Revenue and Cost Trends Indicate Deficit in Volunteer Safety Workers' Compensation Fund in FY 2020–21

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Final Report to the Joint Legislative Program Evaluation Oversight Committee

Report Number 2014-01

February 19, 2014

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Director

February 19, 2014

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Representative Julia Howard, Co-Chair, Joint Legislative Program Evaluation Oversight Committee

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Honorable Co-Chairs:

The 2013–15 Program Evaluation Division work plan directed the division to review state-administered funds related to fire, rescue, and emergency management services departments, including the eligibility criteria for these funds, benefits received, and oversight of funds. The second report in this series examines the Volunteer Safety Workers' Compensation Fund.

I am pleased to report that the Department of Insurance, Volunteer Safety Workers' Compensation Fund Board, and Key Risk Management Services cooperated with us fully and were at all times courteous to our evaluators during the evaluation.

Sincerely,

John W. Turcotte
Director

PROGRAM EVALUATION DIVISION
NORTH CAROLINA GENERAL ASSEMBLY

February 2014 Report No. 2014-01

Revenue and Cost Trends Indicate Deficit in Volunteer Safety Workers' Compensation Fund in FY 2020–21

Summary

As directed by the North Carolina General Assembly's Joint Legislative Program Evaluation Oversight Committee, this evaluation examines the Volunteer Safety Workers' Compensation Fund. The General Assembly created the Fund in 1995 to provide workers' compensation benefits to emergency first responders for compensable injuries or deaths.

The Program Evaluation Division projects that, without an increase in the revenue base, annual Fund expenditures will exceed total assets in Fiscal Year 2020–21. Incrementally increasing member premiums would allow the Fund to meet its future financial obligations.

Statute limits the Department of Insurance's actuarial responsibility to evaluate the different sources of revenue needed to maintain Fund solvency. State law directs the department to determine the State's financial obligations to the Fund without considering other revenue sources.

The Volunteer Safety Workers' Compensation Board could enhance the Fund's cost-containment efforts by using a more data-driven approach. The board could realize cost savings in the areas of loss prevention, experience-rating premium surcharges, legal claims, and fraud by collecting more data and doing more sophisticated analysis of that data.

The statutory provision on minimum weekly compensation can result in injured volunteers earning more compensation than they were earning in their regular occupations, and volunteers can collect indemnity wages even if they are able to return to their regular occupations. The board does not analyze claim data to determine the frequency of these occurrences.

The board's Fund eligibility determinations do not conform with statute. Although statute specifies that a fire or rescue/EMS unit must be a volunteer unit to be eligible, the Fund currently covers some non-municipal departments staffed exclusively with paid personnel and some associations.

