	4.89%
Insurance	1,237,259	1.06%	148,549	1.40%	132,219	1.13%
Lost Wages	1,432,068	1.23%	441,148	4.16%	698,454	5.98%
Medical Review / Intake	223,398	0.19%	4,163	0.04%	8,375	0.07%
Legal	3,074,764	2.64%	135,334	1.28%	359,805	3.08%
Total	116,331,181	100.00%	10,613,329	100.00%	11,685,910	100.00%

Table 7B – Summary of 2011 Benefits Payments



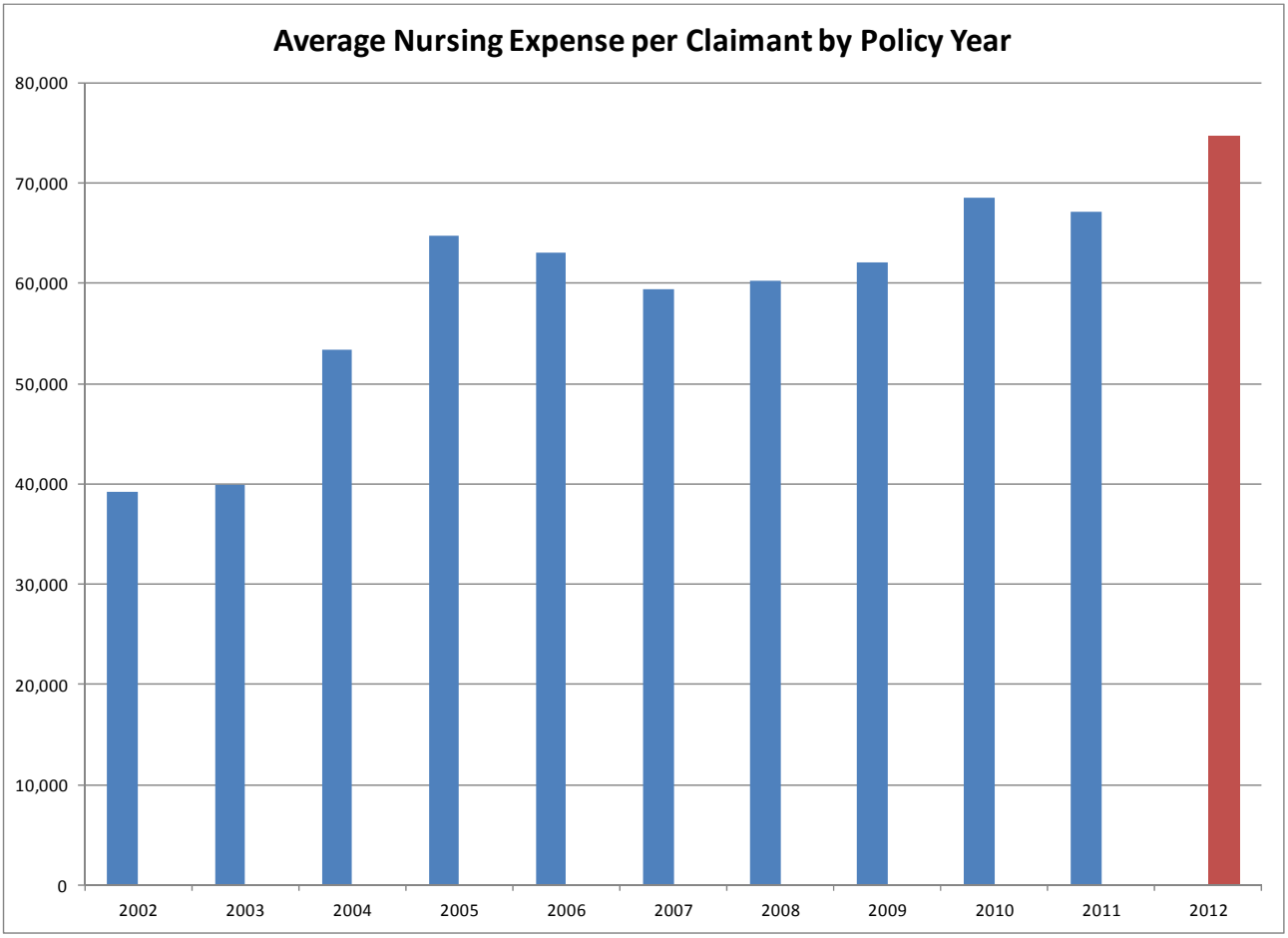
Nursing

As Table 7 shows, nursing costs have historically been, and continue to be, by far the largest benefits category for the Fund. Nursing costs also provide the largest amount of benefits variability between not only participant category (i.e. ambulatory, g-tube status), but also between individuals within these groups. For example, the average annual benefits payments for non-ambulatory participants with g-tubes is consistently above $100,000 per participant, while the other groups consistently average less than $40,000 per participant a year. Furthermore, several participants average nursing benefits of over $300,000 per year.

To reflect this variety of benefits being received by individuals and also reflect the differences between the medical statuses of the groups, a hybrid approach to estimating future benefits payments has been used. For a group of 20 individual participants with very high annual nursing costs, individual future severity assumptions have been developed based predominantly on the three

and five year averages for the individuals. For the remainder of the participants, an annual benefits cost of $60,000 was selected for non-ambulatory participants with a g-tube, $34,000 was selected for ambulatory participants, and $30,000 was selected for non-ambulatory participants without a g-tube. These selections produce an annual average nursing benefit of approximately $74,733 in 2012 as shown in Table 8 below. The selections produce averages by group that are consistent with the three, five and all year averages. Group C is then based on this overall average, reflecting the potential for some Group C claimants to also have potentially high nursing costs.

Table 8 – Average Nursing Benefits by Year



We believe this approach does a good job of incorporating as much of the historical experience as possible (thus creating stable benefits assumptions) and also matching unique participant benefits situations to their corresponding life expectancies. The historical approach of using the most recent year's nursing costs only for developing the assumption of future costs led to some volatility in this

benefits category. These previous studies also imposed maximums and minimums that are not necessary with our approach.

Based on discussions with Program staff, this category will need to continue to be monitored as two perceived trends develop over time. There appear to be both increased utilization of the nursing benefit by more participants over the years and more participants are using the option of having family members provide some portion of the nursing benefit. The impact of these perceived trends will be seen more clearly in the coming years.

Hospital & Physician Expenses

This category is somewhat self-explanatory and provides for the portion of physician, hospital, emergency room and other direct medical treatment costs not otherwise covered by private insurance or Medicaid. Generally, these costs on an annual, per participant basis are relatively small, often averaging less than $1,000 on a Program-wide basis for a year.

We have assumed an average annual cost of $1,050 per ambulatory participant, $750 per non-ambulatory participant without a g-tube, and $1,400 per non-ambulatory participant with a g-tube. These assumptions are based on a review of historical three, five and all years averages by category. The resulting overall average of about $1,060 per participant, per year was then applied to Group C and as yet unclassified Group B participants. All of these assumptions are net of otherwise applicable private insurance and/or Medicaid.

Physical Therapy

Most Program participants receive some form of physical therapy for several years. Oftentimes, this level of physical therapy diminishes as the children grow older. This change in benefits costs over time makes the physical therapy benefit an intricate one to model into the future. We have assumed that all physical therapy benefits are made within ten years of admittance to the Program. For Group A participants, we have modeled future costs based on each child's historical trended average costs over the last three years. For Group B, participants who are non-ambulatory and have a g-tube are assumed to have average costs of $2,500 annually. All others are assumed to have annual costs of $3,000. We assume these costs occur for five years and then are reduced to half of

these values for another five years to replicate historical severities. A similar approach is used for Group C claimants, based on an average across the medical statuses, starting the year of admittance.

Both private insurance and Medicaid often provide coverage for items in this category and costs to the Fund are net of these collateral sources.

Medical Equipment

This benefit category deals with durable medical equipment, most notably wheelchairs. The non-ambulatory participant categories have higher historical average benefits costs for this category than the ambulatory participants. As a result, we have assumed $1,250 currently valued dollars per year in benefits for each ambulatory participant in Groups A and B going forward, compared to $2,400 annually per participant for the two non-ambulatory categories. The current overall average ($2,200) is then applied to each Group C participant. These selections are somewhat higher than actual experience in recent years, but are consistent for longer term averages for this benefit category.

Both private insurance and Medicaid often provide coverage for items in this category.

Prescription Drugs

This category has historically shown steady increases as a percentage of total benefits cost to the Program, consistent with national trends. Several individual participants have thousands of dollars in annual prescription drugs costs, while many participants have hundreds of dollars in annual costs. In order to get an appropriate matching of individual costs and life expectancies for the high annual cost participants, we have made eleven individual selections of prospective prescription drug costs based on these children's experience in the last three to five years. For the remaining participants, an average cost of $500 annually provides a reasonable approximation of historical benefits levels. Group C is based on the estimated overall average per participant cost of $1,267, including the eleven individual exceptions, to reflect the potential for Group C claimants to also have unique prescription drug needs.

We expect private insurance and Medicaid will continue to provide some coverage for this category as they have in the past.

