MERCER OLIVER WYMAN

1166 Avenue of the Americas
New York, NY 10036-2708
212 345 7000 Fax 212 345 7414
wwright@mow.com
www.merceroliverwyman.com

VIRGINIA BIRTH-RELATED NEUROLOGICAL INJURY COMPENSATION PROGRAM

2006 ANNUAL REPORT INCLUDING PROJECTIONS FOR PROGRAM YEARS 2006 - 2008

Report to:
State Corporation Commission
Bureau of Insurance
Commonwealth of Virginia

Prepared by:

Walter C. Wright, FCAS, MAAA
Mercer Oliver Wyman Actuarial Consulting, Inc.

August 2006

MERCER OLIVER WYMAN

VIRGINIA BIRTH-RELATED NEUROLOGICAL INJURY COMPENSATION PROGRAM

2006 ANNUAL REPORT INCLUDING PROJECTIONS FOR PROGRAM YEARS 2006 - 2008

Report to:
State Corporation Commission
Bureau of Insurance
Commonwealth of Virginia

August 2006

Mercer Oliver Wyman Actuarial Consulting, Inc.
1166 Avenue of the Americas
New York, NY 10036

212 345 8900

August 2006

Contents

Major Findings and Recommendations

Discussion

This is the 2006 report of Mercer Oliver Wyman Actuarial Consulting, Inc. (Mercer) to the Commonwealth of Virginia, State Corporation Commission, Bureau of Insurance regarding the adequacy of the funding of the Virginia Birth-Related Neurological Injury Compensation Program (the Program). This report provides our evaluation of the actuarial soundness of the Virginia Birth-Related Neurological Injury Compensation Fund (the Fund) as of December 31, 2005, and our forecasts of the actuarial soundness of the Fund as of each subsequent year-end through December 31, 2008.

As of December 31, 2004, there were 97 admitted claimants of whom 68 had been in the Program for at least three years. As of December 31, 2005, there were 110 admitted claimants, of whom 75 had been in the Program for three or more years. Therefore, the amount of information on payments made by the Program on behalf of individual claimants continues to grow and increase in statistical credibility from one year to the next.

This current study is based on a detailed analysis of payments made on behalf of each of the 75 claimants who had been in the Program for three or more years as of December 31, 2005. The claimants' actual mortality has continued to be less than expected, and we have therefore revised our mortality assumptions to reflect longer life expectancies. Further, nursing costs increased during 2005, and we have reflected this increase in our forecasts. As a result of this analysis, we have estimated future payments for eligible claimants born on or before December 31, 2005 that represent an increase of approximately 2 percent over the future payments that we estimated in our prior study dated September 2005.

There are two changes in our methodology, as compared to our September 2005 study:

- We have revised the mortality table, increasing the estimated life expectancies of the claimants in the Program. We discuss the mortality table revisions on pages 37 - 40.

- We have recognized that a small percentage of claimants are deceased at the time that they are admitted to the program, and incur relatively low costs. Accordingly, we have adjusted our approach to separately forecast the costs for these claimants. The distinctions between this group of claimants and those that receive the award of up to $100,000, as well as other aspects of this revision, are discussed later in this report in the section labeled Claimants Who Are Deceased at the Time of Acceptance, on page 65.

All of our assumptions are discussed in detail in the section of this report titled Method and Assumptions.

As stated above, the claims experience of the Program is becoming increasingly credible. Nevertheless, our estimates are still subject to significant uncertainty:

- The Program started in 1988, and as of December 31, 2005, there are now only nine living claimants who are 16 years of age or older, only one of whom has attained the age of 17. Thus, there is limited claim payment experience for claimants over the age of 16 upon which to base our forecasts of future payments for the period in which claimants are 16 and older. Also, only 75 claimants had been in the Program for three or more years as of December 31, 2005. Further, there is considerable variability in the actual payments that have been made to the 110 claimants admitted as of December 31, 2005.

- In addition, other factors could have a significant impact on future claim payments. For example, there may be changes in the way the Program is operated in the future, the degree to which claimants utilize the services of the Program, and the coverage provided by private health insurance and Medicaid, which are the claimants' primary funding sources. In addition,

actual rates of inflation and interest may differ significantly from the long-term rates that we assumed for our forecast.

The impact of these factors on our estimates is discussed further in the Sensitivity Testing section of this report. We expect to continue to refine our estimates as the experience of the Program unfolds, and these future refinements could have a significant impact on future estimates of the financial soundness of the Fund.

Overall, our estimates of future claim costs are approximately $5 million higher than were anticipated as of our September 2005 report. The overall change results largely from the following three factors:

1. We have increased our projections approximately $9.7 million due to the increases in nursing costs observed in 2005. In 2005, the Program paid $6.0 million in nursing, compared to $4.4 million in 2004. A significant portion of this increase is due to an increase, from 64 to 72, in the number of claimants receiving nursing benefits. However, the average annual benefit per claimant receiving nursing care also increased significantly, from approximately $68.5 thousand in 2004 to approximately $82.6 thousand in 2005. This followed a significant increase in the average benefit per claimant from 2003 (approximately $56.8 thousand) to 2004.

   Based on our conversations with management of the Program, we understand that a substantial portion of the increase in nursing expenses between 2003 and 2004 was due to an existing demand for additional nursing services that had not been supplied by the nursing community until 2004. We now assume that the increased demand for nursing services was not fully met in 2004 and led to the continued increase from 2004 to 2005. Based on evaluation of the data and on discussions with management of the Program, we continue to assume that this higher level of nursing services utilized by claimants in 2004 and 2005 represents a one-time shift to a higher level of nursing services, and is not indicative of an underlying upward trend in annual claimant nursing expenses that will continue in subsequent years. Although expense data for a partial year is not conclusive, the information for nursing expenses paid during the first six months of 2006 appears to support this assumption.

The increase in nursing expenses in 2005 for the Group A claimants (those claimants who have been in the Program for at least three complete years), essentially drives our forecasts for the Group B claimants (those in the Program for less than three complete years) and the Group C claimants (those born, but not yet admitted to the Fund). The results of these higher nursing costs and how they have impacted our forecasts are most easily seen in our treatment of the Group C claimants. In this year's report, our forecasted total lifetime costs (for all benefits combined) per Group C claimant have risen to $2.07 million, representing an increase of approximately 5 percent over last year's projected costs of $1.97 million.

The nursing costs are discussed in more detail in the Nursing section of this report (pages 24 through 26).

2. We have increased our projections approximately $9.2 million due to reductions in the assumed mortality of the claimants. This change is discussed in more detail in the Mortality section of this report (pages 37 through 40).

3. We have reduced our estimates by approximately $14 million in consideration of the fact that five of the claimants who were accepted into the Program in more recent years were deceased at the time that they were accepted. This change is discussed in more detail in the section of this report titled Claimants Who Are Deceased at the Time of Acceptance (page 65).

In our September 2005 report, we forecasted that the Fund would have a deficit, as of December 31, 2005, of $125.4 million. In this current report we estimate that the Fund had a deficit, as of December 31, 2005, of $132.2 million. The main reason for the increase in the estimated deficit is that the baseline estimate of future claim payments as of December 31, 2005 increased by $5.1 million from what was forecasted in our September 2005 report, due to the three major factors discussed above. In addition, the estimated future claim administration costs increased by $3.0 million, due to increases in the Program's administration costs. Partially offsetting our higher forecasts, the total assets as of December 31, 2005 were $1.3 million higher than we had forecast.

Consistent with our past reports, we interpret the Program's future payment obligations as of December 31, 2005 to consist of future claim payments associated with all claimants with birth dates on or before December 31, 2005, *regardless of whether they have been admitted as of December 31, 2005*. Therefore, we estimate the liabilities associated with the 110 admitted claimants (Table 1, column (2)), *as of December 31, 2005,* as well as those associated with what we estimate to be 44 not-yet-admitted claimants (Table 1, column (2)) *as of December 31, 2005*. Not-yet-admitted claimants as of December 31, 2005 are those claimants with birth dates on or before December 31, 2005 who had not yet been admitted to the Program as of December 31, 2005, but whom we estimate will eventually be admitted to the Program.

Major Findings

Following are our major findings.

1. **Finding**: We find that, as of December 31, 2005, the Fund was not actuarially sound and had a "Grand Total" deficit of about $132.2 million. By this, we mean that the present value of estimated future claim payments for children born on or prior to December 31, 2005, plus the present value of estimated future claim administration expenses associated with making those claim payments, exceeded the Fund's assets by about $132.2 million. (The present value represents the amount of assets that would need to be invested as of December 31, 2005, to pay the claimant expenses as they become due in the future.) We have used the same definition of actuarial soundness in each of our reports since 1992: if the estimated future payment obligations exceed the Fund's assets, the Fund is deemed to be actuarially unsound.

   As explained in the fourth Finding, which follows later in this section of the report, the Fund is not in any immediate danger of defaulting on the payment of benefits. In other words, although the Fund is not actuarially sound, it has sufficient assets to continue to pay for claimants' benefits for approximately 17 years. This time span has decreased from the 18 years cited in our September 2005 report due to an increase in the forecasted lifetime costs per claimant.

   Our estimate of the Fund's financial position as of December 31, 2005, is shown in Table 1, which follows.

TABLE 1

Estimated Financial Position as of 12/31/05
($ in millions, on a present value basis)

Claimant Status (1)	Estimated Ultimate Number of Claimants (2)	Baseline Estimate of Future Claim Payments (3)	Estimate of Future Claims Administration Expenses (4)	Value of Total Assets (5)	Forecasted Surplus/ (Deficit) [(5)-(3)-(4)] (6)
Claimant Summary					
All Claimants Admitted to the Program	110	$176.5	$7.8		
All Claimants Not Yet Admitted to the Program	44	$91.1	$3.9		
Claimants Eligible for the $100,000 Award	0	$0.0	$0.0		
Grand Total	**154**	**$267.6**	**$11.7**	**$147.1**	**($132.2)**

The following discussion of Table 1 results focuses on the "Grand Total" line. In our discussion of our projections in Tables 1 through Table 4, all references to admitted claimants exclude those who we project will receive the one-time award of up to $100,000, unless we specifically discuss this subset of potential claimants.

Table 1 shows that, as of December 31, 2005, we estimate the Program had obligations for future claim payments ("Grand Total" of $267.6 million on a present value basis) and for future claim administration expenses ("Grand Total" of $11.7 million on a present value basis) that exceeded the Program's assets ("Grand Total" of $147.1 million) by approximately $132.2 million.

Column 2 of Table 1 shows that, as of December 31, 2005, we estimate the Program had a "Grand Total" of 154 claimants. These 154 claimants consist of 110 claimants who had been admitted to the Program as of December 31, 2005 and an estimated additional 44 claimants born on or before December 31, 2005 who had not yet been admitted to the Program as of December 31, 2005 (no claimants eligible for the award of up to $100,000 were reported during 2005). Most claimants do not apply to the Program, and are not admitted to the Program, until two or more years after their birth. The average age that the admitted claimants had attained when they

were admitted to the Program was 4.2 years, approximately the same as last year. Thirty-four of the 110 admitted claimants were admitted to the Program after they had attained the age of five.

Column 3 of Table 1 shows our baseline estimate of the present value of future claim payments for the estimated admitted and not-yet-admitted claimants born on or before December 31, 2005. This is our baseline estimate, meaning that it is our "intermediate" estimate, consistent with the way we have measured the actuarial soundness of the Fund in our past reports. The baseline estimate lies within a range of possible outcomes; in other words, the present value of future claim payments could turn out to be significantly higher or lower than our estimate. This is discussed in more detail in the Sensitivity Testing section of this report.

Our estimates of future claim payments are on a present value basis, as of December 31, 2005. Presenting our estimates of future claim payments on a present value basis is consistent with our prior reports. The present value represents the amount that would need to be invested as of December 31, 2005 to make the claim payments as they become due. Throughout this report, discussions of future claim payments are on a present value basis unless otherwise indicated.

Column 4 of Table 1 shows our estimate of future administration expenses that are associated with the payment of the claims for the 154 claimants (admitted and not-yet-admitted) as of December 31, 2005 (see page 42 for a description of these expenses).

Column 5 of Table 1 shows our estimate of the value of the Fund's total assets as of December 31, 2005.

Column 6 of Table 1 shows that our estimate of the Fund's "Grand Total" assets as of December 31, 2005 is $132.2 million less than the sum of our estimates of the Program's future claim payments and future claim administration expenses.

In summary, we estimate that, as of December 31, 2005, the Fund was not actuarially sound and had a "Grand Total" deficit of about $132.2 million. Our estimate of the present value of future claim payments for children born on or prior to December 31, 2005, plus our estimate of the

present value of future claim administration expenses, exceeds the Fund's assets by about $132.2 million.

In our September 2005 report, we included a "Grand Total" forecast of the financial results as of December 31, 2005. A comparison of that "Grand Total" estimate to our current "Grand Total" estimate as of December 31, 2005 is given below:

- Number of Claimants: In our September 2005 report, we forecasted that there would be 154 claimants (excluding those receiving the one-time award of up to $100,000) as of December 31, 2005, of whom 108 would be admitted and 46 would be not-yet-admitted. Our current estimate is that there were 154 claimants as of December 31, 2005, of whom 110 are admitted and 44 are not yet admitted.

- Baseline Estimate of Future Claim Payments: In our September 2005 report, we forecasted that there would be $262.5 million of future claim payments associated with the 154 claimants as of December 31, 2005. Our current estimate is that there were $267.6 million of future claim payments associated with the 154 claimants as of December 31, 2005. This is due mainly to the increase in average values underlying the future cost estimates, due to increased nursing costs (pages 24 - 26) and the revised mortality table (pages 37 - 40).