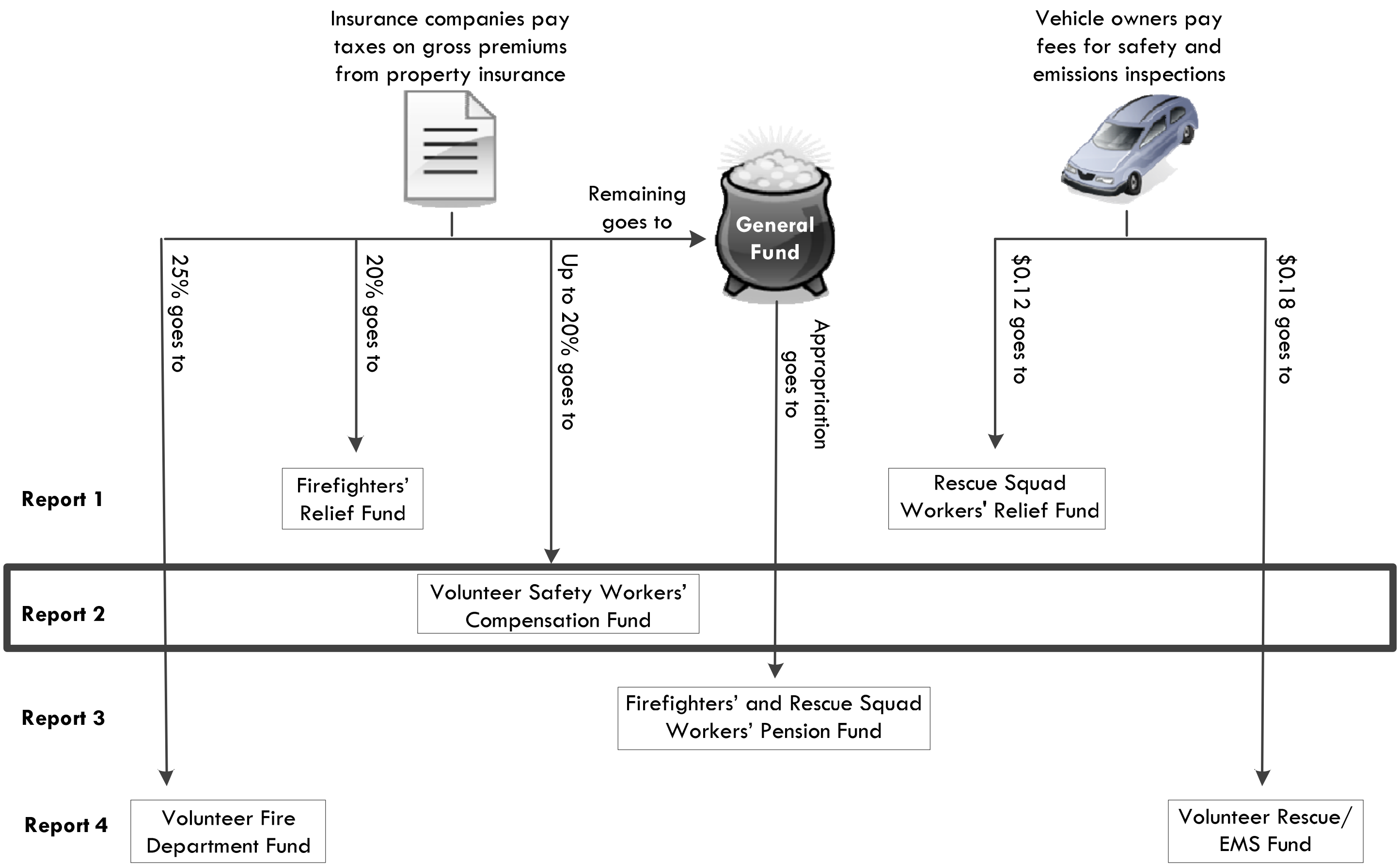
To address these findings, the General Assembly should

- direct the State Fire and Rescue Commission to increase annual member premium income to $14.3 million by Fiscal Year 2017–18;
- modify the Department of Insurance's actuarial responsibilities with regard to the Fund;
- require the commission to direct the board to collect and track data on the Fund's cost-containment efforts and the effect of indemnity wage determinations and the minimum weekly compensation provision, as well as to design a model return-to-work program; and
- amend statute to clarify Fund eligibility requirements.

Purpose and Scope

The North Carolina Joint Legislative Program Evaluation Oversight Committee directed this evaluation through its 2013–15 Work Plan. This report, the second of a four-part series on state-administered funds related to fire, rescue, and emergency medical services (EMS), examines the Workers' Compensation Fund for Volunteer Safety Workers. The first report examined the Firefighters' Relief Fund and Rescue Squad Workers' Relief Fund. The third report will examine the Firefighters' and Rescue Squad Workers' Pension Fund. The final report will examine grants to local volunteer fire, rescue, and EMS departments through the Volunteer Fire Department Fund and Volunteer Rescue/EMS Fund. As shown in Exhibit 1, the common thread linking the six funds is their shared funding sources. State funding for the Volunteer Safety Workers' Compensation Fund comes from taxes paid on property insurance premiums;[1] up to 20% of those taxes go to the Fund.

Exhibit 1: Sources of Funding for State-Administered Funds Related to Fire, Rescue, and EMS



Notes: Prior to the 2013 Appropriations Act, 30% of the premium tax went to the Volunteer Fire Department Fund, 25% went to the Firefighters' Relief Fund, and none went to the Volunteer Safety Workers' Compensation Fund.

Source: Program Evaluation Division based on N.C. Gen Stat. §§ 20-183.7(c), 58-86-20, and 105.228.5(d)(3) and N.C. Sess. Law 2013-360.

[1] The tax on gross property insurance premiums is 0.74% of 10% of the gross premiums for automobile physical damage coverage and 0.74% of 100% of the gross premiums for all other property coverage (N.C. Gen. Stat. § 105.228.5(d)(3)).

Three research questions guided this evaluation:

1. What are the eligibility criteria and benefits of the Fund?
2. What is the financial status of the Fund?
3. How is the Fund administered, and what are the oversight mechanisms for it?

The Program Evaluation Division collected data from several sources, including interviews with and data queries of

- the Department of Insurance;
- the Volunteer Safety Workers' Compensation Fund Board; and
- Key Risk Management Services, LLC.