Vans

The Program purchases a van with a wheelchair lift for every participant who is restricted to a wheelchair, upon request. The vans are equipped with whatever special equipment is needed, based on the participant's needs. The Program also covers all ongoing repairs and maintenance to the specialized equipment, but not maintenance and repairs to the van itself, other than the automobile insurance benefits described elsewhere in this section. This van can be replaced every 100,000 miles. As a result, the average van provided to Program participants is updated on average every six years.

Historically, it was assumed that only non-ambulatory participants were using this benefit. The Program's detailed benefits information suggests this is not true. Therefore, we have also assumed that all future participants will get a van and will receive their first van at age six. This is based on historical averages for the Program and is somewhat of a conservative assumption. The assumed benefit cost of $40,000 also includes a provision for ongoing maintenance costs, based on an analysis of historical costs for this benefits category.

Housing

There are five categories of housing benefits, and each needs to be modeled separately. These include:

- Trust homes – For participants who have received trust homes (September 24, 1999 and prior), we assumed the three year trended average for ongoing expenses will continue in the future.
- Housing grant – Based on historical data for individual grants, we have assumed that the outstanding balance on these grants will be incurred over the next four years.
- Rental assistance – For individual participants electing this housing benefit, we have assumed the three year trended average will continue into the future, subject to a $175,000 maximum established by the Program.

- Renovation completed – no future costs are associated with participants that have completed renovations.
- Participants with no notes – We have conservatively assumed that participants with no information available on their housing situation are still eligible for a renovation. We have allocated costs of $150,000 for renovation over the next four years.

For Group C participants, we have assumed they will receive a $150,000 benefit over a four year period (generally either for renovations or rental expenses) when they are admitted and are at least six years of age.

Incidental Benefits

Incidental benefits are those related to a wide variety of not otherwise classified items including non-durable medical supplies, over-the-counter drugs, feeding tubes, diapers, computers and related equipment, and travel expenses. These items generally have relatively low average annual costs. In recent years, incidental benefits have averaged between $2,500 and $2,800 per admitted participant. Interestingly, participants who are non-ambulatory and have a g-tube have incidental costs higher than other participants. Based on our review of program benefits experience for this category, we have assumed future annual benefits payments of $3,400 for each non-ambulatory participant with a g-tube, $2,000 for each non-ambulatory participant without a g-tube, and $2,300 annually for each ambulatory participant. This results in an overall average of $2,607, consistent with overall averages. No individual participant had historical benefits levels materially different enough from the overall average to justify individual assumptions. We expect this approach may be somewhat more stable and more reflective of the differences by participant than the Oliver Wyman approach of selecting based on the most recent year's experience of the Group A members and then using the average of this to project Groups B and C.

Insurance

As in prior reports, we have continued to assume that the Program will pay automobile insurance premiums of $529 annually. We have conservatively assumed this benefit will be paid to all Program participants, consistent with our assumption that all participants will ultimately have vans. While somewhat conservative, the impact of this assumption is immaterial to the overall results of our analysis. We have also assumed that health insurance premiums will only be paid to Group A

and B participants who currently receive this benefit. We assume future costs will be consistent with each participant's three year trended average.

Group C participants are each assumed to receive the overall average of the assumed insurance costs for the Group A and B participants to reflect that some of them will also purchase health insurance.

Wage Loss

As in previous analyses, we have continued to assume that Program participants age 18 and older will be eligible to receive wage loss benefits consistent with workers compensation benefits in the Commonwealth. The benefit is equal to 50% of the private, non-agricultural average weekly wage. We have assumed this benefit will be approximately $23,842 in 2012. We also continue to assume that all participants that are eligible for the benefit will utilize it.

The issue of some participants losing Medicaid benefits due to receipt of the wage loss benefit remains an ongoing concern. This has resulted in higher Program costs for medical-related benefits.

Medical Review/Intake

This category is related to non-legal expenses incurred by admitted Program participants during the application process. As such there should be no unpaid benefits in this category for participants in Groups A and B. On average, Group A and B participants, including those currently deceased, have average medical review and intake expenses of approximately $1,400. After consideration of inflationary trends, we have assumed each Group C participant will incur approximately $1,500 in medical review and intake expenses, stated in currently valued dollars.

Legal Fees

The legal fees included in our unpaid benefits estimates are limited to those associated with the application process for the Group C participants. Groups A and B are assumed to have no additional legal fees. On average, Group A and B participants, including those currently deceased, have average legal fees of approximately $17,500. After consideration of inflationary trends, we have assumed each Group C participant will incur approximately $20,000 in legal fees, stated in currently valued dollars.

Interest Rates

In the summaries of the financial condition of the Fund provided in the analysis, unpaid benefits liabilities are presented on a discounted basis to reflect the time value of money associated with an estimate of the future investment earnings expected to be generated from assets supporting these future benefits payments between the accounting date and the benefit payment date. That is, the Fund presents its liability for unpaid benefits on a discounted (or present value) basis. The key issue for this analysis is determining the appropriate interest rate to use to discount the future benefits payments.

Pinnacle's approach to discounting the Fund's unpaid benefits liabilities, and specifically selecting a discount rate, has several issues associated with it. Considerations include:

- Does the Fund have valid invested assets supporting all unpaid benefits liabilities?
- What is a reasonable investment return to expect during the period between December 31, 2011 and the various loss payment dates?
- Particularly, what is a reasonable investment return expectation for future benefits payments more than a decade into the future?
- How should the recent financial uncertainty be contemplated?
- Are there actuarial professionalism considerations that need to be taken into account?

For the purpose of discounting loss reserves for a financial statement, Actuarial Standard of Practice No. 20, *Discounting of Property and Casualty Loss and Loss Adjustment Expenses Reserves* (ASOP 20), provides tremendous guidance to an actuary and defines the issues and considerations that an actuary should take into account in determining discounted reserves. Actuarial literature and publications can also provide additional assistance in determining the approach.

Section 5.4 of ASOP 20 provides guidance for selecting the interest rates for discounting. This section specifically notes that the appropriate selected interest rates are a function of the context in which the discounted reserves are used (emphasis added). Two choices are provided: a time value of money approach or a rate of return from a particular portfolio. First, we discuss the two choices followed by a discussion of the context.

The time value of money approach uses a selected interest rate that should approximate the risk-free interest rate. The risk-free interest rate is often approximated by reviewing Treasuries with a maturity that is consistent with the duration of the liability. The Treasury Constant Maturity rates at year end 2011 are as follows:

1 year	0.12%
3 year	0.36%
5 year	0.83%
7 year	1.35%
10 year	1.89%
20 year	2.57%
30 year	2.89%

As you can see, these rates are materially lower than those historically selected by Oliver Wyman and Pinnacle.

For a portfolio interest rate approach, the actuary should consider the relationships between market and book values of the assets, between portfolio and market interest rates, and between the maturities of the assets and the timing of loss and loss adjustment expense payments. Section 5.4.3, which addresses the portfolio interest rate approach, further notes that the actuary should adjust the portfolio rates to be consistent with assets having low risk.

Oliver Wyman has historically used interest rates between 6% and 7% to discount unpaid benefits liabilities for the Fund. In general, these assumptions have been based on the target rates of return for Fund invested assets provided by the Fund's investment managers, sometimes reduced by an explicit adjustment to reflect the significant risk in the investment portfolio. This adjustment has been appropriate as the Fund has not always hit its investment targets in the past. The historical investment returns for the Program are shown in Exhibit 1. The amount of risk inherent in the Fund's investment portfolio is also seen in a comment in a recent investment management report that states that the Fund's risk tolerance is as follows: "The annual nominal return is expected to fall within a range of -1.8% to +15.8% two thirds of the time (one standard deviation) over this period. There is a 95% probability that losses will not exceed -7.5% in any given year." This is a significant amount of variability and risk. Both the highs and lows of this volatility can be seen in

the historical returns in Exhibit 1. A recent investment management report also suggests that the target rate of return for the investment portfolio is a "…7.0% annualized return or 4¼ % over inflation as measured by the CPI-U. This projection is based on 2010 Callan Capital Markets Projections for the ensuing ten years." This expected return appears much too high for the purpose of discounting future benefits payments, particularly in light of recent financial events.

Finally, Section 5.5 of ASOP 20 makes it clear that a discounted reserve is an inadequate estimate (emphasis added) of economic value unless an appropriate risk margin is included. One means of complying with actuarial standards and to provide for a reasonable adjustment for investment risk in the current financial climate is to include some form of implicit risk margin in the selected discount rate. Pinnacle has selected a discount rate of 5.25% that we believe is reasonable based on the considerations reflected in this section.

Inflation Rates

For each benefit category, future annual costs need to be adjusted by an appropriate factor to reflect expected cost inflation. In addition, historical benefits payments need to be adjusted for inflation to develop our selections of average benefits costs at current cost levels. As with the previous Oliver Wyman studies, we have taken a two step process of first estimating general inflation (both historical and prospective) and then indexing specific inflation rates for each benefit category off of these general inflation rates. Both long and short term averages were considered in our selections and are provided in Exhibit 2. A comparison of our prior and current selections is summarized in Table 9 below.