- Estimate of Future Claim Administration Expenses: In our September 2005 report, we forecasted that there would be $8.7 million of future claim administration expense payments associated with the 154 claimants as of December 31, 2005. Our current estimate is that there will be $11.7 million of future claim administration payments associated with the 154 claimants as of December 31, 2005 (see page 42 for a discussion of estimated claim administration expenses).

- Value of Total Assets: In our September 2005 report, we forecasted that the Fund would have assets of $145.8 million as of December 31, 2005. The actual value of assets as of December 31, 2005, based on audited financial statements, was $147.1 million. The relatively small difference, $1.3 million, is not significant and is due primarily to the fact that the actual claim payments made during 2005 were less than predicted.

- Forecasted Surplus/(Deficit): In our September 2005 report, we forecasted that the Fund would have a "Grand Total" deficit of $125.4 million as of December 31, 2005. Our current estimate is that the Fund had a "Grand Total" deficit of $132.2 million as of December 31, 2005.

2. **Finding**: We forecast that the Fund will not be actuarially sound as of December 31, 2006, and will have a "Grand Total" deficit of about $139.9 million. This is shown in Table 2, which follows.

   The estimated number of claimants that will have been admitted to the Program as of December 31, 2006, equal to 122, represents the 110 claimants who were admitted prior to December 31, 2005, as indicated in Table 1, plus an additional 12 claimants whom we estimate will be admitted to the Program during 2006. Our forecast of these additional 12 claimants is consistent with the recent numbers of admissions (12 in 2003, 10 in 2004, and 11 in 2005).

   We estimate that two claimants will be admitted in 2006 solely to receive the award of up to $100,000. Columns 3 and 4 of Table 2 show $0 future payments for these claimants because it is assumed they will receive this one-time award immediately when they are admitted. The costs will reduce the assets, but they do not result in any future liability.

TABLE 2

Forecasted Financial Position as of 12/31/06
($ in millions, on a present value basis)

Claimant Status (1)	Estimated Ultimate Number of Claimants (2)	Baseline Estimate of Future Claim Payments (3)	Estimate of Future Claims Administration Expenses (4)	Value of Total Assets (5)	Forecasted Surplus/ (Deficit) [(5)-(3)-(4)] (6)
Claimant Summary					
All Claimants Admitted to the Program	122	$198.8	$9.0		
All Claimants Not Yet Admitted to the Program	42	$92.7	$3.9		
Claimants Eligible for the $100,000 Award	2	$0.0	$0.0		
Grand Total	**166**	**$291.5**	**$12.9**	**$164.5**	**($139.9)**

3. **Finding**: We forecast that the Fund will remain in a deficit position and that the "Grand Total" deficit will grow to $147.8 million at the end of 2007, and to $154.8 million at the end of 2008. This is shown in Tables 3 and 4, which follow.

TABLE 3

Forecasted Financial Position as of 12/31/07
($ in millions, on a present value basis)

Claimant Status (1)	Estimated Ultimate Number of Claimants (2)	Baseline Estimate of Future Claim Payments (3)	Estimate of Future Claims Administration Expenses (4)	Value of Total Assets (5)	Forecasted Surplus/ (Deficit) [(5)-(3)-(4)] (6)
Claimant Summary					
All Claimants Admitted to the Program	132	$217.3	$10.2		
All Claimants Not Yet Admitted to the Program	42	$98.7	$4.0		
Claimants Eligible for the $100,000 Award	2	$0.0	$0.0		
Grand Total	**176**	**$316.0**	**$14.2**	**$182.4**	**($147.8)**

Referring to Table 3, Column 2, we estimate that the total number of claimants as of December 31, 2007 will be 174. This is an increase of ten claimants from the total number of claimants that we estimate there will be as of December 31, 2006, and reflects our forecast that each year ten children will be born who will eventually be admitted to the Program. Although the total number of claimants is the most important, we have also shown that our estimate of claimants consists of 132 claimants who we estimate will have been admitted into the Program as of December 31, 2007 and 42 claimants born on or before December 31, 2007 who will not yet have been admitted into the Program as of December 31, 2007.

The number of claimants admitted to the Program as of December 31, 2007, shown as 132 in Column 2, consists of the 122 claimants we estimate will have been admitted to the Program as of December 31, 2006 (See Table 2), plus an additional ten claimants who we forecast will be admitted to the Program during 2007. The number of claimants not yet admitted to the Program as of December 31, 2007, shown as 42 in Column 2, is the difference between the estimated total number of claimants (174) and the estimated number of admitted claimants (132).

We estimate that two claimants will be admitted in 2007 solely to receive the award of up to $100,000. Columns 3 and 4 of Table 3 show $0 future payments for these claimants because it is assumed they will receive this one-time award immediately when they are admitted. The costs will reduce the assets, but they do not result in any future liability.

TABLE 4

Forecasted Financial Position as of 12/31/08
($ in millions, on a present value basis)

Claimant Status (1)	Estimated Ultimate Number of Claimants (2)	Baseline Estimate of Future Claim Payments (3)	Estimate of Future Claims Administration Expenses (4)	Value of Total Assets (5)	Forecasted Surplus/ (Deficit) [(5)-(3)-(4)] (6)
Claimant Summary					
All Claimants Admitted to the Program	142	$236.0	$11.4		
All Claimants Not Yet Admitted to the Program	42	$105.3	$4.2		
Claimants Eligible for the $100,000 Award	2	$0.0	$0.0		
Grand Total	**186**	**$341.3**	**$15.6**	**$202.1**	**($154.8)**

Table 4 is similar to Table 3, except that it shows our forecast of the Fund's financial position as of December 31, 2008.

Referring to Table 4, Column 2, we estimate that the total number of claimants as of December 31, 2008 will be 184, an increase of ten over the prior year, representing the children that we forecast will be born in 2008 and eventually admitted into the Program.

The number of claimants admitted to the Program as of December 31, 2008, shown as 142 in Column 2 of Table 4, consists of the 132 claimants we estimate will have been admitted to the Program as of December 31, 2007 (See Table 3) plus an additional 10 claimants that we forecast will be admitted to the Program during 2008. The estimated number of claimants not yet admitted to the Program as of December 31, 2008, shown as 42 in Column 2, is the difference

between the estimated total number of claimants (184) and the estimated number of admitted claimants (142).

We estimate that two claimants will be admitted in 2008 solely to receive the award of up to $100,000. Columns 3 and 4 of Table 2 show $0 future payments for these claimants because it is assumed they will receive this one-time award immediately when they are admitted. The costs will reduce the assets, but they do not result in any future liability.

4. **Finding**: The Fund is not in any immediate danger of defaulting on the payment of benefits. In other words, although the Fund is not actuarially sound, it has sufficient assets to continue to pay for claimants' benefits for approximately 17 years**.**

   The Fund's current assets are relatively large compared to current and expected future annual claim payments in the near term. The Program paid $8.5 million to claimants during 2005. The $8.5 million in actual payments made for the full year of 2005 was higher than both the $6.0 million in actual payments made for the full year of 2004 and the $5.4 million in actual payments made for the full year of 2003. During the first six months of 2006, the Program paid $4.8 million to claimants.

   We forecast that the current assets of the Fund are sufficient to cover the claim payments of admitted (as of December 31, 2005) claimants for many years, given the historical payments actually paid by the Fund. Specifically, we forecast that, if the Fund collects the assessments currently required in accordance with the July 1, 2004 legislation and, if the level of participation of physicians and hospitals remains constant at the 2006 levels, the Fund will be able to continue to make claim payments for all claimants, including those admitted after December 31, 2005 (even if those claimants are born after December 31, 2005), for approximately the next 17 years (that is, through the year 2022).

Recommendations

Following are our recommendations.

1. **Recommendation**: We recommend that the Program continue to assess participating and non-participating physicians and participating hospitals at the increased levels as specified in the July 1, 2004 legislation (as shown on Exhibit 2 in the Appendix).

2. **Recommendation**: We recommend that the Program continue to assess liability insurers at the maximum amount of one-fourth of one percent of net direct liability premiums written in Virginia.

3. **Recommendation**: Recommendations 1 and 2 notwithstanding, we recommend that the Program find means to increase funding, either through assessments or through the identification of other sources, to reduce the estimated deficit of the Program as it is currently structured.

4. **Recommendation**: We recommend that reviews of the actuarial soundness of the Fund be conducted annually.

5. **Recommendation**: We recommend that the Program continue to maintain and continually update claimant payment and personal information and assessment information in the format and level of detail as requested for each annual actuarial study.

6. **Recommendation:** We recommend that the Program continue to obtain copies of the claimants' insurance policies and provide copies of the policies at the time of each actuarial review.

7. **Recommendation**: We continue to reiterate our recommendation that the Program obtain more detailed studies of the medical condition of each individual claimant who is admitted to

the Program, and update this information when there are significant changes in a claimant's medical condition.

Method and Assumptions

Introduction

In very general terms, we estimate the future payment obligations of the Program as follows:

- We estimate the total number of claimants. This consists of the actual number of admitted claimants, plus our estimate of the number of not-yet-admitted claimants.

- We forecast, by category of claim payment, and for each of the claimants we estimate will be admitted to the Program, the future payments that will be made by the Program. These estimates are based on:

  – the actual payments made by the Program on behalf of the 75 claimants who had been in the Program for three or more years as of December 31, 2005;
  – our understanding of each of the 75 claimants' insurance coverage and eligibility for Medicaid;
  – assumptions regarding future cost inflation;
  – assumptions regarding future changes in the utilization of the benefits and services of the Program.

- We adjust our projected future payments to each claimant to reflect:

  – an assumed life expectancy for each claimant (based on a life expectancy, or mortality, table); and,
  – the time value of money (based on estimated investment income).

This section of the report is organized into the following subsections:

- Claim Payments: This provides an overview of the types and amounts of payments that are covered by the Program, an explanation of how we forecast the future payments to individual claimants, and the values that we estimate as the total lifetime costs per claimant for the various payment categories.

- Other Assumptions: This provides discussion of the other assumptions (other than claim payments), such as inflation rates, the interest rate used to reflect the time value of money, insurance coverages, the number of not-yet-admitted claimants, and so forth.

- Methodology: This provides more precise discussion of how we combine our forecasts of payments with the other assumptions. This section also provides information on the effects of the July 1, 2003 and July 1, 2004 legislation.

- Sensitivity Testing: This discusses the sensitivity of our findings to various assumptions underlying our analysis.

Claim Payments

Table 5, below, shows a brief history of the actual claim payments, by year, from 1988 through 2005.

TABLE 5

Total Claim Payments

As Of (1)	Incremental Amount Paid (2)	Cumulative Amount Paid (3)
12/31/88	-	-
12/31/89	-	-
12/31/90	-	-
12/31/91	-	-
12/31/92	$14,161	$14,161
12/31/93	$97,886	$112,047
12/31/94	$239,124	$351,171
12/31/95	$1,860,514	$2,211,685
12/31/96	$4,667,043	$6,878,728
12/31/97	$4,547,735	$11,426,463
12/31/98	$2,920,146	$14,346,609
12/31/99	$3,505,686	$17,852,295
12/31/00	$5,685,588	$23,537,883
12/31/01	$5,745,413	$29,283,296
12/31/02	$4,638,442	$33,921,738
12/31/03	$5,429,845	$39,351,583
12/31/04	$6,012,468	$45,364,051
12/31/05	$8,546,958	$53,911,009

The increase in claim payments during 2005 as compared to 2004 ($8.5 million in 2005 compared to $6.0 million in 2004) is due mainly to the increase in payments for nursing services. During 2005, $6.0 million was paid by the Fund for nursing, compared to $4.4 million in 2004.

In this study, as in prior studies, our basic approach is to base our forecast of future claim payments on a detailed review of past payments in each category, by claimant, for all claimants in Group A (claimants in the Program for at least three years as of December 31, 2005).

In addition to reviewing the actual claim payment histories of the individual claimants, we also discussed these histories with management of the Program. This provided valuable information regarding whether or not the claimant had insurance coverage or received Medicaid, and about some of the actual expenses that individual claimants were incurring. We understand through discussions with management of the Program that, currently, all claimants but one have either Medicaid or private insurance coverage, though claimants do occasionally switch insurance coverages, which may leave a claimant uninsured for a short period of time.

The Program currently keeps track of its claim payments in 12 categories (one of which, lost wages, has not yet been necessary because none of the claimants has yet attained the age of 18, when such payments begin). The Program provided the actual payments through December 31, 2005, sorted by category of payment by year and for each of the 110 claimants who were in the Program as of December 31, 2005. We use this information as the primary base for projecting the future costs of the Program. Table 6, which follows, provides a summary of this payment information, showing the total amount that the Program has paid, by category.

Table 6

Total Actual Claim Payments Through 12/31/05 and During 2005

Expense Category	Payments through 12/31/05	Percentage of Total Payments	Payments in 2005	Percentage of 2005 Payments
(1)	(2)	(3)	(4)	(5)
Nursing	$28,862,799	53.5%	$5,950,576	69.7%
Hospital/Physician	1,663,386	3.1%	$104,088	1.2%
Incidental	2,427,411	4.5%	$307,587	3.6%
Housing	12,706,848	23.6%	$644,423	7.6%
Vans	3,206,874	5.9%	$632,439	7.4%
Lost Wages	0	0.0%	$0	0.0%
Physical Therapy	1,417,928	2.6%	$194,193	2.3%
Medical Equipment	1,188,646	2.2%	$180,754	2.1%
Prescription Drugs	555,864	1.0%	$96,805	1.1%
Legal	1,329,962	2.5%	$310,581	3.6%
Insurance	398,372	0.8%	$104,962	1.2%
Medical Review/Intake	152,918	0.3%	$20,550	0.2%
Total	**$53,911,008**	**100.0%**	**$8,546,958**	**100.0%**

Claimants submit to the Program any costs not covered by private insurance or Medicaid, and the Program is responsible for paying these costs. The actual payments recorded by the Program represent "net" payments after recoveries from private insurance and Medicaid. There are several types of costs (for example, expenses for hospital stays or physician visits) for which the Fund has not made any payments for Medicaid patients. In cases where claimants have lost Medicaid benefits and now have private insurance, we use either the minimum values applied to all claimants, for those costs that were previously covered in full by Medicaid, or amounts based on conversations with management of the Program, in order to forecast the costs that are expected to be paid by the Fund in the future. These minimum values are discussed in detail, by category of payment, in the Methodology section of this report.