Background

The North Carolina General Assembly created the Volunteer Safety Workers' Compensation Fund, hereafter referred to as the "Fund," to provide workers' compensation benefits to emergency first responders for compensable injuries or deaths.[2] As of the close of Fiscal Year 2012–13, the Fund provided coverage to 42,799 members in 1,132 non-municipal fire departments, rescue squads, emergency medical service (EMS) units, and fire and rescue associations.[3] Eighty-seven percent of Fund members were classified as "volunteer," with the remainder being classified as "full-time" or "part-time."

During the 1980s, fire and rescue departments in North Carolina that had historically been comprised solely of volunteers faced a shortage of these workers. Accordingly, these departments had to hire more paid personnel, resulting in the creation of "combination departments," or departments consisting of volunteer, paid full-time, and paid part-time fire and rescue workers.

In the 1990s, workers' compensation costs began to increase industry-wide. Municipal and county fire and rescue departments in North Carolina responded to premium increases by establishing self-insured workers' compensation programs through the North Carolina League of Municipalities and the North Carolina Association of County Commissioners. Although these self-insured workers' compensation programs removed only about 10% of participants from the voluntary workers' compensation market, they removed about 94% of salary-based premiums that had been generated by municipal and county firefighters and rescue workers. As a result, the premiums for firefighters and rescue workers in non-municipal departments rose substantially.

[2] N.C. Sess. Law 1995-507, Section. 7.21A(a).

[3] Municipal professional, combination, and volunteer departments are not part of the Fund and generally receive coverage through the North Carolina League of Municipalities or the North Carolina Association of County Commissioners.

Because most non-municipal departments could no longer afford workers' compensation premiums in the voluntary insurance market and could not afford to create a self-insured workers' compensation insurance program, departments had to enter into the assigned risk market.[4] The insurance premium increases made it difficult for combination departments to support paid personnel.[5] As a result, departments were not able to hire or retain the number of firefighters and rescue workers necessary to fulfill the needs of their communities.

In 1995, the General Assembly created the Fund to help reduce workers' compensation costs for all volunteer firefighters and rescue workers in non-municipal volunteer and combination departments and to ensure workers' compensation funding for paid workers in those departments. Fire and rescue departments can still shop around for workers' compensation coverage in the assigned risk market, but it is usually more expensive.

Although at least 20 other states require communities to treat volunteer firefighters and rescue workers as employees for workers' compensation coverage, few states subsidize workers' compensation insurance for volunteer firefighters, and none appear to be as comprehensive or as extensively funded by their states as the North Carolina Volunteer Safety Workers' Compensation Fund.[6]

Fund eligibility. According to N.C. Gen. Stat. § 58-87-10, a person must be a member of an eligible unit to participate in the Fund. An "eligible unit" is defined as "a volunteer fire department or volunteer rescue/EMS unit that is not part of a unit of local government and is exempt from State income tax under G.S. 105-130.11."[7]

Applicable laws. The Fund is subject to the same laws established by the General Assembly in the Workers' Compensation Act, Chapter 97 of the General Statutes,[8] and the rules established by the North Carolina Industrial Commission regarding workers' compensation claims. According to N. C. Gen. Stat. § 97-2(6), a worker's injury must arise out of and in the course of employment to receive workers' compensation from that employer. This provision means that firefighters and rescue workers must be injured while performing their fire and rescue duties to receive workers' compensation from the Fund.

[4] Pursuant to N.C. Gen Stat. § 58-36-1(5)(a), the North Carolina Rate Bureau manages the assigned risk market, which insures workers' compensation clients who have been determined to be high-risk and cannot obtain insurance in the voluntary market or through a self-insured program. The Rate Bureau was created in 1977 by the North Carolina General Assembly in Article 36 of Chapter 58 of the General Statutes.

[5] Because premiums are set as a percentage of salary, premiums for volunteers rose minimally, but the premiums for paid personnel rose significantly because they had to compensate for the low premiums associated with volunteers.

[6] Other states that assist volunteer fire departments with workers' compensation expenses include West Virginia, Louisiana, and Oklahoma. In 2011, the West Virginia legislature created the Volunteer Fire Department Workers' Compensation Premium Subsidy Program, dedicating $5 million in state funding to assist volunteer fire departments in covering increases in workers' compensation costs. In Louisiana, the state fire marshal works with insurance companies to provide workers' compensation insurance for volunteer firefighters. This program is expected to cost the state $1 million each year, with the majority of these costs being covered by a reduction in tax revenue to local governments. Oklahoma created the Volunteer Firefighter Group Insurance Pool to subsidize workers' compensation for volunteer firefighters by covering the $55 per firefighter per year premium charged by CompSource Oklahoma, the program's underwriter; the total amount paid by the state is not to exceed $320,338.