Table 9 – Selected Historical and Prospective Inflation Assumptions

		Prior Report		Current Selection	
Expenditure Category	CPI Category	Selected Historical Inflation	Selected Future Inflation	Historical Inflation	Future Inflation
Nursing	Professional services	3.25%	4.48%	3.00%	4.40%
Hospital/Physician	Medical care services	4.24%	4.91%	3.87%	4.79%
Physical Therapy	Professional services	3.25%	4.48%	3.00%	4.40%
Medical Equipment	Medical care commodities	2.53%	2.85%	2.73%	2.85%
Prescription Drugs	Prescription drugs	3.07%	4.03%	3.42%	3.93%
Incidental	All items	2.25%	2.91%	2.16%	2.89%
Housing	Shelter	2.17%	3.62%	1.64%	3.43%
Vans	New vehicles	0.00%	2.59%	0.54%	2.59%
Auto Ins	Motor vehicle insurance	3.12%	4.08%	3.41%	3.91%
Health Ins	Health insurance	3.12%	4.00%	3.41%	3.91%
Lost Wages	Based on BLS VA data	2.71%	3.72%	2.41%	3.03%
Medical Review / Intake	All items	2.25%	2.91%	2.16%	2.89%
Legal	Legal services	3.83%	4.32%	3.59%	4.16%

Mortality and Life Expectancy

One the most difficult assumptions needed in estimating the future benefits payments for the Fund relates to the life expectancy of the Program's participants. Between 1999 and 2009, Oliver Wyman had to consistently increase their assumption of life expectancies as the actual experience of the Program's participants continued to outperform modeled expectations.

A significant change occurred with the addition of individual life plans and mortality tables for each admitted Program participant. The Shavelle tables provide individual expected survival rates by year for each participant and appear to provide a reasonable life expectancy not only for each child, but also appear to reflect differences between groups of participants based on ambulatory and g-tube status. Therefore, we have relied on the Shavelle tables for each Group A and B participant to reflect the likelihood of a child surviving to receive the assumed benefits. The challenge this approach presents is the treatment of Group C participants.

For Group C, we have developed a mortality table that combines the life tables for each of the current Group A and B participants. This approach works well for older ages where almost all participants' data can be included. It is somewhat less effective for the younger ages. As a result,

selections were made for the younger ages based on the available information in order to maintain consistency between the indicated survival rates by age. This blended mortality table for Group C is summarized in Exhibit 3. A comparison of the life expectancies of the historical Oliver Wyman mortality tables and the composite Shavelle table is shown in Table 10 below.

Table 10 – Comparison of Mortality Assumptions

	Life Expectancy at	
Table	Birth	Age 3
1999 Table	17.5	19.5
Blended Table	22.1	24.7
2009 Table	26.4	28.3
2010 Table	28.5	30.1
Shavelle Composite Table	28.4	29.2

DISCUSSION AND ANALYSIS

Number of Program Participants

As of December 31, 2011, there were 169 admitted Program participants, an increase of 14 from year end 2010. We estimate that an additional 41 children that are eligible for the Program and who will eventually be admitted have been born as of December 31, 2011. This estimate compares to our estimate of 41 Group C participants in our prior analysis. Our analysis of the total number of Program participants as of December 31, 2011 is attached as Exhibit 4 and a summary by birth year is provided in Table 11 below.

Table 11 – Estimated Ultimate Participants as of December 31, 2011

Birth Year	Admitted Participants	Select Ultimate Participants	Non-admitted Participants
1988	2	2.0	0
1989	9	9.0	0
1990	5	5.0	0
1991	9	9.0	0
1992	8	8.0	0
1993	11	11.0	0
1994	6	6.0	0
1995	10	10.0	0
1996	8	8.0	0
1997	11	11.0	0
1998	7	7.0	0
1999	7	7.0	0
2000	13	13.0	0
2001	11	11.0	0
2002	11	11.0	0
2003	10	11.0	1
2004	4	5.0	1
2005	3	5.0	2
2006	6	9.0	3
2007	8	11.0	3
2008	5	10.0	5
2009	5	11.0	6
2010	0	10.0	10
2011	0	10.0	10

Estimated Lifetime Benefits

A history of benefits payments made by the Fund by year since its inception is provided in Table 12 below.

Table 12 – Summary of Calendar Year Benefits Payments Through 2011

Total Claim Payments		
As Of	Incremental Amount Paid	Cumulative Amount Paid
12/31/1988	0	0
12/31/1989	0	0
12/31/1990	0	0
12/31/1991	0	0
12/31/1992	14,161	14,161
12/31/1993	97,886	112,047
12/31/1994	239,124	351,171
12/31/1995	1,860,514	2,211,685
12/31/1996	4,667,043	6,878,728
12/31/1997	4,547,735	11,426,463
12/31/1998	2,920,146	14,346,609
12/31/1999	3,505,686	17,852,295
12/31/2000	5,685,588	23,537,882
12/31/2001	5,745,413	29,283,295
12/31/2002	4,638,442	33,921,737
12/31/2003	5,429,845	39,351,582
12/31/2004	6,012,468	45,364,050
12/31/2005	8,548,706	53,912,757
12/31/2006	10,482,314	64,395,070
12/31/2007	9,230,255	73,625,326
12/31/2008	10,778,949	84,404,275
12/31/2009	10,068,816	94,473,091
12/31/2010	10,172,181	104,645,271
12/31/2011	11,685,910	116,331,181

The calendar year payments had been relatively steady over the five years prior to 2011, generally between $10 million and $11 million per year. In 2011, benefits payments increased by $1.5 million relative to 2010 to $11.7 million.

A table with historical benefits payments for 2011, 2010 and all years combined by benefit category follows as Table 13 and is identical to Table 7A shown earlier. Between 2010 and 2011, significant changes in payments by benefit type included:

- An increase in nursing from $7.95 million to almost $8.60 million.
- A decrease in incidental expenses from about $439,000 to about $256,000, returning to more typical historical levels.
- A significant increase in vans costs.
- Continued growth in wage loss benefits of over $250,000.

Table 13 – Summary of Calendar Year Paid and Incurred Losses 1998-2011

Total Benefits Payments Through 12/31/2011						
Expense Category	Payments Through 12/31/2011	Percentage of Total Payments	Payments In 2010	Percentage of 2010 Payments	Payments In 2011	Percentage of 2011 Payments
Nursing	72,010,946	61.90%	7,954,097	74.94%	8,599,065	73.58%
Hospital/Physician	2,120,457	1.82%	77,531	0.73%	75,138	0.64%
Physical Therapy	3,033,225	2.61%	313,304	2.95%	330,680	2.83%
Medical Equipment	2,402,960	2.07%	159,659	1.50%	146,005	1.25%
Prescription Drugs	1,315,524	1.13%	125,895	1.19%	101,702	0.87%
Incidental	4,138,469	3.56%	439,342	4.14%	256,394	2.19%
Housing	18,628,354	16.01%	427,095	4.02%	406,249	3.48%
Vans	6,713,757	5.77%	387,213	3.65%	571,825	4.89%
Insurance	1,237,259	1.06%	148,549	1.40%	132,219	1.13%
Lost Wages	1,432,068	1.23%	441,148	4.16%	698,454	5.98%
Medical Review / Intake	223,398	0.19%	4,163	0.04%	8,375	0.07%
Legal	3,074,764	2.64%	135,334	1.28%	359,805	3.08%
Total	116,331,181	100.00%	10,613,329	100.00%	11,685,910	100.00%

Administrative Expenses

Exhibit 6 provides a historical summary of benefits administration expenses for the Program. The average annual costs per living participant have increased in 2010 and 2011 after decreasing in 2008 and 2009; however, 2010 and 2011 averages are more in line with historical averages excluding 2008 and 2009. Based on this information, we have assumed that in the immediate future the Fund will pay benefits administration expenses of approximately $7,500 per living participant (currently valued dollars). For our estimates of the current and prospective Fund surplus/(deficits), these future liabilities were discounted to present value using a similar approach to the benefits payments themselves.

Estimated Fund Surplus/(Deficit) as of December 31, 2011

As previously shown in Table 1, and repeated here as Table 14, we estimate that the Fund has future benefits payments with a present value of approximately $364.5 million, along with future benefits administration expenses with an additional present value of $20.2 million. When compared to actual asset values as of this valuation date, these estimates result in an estimated Fund deficit of $90.5 million.

The estimated present values for the future benefits payments and benefits administration expenses were modeled for each individual Group A and B participant and also on an individual basis for Group C; however, certain assumptions such as mortality had to be generalized for this group. Death benefits for all Program participants and the appropriate benefits for participants who have died prior to Program admittance have also been included into these cash flow models. It is important to recognize that the accuracy of the overall liability for future benefits payments is of paramount importance, while the accuracy of individual participant estimates is of lesser importance and may vary greatly due to changes in individual care situations and mortality.