We base this current study, primarily, on actual payments through December 31, 2005, which represents a twelve-month update of the payments that were primarily used in our September 2005 study.

For analytical purposes we split the claimant population into three groups:

- Group A consists of all claimants who were admitted to the Program on or before December 31, 2002. That is, Group A claimants are those who have been in the Program at least three full years. Group A contains 75 claimants, including 14 deceased claimants.

  We forecast the future costs of individual claimants in Group A based on the payments that have been made to this group of claimants. For each claimant in Group A, we have a minimum of three years of actual claim payments as of December 31, 2005. We would prefer, for forecasting purposes, to have many more years of actual claim payments in order to forecast, with a higher degree of confidence, lifetime costs of claimants. However, because the Program is relatively new, more extensive claim payment information does not exist.

  Due to substantial variations in annual expenses across categories among Group A claimants, we use certain assumptions for each Group A claimant in our forecasting methodology. Our objective in this approach is to evaluate the Group A claimant expenses that will be appropriate on an aggregate basis, rather than on a claimant-by-claimant basis.

- Group B consists of all claimants who were admitted to the Program in 2003, 2004, or 2005. Group B contains 35 claimants, 5 of whom were deceased as of December 31, 2005.

  In our opinion, the actual claim payment information for Group B claimants is not sufficiently credible to be used for forecasting their future claim payments. Each of the Group B claimants has less than three years of actual claim experience as of December 31, 2005. During a claimant's first year in the Program, claim payments may be distorted due to payments made for costs incurred prior to admission into the Program. More importantly, for many claimants costs fluctuate significantly during the first few years of participation in the Program. Therefore, because of the limitations of the claim payment information for Group B claimants, we use the claim payment information for Group A claimants to forecast the future claim payments for Group B.

- Group C represents our estimate of the children born on or before December 31, 2005 who were not admitted to the Program as of December 31, 2005, but who will eventually apply to, and be admitted into, the Program. We estimate that Group C contains 44 future claimants. We generally use information from claimants in Group A to forecast future claim payments for claimants in Group C. In addition, for the medical review/intake expense category, for which all costs are incurred during the claimant's application process, we use information from Group B claimants to forecast future claim payments for claimants in Group C, in order to use the most recent information on this cost.

- In a minor change from the methodology used in our previous studies, we have separately identified those claimants who were deceased at the time of their acceptance to the Program. One Group A claimant and five Group B claimants fall into this category, and we assume that five percent of the Group C claimants will fall into this category. For the six known claimants in this category, their average cost has been approximately $11,000, and we forecast that the Program will not incur any additional costs associated with these claimants. For the five percent of Group C claimant that we forecast will fall into this category, we project their average cost will be $20,000, which we selected to be somewhat conservative (high).

In the course of this project, we reviewed the cost history of each claimant and discussed the cost history with management of the Program, as we did in our last four studies. This discussion provided valuable information that has been helpful in preparing our forecasts.

Table 6 shows aggregate claim payments, by category, through December 31, 2005. By definition, because Groups A and B are the claimants who had been admitted to the Program by December 31, 2005, Table 6 shows the actual costs for all Group A and B claimants, combined.

Table 7, below, shows the projected average lifetime costs, by category, that we estimate for a Group C claimant. Column (2) shows the average costs for all Group C claimants, including those who are expected to be deceased at the time that they are accepted into the Program. Column (3) shows the changes in these values from the time of our last report. These changes would have been larger if we had not begun to forecast that five percent of the future claimants will be deceased at the time they are accepted into the Program, and will have only $20,000 of legal expenses (as discussed in the section labeled Claimants Who Are Deceased at the Time of Acceptance, page 65).

Column (4) shows the projected average lifetime costs, by category, for those Group C claimants who were living at the time that they were accepted into the Program.

These estimates shown in Table 7 reflect our assumptions about the average life expectancy of these claimants, and all of the lifetime costs are shown at their present value, as of December 31, 2005. These estimates are based on our analysis of the payments made on behalf of the Group A (and to some extent Group B) claimants. Except for housing expenses, for which the Program's policies have changed in recent years (as explained later in this section), and payment timing differences, the estimates in Table 7 are also typical of the estimated lifetime costs for claimants in Groups A and B who were living at the time they were accepted into the Program.

The changes shown in Column (3), "Change from Prior Report," reflect the year to year volatility in the actual expense, especially for Hospital/Physician and Prescription Drugs expenses.

Table 7

Forecasted Lifetime Costs
(Present Value at 12/31/05)
Forecasted
Lifetime

Expense Category	Average Costs for All Group C Claimants	Change from Prior Report	Average Costs for All Group C Claimants Living at Time of Acceptance
(1)	(2)	(3)	(4)
Nursing	$1,546,497	$131,655	$1,627,892
Hospital/Physician	38,810	(44,819)	40,852
Incidental	73,628	12,085	77,503
Housing	111,481	(1,861)	117,348
Vans	74,049	1,345	77,946
Lost Wages	79,841	(6,289)	84,043
Physical Therapy	32,380	2,277	34,085
Medical Equipment	47,027	(371)	49,502
Prescription Drugs	29,921	4,588	31,496
Legal	15,007	2,038	14,745
Insurance	19,022	1,030	20,024
Medical Review/Intake	1,238	249	1,303
Total	**$2,068,901**	**$101,927**	**$2,176,739**

Note: Last year's amounts are not adjusted for inflation.
Adjusted for inflation, the change from the prior report
would be $4,487.

Table 7 shows that we estimate the average amount of future claim payments, for a Group C claimant, on a present value basis, to be about $2.1 million (on a present value basis, about $105,000 per year adjusted for inflation, for 20 years). The nursing category represents about $1.5 million, roughly 75 percent, of this total, compared to 72 percent of this total in our September 2005 report. Although many claimants have had little or no nursing costs, a few have had large nursing costs. This is clearly the largest payments category, and any changes affecting the future cost or utilization of nursing services could have a major impact on our findings.

Following is a discussion of each individual cost category.

Nursing

Nursing covers the cost of in-home nursing care, and represents the most significant payment category for the Program. As shown in Table 6, approximately 54 percent of all payments made by the Program from inception to date have been for nursing. In 2005, nursing care costs increased by approximately 36 percent, from $4.4 million to $6.0 million, with a portion of this increase due to the increase, from 64 to 72, in the number of claimants receiving nursing benefits.

Based on our discussions with management of the Program, we understand that a substantial portion of the increase in nursing expenses, both from 2003 to 2004 and from 2004 to 2005, was due to the fact that the nursing community was able to meet a demand for additional nursing services that had not previously been met. We assume that the higher level of nursing services utilized by claimants in 2004 and 2005 represents a one-time shift to a higher level of nursing services, and is not indicative of an underlying upward trend in annual claimant nursing expenses that will continue. The data for the first six months of 2006 suggest that the average cost per claimant, for those claimants receiving nursing care, has not increased significantly over the average cost for the last half of 2005.

Supporting our assumption that the increase in nursing costs does not appear to be a trend, analysis of the claimant data through June 30, 2006 shows that nursing costs, when adjusted for inflation, do not increase as the claimants age. Rather, our analysis suggests that nursing costs, when adjusted for inflation, are relatively flat. Of course, our data is limited to claimants who are no more than 16 years of age. We do not know how their nursing costs will change beyond age 16.

In 2005, the Program paid an average of about $65,400 per living claimant for nursing costs, which represents a 22.5 percent increase over last year's comparable average. Included in this average are newly admitted claimants, many of whom had relatively little nursing costs in 2005. The average nursing payment made by the Program in 2005 to each living Group A claimant (those who have been in the Program for at least three years) was $77,400, which represents an approximate 23 percent increase over last year's comparable figure.

The Program's experience also reveals considerable variation in the amount of nursing costs paid to each claimant. Many claimants in the Program have low or no nursing costs, whereas others are receiving round-the-clock nursing at an annual cost in excess of $200,000. For those claimants receiving nursing services, most of the claimants receive services from licensed practical nurses (LPNs) and other claimants, because of their medical needs, receive services from registered nurses (RNs).

For each of the claimants in Group A, we generally base our future cost projections on the actual payments made to Group A claimants in 2005. Some Group A claimants have had very little costs in the nursing category, and for them we forecast future nursing costs to be $32,707 per year, at 2005 price levels (this is the equivalent of $25,000 per year at 2000 cost levels, consistent with the assumption used in our prior report). We use this minimum because we expect that, among those Group A claimants who currently have little or no nursing costs, some percentage will eventually incur nursing costs. We use the actual and forecasted claims experience of Group A claimants to forecast the future claims experience of claimants in Groups B and C and, therefore, this assumed annual minimum also affects our estimates of the forecasted claims experience of claimants in Groups B and C.

Thus far, only three claimants have been institutionalized, one of whom is deceased. Based on this experience, and on discussions with the management of the Program, it appears that families are keeping the claimants at home, with associated nursing care, much longer than had previously been expected. Our current estimates reflect this actual experience and do not assume that claimants will be moved into institutional care.

We assume that the individual and group insurance coverage that claimants have does not provide coverage for nursing costs. This is based on our general knowledge that private health insurance typically excludes coverage for custodial nursing care. Further, this general knowledge is supported by the fact that none of the claimants' insurance coverage pays for nursing costs, according to management of the Program.

Further, we assume that Medicaid does not provide coverage for nursing costs. We understand that, theoretically, Medicaid may cover this cost in some cases. However, none of the claimants in the Program has ever qualified for such payments from Medicaid, and our forecast assumes that none will in the future. Any future discussion between Medicaid administrators and the Program management that leads to the provision of Medicaid benefits for nursing care for some claimants would result in a reduction to our forecast of lifetime nursing costs, all other things being equal.

Hospital/Physician

The hospital/physician payment category includes costs incurred for surgery, hospitalization, trips to an emergency room, physical examinations, and so forth.

For each of the claimants in Group A, we base our future cost projections for hospital/physician costs on an average of the actual payments made by the Program to the Group A claimants in the past three years. Some Group A claimants have had very little cost in this category, and for them we forecast $2,563 per year at 2005 cost levels (this is the equivalent of $2,000 per year at 2000 cost levels, consistent with the assumption used in our September 2005 report). We use this minimum because we expect that, among those Group A claimants who currently have little or no hospital/physician costs, some percentage will eventually incur such costs. We use the actual and forecasted claims experience of Group A claimants to forecast the future claims experience of claimants in Groups B and C and, therefore, this assumed annual minimum also affects our estimates of the forecasted claims experience of claimants in Groups B and C.

We assume that insurance will cover 80 percent of allowable costs in this category, and that 80 percent of allowable costs will translate into 75 percent of actual costs. Therefore, we assume that the Program pays 25 percent of these costs, for claimants who have private insurance. For claimants who receive Medicaid, and for whom the Program has incurred some costs in this payment category, we assume that Medicaid is covering 80 percent of their costs in this category. As discussed in the Sensitivity Testing section of this report, the percentage of costs that we select as being covered by insurance or Medicaid actually has little impact on the final estimates.

Incidental

The incidental payment category includes: non-durable medical supplies, over-the-counter drugs, feeding tubes, diapers, computers, computer equipment, mileage reimbursement and any other expense not fitting into any of the other payment categories.

The Program's definition of "incidental cost" has not been consistent over time because, when the Program establishes new categories, the types of costs that were previously categorized as incidental are shifted to these new categories. Therefore, for each of the claimants in Group A, we base our projections of future costs on the actual incidental expenses paid to the claimants in Group A in 2005, the most recent full year. We use the actual and forecasted claims experience of Group A claimants to forecast the future claims experience of claimants in Groups B and C.

We assume that neither private insurance nor Medicaid provides coverage for incidental costs and, therefore, that the Program pays 100 percent of these costs.

Housing

Housing costs can be split into four sub-categories:

Trust homes – Until September 24, 1999, the Program purchased homes and provided them to claimants for the lifetime of the claimant (claimant families are permitted to remain in the home for six months after the death of the claimant). Although the Program identifies these purchases as costs, they are actually assets of the Program and we treat them as such. There have been a total of 23 trust homes, six of which have been sold following the death of the claimant. All of the trust homes have been used by claimants in Group A.

Housing Grant – Beginning September 25, 1999, the Program began to make grants to claimants for the construction of houses. The size of the grant varies according to the construction costs in the area where the claimant will live, but it generally averages about $350,000. When the grant has been made, it is paid out over time to cover construction costs of the house and incidental, related costs, such as rental costs, while the house is under construction. The claimants own the

homes that they purchase with the aid of housing grants, so these are not assets of the Program. Thirteen grants have been awarded, all to Group A claimants.

Renovations – Beginning January 1, 2001, the Program discontinued the housing grant program and, in its place, pays the costs of renovating the claimant's existing house (if the claimant's family owns a home) to add a bedroom and a bathroom. The program will pay for only a one-time renovation for each claimant. A renovation and any additional modifications (for example, ramps, elevators, and lifts) are subject to a maximum benefit of $175,000 for the lifetime of the claimant. Consistent with our September 2005 report, we have used an average estimate of $124,287 at 2005 cost levels. Once a claimant has had a renovation completed on their home, we have estimated an average of $25,000 for additional modifications, mentioned above.