[7] N.C. Gen. Stat. § 105-130.11 exempts several types of nonprofit organizations, including social welfare organizations such as fire and rescue departments, from paying state income tax.

[8] N.C. Gen. Stat. § 58-87-10(c).

Administrative structure of the Fund. The Fund is administratively organized in the Department of Insurance.[9] Pursuant to statute, the State Fire and Rescue Commission is responsible for providing workers' compensation benefits for the Fund. Statute directs the commission to create a Volunteer Safety Workers' Compensation Fund Board to assist the commission in performing Fund duties.[10]

The commission is minimally involved in the Fund's administration, and it is customary practice for the commission to implement the board's suggestions regarding the Fund. In certain cases, the board will ask the commission to approve actions, such as whether to purchase re-insurance in a given year or adjust premium rates.

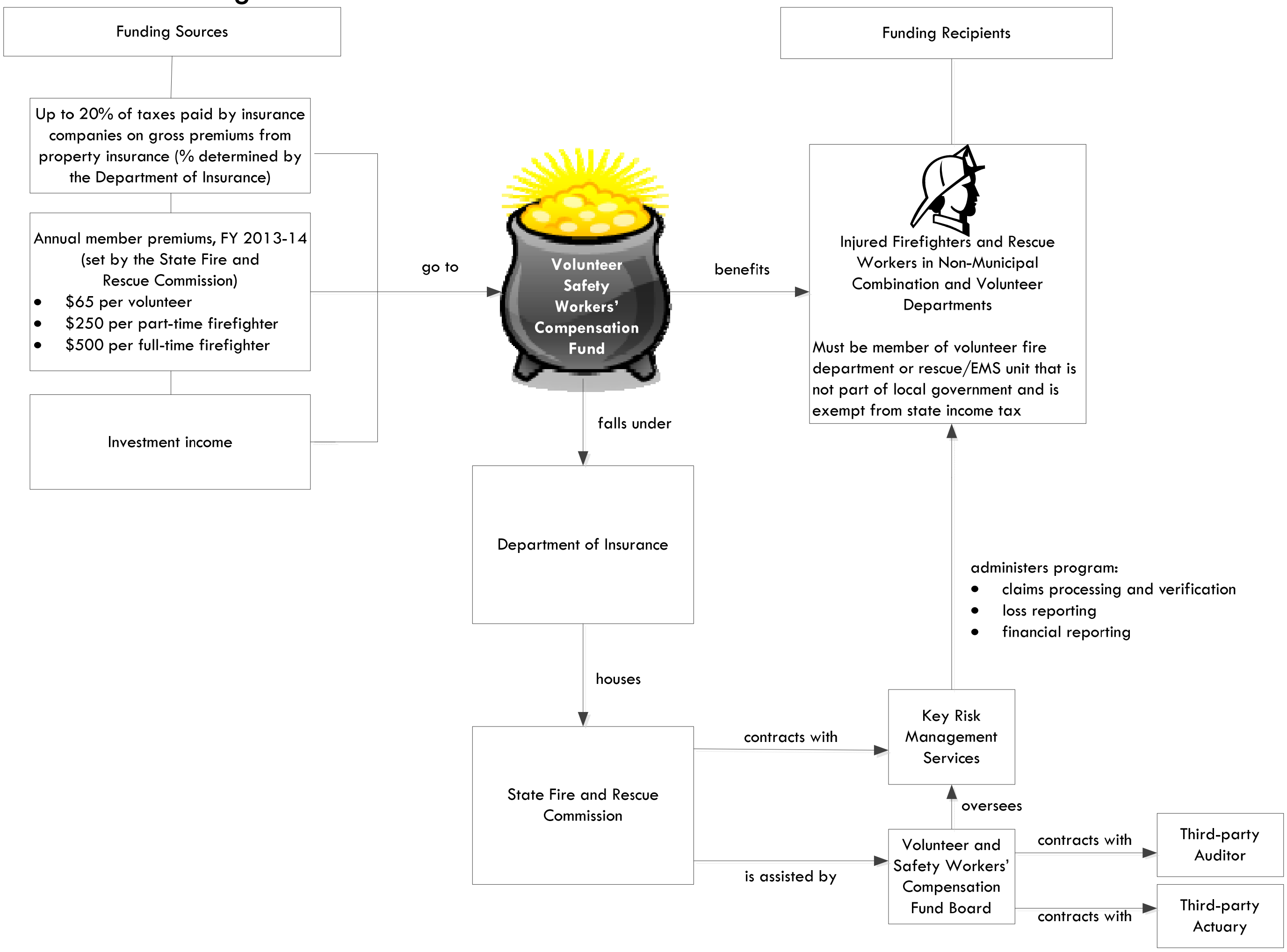
Statute directs the commission to contract with a third-party administrator to process the Fund's workers' compensation claims.[11] The board recommends the third-party administrator, and the contract is approved by the Department of Insurance. The commission and the board have been contracting with Key Risk Management Services, LLC, since 2002, and the board plans to renew the contract when the current contract expires on June 30, 2014.[12] Key Risk receives an annual payment of $460,000 for its administrative duties,[13] which include program administration, claim processing and verification, loss reporting, and financial reporting.