Table 14 – Estimated Fund Surplus/(Deficit) as of December 31, 2011

Estimated Financial Position as of 12/31/2011
($ in millions, on a present value basis)

Claimant Status	Estimated Ultimate Number of Claimants	Estimate of Future Claim Payments	Estimate of Future Claim Admin. Expenses	Value of Total Assets	Forecasted Surplus/ (Deficit)
All Claimants Admitted to the Program	169	266.9	15.8		
All Claimants Not Yet Admitted to the Program	41	97.5	4.4		
Grand Total	210	364.5	20.2	294.1	(90.5)

Projection to 2011-2013 Years

To forecast our estimates of Fund liabilities and asset values forward to future years, several additional steps from the current year model are needed. For example,

- An estimate of the additional year of assessment revenue is added to assets.
- The expected benefit payments and benefit administrative expenses are paid, and are a reduction to assets and Fund liabilities.
- Estimated investment income is added to assets.
- The benefits liabilities for the births occurring during the new year are added to the Fund's liabilities.

Exhibit 7 details the impact of each of these factors in the roll forward calculations and supports the summaries provided in Tables 2 through 4. It is important to recognize that the investment income realized by the Fund is largely offset by the loss of one year of discounting as the present value of existing benefits liabilities is moved forward one year. An easy way to see can be found in Exhibit 7, Page 1 where the 2012 interest accrual of $15.6 million on the asset side of the balance sheet is fairly comparable to the $14.0 million and $5.1 million increases in liabilities associated with losing a year's worth of discounting found in the Admitted Participants Impact and Not Yet Admitted Participants sections, respectively. Similarly, in an ideal situation, the expected assessment income in a year would be approximately equal and offsetting to the loss of one year of discounting the benefits liabilities for the births occurring during the new year.

Program Assessment Levels

From the perspective of the actuarial soundness of the Fund, it is noteworthy that expected future annual assessment income of approximately $24.3 million is slightly less than the current annual expected present value of lifetime new participant liabilities of approximately $24.8 million. All other things being equal, this should contribute to gradual increases in the Fund deficit over time. In addition, if the Fund were not in a deficit position there would be additional investment income produced because of the greater amount of invested assets. Assessment levels need to be monitored to ensure that they keep pace with inflationary pressure on participant benefits over time.

Sensitivity Testing

As in past actuarial studies of the Fund, we felt it imperative to stress test a number of the key assumptions in our analysis to evaluate the impact of differences between our assumptions and other possible actual outcomes. We have performed stress tests of our interest rate, inflation rate and mortality assumptions using an approach similar to prior years.

Table 15 shows the results of a series of stress tests examining inflation scenarios of up to 150 basis points above and below our general inflation assumption, with corresponding changes in the benefits specific inflation rates. For the purpose of these stress tests, we have focused on the impact of the underlying assumption changes on our estimated future benefits payments as of December 31, 2011. At the extreme values, these differences in assumptions have the potential to nearly eliminate the Fund deficit entirely in an extremely low inflation scenario or more than double the deficit should inflation be much higher than expected for an extended period of time.

Table 15 – Inflation Rate Sensitivity Testing

($ in millions, on a present value basis)

Annual Inflation (Baseline +/-)	Estimated Future Claim Payments	Difference From Baseline
-1.50%	289.3	-75.2
-1.00%	310.8	-53.6
-0.50%	335.6	-28.8
Baseline	364.5	0.0
0.50%	398.2	33.7
1.00%	437.9	73.4
1.50%	485.0	120.5

Table 16 provides a similar stress test examining the impact of long term differences in investment returns from those assumed in our analysis. This is a particularly important test given the differences between our selected interest rate and the investment manager's target return, and also in light of current uncertainty regarding the financial markets. The impact of actual investment returns that are different than our assumptions have a similar magnitude to the inflation tests, although with the signs reversed. This is intuitive as inflation impacts benefits and thus liabilities, while interest rates impact investments and thus assets.

Table 16 – Interest Rate Sensitivity Testing

($ in millions, on a present value basis)

Interest Rate (Baseline +/-)	Estimated Future Claim Payments	Difference From Baseline
-5.25% (Undiscounted)	1,500.5	1,136.1
-2.68% (Risk-Free)	645.0	280.5
-1.50%	486.2	121.8
-1.00%	438.2	73.7
-0.50%	398.2	33.7
Baseline	364.5	0.0
0.50%	335.8	-28.6
1.00%	311.3	-53.2
1.50%	290.1	-74.4

Finally, we have tested differences between the mortality rates assumed in the Shavelle tables and the composite Shavelle table, and alternate mortality outcomes. The outcomes of these tests are shown in Table 17. Interestingly, an error of even two years in the overall life expectancy has an impact of only about $28 million on our estimates of the overall present value of unpaid future benefits. This appears to be an intuitive result in that the additional benefits added by an increase in life expectancy would be many years in the future and thus subject to significant discounting.

Table 17 – Mortality Rate Sensitivity Testing

($ in millions, on a present value basis)

Average Expected Remaining Lifetime (Baseline +/-)	Estimated Future Claim Payments	Difference From Baseline
- 2 years	336.6	-27.8
- 1 year	350.0	-14.5
Baseline	364.5	0.0
+ 1 year	378.0	13.5
+ 2 years	392.6	28.1

GLOSSARY OF TERMS AND ABBREVIATIONS

The definitions included in this glossary are intended to be practical definitions to assist non-technical readers in understanding the key technical contents of this report. We recognize that some technical clarifications and elaborations have been omitted for the sake of clarity and brevity. We do not believe any of these omissions materially impact the reader's understanding of the report or materially misrepresent the gist of the terms.

Actuarially sound – Actuarial judgment that the current value of assets will be greater than or equal to the present value of liabilities.

Adverse development – Future liabilities developing greater than originally estimated.

Ambulatory – Having the ability to walk; not bedridden or wheelchair bound.

Assessments levels – The percentage of full value at which an entity is assessed as mandated by state law.

De Novo – Restarting the claims process from the beginning.

Discount rate – Rate used to discount future values to the equivalent current day present value.

Implicit risk margin – Implied, though not plainly expressed, value above discounted best estimate cash flows to protect against worse than expected outcomes (i.e., adverse development).

Gastric feeding tube (g-tube) – A medical device used to provide nutrition to patients who cannot obtain nutrition by swallowing.

Life plans – Actuarial table predicting a participant's unique estimated life expectancy and survival rate.

Mortality tables – Actuarial tables used in the insurance industry to predict the life expectancy and the mortality rates for various types of people.

Present value – The value on a given date of future liabilities or a series of future liabilities, discounted to reflect the time value of money and other factors such as investment risk.

Shavelle life tables – Life tables providing individual expected survival rates by year for each participant.

Statute of limitations – A statute prescribing a period of limitation for the bringing of certain kinds of legal action.

Surplus – Assets minus liabilities.

Time value of money – The value of money figuring in a given amount of interest earned over a given amount of time.

Trend – The direction in and amount that rates, premium, or losses tend to move over time.

Unpaid benefits liability – The unpaid portion of benefits owed to people as the result of injuries occurred to these people resulting from one's operations.

LEGAL DISCLOSURES

Qualifications and Actuarial Standards of Practice

I, Robert J. Walling III, FCAS, MAAA, am a Principal and Consulting Actuary with Pinnacle. I am a Fellow of the Casualty Actuarial Society (CAS) and a member in good standing of the American Academy of Actuaries (AAA). I meet the Qualification Standards of the AAA to render the actuarial opinion contained herein.

I, Derek W. Freihaut, FCAS, MAAA, am a Senior Consulting Actuary with Pinnacle. I am a Fellow of the Casualty Actuarial Society (CAS) and a member in good standing of the American Academy of Actuaries (AAA). I meet the Qualification Standards of the AAA to render the actuarial opinion contained herein.

This actuarial report complies with all relevant ASOPs, Statements of Principles and other professional guidance by the Actuarial Standards Board and/or the CAS. In addition, the estimates of the ultimate number of program participants, ultimate benefits payments and associated administrative expenses were developed using generally accepted actuarial methods and techniques.

Distribution and Use

Pinnacle's actuarial report and supporting work papers are prepared solely for the internal business use of the Program and VA SCC. It is understood that this report may also be distributed to a variety of interested parties. In the event our report is distributed to other parties due to statute or regulations, or by agreement of Pinnacle and VA SCC, we require that the report and supporting exhibits be distributed in their entirety. Pinnacle advises that any recipient have their own actuary review the work. Pinnacle does not intend to benefit any third party recipient of its work product or create any legal duty from Pinnacle to a third party even if Pinnacle consents to the release of its work product to such third party.

In addition, VA SCC may desire to distribute the Executive Summary separately to summarize key findings. This distribution is also granted. Individual findings may also be referenced in press releases and other public communications along with proper citation of the report.

Third party users of any of the elements of this report should recognize that the furnishing of this report is not a substitute for their own due diligence and should place no reliance on this report or the data, computations, and interpretations contained herein that would result in the creation of any duty or liability by Pinnacle to the third party.

Reliances and Limitations

It is important to emphasize the nature of our work for the Program and the Fund. While the unpaid participant benefits liability estimates contained in this report represent our best professional judgment, arrived at after careful actuarial analysis of the available data, any study of this type of unpaid lifetime benefits involves estimates of future contingencies which are subject to the outcome of events yet to occur, e.g., legislative changes, jury decisions, healthcare reforms, and attitudes of claimants with respect to settlements. A high severity, low frequency coverage such as no-fault benefits for children suffering from birth-related neurological and physical injuries, which also has extended reporting and Program admission lags, is especially difficult to estimate.