Rentals - The July 1, 2003 legislation specified, in section 38.2 – 5016 item 2, "that the board of directors of the Virginia Birth-Related Neurological Injury Compensation Program shall develop and implement a policy to address the needs of infants who are eligible for benefits under the Program for handicapped-accessible housing. The board's policy shall address appropriate housing benefits when the infant's parents or legal guardians are homeowners and are non-homeowners."

To conform to this legislation, management of the Program has established a rental benefit of $175,000 for the lifetime of the claimant. This benefit represents the difference between the claimant's current rent and the rent due for an upgraded accommodation that includes those features necessary for handicapped accessibility. The claimant and the claimant's family must have moved to such an accommodation before receiving the benefit. According to management of the Program, the $175,000 value was selected to be consistent with the current benefit for renovations as discussed above.

For all claimants (or the claimant's family, in the case where a claimant is deceased) who are in a *trust home*, in our past studies we assumed that the Program would pay $20,000 every three years into a trust fund established for the payment of real estate taxes, maintenance, insurance, and so forth. This estimate is the equivalent of approximately $7,000 per year. Based on recent discussions with management of the Program, we have learned that the Program has been

making annual payments in order to maintain the trust fund accounts at the level of $20,000. We also have noted that these payments vary widely from claimant to claimant. Therefore, we have begun forecasting these expenses on a claimant-by-claimant basis, based on the prior three years. On average, this change does not have a material impact on our forecast, but we note that our forecasts average to about $9,000 per year.

For all claimants who have been provided a *housing grant*, whether Group A or Group B, the total amount of the grant is known and we only estimate when it will be paid. The timing of the payment depends on the timing of the construction of the new home. We generally assume that the Program will pay any outstanding balances on the grants over the two-year period from 2005 through 2006. As of December 31, 2005, there are outstanding housing grants for 13 claimants, for a total outstanding value of approximately $700,000. Although the Program did not pay any money for housing grants in 2005, claimants who have not used up their full grant allocation may still request the Program to pay for either initial or additional home renovations. Accordingly, we have estimated that the entire unused and outstanding grant amount of $700,000 will be requested and paid out over the next two years.

For all Group A and Group B claimants who are living and who are not in a trust home and who have not been given a housing grant, as well as for all Group C claimants, we assume that future housing costs will be $124,287 (at 2005 cost levels) for *renovations and rentals* (except in those cases where the renovations have already been completed). For claimants in Groups A and B, we assume that this amount will be paid over a two-year period from 2005 through 2006. For claimants in Group C, we assume that this amount will be paid, on average, in four years.

Neither private insurance nor Medicaid provides coverage for housing costs.

Vans

The Program purchases vans for every claimant who is restricted to a wheelchair, if the claimant requests a van. Virtually all claimants are restricted to wheelchairs. Of the 91 claimants living as of December 31, 2005, only six were ambulatory.

In the initial years of the Program's operation, the Program purchased a mini-van for the claimant's first van. Special equipment, such as lifts, was added and repaired by the Program as needed. The van would then be used until the claimant outgrew it, generally at about age seven, at which time the Program purchased a full-size van for the claimant. Between 1997 and 1998, the Program started purchasing full-size vans as the first vans, rather than mini-vans. Beginning in 2002, the claimant's family has the option of selecting a modified mini-van or a full-size van. According to management of the Program, both options are at similar costs to the Fund. Beginning in 2003, the claimant's family was given a cost allowance for a vehicle of their choosing. The allowance is approximately $5,000 larger for those families for which the claimant is older and taller. On an on-going basis, the Program covers any repairs to the special equipment on the van, but repair and maintenance of the van itself is the responsibility of the claimant. Vans purchased by the Program for claimants become the property of the claimants and are not assets of the Program.

Consistent with the amount included in our September 2005 report and based on discussion with management of the Program, we assume that the average price of a van, with necessary equipment and including a provision for future repair of the equipment, is $31,942 at 2005 cost levels (this is the equivalent of $30,000 per year at 2000 cost levels). Further, we assume that the Program will replace full size vans every eight years. This is the same assumption we used in our last study.

Neither private insurance nor Medicaid provides coverage for vans.

Lost Wages

For claimants age 18 or older, the Program will pay for lost wages.

No claimants have attained the age of 18, and so this benefit has not yet been paid. The amount to be paid to each claimant is fixed at 50 percent of the private average weekly non-agricultural wage in Virginia. Currently, the average weekly non-agricultural wage results in an annual amount of about $39,760, and we use 50 percent of this, $19,880 per year (at 2005 cost levels),

for our forecast. For each claimant, we adjust the $19,880 for inflation to forecast the annual amount that will be paid at age 18 and beyond.

Physical Therapy

Most claimants receive physical therapy for several years.

According to our discussion with management of the Program during 2005, and consistent with our observations for older claimants, physical therapy expenses tend to decline over time.

We forecast that for most of the claimants: the costs for each of the next five years will equal the costs of the most recent year; the costs of each of the subsequent five years will be one-half of the costs of the most recent year; the costs thereafter will be $0. This is consistent with the methodology used in our September 2005 report.

We use the actual and forecasted claims experience of Group A claimants to forecast the future claims experience of claimants in Groups B and C and, therefore, our assumptions regarding the physical therapy expenses of Group A claimants also affects our estimates of the forecasted claims experience of claimants in Groups B and C.

We assume that private insurance and Medicaid provide coverage for physical therapy, in the same way that they provide coverage for hospital/physician expenses, as discussed above.

Medical Equipment

The medical equipment payment category includes costs associated with durable medical supplies. The most expensive component is wheelchairs. The Program provides children with their first wheelchair at about the age of three and provides replacement wheelchairs as the children grow.

For each of the claimants in Group A, we base our projections of future medical equipment costs on the actual payments made in the most recent three years. We use the actual and forecasted

claims experience of Group A claimants to forecast the future claims experience of claimants in Groups B and C.

We assume that private insurance and Medicaid provide coverage for this payment category, in the same way that they provide coverage for hospital/physician costs, as discussed above.

Prescription Drugs

The Program did not begin to use a separate category for prescription drugs until 2000. Prior to 2000, these costs were assigned to other categories. For Group A claimants we project future costs based on the actual payments to Group A claimants in the most recent year. We use the actual and forecasted claims experience of Group A claimants to forecast the future claims experience of claimants in Groups B and C.

We assume that private insurance will provide coverage for this payment category in the same way as discussed above for hospital/physician costs. Based on claims histories for claimants who have Medicaid, however, we generally assume that Medicaid will cover 100 percent of costs in this category. We have been told by management of the Program that not all drugs are covered by Medicaid, and the Program's records indicate that the Fund has made insignificant payments for prescription drugs for two Group A claimants who have Medicaid. We forecast that these payments will continue.

Legal

Legal costs are incurred, by both the Program and the claimants, during the application process.

We assume that claimants in Groups A and B will not have any additional legal costs. For Group C, we forecast legal costs equal to the average legal costs for Group A.

Neither private insurance nor Medicaid provides coverage for legal costs.

Insurance

The Program pays for automobile insurance for the vans, up to $500 per year; this is equal to the amount paid in our September 2005 report. In addition, there are several claimants for whom the Program pays the premiums for private health insurance. We understand that the Program encourages families to purchase health insurance if they are otherwise uninsured, and the Program will pay the premium if necessary.

For each of the claimants in Group A, we project future automobile insurance costs at $500 per year for each claimant who has, or is projected to have, a van. For the Group A claimants for whom the Program is paying for private health insurance, we forecast the future annual cost to be equal to the actual cost paid by the Program in 2005.

Neither private insurance nor Medicaid provides coverage for these costs.

Medical Review/Intake

The medical review/intake category of payment includes costs that are paid by the Program during the claimant's application process.

The Program recently established this category of payment. However, as mentioned in our September 2005 report, we understand that the costs per claimant have generally increased in recent years as the admission process has become more involved. For example, three or four medical opinions are now generally required, rather than only one.

We forecast $0 of future costs in this category for Group A and Group B claimants. For Group C claimants, we estimate the future costs based on the actual average costs for Group B claimants.

Neither private insurance nor Medicaid provides coverage for these costs.

Other Assumptions

Inflation

For each of the payment categories discussed above, we estimate the annual inflation rate that will apply to future annual costs. We base these inflation rates on consumer price indexes published by the Bureau of Labor Statistics, including the "Consumer Price Index; All Urban Consumers; All Items," which we refer to as the "general inflation index." Our assumptions are shown in Table 8.

Table 8

Expense Item	Annual Inflation Rate (Percent)	Incremental Difference from General Inflation	CPI Urban Index For:
(1)	(2)	(3)	(4)
General Inflation	3.32	0.00	All Items (1913-2005)
Incidental	3.32	0.00	All Items (1913-2005)
Hospital/Physician	5.16	1.84	Medical Care Services (1991-2005)
Nursing	4.47	1.15	Professional Services (1991-2005)
Physical Therapy	4.47	1.15	Professional Services (1991-2005)
Medical Equipment	4.78	1.47	Prescription Drugs and Medical Supplies (1991-2005)
Vans	0.86	-2.45	New and Used Motor Vehicles (1993-2005)
Housing	3.55	0.23	Housing (1991-2005)
Legal	5.38	2.06	Legal Services (1991-2005)
Medical Review/Intake	3.32	0.00	All Items (1913-2005)
Insurance	3.32	0.00	All Items (1913-2005)
Prescription Drugs	4.78	1.47	Prescription Drugs and Medical Supplies (1991-2005)
Lost Wages	3.32	0.00	All Items (1913-2005)

For each specific consumer price index and for the general inflation, Table 8 shows the annual rate of inflation that we forecast and the incremental difference between this assumed inflation rate and the inflation rate we forecast for the general inflation. For example, as shown in Column 2, we forecast that the annual inflation rate for nursing costs will be 4.47 percent, and this amount exceeds our forecast of the General Inflation rate by 1.15 percentage points (4.47 – 3.32 = 1.15) as shown in Column 3.

In addition, the table identifies the specific cost index upon which we base our estimate. The index labeled Professional Services is actually a subset of Medical Care Services.

As shown in Column 4 of Table 8, we have information on the general inflation from 1913, but we only have information on the other cost indexes for shorter periods, such as from 1991 or 1993. Therefore, we first compare each cost index to the general inflation index, for a comparable time period, in order to estimate the difference between the change in that cost index and the change in the general inflation index. We then estimate the long-term rate of general inflation based on data from 1913 through 2005, and estimate the long-term rate of change for the individual indexes based on the assumed difference between that index and the index for general inflation. For example, based on data from 1991 through 2005, we estimate that the increase in costs for nursing is equal to the increase in the general inflation rate, plus 1.15 percentage points. We estimate that the long-term rate of general inflation is 3.32 percent and, therefore, we estimate that the long-term increase in nursing costs will be 4.47 percent (1.15 + 3.32 = 4.47).

The rates of inflation that we select reflect only changes in the unit costs of goods and services and are not intended to include provision for changes in the utilization of the Program's benefits and services. Our assumptions regarding changes in utilization are discussed later in this report.

Interest Rate

After forecasting the future costs, using the payment assumptions and inflation rates discussed above, we discount the future costs to a present value. This requires that we assume a specific interest rate for discounting purposes. We forecast an annual rate of return of 6.56 percent, which we use for discounting purposes.

In our September 2005 study, we assumed a 6.55 percent rate of return. In that study, we based this interest rate assumption primarily on the expected rate of return on invested assets, as stated by Merrill Lynch, the Fund's investment manager.

In August 2005, the Fund changed investment advisors, from Merrill Lynch to SunTrust. Management of the Fund has provided its Investment Policy Statement, dated March 1, 2005, in which the Fund indicates that its investment goal "targets a total annual return of 6.8 percent." In forecasting a projected rate of return for the Fund's assets, we have continued to select a differential of 3.50 percentage points above our forecast of general inflation, resulting in a projected rate of return of 6.82 percent for the invested assets. Based on our conversations with the Fund, we understand this forecasted rate of return to be consistent with the Fund's investment strategy as outlined in its revised Investment Policy Statement.

We understand that the assets managed by Merrill Lynch yielded a 1.4 percent annualized rate of return from January 1, 2005 through June 30, 2005, and that the assets managed by SunTrust yielded a 6.7 percent annualized rate of return from August 4, 2005 through December 31, 2005. We do not know what the rate of return was for the period July 1, 2005 through August 3, 2005. During 2004 and 2003 Merrill Lynch earned approximately 6.1 percent and 9.9 percent, respectively. The rates of return for 2004, and probably for the full year of 2005, have been lower than our forecast of a 6.82 percent long-term rate of return for these assets. If the annual rates of return in future years are consistently lower than our 6.82 percent estimate, we may need to adjust our assumptions.

Consistent with our September 2005 report we do not inflate the value of the trust houses. This is according to Generally Accepted Accounting Procedures (GAAP) that specifies that the value of the trust house is the *lesser* of the cost of the house or the market value of the house. We have not been provided with the market value of the trust houses and, to the extent that the market value of the trust houses is greater than the cost, our estimates of the value of this asset will be conservative. However, given the magnitude of this class of asset relative to the total assets of the Fund, it is our opinion that the difference will not be material.

The value of the trust houses, $5,142,281 as provided by management of the Program is slightly higher (about $100,000 higher) than the value used in our September 2005 report. This difference is not material.

Mortality

For this report, we revised the mortality (life expectancy) table that we used in our 2005 report. In the discussion that follows, we review four mortality tables:

- The 1999 Table, which is the table that we introduced at the time of our 1999 study.
- The "Blended Table," which we calculated as one step in our approach to a new 2006 table.
- The 2005 Table, which is the table that we used in our 2005 study (and which evolved from a series of mortality tables used each year from 2001 through 2004).
- The 2006 Table, which is the table that we are introducing in this study.