In practice, the board takes responsibility for monitoring the Fund's financial status and its claim records. The board and Key Risk communicate on a daily basis about Fund matters. The board meets quarterly with Key Risk to review financial and claim reports, particularly large and unusual claims. Additionally, the board contracts with an outside audit firm and an independent actuary to monitor the Fund annually.[14]

Exhibit 2 illustrates the administrative structure of the Fund and the Fund distribution process.

[9] N.C. Gen. Stat. § 58-78-1.
[10] N.C. Gen. Stat. § 58-78-5(16).
[11] N.C. Gen. Stat. § 58-87-10(d).
[12] Key Risk is located in Greensboro, North Carolina.
[13] Pursuant to N.C. Gen. Stat. 58-87-10(d), expenses incurred by the commission in administering the Fund shall be paid out of the Fund.
[14] The board contracted with Thomas Howell Ferguson, P.A., from 1997–2002, with Boyce, Furr and Company, LLP, from 2003–2010, and with Koonce, Wooten, and Haywood, LLP, from 2011–2013, for its audits. In Fiscal Year 2012–13, the Board spent $15,500 on the Fund's audit. The board currently contracts with Allen Consulting for annual actuarial studies. In Fiscal Year 2012–13, the Board spent $3,500 on the Fund's actuarial report.