A reasonable estimate of unpaid benefits liabilities to Program participants born prior to a given valuation date should be interpreted as just that - an estimate with no implication of certainty. When the ultimate costs of claims occurring prior to any financial statement date are known, variation from our estimates is not only possible but, in fact, probable. While the degree of such variation cannot be quantified, it could be in either direction from our estimates. This variation is particularly significant given the small number of participants and very large lifetime benefits available.

In performing this analysis, we have relied on data and other information provided to us by Program management and VA SCC's former actuarial consultants, Oliver Wyman. This experience base includes detailed historical data listings of benefits payments, Program participant counts and investment results by year. This data was supplemented by appropriate industry benchmark data, such as historical interest and inflation rates. We have relied upon all of this information without audit or verification. Pinnacle reviewed as many elements of this data and information as practical

for reasonableness and consistency. We have not anticipated any extraordinary changes to the legal, social, or economic environments that might affect benefits costs or participant counts.

Pinnacle has not examined the Fund's assets, and is not expressing any opinion as to their validity or value. We have made an assessment of whether the Fund's unpaid claims liabilities are backed by valid assets in our discount calculations. We have assumed the assets have suitably scheduled maturities and an adequate liquidity to meet cash flow requirements. We have not examined the Plan's current investment portfolio or its current investment philosophy, other than for the purpose of establishing a reasonable discount rate for future benefits payments.

Judgments as to conclusions, recommendations, methods, and data contained in this report should be made only after studying the report in its entirety. Further reliances and limitations are contained in the report text and the exhibits accompanying the report. Furthermore, Pinnacle is available to explain any matter presented herein, and it is assumed that the user of this report will seek such explanation as to any matter in question. The exhibits should be considered an integral part of this report.

Index of Exhibits

Virginia Birth Related Neurological Injury Compensation Fund

Exhibit 1

Reserve Analysis as of 12/31/2011

Selected Discount Rate

	Annual Return		
	1 Yr.	3 Yr.	5 Yr.
VBIF Gross	0.6%	10.6%	3.2%
VBIF Net	0.3%	10.4%	3.0%
Index Target	0.3%	9.7%	2.8%
S&P 500	2.1%	14.1%	-0.2%

Expected Return from Plan Analysis	7.0%
Selected Return used in Prior Actuarial Analysis	5.50%
Selected Return used in Actuarial Analysis	5.25%

Source: Market Review and Plan Performance Analysis for Period Ending December 31, 2011

Virginia Birth Related Neurological Injury Compensation Fund

Exhibit 2

Reserve Analysis as of 12/31/2011

Consumer Price Index

			Indicated Inflation					Prior Report		Current Selection	
Expenditure Category	CPI Category	Years Available	All Yr Trend	25 Yr. Trend	10 Yr. Trend	5 Yr. Trend	2011	Selected Historical Inflation	Selected Future Inflation	Historical Inflation	Future Inflation
Nursing	Professional services	1967 to 2012	5.57%	3.89%	3.24%	2.77%	2.28%	3.25%	4.48%	3.00%	4.40%
Hospital/Physician	Medical care services	1935 to 2012	5.31%	4.83%	4.28%	3.47%	3.06%	4.24%	4.91%	3.87%	4.79%
Physical Therapy	Professional services	1967 to 2012	5.57%	3.89%	3.24%	2.77%	2.28%	3.25%	4.48%	3.00%	4.40%
Medical Equipment	Medical care commodities	1935 to 2012	3.11%	3.49%	2.59%	2.87%	2.98%	2.53%	2.85%	2.73%	2.85%
Prescription Drugs	Prescription drugs	1935 to 2012	3.52%	4.33%	3.21%	3.63%	4.21%	3.07%	4.03%	3.42%	3.93%
Incidental	All items	1913 to 2012	3.24%	2.75%	2.55%	1.77%	3.16%	2.25%	2.91%	2.16%	2.89%
Housing	Shelter	1967 to 2012	4.56%	3.14%	2.30%	0.97%	1.31%	2.17%	3.62%	1.64%	3.43%
Vans	New vehicles	1935 to 2012	2.59%	0.60%	-0.01%	1.10%	2.81%	0.00%	2.59%	0.54%	2.59%
Auto Ins	Motor vehicle insurance	1935 to 2012	5.09%	3.83%	2.72%	4.10%	3.59%	3.12%	4.08%	3.41%	3.91%
Health Ins	Health insurance	2005 to 2012	0.46%	N/A	N/A	-2.13%	-1.07%	3.12%	4.00%	3.41%	3.91%
Lost Wages	Based on BLS VA data	1979 to 2010	3.64%	3.03%	2.41%	2.41%	1.20%	2.71%	3.72%	2.41%	3.03%
Medical Review / Intake	All items	1913 to 2012	3.24%	2.75%	2.55%	1.77%	3.16%	2.25%	2.91%	2.16%	2.89%
Legal	Legal services	1986 to 2012	4.50%	4.54%	3.83%	3.35%	3.23%	3.83%	4.32%	3.59%	4.16%

Source: Bureau of Labor Statistics, Consumer Price Index: All Urban Consumers, US City Average

Virginia Birth Related Neurological Injury Compensation Fund

Reserve Analysis as of 12/31/2011

Composite Shavelle Mortality Table

	Based on Composite of Shavelle Individual Life Tables					Selected	
Age	Entry Lives	Number in Group before Deaths	Deaths	Chance of Death at Current Age	Future Life Expectancy	Chance of Death at Current Age	Future Life Expectancy
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
0	0	0	0			0.0750	28.4
1	0	0	0			0.0250	29.7
2	200,000	200,000	6,392	0.0320	26.6	0.0250	29.4
3	100,000	293,608	12,471	0.0425	26.5	0.0250	29.2
4	300,000	581,137	22,018	0.0379	26.6	0.0250	28.9
5	300,000	859,119	26,112	0.0304	26.7	0.0250	28.6
6	400,000	1,233,007	47,211	0.0383	26.5	0.0260	28.3
7	700,000	1,885,796	69,893	0.0371	26.5	0.0270	28.1
8	900,000	2,715,903	114,297	0.0421	26.5	0.0280	27.8
9	700,000	3,301,605	131,712	0.0399	26.7	0.0290	27.6
10	700,000	3,869,893	150,605	0.0389	26.8	0.0300	27.4
11	500,000	4,219,288	161,708	0.0383	26.8	0.0310	27.3
12	300,000	4,357,580	160,455	0.0368	26.9	0.0320	27.1
13	500,000	4,697,125	166,365	0.0354	26.9	0.0330	27.0
14	900,000	5,430,760	197,379	0.0363	26.8	0.0340	26.9
15	600,000	5,833,381	206,537	0.0354	26.8	0.0350	26.9
16	800,000	6,426,844	230,255	0.0358	26.8	0.0358	26.8
17	800,000	6,996,589	243,627	0.0348	26.8	0.0348	26.8
18	700,000	7,452,962	255,577	0.0343	26.7	0.0343	26.7
19	400,000	7,597,385	255,865	0.0337	26.7	0.0337	26.7
20	800,000	8,141,520	274,352	0.0337	26.6	0.0337	26.6
21	400,000	8,267,168	274,414	0.0332	26.5	0.0332	26.5
22	0	7,992,754	264,135	0.0330	26.4	0.0330	26.4
23	0	7,728,619	253,938	0.0329	26.3	0.0329	26.3
24	0	7,474,681	244,650	0.0327	26.1	0.0327	26.1
25	0	7,230,031	235,187	0.0325	26.0	0.0325	26.0
26	0	6,994,844	226,460	0.0324	25.9	0.0324	25.9
27	0	6,768,383	217,828	0.0322	25.7	0.0322	25.7
28	0	6,550,555	209,761	0.0320	25.5	0.0320	25.5
29	0	6,340,794	202,127	0.0319	25.4	0.0319	25.4
30	0	6,138,667	194,857	0.0317	25.2	0.0317	25.2
31	0	5,943,811	187,705	0.0316	25.0	0.0316	25.0
32	0	5,756,106	180,896	0.0314	24.8	0.0314	24.8
33	0	5,575,209	174,525	0.0313	24.6	0.0313	24.6
34	0	5,400,684	168,377	0.0312	24.4	0.0312	24.4
35	0	5,232,308	162,608	0.0311	24.1	0.0311	24.1
36	0	5,069,700	157,281	0.0310	23.9	0.0310	23.9
37	0	4,912,419	151,853	0.0309	23.6	0.0309	23.6
38	0	4,760,566	146,677	0.0308	23.4	0.0308	23.4
39	0	4,613,889	141,947	0.0308	23.1	0.0308	23.1
40	0	4,471,942	137,517	0.0308	22.8	0.0308	22.8
41	0	4,334,425	133,191	0.0307	22.5	0.0307	22.5
42	0	4,201,234	129,179	0.0307	22.2	0.0307	22.2
43	0	4,072,054	124,950	0.0307	21.9	0.0307	21.9
44	0	3,947,105	121,521	0.0308	21.6	0.0308	21.6
45	0	3,825,584	117,703	0.0308	21.3	0.0308	21.3