1999 Table

At the time of our 1999 report, we revised the table that had been in use for previous reports. That prior table was based on the assumption that the mortality rate of claimants in the Program would be double the mortality rate of children with cystic fibrosis, and would be slightly more than double during the first year of life. That prior table had originally been based on the expectation that claimants in the Program would have a very short life expectancy.

At the time of our 1999 report, we observed that the actual number of claimant deaths was less than what we would have expected based on the mortality table previously used, and we revised the table for that report so that it was identical to the underlying cystic fibrosis mortality table.

This table has an underlying average life expectancy of 17.5 years from birth, and an average life expectancy of 19.5 years for a child that attains the age of three. (Because claimants generally neither apply to, nor are admitted by, the Program until after the age of three or four, it is useful to show the life expectancy for children that have reached the age of three in addition to the life expectancy at birth.)

Blended Table

The Blended Table represents a combination of the 1999 Table and the 1998 U.S. Life Table, which is a mortality table for the population at-large. The blended table was created based on the following assumptions:

- The 1999 table is appropriate for use through age 15.
- Beyond age 15, the mortality of the claimants will gradually approach the standard mortality, merging with the standard mortality at age 85.

The logic underlying the Blended Table is that the claimants will have relatively high mortality during the first 15 years of life. The longer the claimants live, however, the more their future mortality will mirror the mortality of the standard population.

We developed the Blended Table in 2001, based on information contained in "Life Expectancy of Adults with Cerebral Palsy" by Strauss and others which appeared in *Developmental Medicine & Child Neurology, 1998.* In this study, the authors make use of a large database covering the developmentally disabled in California. This study suggests that the mortality of a population with cerebral palsy, which is a non-progressive disease, will gradually approach the standard mortality as the population ages. Virtually all of the claimants in the Program have cerebral palsy. Therefore, there is reason to believe that the Blended Table may be appropriate.

This table has an underlying average life expectancy of 22.1 years, from birth, and an average life expectancy of 24.7 years for a child who has attained the age of three.

2005 Table

In 2001 we began to move toward the Blended Table:

- The 2001 Table was an 80/20 weighting of the 1999 Table and the Blended Table
- The 2002 Table was a 70/30 weighting of the 1999 Table and the Blended Table

- The 2003 Table was a 60/40 weighting of the 1999 Table and the Blended Table
- The 2004 Table was a 50/50 weighting of the 1999 Table and the Blended Table
- The 2005 Table was equal to 85 percent of the mortality in the Blended Table for ages 0 through 15 and a 40/60 weighting of the 1999 Table and the Blended Table for ages greater than 15.

The 2005 table had an underlying average life expectancy of 21.2 years, from birth, and an average life expectancy of 23.4 years for a child who has attained the age of three.

2006 Table

In our 2006 study, we have revised the mortality table for all years. We have set mortality equal to 80% of the mortality in the Blended Table for ages 0 through 15 and equal to a 30/70 weighting of the 1999 Mortality Table and the Blended Table for ages greater than 15. The shift from a 40/60 weighting (reflected in our 2005 report) to a 30/70 weighting of these two mortality tables for years 15 and older is consistent with our approach in prior studies.

For ages 0 through 15, the change from 85% of the mortality in the Blended Table to 80% is based on our evaluation of the actual mortality of the claimants in the Program (13 deaths among those who were living when admitted to the Program), as compared to the number of deaths predicted by the 2005 Table (19.7 deaths). In other words, the claimants in the Program have had a more favorable mortality than had been expected, and consequently we have decreased our estimate of the mortality.

We have considered the fact that both the Census Bureau and Society of Actuaries frequently produce new mortality tables. In our opinion, for the purpose of estimating the liabilities of the Birth Injury Fund, it is not necessary for us to adopt these new tables as they become available. Instead, in our opinion, the appropriate approach is to (a) continue to ensure that the mortality table is reasonably consistent with the Program's actual experience at the younger ages (for which the Program has data), and (b) continue to use expected experience for the higher ages

(grading to published standard mortality, as suggested by the study by Strauss and others cited on page 38).

This table has an underlying average life expectancy of 22.3 years, from birth, and an average life expectancy of 24.4 years for a child who has attained the age of three.

HMOs versus non-HMOs

We are unable to obtain exact information on the coverage provided by the claimants' underlying insurance because the Program does not maintain that information. However, we have been informed that all claimants except one are currently insured. For each claimant we determined whether they (a) have private insurance, or (b) receive Medicaid.

For those claimants who have private insurance, we cannot determine if they have group insurance or individual insurance, or if their insurance coverage is through an HMO or one of the various types of non-HMO programs. We assume that 15.6 percent of the insurance policies are HMOs, based on the three year average penetration ratio for all health insurance policies in Virginia as reported by Kaiser Family Foundation (http://www.statehealthfacts.kff.org/). For the past three years, this source has shown the following penetration ratios for HMOs: 2003, 15.6%; 2004, 17.3%; 2005, 13.9%. Because of the variability of these figures, from one year to the next, we have elected to select the average of the last three years rather than the figure for the most recent year, as we have done in prior studies.

We assume that each type of insurance coverage provides coverage for 80 percent of allowable costs, which reduces to 75 percent of actual costs for hospital/physicians, physical therapy, medical equipment, and prescription drugs. These assumptions (80 percent of allowable costs and 75 percent of actual costs) are based on general knowledge of the insurance industry.

Further, we assume that each non-HMO insurance policy provides a lifetime maximum benefit of $1 million, and that there is no lifetime limit on an HMO insurance policy.

Number of Group C Claims

The number of claimants in Group C, which represents our estimate of the number of claimants born on or before December 31, 2005 who were not yet admitted to the Program as of December 31, 2005, has a significant effect on our estimates of the total future claim payments. We estimate that there are 44 Group C claimants as of December 31, 2005. Our estimate is based on a review of how long it takes for claimants to be admitted to the Program.

Group C Average Values

We estimate that Group C claimants have an average lifetime cost of $2.1 million (at 2005 cost levels).

For most of the payment items, we estimate the future lifetime cost of a Group C claimant based on the average expected lifetime costs for Group A claimants. The only exceptions are as follows:

- Housing – We estimate these costs to be $124,287 at 2005 cost levels.
- Lost Wages – We estimate these costs to be $19,880 per year at 2005 cost levels, beginning at age 18.
- Medical Review/Intake – We estimate these costs to be equal to the actual average costs of Group B claimants.
- Legal Reviews – We assume that five percent of the Group C claimants will be deceased when they are accepted into the Program, and for these claimants we have assumed that their future costs will be $20,000 of legal fees (as discussed in the section labeled Claimants Who Are Deceased at the Time of Acceptance, page 65). This represents a change from our last study, and results from the fact that there has been an increase in the number of claimants who are deceased at the time of acceptance.

Future Claim Administration Expenses

As shown in Table 1, we estimate $11.7 million as the present value of future claim administration expenses, for costs associated with the estimated 154 claimants as of December 31, 2005.

- In general, claim administration expenses have increased this year over those estimated last year. Last year, management of the Program estimated that the Program's total annual administrative expenses would be approximately $650,000 of which approximately $520,000 (80 percent) would be for claims administration. This year, management of the Program estimates that the Program's future annual administrative expenses will be approximately $900,000 of which approximately $720,000 (80 percent) will be claim-related. This increase is due to increased staff.

Changes in Utilization

A significant factor that underlies the future payments that will be made by the Program is the degree to which the Program's benefits and services will be utilized. Nursing is the major expense, and to a large degree the extent of nursing care is the choice of the claimant's family. Significant increases in the utilization of nursing would significantly impact our estimates.

We provide in our estimate some degree of continued increases in the utilization of Program benefits and services. For example, we use an annual minimum, per claimant, of $32,707 for nursing costs and $2,563 for hospital/physician costs in 2005 dollars. In addition, we assume that future nursing costs paid by the Program will increase at a rate of one percent per year due to increases in utilization of services and benefits. This one percentage point rate of increase is in addition to the provision for cost inflation discussed earlier.

Assessment Income

In the "Methodology" section of this report, the subsection titled "Forecasts of Program's Financial Position Through 2008" beginning on page 49 explains the process that we follow to forecast the financial position of the Program as of the end of 2006, 2007, and 2008. Our

assumptions regarding the future assessment income are important elements of these forecasts. These assumptions are discussed below.

The "Background" section of this report provides a narrative history of the assessments. Exhibit 3, in the Appendix, shows the history of the assessment income, by program year, from 1988 through 2006.

Participating Physicians and Hospitals

As shown on Exhibit 3, 2006 assessment income is about $2,567,000 from participating physicians (the equivalent of 493.65 physicians participating for the full 12 months, each paying $5,200) and about $2,926,900 from participating hospitals (there are 33 participating hospitals, each paying $50 per live birth subject to a maximum of $170,000 per hospital).

For program year 2006, we selected the amounts of assessment income based on two factors, the amounts actually collected through June 30, 2006, and discussions with management of the Program. We recognize that actual 2006 assessment income may vary from our forecast, depending on how many new doctors and hospitals join the program during the last half of the year.

For program years 2007 and 2008, our baseline forecast is that the level of participation by physicians and hospitals will remain at the 2006 level. However, based upon the July 1, 2004 legislation, which became effective with the 2005 program year, assessment income will increase. Based on the assessment schedule shown on Exhibit 2 in the Appendix, we expect that assessment income for participating physicians will grow by $58,200 per year, through 2009 (that is, 582, the estimated number of participating physicians before pro-ration, times $100) and for hospitals, assessment income is expected to increase by $40,000 in 2007 and by $29,250 in 2008, due to the raising of the cap on assessments for each of these years.

Non-Participating Physicians

According to information supplied by the program as of June 30, 2006, we estimate that for program year 2005 the assessment income from non-participating physicians will be about $3,540,510 (approximately 13,113 doctors, each paying $270).

For program years 2007 and 2008, based upon the July 1, 2004 legislation, the assessment income from non-participating physicians is expected to increase by $131,130 per year (that is, by an amount equal to the $10 per year fee increase as shown on Exhibit 2 in the Appendix).

Liability Insurers

For program year 2006, the State Corporation Commission, Bureau of Insurance Commonwealth of Virginia has estimated that the assessment income from liability insurers is about $12,551,354. This amount is equal to one-quarter of one percent of net direct liability premiums written in Virginia, the maximum permissible assessment.

For program year 2007, we forecast that the Program will continue to assess liability insurers at the rate of one-quarter of one percent of net direct liability premiums written in Virginia. Based upon the 2006 assessment value of $12,551,354 and the insurance inflation rate of 3.32 percent per year, we forecast that this future assessment will be equal to about $12,967,800 in 2007.

Similarly, for program year 2008, we estimate that the assessment income from liability insurers will be about $13,398,000.

Methodology

The two prior subsections – Claim Payments and Other Assumptions – provide a fairly complete description of how we estimate the future payments. The purpose of this subsection is to provide some additional details.

Number of Claimants

In this report we estimate the number of claimants based upon: the estimates made in our September 2005 report and the claims emergence during 2005.

In our September 2005 report, we estimated that there would be a total of 108 admitted claimants as of December 31, 2005. As of December 31, 2005 there were a total of 110 admitted claimants.

Estimated Future Costs of Group A Claimants

The Program's database of payment information is "net," after the claimants have collected for any private insurance or Medicaid coverage that they may have. We assume that the non-HMO insurance contracts have lifetime maximum payments of $1,000,000. Therefore, in order to project the future costs, we need to estimate when the underlying insurance policy will reach the maximum cap of $1,000,000.

We do this as follows:

- For each claimant, we adjust the "net" losses to a "gross" basis.
  - For claimants with insurance, for the three expense categories covered by insurance, the gross losses are assumed to equal four times the net losses (in other words, we assume that insurance covers 75 percent of the total cost). For the expense categories that are not covered by insurance, we assume that the gross amount is equal to the net amount.
  - For claimants who receive Medicaid, we make the same adjustment as for claimants with insurance; however, we assume that 80 percent of the costs will be covered rather than 75 percent.
  - For claimants who do not have insurance and do not receive Medicaid, we assume all of the gross costs are equal to the net costs.
- We project the gross annual costs for each expense category, applying the selected inflation rates.
- We calculate when the insured portion of the gross costs will reach $1,000,000, for the non-HMO population of claimants, and assume that there will be no insurance coverage beyond this point.
- We convert the projected gross costs back to a net basis, based on the assumed amount of insurance coverage.

We then apply assumptions regarding life expectancy and the investment earnings rate to these projected net costs.

The series of calculations that involve converting the expenses to a gross basis, and then converting them back to a net basis, only affects the timing of when the assumed $1,000,000 insurance cap will be reached, and does not have a material impact on our estimates.

Estimated Future Costs of Group B Claimants

We generally use the estimated average lifetime costs of Group A claimants (claimants who were admitted to the Program in 2001 or prior) to estimate the lifetime costs of Group B claimants (claimants who were admitted to the Program in 2003, 2004, or 2005). This implies, among other things, that the Group B claimants will have the same distribution of insurance coverages as Group A claimants. Based on the information that we have about insurance coverages, this assumption appears to be appropriate.

There are five Group B claimants who were deceased at the time they were accepted into the Program. For these claimants, we have not forecasted that they will have the average cost of a Group A claimant. We have forecasted that the Program will have no additional costs associated with these claimants.