Exhibit 2: Funding Sources and Fund Distribution Process

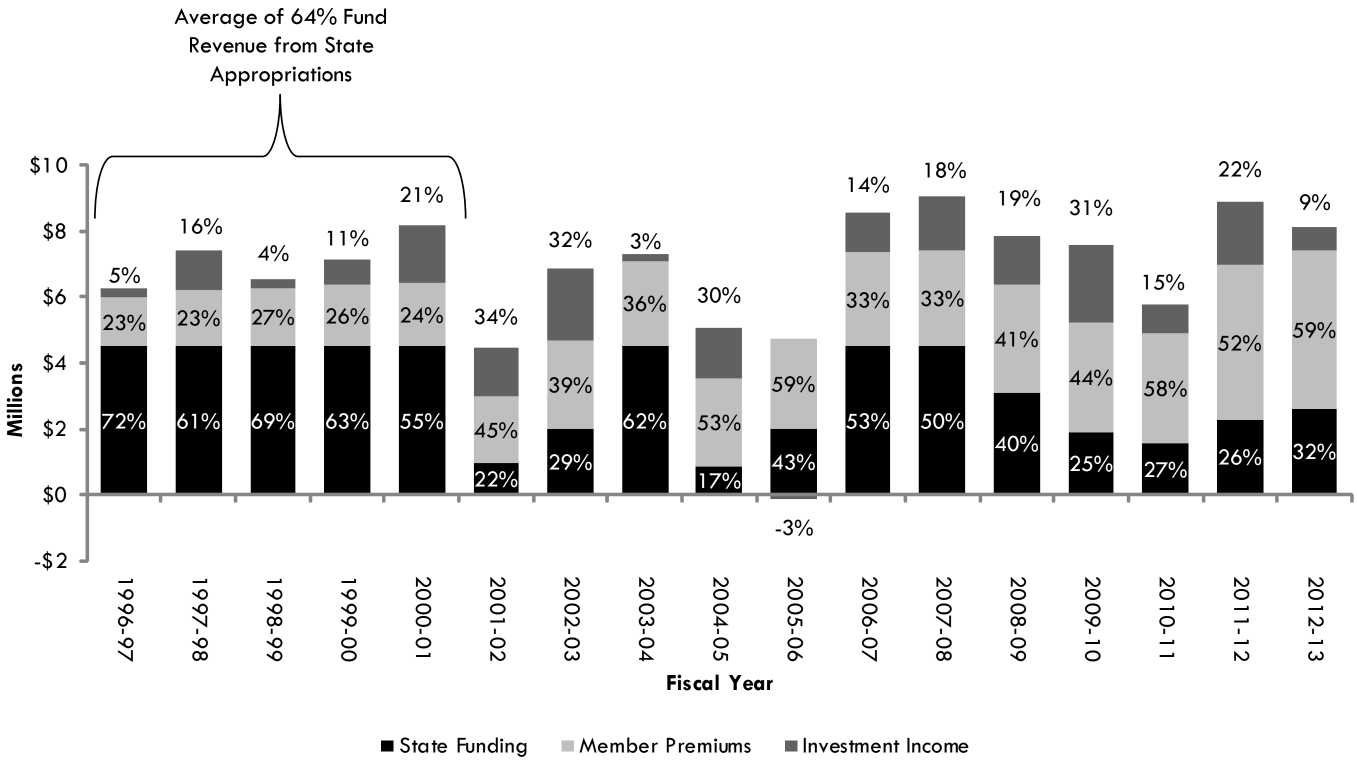


Source: Program Evaluation Division based on N.C. Gen Stat. §§ 58-87-10, 58-78-1, 58-78-5(a)(16), and 105.228.5(d)(3), N.C. Sess. Law 2013-360, and information from the Volunteer Safety Workers' Compensation Board.

Fund sources. The Fund is financed by taxes paid by insurance companies on the gross premiums they collect on property insurance,[15] member premiums paid by participating departments, and investment income.[16] The General Assembly created the Fund as an expendable trust fund, meaning interest and other investment income earned by the Fund accrues to it, and revenue in the Fund at the end of a fiscal year does not revert back to the State's General Fund.[17] As seen in Exhibit 3, in the Fund's first five years, an average of 64% of the Fund's total revenue came from State appropriations. In Fiscal Year 2012–13, 32% of the Fund's total revenue came from State appropriations. Since the Fund's inception, State appropriations have accounted for as much as 72% of the Fund's total revenue and as little as 17% of the Fund's total revenue.

[15] Prior to the 2013 Appropriations Act, the Fund was funded by appropriations made to the Department of Insurance. Session Law 2013-360, Section 20.2(d) eliminated the General Fund appropriation to the Department of Insurance for the Fund and Section 20.2(a) designated that up to 20% of the net proceeds from the taxes insurance companies pay on the gross premiums they collect on property insurance would go to the Fund each year.
[16] N.C. Gen. Stat. § 58-87-10(e).
[17] N.C. Gen. Stat. § 58-87-10(b).