Virginia Birth Related Neurological Injury Compensation Fund

Reserve Analysis as of 12/31/2011

Composite Shavelle Mortality Table

	Based on Composite of Shavelle Individual Life Tables					Selected	
Age	Entry Lives	Number in Group before Deaths	Deaths	Chance of Death at Current Age	Future Life Expectancy	Chance of Death at Current Age	Future Life Expectancy
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
46	0	3,707,880	114,914	0.0310	20.9	0.0310	20.9
47	0	3,592,966	111,414	0.0310	20.6	0.0310	20.6
48	0	3,481,552	108,312	0.0311	20.2	0.0311	20.2
49	0	3,373,240	105,656	0.0313	19.9	0.0313	19.9
50	0	3,267,584	102,849	0.0315	19.5	0.0315	19.5
51	0	3,164,735	100,123	0.0316	19.1	0.0316	19.1
52	0	3,064,612	97,943	0.0320	18.7	0.0320	18.7
53	0	2,966,669	94,868	0.0320	18.3	0.0320	18.3
54	0	2,871,801	93,587	0.0326	17.9	0.0326	17.9
55	0	2,778,214	91,136	0.0328	17.5	0.0328	17.5
56	0	2,687,078	90,477	0.0337	17.1	0.0337	17.1
57	0	2,596,601	86,981	0.0335	16.6	0.0335	16.6
58	0	2,509,620	87,237	0.0348	16.2	0.0348	16.2
59	0	2,422,383	86,182	0.0356	15.8	0.0356	15.8
60	0	2,336,201	85,797	0.0367	15.3	0.0367	15.3
61	0	2,250,404	83,494	0.0371	14.9	0.0371	14.9
62	0	2,166,910	83,892	0.0387	14.5	0.0387	14.5
63	0	2,083,018	82,408	0.0396	14.0	0.0396	14.0
64	0	2,000,610	82,096	0.0410	13.6	0.0410	13.6
65	0	1,918,514	80,901	0.0422	13.1	0.0422	13.1
66	0	1,837,613	80,273	0.0437	12.7	0.0437	12.7
67	0	1,757,340	80,161	0.0456	12.2	0.0456	12.2
68	0	1,677,180	79,268	0.0473	11.8	0.0473	11.8
69	0	1,597,912	79,089	0.0495	11.4	0.0495	11.4
70	0	1,518,823	79,026	0.0520	10.9	0.0520	10.9
71	0	1,439,797	77,675	0.0539	10.5	0.0539	10.5
72	0	1,362,122	78,062	0.0573	10.1	0.0573	10.1
73	0	1,284,059	76,995	0.0600	9.7	0.0600	9.7
74	0	1,207,064	76,377	0.0633	9.2	0.0633	9.2
75	0	1,130,687	76,322	0.0675	8.8	0.0675	8.8
76	0	1,054,365	75,388	0.0715	8.4	0.0715	8.4
77	0	978,977	74,222	0.0758	8.1	0.0758	8.1
78	0	904,756	72,573	0.0802	7.7	0.0802	7.7
79	0	832,183	71,480	0.0859	7.3	0.0859	7.3
80	0	760,702	70,504	0.0927	6.9	0.0927	6.9
81	0	690,198	67,971	0.0985	6.6	0.0985	6.6
82	0	622,228	65,103	0.1046	6.3	0.1046	6.3
83	0	557,125	64,615	0.1160	5.9	0.1160	5.9
84	0	492,510	58,488	0.1188	5.6	0.1188	5.6
85	0	434,023	55,195	0.1272	5.3	0.1272	5.3
86	0	378,827	51,669	0.1364	5.0	0.1364	5.0
87	0	327,158	47,882	0.1464	4.8	0.1464	4.8
88	0	279,276	43,805	0.1569	4.5	0.1569	4.5
89	0	235,471	39,614	0.1682	4.2	0.1682	4.2
90	0	195,857	35,257	0.1800	4.0	0.1800	4.0
91	0	160,600	31,042	0.1933	3.8	0.1933	3.8

Virginia Birth Related Neurological Injury Compensation Fund

Reserve Analysis as of 12/31/2011

Composite Shavelle Mortality Table

	Based on Composite of Shavelle Individual Life Tables					Selected	
Age	Entry Lives	Number in Group before Deaths	Deaths	Chance of Death at Current Age	Future Life Expectancy	Chance of Death at Current Age	Future Life Expectancy
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
92	0	129,558	26,763	0.2066	3.5	0.2066	3.5
93	0	102,795	22,741	0.2212	3.3	0.2212	3.3
94	0	80,054	18,933	0.2365	3.1	0.2365	3.1
95	0	61,122	15,398	0.2519	2.9	0.2519	2.9
96	0	45,724	12,312	0.2693	2.8	0.2693	2.8
97	0	33,411	9,577	0.2866	2.6	0.2866	2.6
98	0	23,834	7,269	0.3050	2.5	0.3050	2.5
99	0	16,565	5,363	0.3237	2.3	0.3237	2.3
100	0	11,203	4,192	0.3742	2.2	0.3742	2.2
101	0	7,010	2,610	0.3723	2.2	0.3723	2.2
102	0	4,400	1,630	0.3705	2.2	0.3705	2.2
103	0	2,770	1,022	0.3688	2.1	0.3688	2.1
104	0	1,748	642	0.3673	2.1	0.3673	2.1
105	0	1,106	405	0.3658	2.0	0.3658	2.0
106	0	702	256	0.3643	1.9	0.3643	1.9
107	0	446	162	0.3630	1.7	0.3630	1.7
108	0	284	103	0.3616	1.5	0.3616	1.5
109	0	181	181	1.0000	1.0	1.0000	1.0

Notes

(2) 100,000 x Number of Shavelle life tables added to composite at age in Col (1)
(3) Prior Col (3) - Prior Col (4) + Col (2)
(4) Sum of deaths in Shavelle life tables at age in Col (1)
(5) Col (4) / Col (3)
(6) Expected Lifetime at age in Col (1) based on Col (5)
(7) Judgment
(8) Expected Lifetime at age in Col (1) based on Col (7)

Virginia Birth Related Neurological Injury Compensation Fund

Reserve Analysis as of 12/31/2011

Ultimate Participant Development

Birth Year	Births (1)	Admitted Participants (2)	Dev. Factor (3)	Indicated Ultimate Participants: Development Method (4)	Indicated Ultimate Participants: Expected Method (5)	Indicated Ultimate Participants: B-F Method (6)	Prior Sel. Ultimate Participants (7)	Select Ultimate Participants (8)	IBNR Claims (9)	Indicated Participants per 100K Births (10)
1988		2	1.0000	2.0			2.0	2.0	0	
1989		9	1.0000	9.0			9.0	9.0	0	
1990		5	1.0000	5.0			5.0	5.0	0	
1991		9	1.0000	9.0			9.0	9.0	0	
1992		8	1.0000	8.0			8.0	8.0	0	
1993		11	1.0000	11.0			11.0	11.0	0	
1994		6	1.0000	6.0			6.0	6.0	0	
1995	91,871	10	1.0000	10.0	8.7	10.0	10.0	10.0	0	10.88
1996	92,115	8	1.0000	8.0	8.8	8.0	8.0	8.0	0	8.68
1997	91,664	11	1.0000	11.0	8.7	11.0	11.0	11.0	0	12.00
1998	94,114	7	1.0000	7.0	8.9	7.0	7.0	7.0	0	7.44
1999	95,207	7	1.0000	7.0	9.0	7.0	7.0	7.0	0	7.35
2000	98,864	13	1.0000	13.0	9.4	13.0	13.0	13.0	0	13.15
2001	98,531	11	1.0000	11.0	9.4	11.0	10.0	11.0	0	11.16
2002	99,235	11	1.0000	11.0	9.4	11.0	11.0	11.0	0	11.08
2003	100,561	10	1.1000	11.0	9.6	10.9	12.0	11.0	1	10.94
2004	103,830	4	1.1385	4.6	9.9	5.2	6.0	5.0	1	4.82
2005	104,488	3	1.2524	3.8	9.9	5.0	5.0	5.0	2	4.79
2006	106,474	6	1.5028	9.0	10.1	9.4	8.0	9.0	3	8.45
2007	108,417	8	1.7282	13.8	10.3	12.3	8.0	11.0	3	10.15
2008	106,578	5	2.2813	11.4	10.1	10.7	10.0	10.0	5	9.38
2009	104,979	5	3.4219	17.1	10.0	12.1	10.0	11.0	6	10.48
2010	102,934	0	8.5548	0.0	9.8	8.6	10.0	10.0	10	9.71
2011	105,000	0	21.3870	0.0	10.0	9.5		10.0	10	9.52
Total		169		198.7			196	210	41	
1995-2010	1,599,862	119		148.7	152.0	152.2	146.0	150.0	31	9.38
2000-05	605,509	52		54.3	57.5	56.1	57	56	4	9.25
2000-07	820,400	66		77.2	77.9	77.8	73	76	10	9.26

Notes

(1) From Virginia Department of Health

(2),(3) From Exhibit 4, Page 2

(4) Col (2) x Col (3)

(5) Col (1) x [9.5 / 100,000]

(6) Col (2) + {Col (1) x [9.5 / 100,000]} x [1 - 1 / Col (3)]