For claimants who were Group A claimants as of 12/31/04, the payments made during 2005 were $5.7 million. In our September 2005 analysis we forecasted that these payments would be $6.5 million. In addition, we have observed that, in 2005, the actual claim payments for Group B claimants (which would include claimants Not Yet Admitted to the Program as of 12/31/04, but admitted during 2005), were $2.2 million as compared to the forecast of $4.4 million (of the $2.2 million difference, $1.2 million is caused by nursing). This discrepancy has occurred in prior years, also. As stated in our prior reports, there are two possible explanations for this:

(1) It is possible that Group B claimants will actually have average lifetime costs that are significantly less than those of Group A claimants, rather than consistent with those of Group A claimants, as forecast.

As mentioned above and discussed in detail in the section of this report titled Claimants Who Are Deceased at The Time Of Acceptance (page 65), we have identified a subset of five Group B claimants who have had only minimal costs and for whom no further costs are expected. We have adjusted our methodology in recognition of the fact that the average lifetime costs of Group A claimants would not apply to this subset of Group B claimants.

We do not yet have sufficient claimant history to reach a definitive conclusion about whether the more recent claimants (Group B, but excluding those who were deceased at the time of acceptance into the Program) will have lower lifetime costs than the claimants who have been in the Program for more than three years (Group A).

We note that if (1) occurred, our estimation process will tend to be "self-correcting" as these Group B claimants move into the Group A category.

(2) It is possible that Group B (and Group C) claimants, excluding those who are deceased at the time of acceptance into the Program, will have average lifetime costs consistent with those forecast, but that we overestimated the percentage of lifetime costs that would be paid in 2005. In other words, the issue could be related to the timing of the payments rather than to what the total amount of payments will ultimately be.

If (2) occurred, then the forecasted deficit would nevertheless have been appropriate, because an overstatement of the forecasted payments would have been offset by the understatement of the liabilities. In other words, as stated above, this issue would be a timing difference.

We do not yet have sufficient claimant history to reach a definitive conclusion on the timing of the payment of claimant expenses. We intend to examine these issues over time, and make adjustments to our assumptions as may be appropriate.

General Administration Expenses (Other Than Claim Administration)

For the purpose of forecasting the value of the Program's assets through December 31, 2006, December 31, 2007, and December 31, 2008, we estimate the amount of the Program's general administration expenses (other than claim administration expenses). General administration expenses include that portion of salaries, rents, costs of office equipment, and all other expenses not directly related to claims.

General administration expenses are not shown on Tables 1, 2, 3, or 4, because they do not represent a future obligation, or liability, of the Fund. However, in order to forecast the Fund's assets through 2006, 2007, and 2008, we estimate the general administration expenses that will be paid each year and deduct these from the assets that the Fund would otherwise hold.

In total, we estimate that the annual cost of general administration will be $180,000 at current cost levels. We assume that the general administration expenses will increase over time due to inflation (see page 42 for a discussion of claim administration expenses).

Forecasts of Program's Financial Position Through 2008

The method we use to forecast the Program's financial position as of December 31, 2006, as of December 31, 2007, and as of December 31, 2008, is to estimate for each year:

- Assessment income
- Claim payments
- Claim administration payments
- Payments for other administration expenses
- Investment earnings

Then we calculate the assets to be equal to the assets as of the end of the prior year, plus estimated assessment income and estimated investment income, minus the estimated payments.

Then we calculate the obligations for future claim payments and future claim administration expenses, as equal to the obligations for such future payments as of the end of the prior year (increased by the interest rate to unwind the discount by one year), plus the future claim payments and claim administration expenses associated with the new claimants that will be born during the year, minus payments for claims and claim administration expenses.

The surplus/(deficit) is calculated as estimated assets minus our estimate of the Program's future claim payments and future claim administration expenses.

Exhibit 5, in the Appendix, provides an example of our calculations for December 31, 2007, showing how we calculated the values for future claim payments and assets.

In performing these calculations, we estimate the claim payments based on our long-term forecasts of claim payments by year. We recognize that, after having estimated the present value of lifetime claim payments, the procedure that we use to allocate these lifetime claim payments to each payment year may tend to overstate the amount of claim payments in the early years. However, the impact of this on our estimate of the surplus/(deficit) is not material.

July 1, 2003 Legislation – Revisited

Our two prior reports provided detailed discussions of the anticipated increases to the costs of the Program resulting from the July 1, 2003 legislation. As stated in those reports, there is generally no way to determine how the Program's costs have actually been affected by that legislation. Except for the legislation's impact in two areas, we have not attempted to evaluate the impact of that legislation.

The two areas for which the impact of the July 1, 2003 legislation can be measured are discussed below:

Legal Expenses

The July 1, 2003 legislation provided that the Program would pay the legal fees of unacceptable applicants to the Program. The July 1, 2004 legislation removed this provision of the July 1, 2003 legislation. That is, the Fund's requirement to pay for the legal expenses of attorneys who represent unsuccessful claimants is restricted to petitions to enter the Program that were made between July 1, 2003 and July 1, 2004,

In our September 2004 report, we projected $15,000 to be paid in 2005 for the legal expenses outlined above. As of July 31, 2006, no attorney fees for unsuccessful claimants have been paid by the Fund. We realize that such legal expenses could be submitted in the future, but we consider this exposure to be immaterial and have not made any explicit adjustment for it.

Number of Claimants Eligible for the Award of Up To $100,000

In our September 2005 report, we assumed that the number of claimants eligible for this award would be 30 percent of the claimants otherwise admitted to the Program. We had lowered this estimate from the 40 percent used in our report submitted in the prior year. As of July 31, 2006 no such award has been granted. Therefore, we have lowered the assumed percentage from 30 percent of the claimants otherwise admitted to the Program to 20 percent. Since only three years

have elapsed since the July 1, 2003 legislation became effective, we do not believe it is prudent to lower the value below 20 percent at this time. However, we will continue to monitor the future payments, both in number and amount, under this provision of the July 1, 2003 legislation.

July 1, 2004 Legislation – Revisited

The legislation that became effective on July 1, 2004, has two effects: (1) it removes a provision included in the July 1, 2003 legislation regarding attorney fees incurred in connection with the filing of a claim which is ultimately not accepted into the Program; and (2) it results in an increase in assessment income beginning with the 2005 program year.

The first effect, the provision that eliminated certain legal expenses, has been discussed in the previous section of this report.

The second effect, the increased assessment income, is discussed on Exhibit 2 in the Appendix.

July 1, 2006 Legislation

We understand that Senate Bill No. 632 and House Bill No. 417 were each passed with effective dates of July 1, 2006.

Senate Bill No. 632 amends Sections 38.2-5010 and 38.2-5013 of the Code of Virginia to permit, under certain circumstances, the filing of a claim for any claimant born between January 1, 1988 and July 1, 1993. The claim must be filed prior to July 1, 2007. We recognize that this legislative change has the potential to lead to the Program's acceptance of one or more claimants who had previously been denied access to the Program. We have considered this in our forecast of Group C claimants, but have not made any explicit adjustment for this legislation.

House Bill No. 417 amends Sections 38.2-5016 and 38.2-5016.1 of the Code of Virginia by revising the eligibility requirements of the Program's investment advisor and by deleting the requirement that the board of directors of the Program consult, semi-annually, with the chief investment officer of the Virginia Retirement System. We have not made any explicit adjustment for this legislation.

Sensitivity Testing

Our forecasts of future claim payments are for the lifetime costs of the Program's claimants. Although the *average* life expectancy of claimants is relatively short, many of the individual claimants are likely to live well into their adult years. Our forecasts, in fact, include provision for the remote chance that an individual claimant lives to age 99. Given the long-term nature of the forecast, the forecasted future claim payments are highly sensitive to slight changes in certain assumptions, such as inflation, interest rates, and mortality. In this section of the report, we show how our estimate of the present value of future claim payments as of December 31, 2005, changes as we vary our assumptions.

In addition, many of the basic assumptions, such as forecasted nursing costs, are subject to a high degree of uncertainty. We provide for some increase beyond the current level of benefit and service utilization, but changes in the level of utilization could be higher or lower than what we assume. It is important, therefore, to consider the potential for the Program's actual payments to differ from our forecasts.

The remainder of this section presents results of sensitivity testing, as well as further discussion of the claim payment categories.

Inflation

Table 9 shows the sensitivity of our estimates, as of December 31, 2005, to various inflation rates:

Table 9

Annual Inflation Rates (Baseline +/-) (1)	Estimated Future Claim Payments ($ in millions, on a present value basis) (2)
-1.50%	$227.5
-1.00%	239.4
-0.50%	252.6
Baseline	267.6
+0.50%	284.8
+1.00%	304.3
+1.50%	327.2

The baseline inflation rates vary by expense category, as shown in Table 8.

Table 9, Column 2 shows that our baseline estimate of future claim payments is $267.6 million, corresponding to the amount shown in Table 1. Column 1 lists various departures from our baseline assumptions regarding annual inflation rates, and Column 2 shows how our estimate of the Program's total future payments changes given the indicated departure from the baseline assumptions. For example, the first row shows that if we select annual inflation rates that are 1.50 percentage points less than our baseline estimates, the estimated present value of future claim payments will be $227.5 million, rather than the $267.6 million that results from our baseline estimates. As another example, the last row shows that increasing the inflation assumptions by 1.50 percentage points will increase the estimated present value of future claim payments to $327.2 million.

The higher the annual rates of inflation, the greater the estimated present value of future claim payments. This results directly from the fact that we are forecasting claim payments into the future and, therefore, the forecasted claim payments are higher if we assume higher inflation rates.

This sensitivity test only changes the inflation rates. In our actual analysis, inflation rates and the interest rate are related.

Interest Rate

Table 10 shows the sensitivity of our estimates, as of December 31, 2005, to various interest rates used for discounting:

Table 10

Interest Rate (Baseline +/-)	Estimated Future Claim Payments ($ in millions, on a present value basis)
(1)	(2)
-1.50%	$319.8
-1.00%	299.7
-0.50%	282.3
Baseline	267.6
+0.5%	254.9
+1.00%	243.8
+1.50%	234.1

Table 10, Column 2 shows that our baseline estimate of future claim payments is $267.6 million, corresponding to the amount shown in Table 1. If we had used an annual interest rate that was, for example, 1.00 percentage point less than the baseline estimate of 6.56 percent, then the present value of future claim payments would be $299.7 million.

The interest rate is used for the purpose of discounting future payments to a present value basis. The higher the interest rate used for discounting, the lower the estimated present value, all other things being equal. Similarly, the lower the interest rate, the higher the estimated present value. This is because use of a higher interest rate implies that the Fund is able to earn more investment income and, therefore, would need fewer assets as of December 31, 2005, in order to make all future payments. Similarly, a lower interest rate implies that the Fund is able to earn less investment income and, therefore, would need more assets as of December 31, 2005 in order to make all future payments.

This sensitivity test only changes the interest rate. In our actual analysis, inflation rates and the interest rate are related.

Mortality

Table 11, below, shows the sensitivity of our estimates, as of December 31, 2005, to the mortality table that is used:

Table 11

Mortality Table	Estimated Future Claim Payments ($ in millions, on a present value basis)
(1)	(2)
1999 Table	$206.4
2001 Table	221.5
2002 Table	229.0
2003 Table	236.6
2004 Table	244.1
2005 Table	258.4
2006 Table	267.6
Blended Table	282.0

Table 11, Column 2 shows that our baseline estimate of future claim payments is $267.6 million, corresponding to the amount shown in Table 1. Table 11 also shows, for example, that if we had not changed from the 2005 Table, which we used in our last study, the estimated present value of

future claim payments would be $258.4 million, which is $9.2 million less than our baseline estimate of $267.6 million. This lower value would still not be low enough for the Fund to be considered actuarially sound. Similarly, use of the Blended Table would have increased our estimate to $282.0 million.

Percentage of Insured Claimants Who Have HMO Coverage

As discussed previously, we estimate the percentage of insured claimants who have HMO coverage as opposed to other forms of coverage. Because we assume that HMOs have no lifetime cap on benefits, our assumption regarding the percentage of insured claimants who have HMO coverage affects our estimates. However, the impact of this assumption is not material. For example, if we assume that 30 percent (rather than 15.6 percent) of insured claimants are insured by HMOs, our estimate of total future payments of the Program, as of December 31, 2005, would be reduced by approximately $0.6 million in total. This value is relatively small (less than one quarter of one percent of the estimate of future claim payments, as of December 31, 2005, of $267.6 million as shown in Column 3 of Table 1), and also less than the $1.0 million calculated in our September 2005 report.

Nursing

This is the major claim payment category, and our forecast of the Program's future claim payments is very sensitive to our forecast of this item.

As shown earlier in this report, in Table 7, we estimate about $1.5 million per claimant as the present value of future claim payments for this payment category for claimants in Group C. Group C claimants are those who have not yet been admitted to the Program, so this estimate of $1.5 million per claimant can be considered the estimated present value of a claimant's lifetime costs for nursing care under the Program.

While we have provided for future increases in the utilization of nursing care, there remains significant uncertainty regarding this cost item. Some claimants have little or no nursing costs, whereas others have large nursing costs. For example, during 2005, there were 45 claimants who each had nursing costs that were less than $25,000, and 10 claimants who each had nursing costs in

excess of $200,000. The largest amount paid on behalf of any one claimant for nursing costs in 2005 was $316,100. This probably represents round-the-clock nursing costs.

We include in our estimate an explicit provision of one percent per year for future increases in the utilization of the Program's nursing services and benefits. Should the future increase in utilization of nursing services and benefits exceed this level, our estimate of the present value of the Fund's future claims payments is understated. For example, if the utilization of nursing services and benefits were to increase at a rate of two percent per year, our baseline estimate of the present value of the Fund's future payments would increase by about 11 percent ($29 million) which is comparable to the increase indicated in our September 2005 report as of December 31, 2004.