Exhibit 3: Proportion of Funding by Source, Fiscal Years 1997–2013



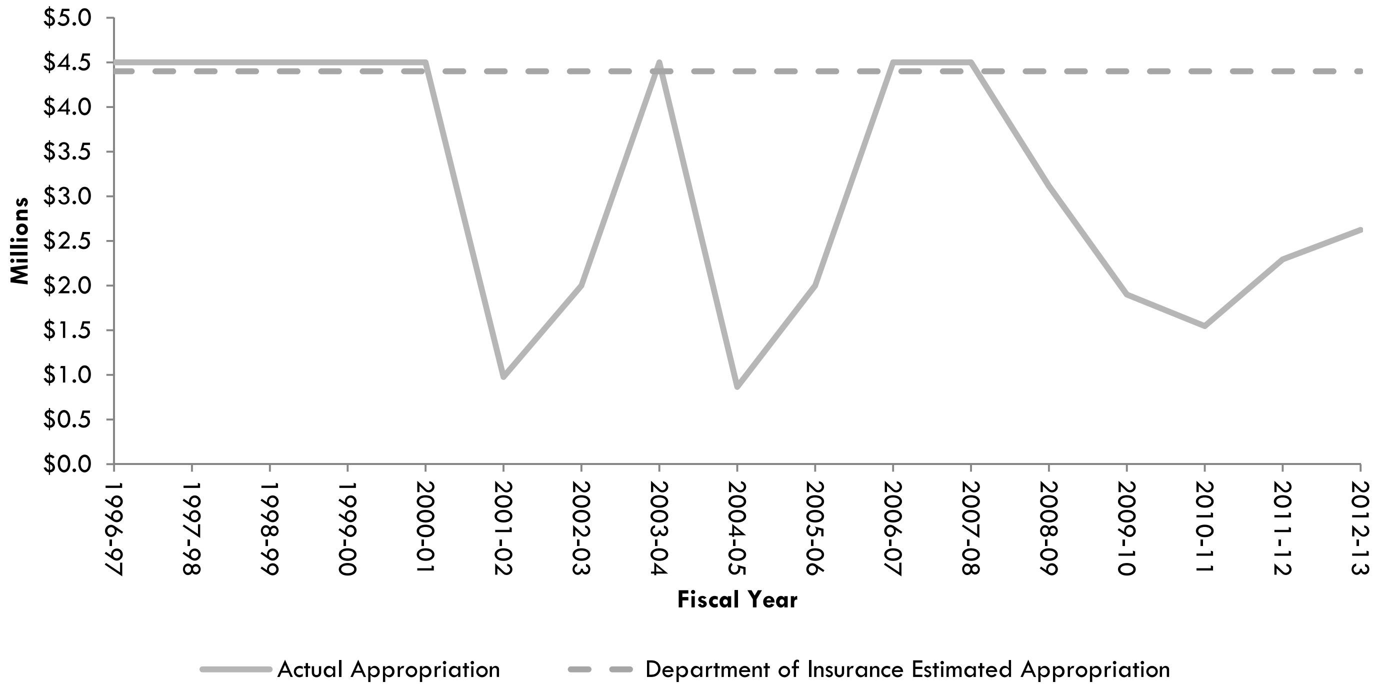
Source: Program Evaluation Division based on audits conducted by Thomas Howell Ferguson, P.A., from 1997–2002, Boyce, Furr and Company, LLP, from 2003–2010, and Koonce, Wooten, and Haywood, LLP, from 2011–2013.

Appropriation history. Although statute did not specify a required amount or duration for state appropriations when the Fund was created in 1995,[18] the Department of Insurance's Fire and Rescue Services Division estimated the State would have to pay approximately $4.4 million per year into the Fund.

As shown in Exhibit 4, the General Assembly appropriated $4.5 million annually to the Fund from Fiscal Year 1996–97 through Fiscal Year 2000–01. In Fiscal Year 2001–02, the State reduced its appropriation to $976,000, and Fund appropriation amounts became inconsistent going forward. The State appropriated $4.5 million again in fiscal years 2003–04, 2006–07, and 2007–08.

[18] N.C. Sess. Law 1995-507, Section 7.21A(a).

Exhibit 4: Annual State Appropriations to Fund, Fiscal Years 1997–2013



Source: Program Evaluation Division based on North Carolina Accounting System data; information received by the Department of Insurance; and audits conducted by Thomas Howell Ferguson, P.A., from 1997–2002, Boyce, Furr and Company, LLP, from 2003–2010, and Koonce, Wooten, and Haywood, LLP, from 2011–2013.