(7) From Prior Report

(8) Judgment

(9) Col (8) - Col (2)

(10) Col (8) / Col (1) x 100,000

Virginia Birth Related Neurological Injury Compensation Fund
Reserve Analysis as of 12/31/2011
Participant Counts

Birth Year	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240	252	264	276	288
1988	0	0	0	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
1989	0	0	0	1	2	3	5	5	5	5	7	7	9	9	9	9	9	9	9	9	9	9	9	
1990	0	0	0	0	0	0	1	1	1	2	3	3	3	3	3	3	3	4	5	5	5	5		
1991	0	0	1	1	3	4	5	7	8	8	9	9	9	9	9	9	9	9	9	9	9			
1992	1	1	1	4	5	6	7	8	8	8	8	8	8	8	8	8	8	8	8	8				
1993	0	3	5	5	5	6	7	8	8	9	10	10	10	10	11	11	11	11	11					
1994	0	1	1	3	3	3	3	3	4	5	6	6	6	6	6	6	6	6						
1995	2	2	3	3	4	5	5	6	6	6	9	10	10	10	10	10	10							
1996	0	1	3	3	7	8	8	8	8	8	8	8	8	8	8	8								
1997	2	2	5	7	8	8	9	9	9	9	10	11	11	11	11									
1998	0	1	3	4	5	5	6	6	6	7	7	7	7	7										
1999	0	0	1	1	2	3	5	6	6	6	6	7	7											
2000	0	0	2	6	6	9	11	12	12	12	13	13												
2001	0	1	4	5	6	6	8	10	10	10	11													
2002	1	1	5	8	9	9	10	10	10	11														
2003	0	2	4	6	8	8	10	10	10															
2004	0	0	1	3	4	4	4	4																
2005	0	0	2	2	2	2	3																	
2006	0	2	3	4	4	6																		
2007	0	1	3	3	8																			
2008	0	2	3	5																				
2009	1	3	5																					
2010	0	0																						
2011	0																							

Birth Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-252	252-264	264-276	276-288	288-Ult.
1988				1.0000	1.0000	1.0000	2.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
1989				2.0000	1.5000	1.6667	1.0000	1.0000	1.0000	1.4000	1.0000	1.2857	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		
1990							1.0000	1.0000	2.0000	1.5000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.3333	1.2500	1.0000	1.0000	1.0000			
1991			1.0000	3.0000	1.3333	1.2500	1.4000	1.1429	1.0000	1.1250	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
1992	1.0000	1.0000	4.0000	1.2500	1.2000	1.1667	1.1429	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000					
1993		1.6667	1.0000	1.0000	1.2000	1.1667	1.1429	1.0000	1.1250	1.1111	1.0000	1.0000	1.0000	1.1000	1.0000	1.0000	1.0000	1.0000						
1994		1.0000	3.0000	1.0000	1.0000	1.0000	1.0000	1.3333	1.2500	1.2000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000							
1995	1.0000	1.5000	1.0000	1.3333	1.2500	1.0000	1.2000	1.0000	1.0000	1.5000	1.1111	1.0000	1.0000	1.0000	1.0000	1.0000								
1996		3.0000	1.0000	2.3333	1.1429	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000									
1997	1.0000	2.5000	1.4000	1.1429	1.0000	1.1250	1.0000	1.0000	1.0000	1.1111	1.1000	1.0000	1.0000	1.0000										
1998		3.0000	1.3333	1.2500	1.0000	1.2000	1.0000	1.0000	1.1667	1.0000	1.0000	1.0000	1.0000											
1999			1.0000	2.0000	1.5000	1.6667	1.2000	1.0000	1.0000	1.0000	1.1667	1.0000												
2000			3.0000	1.0000	1.5000	1.2222	1.0909	1.0000	1.0000	1.0833	1.0000													
2001		4.0000	1.2500	1.2000	1.0000	1.3333	1.2500	1.0000	1.0000	1.1000														
2002	1.0000	5.0000	1.6000	1.1250	1.0000	1.1111	1.0000	1.0000	1.1000															
2003		2.0000	1.5000	1.3333	1.0000	1.2500	1.0000	1.0000																
2004			3.0000	1.3333	1.0000	1.0000	1.0000																	
2005			1.0000	1.0000	1.0000	1.5000																		
2006		1.5000	1.3333	1.0000	1.5000																			
2007		3.0000	1.0000	2.6667																				
2008		1.5000	1.6667																					
2009	3.0000	1.6667																						
2010																								
Avg.	1.4000	2.3095	1.6713	1.4720	1.1737	1.2152	1.1427	1.0298	1.1094	1.1522	1.0291	1.0238	1.0000	1.0100	1.0000	1.0000	1.0476	1.0417	1.0000	1.0000	1.0000	1.0000		
Wgt. Avg.	3.2857	2.3913	1.5000	1.3143	1.1429	1.2000	1.0952	1.0180	1.0485	1.1237	1.0306	1.0227	1.0000	1.0132	1.0000	1.0000	1.0208	1.0233	1.0000	1.0000	1.0000	1.0000	1.0000	
10-year	2.0000	2.6667	1.6350	1.3908	1.1500	1.2408	1.0741	1.0333	1.0642	1.1106	1.0378	1.0000	1.0000	1.0100	1.0000	1.0000	1.0476	1.0417	1.0000	1.0000	1.0000	1.0000	1.0000	
15-year	1.6667	2.6061	1.6056	1.3812	1.1529	1.1994	1.0951	1.0317	1.1094	1.1522	1.0291	1.0238	1.0000	1.0100	1.0000	1.0000	1.0476	1.0417	1.0000	1.0000	1.0000	1.0000	1.0000	
Prior LDF:	2.5000	2.5000	1.5000	1.2500	1.2000	1.2000	1.1000	1.0500	1.1000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Sel. LDF:	2.5000	2.5000	1.5000	1.3200	1.1500	1.2000	1.1000	1.0350	1.1000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
LDF to Ult.:	21.3870	8.5548	3.4219	2.2813	1.7282	1.5028	1.2524	1.1385	1.1000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
% of Ult	4.7%	11.7%	29.2%	43.8%	57.9%	66.5%	79.8%	87.8%	90.9%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Virginia Birth Related Neurological Injury Compensation Fund

Reserve Analysis as of 12/31/2011

Present Value of Projected Future Unpaid Benefits by Category and Medical Status

	Medical Status							
Expenditure Category	Non-Ambulatory / No G-Tube	Non-Ambulatory / G-Tube	Ambulatory / No G-Tube	Ambulatory / G-Tube	Uncategorized Admitted Participants	Total Admitted Participants	Group C	Total
Nursing	49,586,051	68,187,459	36,232,614	5,179,101	19,528,984	178,714,209	73,223,334	251,937,543
Hospital/Physician	997,795	883,185	831,023	102,952	299,630	3,114,585	1,060,154	4,174,738
Physical Therapy	1,199,372	619,279	223,953	22,586	194,244	2,259,433	738,671	2,998,104
Medical Equipment	2,261,535	1,132,803	615,882	84,826	420,800	4,515,845	1,622,866	6,138,711
Prescription Drugs	686,412	1,160,378	682,540	41,213	119,260	2,689,803	1,140,679	3,830,482
Incidental	1,898,553	1,758,583	1,144,651	157,327	520,720	5,479,835	2,010,735	7,490,570
Housing	3,308,556	3,807,490	2,434,385	283,324	1,410,070	11,243,824	4,316,420	15,560,245
Vans	5,959,208	3,259,545	3,113,557	457,578	1,272,180	14,062,067	4,029,288	18,091,354
Auto Ins	586,377	287,208	323,164	41,429	117,219	1,355,397	373,682	1,729,079
Health Ins	430,575	657,963	631,991	0	0	1,720,528	745,964	2,466,492
Lost Wages	18,436,180	8,422,275	10,680,068	1,435,876	2,422,434	41,396,834	7,126,511	48,523,345
Medical Review / Intake	0	0	0	0	0	0	56,737	56,737
Legal	0	0	0	0	0	0	768,824	768,824
Death Benefit	143,786	172,127	29,315	7,346	32,650	385,226	308,281	693,507
Total	85,494,398	90,348,294	56,943,145	7,813,558	26,338,191	266,937,586	97,522,146	364,459,732

Virginia Birth Related Neurological Injury Compensation Fund

Reserve Analysis as of 12/31/2011

Present Value of Average Projected Future Unpaid Benefits by Category and Medical Status per Participant
Excludes Deceased Particpants