Hospital/Physician, Medical Equipment, Incidental, and Prescription Drugs

These claim payment categories are much smaller than the nursing category but, in our opinion, there is also significant uncertainty regarding the future utilization of services. There are a number of questions regarding future utilization. For example:

- Will utilization increase, decrease, or remain level (as we assume) as the claimants age?
- Will claimants require new and more expensive medical services, equipment, and drugs when they become available?
- Will claimants require increasingly expensive computers (an "incidental" cost), as new designs become available that may be especially useful to the impaired population?
- Will administrative controls be in place that will serve to limit the requests for extraordinary costs?
- Will any restrictions be imposed on future Program claim payments?

Our estimates might prove to be significantly understated, or overstated, depending on the answers to the above questions.

Housing, Vans, Lost Wages, Legal, Insurance, Medical Review/Intake

The costs associated with these claim payment categories are fairly well defined and, in our opinion, there is not a significant uncertainty regarding the future claim payments for these payment categories under the current housing provisions.

Numbers of Eligible Claimants

Our forecasts of the Fund's deficit at various points in time are dependent on the assumptions regarding the number of eligible claimants who will eventually be admitted to the Program. Estimates and forecasts of the numbers of eligible claimants who will be admitted are uncertain, for several reasons:

- Claimants can wait for many years before applying to the program, so the number of claimants already born as of any given date, who have not yet been admitted to the Program, is a significant issue.

- The number of eligible claimants born each year is dependent on the numbers of physicians and hospitals participating in the program. Generally, the number of eligible claimants will increase as the numbers of participating physicians and hospitals increase, but the increase in the number of eligible claimants is less than proportional because of the fact that the claimant has to have either been treated by a participating physician or born in a participating hospital. As an example, a ten percent increase in the number of participating physicians would have no impact on the number of eligible claimants if the additional physicians were all working in hospitals that were participating.

Basically, any increase in the numbers of eligible claimants will have a direct impact on the numbers of claimants admitted to the program, and will therefore increase the costs of the

program proportionately. Each additional claimant, beyond what we have estimated, will impact the liabilities of the Fund, and increase the deficit, by approximately $2.0 million.

Changes in Assumptions from Prior Report

As discussed in the preceding text, we have changed many of our assumptions since the time of our September 2005 study. This was not unexpected because we intended to review all of the assumptions and adjust them as appropriate. Many of the assumptions, such as the inflation rates, interest rate, and the amount of annual wage losses, are numbers that we expect to revise, based on updated economic data, each time we update the study. Other assumptions, such as mortality, number of claimants, and claim payment amounts are assumptions that we expect to review at the time of each report, and to revise as appropriate.

The most significant change that we made in this study is the adoption of the 2006 Table for mortality. As indicated in the sensitivity section of this report, in Table 11, this has the impact of increasing our estimate of future claim payments by $9.2 million, all other things being equal. This and other changes are discussed below.

Mortality

We have revised our mortality assumption to anticipate that claimants in the Program will live longer than had been expected at the time of our 2005 study.

Claimants Who Are Deceased at the Time of Acceptance

As of December 31, 2005, among the 35 Group B claimants (those claimants who have been in the Program for less than three years) there were five claimants who had been deceased at the time that they were accepted to the Program. Among the 75 Group A claimants (those claimants who have been in the Program for at least three years) there was only one claimant who had been deceased at the time of acceptance into the Program.

Generally, we forecast that the mortality experience of Group B claimants and Group C claimants (those claimants who are eligible for the Program but have not yet been admitted) will be consistent with the mortality of the Group A claimants. Further, when we evaluate the actual mortality experience of the Program, we base the evaluation solely on those claimants who were living at the time that they were accepted. Because the Group B claimants include a relatively large proportion of claimants who were deceased at the time that they were accepted into the Program, we adjusted our calculations of future costs as explained below.

- We calculated the average lifetime benefits of Group A claimants excluding the one Group A claimant who was deceased when accepted into the Program.

- We forecast that the average lifetime benefits of Group A claimants, as calculated as described above, would apply to those 30 Group B claimants who were living at the time that they were accepted into the Program.

- We forecast that the Program would not have any future expenses associated with the five Group B claimants who were deceased at the time that they were admitted to the Program.

- We forecast that five percent of Group C claimants would be deceased at the time that they are admitted to the Program. The forecast of five percent is based on the fact that six, or 5.5 percent, of the 110 admitted claimants as of December 31, 2005 were deceased at the time of their acceptance into the Program.

- We forecast that these claimants will each have lifetime costs of $20,000, and that these costs will be in the category of legal expense. The estimated cost of $20,000 compares to the actual average cost of $11,000 for claimants who were deceased at the time of their acceptance into the Program. The estimate of $20,000 may be somewhat conservative (high) compared to the historical average value, but in our opinion this is reasonable and allows for the fact that one or more of the six claimants in this category could submit a request for the reimbursement of other expenses. We forecast that all of the expenses will be legal expenses, because virtually all of the historical expenses for these claimants have been legal expenses; however, changing the expense category that is forecast for these costs is not material.

We have considered the relationship between these claimants, who are deceased at the time of acceptance into the Program, and those claimants who are eligible for awards of up to $100,000:

- none of the existing six claimants who were deceased at the time of acceptance into the Program are eligible for the award of up to $100,000, because they were born before July 1, 2003 whereas the legislation that introduced these awards requires a birth date of July 1, 2003 or subsequent;

- for future claimants who are deceased at the time of acceptance, and were born on or after July 1, 2003, we expect that some will have lived longer than 180 days and will therefore be ineligible for the award of up to $100,000 (of the six existing claimants in this category, two lived longer than 180 days);

- for future claimants who are deceased at the time of acceptance, and who are also eligible for the award of up to $100,000, we assume that some will receive this award and we have provided for this, in our forecast, through the assumption that there will be a number of $100,000 awards.

Other Assumptions

There are other assumptions that we revised, as discussed previously in the report:

- We have revised the inflation assumptions to reflect 2005 economic data.
- We have revised the interest rate assumption (discount rate) to reflect 2005 economic data.
- We have revised two assumptions (as discussed in the section of this report titled "July 1, 2003 Legislation – Revisited" beginning on page 51) concerning the July 1, 2003 legislation: the number of claimants who we project will receive the award of up to $100,000, and the calculation of non-claimant administrative expenses. Both have relatively minor impacts on our forecasts.

Background

General

Chapter 50 of Title 38.2 of the Code of Virginia, enacted by the 1987 General Assembly, established the Virginia Birth-Related Neurological Injury Compensation Program. The Program began collecting assessments in late 1987, and the compensation mechanism became effective for births as of January 1, 1988.

Among the stated purposes of the Program is to assure the payment of the financial costs for the lifetime care of infants born with birth-related neurological injuries. The Program is financed by the Virginia Birth-Related Neurological Injury Compensation Fund.

Participation in the Program is optional for both physicians and hospitals. Participating physicians and hospitals receive the benefit of the exclusive remedy provision of the law, and physicians and hospitals that participate are eligible for lower premiums for medical malpractice insurance.

History of Funding

Participating Physicians and Hospitals

Funding for the Program comes from both physicians and hospitals. In addition, the Virginia State Corporation Commission (the SCC) is empowered to assess liability insurers in Virginia up to one-quarter of one percent of net direct liability premiums written in Virginia if needed to maintain the Fund on an actuarially sound basis.

The original schedule of funding assessments for program year 1988 was as follows:

1. Participating physicians paid an annual assessment of $5,000. (The definition of participating physicians was amended in 1989 to include licensed nurse midwives who perform obstetrical services, either full-time or part-time, as authorized in the Plan of Operation. They have been assessed since 1989, but the number of licensed nurse midwives is not material.)

2. Participating hospitals paid an annual assessment equal to $50 per live birth in the previous year, subject to a maximum assessment of $150,000.

Beginning with the 1995 program year, the fixed fee schedules were changed to sliding scale fee schedules under which the fees decreased the longer the participant was in the Program. This fee schedule is shown on Exhibit 2 in the Appendix.

Beginning with the 2001 program year, assessments of participating physicians and hospitals were restored to their original level. For the 2002 program year, assessments of participating physicians and hospitals remain at the original level.

Based upon the July 1, 2004 legislation, assessment income to the Program has increased, effective with the 2005 program year (as shown on Exhibit 2 in the Appendix).

Non-Participating Physicians and Liability Insurers

Assessment income of the Program can be modified in a given year in either of the following two ways:

1. Beginning with program year 1993, if the income of the Program is estimated to be in excess of that required for actuarial soundness, income can be reduced by eliminating assessments *of non-participating physicians* in a given program year. The assessment of non-participating physicians was, in fact, eliminated for program years 1993 through 2001. Assessments of non-participating physicians can be reinstated in any amount up to $250, whenever the SCC determines that such assessment is required to maintain the Fund's actuarial soundness and the $250 assessments were reinstated beginning with program year 2002 and continuing into program year 2003. Effective with program year 2005, assessments for non-participating physicians have increased (as shown on Exhibit 2 in the Appendix).

2. If the income of the Program is estimated to fall short of that required for actuarial soundness, income can be increased by assessments of *liability insurers* up to one-quarter of one percent of net direct liability premiums written in Virginia. Insurers were assessed an amount equal to one-tenth of one percent of net direct liability premiums written in Virginia for the 1990 program year, and were assessed one-quarter of one percent of net direct liability premiums written in Virginia beginning with the 2002 program year.

Exhibit 3, in the Appendix, presents a history of the Program's assessment income. Exhibit 4, in the Appendix, presents a history of the numbers of participating physicians and hospitals.

Eligibility

To be eligible to receive payment from the Program, a claimant must file a claim with the Virginia Workers' Compensation Commission. The Commission must then determine that the claim meets the criteria for reimbursement from the Program. The original law provided that, for a claim to be paid, all three of the following criteria had to be met:

1. The injuries claimed are birth-related neurological injuries as defined in the law,

2. Obstetrical services were performed by a participating physician,

3. The birth occurred in a participating hospital.

Pursuant to Senate Bill 72, the law was amended in 1990 so that criterion 1 and *either* criterion 2 *or* 3 must be met for a claim to qualify for payment.

History of Actuarial Studies

An actuarial study of the adequacy of funding of the Program is required to be performed at least once every two years. Mercer RFI provided its initial funding study covering the years 1988 through 1990 on October 13, 1989. We issued three supplemental reports which modified our original funding estimates, as follows:

- First Supplement dated December 22, 1989: Mercer RFI was requested to confer with Dr. Barbara Brown, then of the Williamson Institute for Health Studies, Department of Health Administration, Medical College of Virginia, Virginia Commonwealth University, to determine whether amendments to the Mercer RFI findings (specifically claim frequency) should be considered. As a result, Mercer RFI revised its estimates of the Program's expected frequency and future claim payments.

- Second supplement dated January 24, 1990: Reflected the opinion of the Virginia Attorney General's office that Medicaid would be primary as respects the Program.

- Third supplement dated May 22, 1990: Reflected the effects of Senate Bills 70 and 72. (Pursuant to Senate Bill 70, the original definition of "birth-related neurological injury" was clarified.)

The recommendation in our initial reports was for the assessment of participating and non-participating physicians and participating hospitals, and for an assessment against liability insurance carriers of 0.1 percent of liability premiums for program year 1990.

On March 20, 1991, we issued a report that built on our original work (as amended by our supplementary reports) and provided updated funding estimates for program years 1988 through 1990 and projected estimates for 1991. In that report, we recommended continuation of the assessments of participating hospitals and physicians and non-participating physicians, and no assessment against liability insurance carriers for program year 1991.

On July 17, 1992, we provided revised funding estimates for 1988 through 1991 and projected estimates for 1992 and 1993. In addition, we evaluated the criteria for actuarial soundness of the Program within the context of the law change effective in 1992, which provided that the assessments of non-participating physicians be suspended whenever the Fund was found to be actuarially sound. We recommended that non-participating physicians and liability insurers not be assessed for program year 1993. Accordingly, the SCC suspended the assessment of non-participating physicians.

On September 24, 1993, we provided revised funding estimates for 1988 through 1993 as well as projected estimates for 1994 and 1995. We also recommended that non-participating physicians and liability insurers not be assessed for program years 1994 and 1995.

An amendment to Section 38.2-5016(F) of the Virginia Code was enacted by the 1994 General Assembly Session. The amendment allows the Board of Directors of the Program to reduce the voluntary participating physician and hospital assessments for a stated period of time after the SCC has determined the Program to be actuarially sound. As a result of this amendment, Mercer RFI was requested by the Program to perform an actuarial study to determine: 1) if the Program was still actuarially sound, and 2) if the Program was still actuarially sound, to determine how much the Board of Directors could reduce the annual assessments for participating physicians and hospitals and continue the actuarial soundness of the Program.

Based on a law change in 1994, and following receipt of our report in 1995, the Board of Directors of the Program implemented a sliding scale assessment for participating doctors and hospitals for 1995 based on the number of years of participation in the Program. This reduced the assessment income from those sources by approximately 65 percent. The reduced schedule of assessments is displayed on Exhibit 2 in the Appendix.

In September 1995, we provided estimates of funding for the program years 1988 through 1995, and projections for years 1996 and 1997. In that report, we recommended that the reduced schedule of assessments for participating physicians and participating hospitals continue in 1996 and 1997.

In October 1997, we provided estimates of funding for the program years 1988 through 1997, and projections for years 1998 and 1999. In that report, we had begun to consider housing expenses as non-liquid assets of the Program, rather than costs. This was based on the decision of the Program to establish trust funds for the benefit of the claimants. In our October 1997 report, we recommended that the reduced schedule of assessments for participating physicians and participating hospitals continue in 1998 and 1999.

In December 1999, we provided estimates of funding for the program years 1988 through 1999, and projections for years 2000 and 2001. In that report we observed that, on average, the claimants' mortality was much better than had been expected. As a result, we made a major change to the mortality assumption, which significantly increased the expected costs per claimant. We estimated that the Program was actuarially sound as of year-end 1999, and recommended that assessments for participating physicians and hospitals, and for non-participating physicians, be restored to their full level.

After release of our December 1999 report, we issued an addendum in which we recommended that:

> "If the Fund decides to immediately stop providing cash grants for housing (except for commitments that have already been made and for existing claimants who have not yet received housing benefits) assessments would still have to be restored to their full level for participating hospitals and physicians (but not for non-participating physicians), for program year 2001. Given our current assumptions, this would lead to a $2.1 million deficit for program year 2002 and a $7.1 million deficit by the end of program year 2003. In order to avoid these deficits, there would need to be assessments of the non-participating physicians for program year 2002 *and* both the non-participating physicians and the liability insurers, for program year 2003."

In October 2001, we provided estimates of funding for the program years 1988 through 2000, and projections for years 2001, 2002, and 2003. In that report we made significant changes to the estimated number of claimants who would eventually be admitted to the program, to the mortality

table underlying our forecasts, and to the estimated future average annual expenses for admitted claimants. These changes all tended to increase our estimate of the Program's liabilities, and as a result we estimated that the Fund was not actuarially sound as of December 31, 2000 and forecast that the Fund would not be actuarially sound as of December 31, 2001, 2002, or 2003. Among other things, we recommended that the Program continue to assess participating physicians and hospitals at the maximum level and begin to assess non-participating physicians and liability insurers at the maximum assessment rates.

In September 2002 we provided estimates of funding for the program years 1988 through 2001, and projections for years 2002, 2003, and 2004. We estimated that the Fund was not actuarially sound as of December 31, 2001 and forecast that the Fund would not be actuarially sound as of December 31, 2002, 2003, or 2004. We recommended that the Program continue to assess participating physicians, participating hospitals, non-participating physicians, and liability insurers at the maximum amounts.

In September 2003 we provided estimates of funding for the program years 1988 through 2002, and projections for years 2003, 2004, and 2005. We estimated that the Fund was not actuarially sound as of December 31, 2002 and forecast that the Fund would not be actuarially sound as of December 31, 2003, 2004, or 2005. We recommended that the Program continue to assess participating physicians, participating hospitals, non-participating physicians, and liability insurers at the maximum amounts, and that means be found to increase the funding level.

In September 2004 we provided estimates of funding for the program years 1988 through 2003, and projections for years 2004, 2005, and 2006. We estimated that the Fund was not actuarially sound as of December 31, 2003 and forecast that the Fund would not be actuarially sound as of December 31, 2004, 2005, or 2006. We recommended that the Program continue to assess participating physicians, participating hospitals, non-participating physicians, and liability insurers at the maximum amounts, and that means be found to increase the funding level.

In September 2005 we provided estimates of funding for the program years 1988 through 2004, and projections for years 2005, 2006, and 2007. We estimated that the Fund was not actuarially sound as of December 31, 2004 and forecast that the Fund would not be actuarially sound as of December

31, 2005, 2006, or 2007. We recommended that the Program continue to assess participating physicians, participating hospitals, non-participating physicians, and liability insurers at the maximum amounts, and that means be found to increase the funding level. The major changes from our September 2004 report to our September 2005 report were a revision to the mortality table and an increase in the estimated life-time costs for nursing benefits, both of which increased the estimated liabilities of the Program.

The prior discussion covers the history of the actuarial studies up until this current report.

Limitations and Caveats

Entire Document

The study conclusions are developed in the accompanying text and exhibits, which together comprise the report.

Data Reliance

The data for this study was gathered from several sources, which are detailed in the report. In the study, we relied on the accuracy and completeness of the data without independent audit. If the data are incomplete or inaccurate, our findings and conclusions may need to be revised.

Underlying Assumptions

In addition to the assumptions stated in the report, numerous other assumptions underlie the calculations and results presented herein.

Study Foundations

The study conclusions are based on analysis of the available data and on the estimation of many contingent events. Estimates of future costs were developed from the historical record and from estimated covered exposures.

Statistical Credibility

The statistical credibility of the Program's experience is not sufficient to evaluate all of the various assumptions, such as the number of claimants, the future annual claim payments, and the life expectancy, with a high degree of confidence. If the number of claimants, future annual claim payments, and mortality experience differ significantly from our estimates, then our estimate of the deficit of the Fund may be significantly understated or overstated.

Uncertainty

For the reasons stated in this report, the conclusions contained in this report are projections of the financial consequences of future contingent events and are subject to a high degree of uncertainty. Due to the uncertainties inherent in the estimation of future costs, it cannot be guaranteed that the estimates set forth in the report will not prove to be inadequate or excessive. Actual costs may vary significantly from our estimates.

Unanticipated Changes

Unanticipated changes in factors such as judicial decisions, legislative actions, the operation of the Program, the utilization of Program benefits and services, and economic conditions may significantly alter the conclusions.

Best Estimates

These caveats and limitations notwithstanding, the conclusions represent our best estimate of the actuarial soundness of the Fund and the funding requirements of the Program at this time.

APPENDIX

Commonwealth of Virginia
Birth-Related Neurological Injury
Compensation Program
2006 Update

Selected Ultimate Number of Claims

Program Year	Reported Number of Claims as of 12/31/05	Selected Ultimate Number of Claims	Estimated Number of Unreported Claims as of 12/31/05
(1)	(2)	(3)	(4)
1988	2	2	0
1989	9	9	0
1990	4	4	0
1991	9	9	0
1992	8	8	0
1993	10	10	0
1994	6	6	0
1995	9	9	0
1996	8	10	2
1997	9	12	3
1998	5	7	2
1999	5	9	4
2000	8	10	2
2001	7	9	2
2002	7	10	3
2003	4	10	6
2004	0	10	10
2005	0	10	10
Total	110	154	44

Appendix
Exhibit 2

Commonwealth of Virginia
Birth-Related Neurological Injury
Compensation Program
2006 Update

2004-2010 Table of Assessments
Participating and Non-Participating Physicians and Hospitals

Program Year	Participating Physicians Annual Assessment	Non-Participating Physicians Annual Assessment	Hospitals Per Live Birth Assessment	Cap on Hospital's Assessment
(1)	(2)	(3)	(4)	(5)
2004	$5,000	$250	$50	$150,000
2005	5,100	260	50	160,000
2006	5,200	270	50	170,000
2007	5,300	280	50	180,000
2008	5,400	290	50	190,000
2009	5,500	300	50	200,000
2010	5,500	300	50	200,000

Notes:

These assessments are based upon the contents of HB 1407 and SB 687, effective July 1, 2004

Under this fee schedule, the assessment of a new participant is prorated based upon when the participant enters the program during the first year of participation

Appendix
Exhibit 3

Commonwealth of Virginia
Birth-Related Neurological Injury
Compensation Program
2006 Update

Assessment Income (000s)

Program Year	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Participating Physicians	$2,034	$1,898	$2,026	$2,205	$2,030	$2,068	$2,014	$826	$657	$723	$622	$779	$699	$1,755	$1,645	$1,834	$2,335	$2,509	$2,567
Participating Hospitals	$3,028	$2,861	$2,838	$2,194	$2,185	$2,006	$1,730	$468	$409	$467	$399	$455	$379	$1,905	$2,256	$2,298	$2,731	$2,753	$2,927
Non-Participating Physicians	$2,120	$2,191	$2,265	$2,358	$2,467	-	-	-	-	-	-	-	-	-	$3,190	$2,936	$3,429	$3,444	$3,541
Liability Insurers	-	-	$2,569	-	-	-	-	-	-	-	-	-	-	-	$8,043	$8,946	$11,210	$12,003	$12,551
Total Assessments	$7,182	$6,950	$9,698	$6,757	$6,682	$4,074	$3,744	$1,294	$1,066	$1,190	$1,021	$1,234	$1,078	$3,660	$15,134	$16,014	$19,705	$20,709	$21,586

Notes:

1. 1988 - 1994 includes $5,000 per year from participating physicians, $50 per live birth from participating hospitals ($150,000 maximum), and $250 per year from non-participating physicians. Starting in 1993, assessments from non-participating physicians were eliminated.
2. 1990 also includes 0.1% of Virginia liability premiums from liability insurers.
3. Assessments for 1995 through 2000 are according to the length of time the participating physicians and hospitals have been in the program.
4. 2001-2004 include $5,000 each from participating physicians and $50 per live birth from participating hospitals ($150,000 maximum).
   2005 includes $5,100 each from participating physicians and $50 per live birth from participating hospitals ($160,000 maximum).
   2006 is an estimate, based on $5,200 each from participating physicians and $50 per live birth from participating hospitals ($170,000 maximum).
5. 2002 through 2006 also includes 0.25% of Virginia liability premiums from liability insurers.

Appendix
Exhibit 4

Commonwealth of Virginia
Birth-Related Neurological Injury
Compensation Program
2006 Update

Number of Hospitals and Physicians in Program by Program Year

Program Year	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Participating Physicians *	407	380	405	441	406	414	403	426	403	420	402	444	433	351	329	367	460	492	576
Participating Hospitals	47	42	36	27	26	27	24	27	26	31	30	31	30	25	27	28	34	35	33

1988 through 1998 values: from December.
1999 through 2001 values: provided by the Program.
2002 value: calculated by Mercer based upon information provided by the Program.
2003 value: the actual number of physicians, before pro-ration, was 384.
2004 value: the actual number of physicians, before pro-ration, was 496.
2005 value: the actual number of physicians, before pro-ration, was 532.
2006 value: based on discussions with management of the Program, we estimate that the number of pro-rata physicians will be 576 and that the number of physicians before pro-ration will be 582.

* Excludes non-assessed residents. The number of participating physicians represents the equivalent number of physicians in the Program for a full year. In other words, one physician in the Program for six months would count as 0.5 physicians.

Reconciliation of Estimated Future Claim Payments, From 12/31/06 to 12/31/07
(All Values are in Millions)

Admitted Claimants as of 12/31/07

A.	**Estimated future payments for claimants admitted as of 12/31/06 (Table 2):**				**$198.8**
	Plus:				
B.	One year's Interest on Item A:	$13.0			
C.	Estimated future payments for claimants admitted during 2006, prior to adjustments for claims paid during 2006:	$23.5			
D.	Total additions to future claim payments (B+C):		$36.5		
	Less:				
E.	Estimated claim payments made in 2006		-$16.1		
F.	**Estimated value of future payments for admitted claimants as of 12/31/07 (Table 3)** (A+D+E)				**$219.2**

Not-Yet-Admitted Claimants

G.	**Estimated future payments for claimants not yet admitted as of 12/31/06 (Table 2):**				**$92.7**
	Plus:				
H.	One year's interest on Item G:	$6.1			
I.	Estimated future payments for claimants born in 2006:	$23.4			
J.	Total additions to future claim payments:		$29.5		
	Less:				
K.	Claimants not-yet-admitted at 12/31/05, but admitted at 12/31/06: (valued as of 12/31/06)		-$23.5		
L.	**Estimated future payments for claimants not yet admitted as of 12/31/07 (Table 3):** (G+J+K)				**$98.7**

Notes:

A. From Table 2; this is the starting point in our reconciliation of the future claim payments for admitted claimants.
B. Because item A was discounted as of 12/31/06, the discount must be "unwound" to determine the value as of 12/31/06. This is the amount by which the discount must be "unwound."
C. We must add the value of the future costs for claimants admitted during 2007, because item A only includes claimants admitted as of 12/31/06.
D. =B + C.
E. We must deduct the estimate of the claim payments made during 2007, because these are otherwise included in items A and C.
F. = A + D + E, and reconciles to Table 3.
G. From Table 2; this is the starting point in our reconciliation of the future claim payments for not-yet-admitted claimants.
H. Because item G was discounted as of 12/31/06, the discount must be "unwound" to determine the value as of 12/31/06. This is the amount by which the discount must be "unwound."
I. We must add the value of the future costs for claimants born during 2007, because item G only includes claimants born as of 12/31/06.
J. =H +I.
K. We must deduct the estimated future claim payments for claimants not yet admitted as of 12/31/06, but admitted during the year 2007. Otherwise, their future costs would be double-counted, because they are included in item C.
L. = G + J +K, and reconciles to Table 3.

This Appendix is a simplification of the actual process we use to determine the values presented in Tables 1-4.

Reconciliation of Estimated Future Asset Values, From 12/31/06 to 12/31/07
(All Values are in Millions)

A.	**Liquid plus Non-Liquid Assets as of 12/31/06 (Table 2):**			**$164.5**
	Plus			
B.	Interest to 6/30/07 on Liquid Assets:		4.8	
	Assessments:			
C.	Participating Hospitals:	3.0		
D.	Participating Physicians:	2.6		
E.	Non-Participating Physicians:	3.7		
F.	Liability Insurers:	13.0		
	Total Assessments (prior to interest accrual):			
G	(C+D+E+F)		22.2	
	Interest Accrual on Assessments to 6/30/06:			
H.	(G*(1.0677^.5-1))		0.7	
	Total Additions to 6/30/06:			
I.	(B+G+H)			27.7
	Less			
	Payments made on 6/30/07:			
J.	Non-Claimant Related:		0.186	
K.	Claimant Related:		15.9	
	Total Payments at 6/30/07:			
L.	(J+K)			-16.1
	Plus			
	Interest Accrual on Assets to 12/31/07:			
M.	On Liquid Assets - from 6/30/07:		6.2	
N.	On Non-Liquid Assets - from 12/31/06:		0.0	
O.	Total: (M+N)			6.2
P.	**Liquid plus Non-Liquid Assets as of 12/31/07 (Table 3):** (A+I+L+O)			**$182.4**