	Medical Status							
Expenditure Category	Non-Ambulatory / No G-Tube	Non-Ambulatory / G-Tube	Ambulatory / No G-Tube	Ambulatory / G-Tube	Uncategorized Admitted Participants	Total Admitted Participants	Group C	Total
Nursing	991,721	1,482,336	2,131,330	1,726,367	1,775,362	1,407,198	1,785,935	1,499,628
Hospital/Physician	19,956	19,200	48,884	34,317	27,239	24,524	25,857	24,850
Physical Therapy	23,987	13,463	13,174	7,529	17,659	17,791	18,016	17,846
Medical Equipment	45,231	24,626	36,228	28,275	38,255	35,558	39,582	36,540
Prescription Drugs	13,728	25,226	40,149	13,738	10,842	21,180	27,821	22,800
Incidental	37,971	38,230	67,332	52,442	47,338	43,148	49,042	44,587
Housing	66,171	82,772	143,199	94,441	128,188	88,534	105,279	92,621
Vans	119,184	70,860	183,150	152,526	115,653	110,725	98,275	107,687
Auto Ins	11,728	6,244	19,010	13,810	10,656	10,672	9,114	10,292
Health Ins	8,611	14,304	37,176	0	0	13,547	18,194	14,682
Lost Wages	368,724	183,093	628,239	478,625	220,221	325,959	173,817	288,829
Medical Review / Intake	0	0	0	0	0	0	1,384	338
Legal	0	0	0	0	0	0	18,752	4,576
Death Benefit	2,876	3,742	1,724	2,449	2,968	3,033	7,519	4,128
Total	1,709,888	1,964,093	3,349,597	2,604,519	2,394,381	2,101,871	2,378,589	2,169,403

Virginia Birth Related Neurological Injury Compensation Fund

Exhibit 6

Reserve Analysis as of 12/31/2011

Claim Administration Expense Estimate

Calendar Year	Living Participants (1)	Claim Administration Expense (2)	Clm Admn Exp Per Living Participant (3)	Selected Clm Admn Exp Per Living Participant (4)	Projected Living Participants Born in 2011 or Prior: Admitted in 2011 or Prior (5a)	Projected Living Participants Born in 2011 or Prior: Not Yet Admitted (5b)	Selected Inflationary Trend (6)	Projected Claim Administration Expenses: Admitted in 2011 or Prior (7a)	Projected Claim Administration Expenses: Not Yet Admitted (7b)	Projected Claim Administration Expenses: Total (7c)	Present Value of Projected Claim Administration Expenses: Admitted in 2011 or Prior (8a)	Present Value of Projected Claim Administration Expenses: Not Yet Admitted (8b)	Present Value of Projected Claim Administration Expenses: Total (8c)
2002	62	495,000	7,984										
2003	67	562,500	8,396										
2004	75	546,278	7,284										
2005	84	732,654	8,722										
2006	96	754,290	7,857										
2007	99	789,411	7,974										
2008	112	752,504	6,719										
2009	115	784,645	6,823										
2010	116	851,426	7,340										
2011	127	1,072,606	8,446										
2012					118.82	14.41		891,165	108,101	999,266	868,654	105,371	974,025
2013					114.93	19.67		886,947	151,808	1,038,755	821,419	140,592	962,011
2014					111.17	23.50		882,726	186,624	1,069,350	776,731	164,215	940,946
2015					107.52	26.10		878,504	213,236	1,091,739	734,457	178,272	912,728
2016					103.99	28.05		874,205	235,798	1,110,003	694,406	187,301	881,708
Total Future Expenses								55,461,582	17,740,477	73,202,059	15,774,529	4,392,192	20,166,721
Total	953	7,341,314	7,703	7,500			2.89%						

Notes

(1),(2) From Virginia Department of Health

(3) Col (2) / Col (1)

(4) Selected 2012 value based on Col (3)

(5) Projected based on Life Tables

(6) Judgment

(7) Col (4) * Col (5) trended forward based on Col (6)

(8) Col (7) discounted by 5.25% from Exhibit 1

Virginia Birth Related Neurological Injury Compensation Fund

Reserve Analysis as of 12/31/2011

Roll Forward 2012

Assets as of 12/31/11			294.1	**Liabilities as of 12/31/11**			384.6
				For Admitted Participants	266.9		
				For Not Yet Admitted Participants	97.5		
				For Claimant Adminsistrations Expenses	20.2		
2012 Assessments				Admitted Participants Impact			
Participating Hospitals:	3.8			One Year's Interest	14.0		
Participating Physicians:	4.1			Estimated Future Payments for Participants Admitted in 2012	22.7		
Non-Participating Physicians:	4.3			Payments in 2012	(17.4)		
Liability Insurers:	12.1						
Total Assessments		24.3		Total Admitted Participants Impact		19.3	
2012 Payments				Not Yet Admitted Participants			
Benefit Payments to Participants:	(17.4)			One Year's Interest	5.1		
Claimant Administration Expenses:	(1.0)			Future Payments for Participants born in 2012	24.8		
Unallocated Expenses:	(0.2)			Estimated Future Payments for Participants Admitted in 2012	(22.7)		
Total Payments		(18.6)		Total Not Yet Admitted Participants Impact		7.2	
2012 Interest Accrual				Claimant Administration Expenses			
Interest Accrual on 12/31/11 Assets	15.4			One Year's Interest	1.1		
Interest Accrual on 2012 Assessments	0.6			Expense Payments in 2012	(1.0)		
Interest Accrual on 2012 Payments	(0.5)			Total Claimant Administration Expenses Impact		0.1	
Total Interest Accrual		15.6					
Assets as of 12/31/12			315.4	**Liabilities as of 12/31/12**			411.2
				For Admitted Participants	286.2		
				For Not Yet Admitted Participants	104.7		
				For Claimant Adminsistrations Expenses	20.2		
Surplus/(Deficit) As of 12/31/11			(90.5)	**Surplus/(Deficit) As of 12/31/12**			(95.8)

Note: All values are stated in $(millions)

Virginia Birth Related Neurological Injury Compensation Fund

Reserve Analysis as of 12/31/2011

Roll Forward 2013

Assets as of 12/31/12			315.4	**Liabilities as of 12/31/12**			411.2
				For Admitted Participants	286.2		
				For Not Yet Admitted Participants	104.7		
				For Claimant Adminsistrations Expenses	20.2		
2013 Assessments				Admitted Participants Impact			
Participating Hospitals:	3.8			One Year's Interest	15.0		
Participating Physicians:	4.2			Estimated Future Payments for Participants Admitted in 2013	23.1		
Non-Participating Physicians:	4.3			Payments in 2013	(17.5)		
Liability Insurers:	12.1						
Total Assessments		24.4		Total Admitted Participants Impact		20.7	
2013 Payments				Not Yet Admitted Participants			
Benefit Payments to Participants:	(18.3)			One Year's Interest	5.5		
Claimant Administration Expenses:	(1.0)			Future Payments for Participants born in 2013	25.8		
Unallocated Expenses:	(0.3)			Estimated Future Payments for Participants Admitted in 2013	(23.1)		
Total Payments		(19.6)		Total Not Yet Admitted Participants Impact		8.2	
2013 Interest Accrual				Claimant Administration Expenses			
Interest Accrual on 12/31/12 Assets	16.6			One Year's Interest	1.1		
Interest Accrual on 2013 Assessments	0.6			Expense Payments in 2013	(1.0)		
Interest Accrual on 2013 Payments	(0.5)			Total Claimant Administration Expenses Impact		0.0	
Total Interest Accrual		16.7					
Assets as of 12/31/13			336.9	**Liabilities as of 12/31/13**			440.0
				For Admitted Participants	306.9		
				For Not Yet Admitted Participants	112.9		
				For Claimant Adminsistrations Expenses	20.2		
Surplus/(Deficit) As of 12/31/12			(95.8)	**Surplus/(Deficit) As of 12/31/13**			(103.1)

Note: All values are stated in $(millions)

Virginia Birth Related Neurological Injury Compensation Fund

Reserve Analysis as of 12/31/2011

Roll Forward 2014

Assets as of 12/31/13			336.9	**Liabilities as of 12/31/13**			440.0
				For Admitted Participants	306.9		
				For Not Yet Admitted Participants	112.9		
				For Claimant Adminsistrations Expenses	20.2		
2014 Assessments				Admitted Participants Impact			
Participating Hospitals:	3.8			One Year's Interest	16.1		
Participating Physicians:	4.2			Estimated Future Payments for Participants Admitted in 2014	25.0		
Non-Participating Physicians:	4.3			Payments in 2014	(17.9)		
Liability Insurers:	12.1						
Total Assessments		24.4		Total Admitted Participants Impact		23.3	
2014 Payments				Not Yet Admitted Participants			
Benefit Payments to Participants:	(19.4)			One Year's Interest	5.9		
Claimant Administration Expenses:	(1.1)			Future Payments for Participants born in 2014	26.8		
Unallocated Expenses:	(0.3)			Estimated Future Payments for Participants Admitted in 2014	(25.0)		
Total Payments		(20.7)		Total Not Yet Admitted Participants Impact		7.7	
2014 Interest Accrual				Claimant Administration Expenses			
Interest Accrual on 12/31/13 Assets	17.7			One Year's Interest	1.1		
Interest Accrual on 2014 Assessments	0.6			Expense Payments in 2014	(1.1)		
Interest Accrual on 2014 Payments	(0.5)			Total Claimant Administration Expenses Impact		(0.0)	
Total Interest Accrual		17.8					
Assets as of 12/31/14			358.4	**Liabilities as of 12/31/14**			471.1
				For Admitted Participants	330.2		
				For Not Yet Admitted Participants	120.6		
				For Claimant Adminsistrations Expenses	20.2		
Surplus/(Deficit) As of 12/31/13			(103.1)	**Surplus/(Deficit) As of 12/31/14**			(112.6)

Note: All values are stated in $(millions)