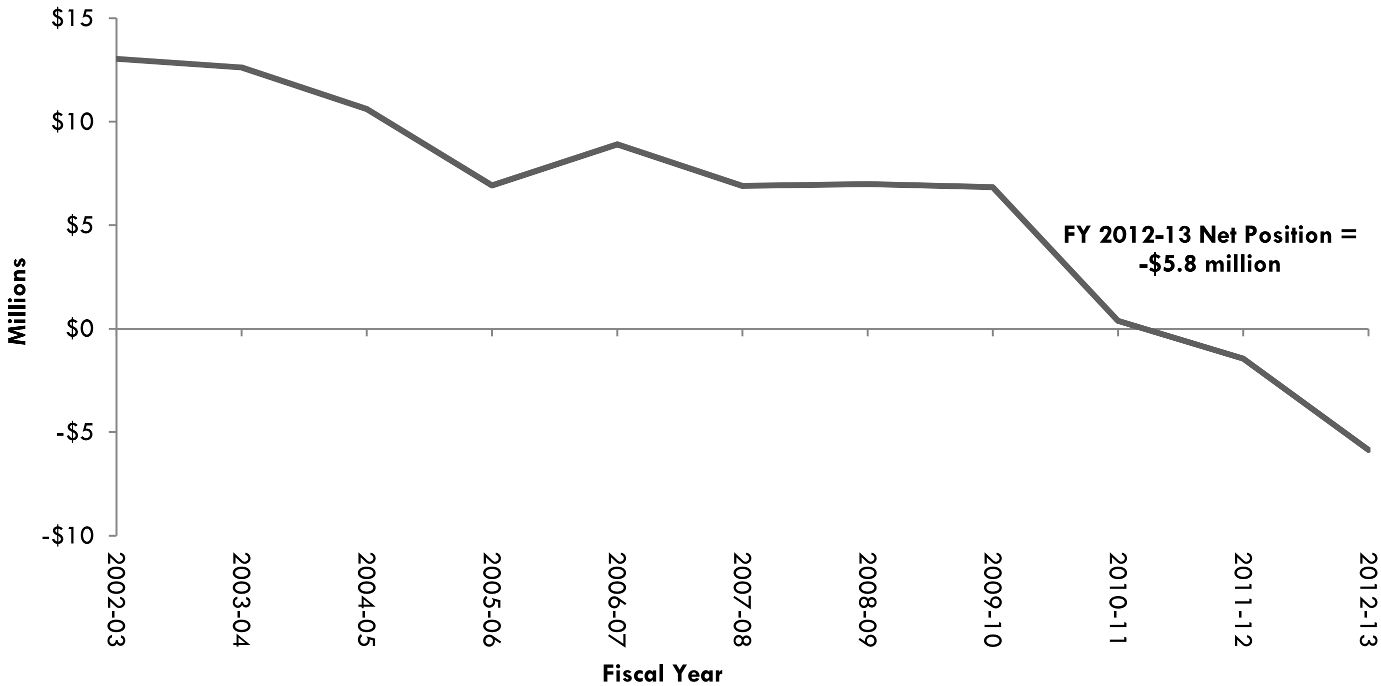
In 2011, the Fund faced a shortfall. In response, the General Assembly directed the Department of Insurance to conduct an actuarial study on the Fund's financial status, as well as its claims-related trends and member premiums.[19] The study found that, absent a member premium increase, the Fund would need a state contribution of $6.2 million in order to meet its financial obligations for Fiscal Year 2012–13, which would represent the largest state contribution in the Fund's history. The audit contracted by the board for Fiscal Year 2011–12 also indicated a shortfall.

As seen in Exhibit 5, the Fund's net position has declined since Fiscal Year 2002–03.[20] Beginning in Fiscal Year 2011–12, total liabilities (current liabilities plus non-current liabilities) exceeded total assets, placing it in a negative net position.[21] As of 2012–13, the Fund's net position was -$5.8 million.

Net Position = Total Assets – (Current Liabilities + Non-Current Liabilities)

[19] N.C. Sess. Law 2012-142, Section 20.4(a).
[20] Net position refers to assets that have no external restrictions regarding their use or function.
[21] Non-current liabilities are expenses that will not be paid in the current fiscal year but will need to be paid at some point in the future.

Exhibit 5: Fund's Net Position, Fiscal Years 2003–2013



Source: Program Evaluation Division based on North Carolina Accounting System data and audits conducted by Thomas Howell Ferguson, P.A., from 1997–2002, Boyce, Furr and Company, LLP, from 2003–2010, and Koonce, Wooten, and Haywood, LLP, from 2011–2013.

During the 2013 legislative session, the General Assembly amended statute in the following ways to address the Fund shortfall:[22]

- N.C. Gen. Stat. § 105-228.5(d)(3) was amended to allow up to 20% of the net proceeds from the taxes insurance companies pay on the gross premiums they collect on property insurance to go to the Fund each year.[23]
- N.C. Gen. Stat. § 58-87-10 was amended to direct the Department of Insurance to conduct a periodic actuarial study to calculate the amount required to meet the needs of the Fund. The study will be reviewed by the Office of State Budget and Management and then communicated to the Secretary of Revenue.

In summary, although the Fund was created as a way to pool resources and keep premium costs low for firefighters and rescue workers in non-municipal combination and volunteer departments, the future viability of the Fund is uncertain. This evaluation investigates the past, present, and future financial status of the Fund and the management of the Fund.

[22] N.C. Sess. Law 2013-360, Sections 20.2(a), 20.2(d), 20.2(e).
[23] Correspondingly, N.C. Gen. Stat. § 58-87-10 was amended to end General Assembly appropriations to the Fund.

Findings

Finding 1. Although 2013 statutory amendments have temporarily relieved Fund shortages, the Fund will run a deficit in the future without an increase in revenue.

The Program Evaluation Division projected how long the Fund would remain solvent given the transition of the state revenue base from General Fund appropriations to the receipt of a portion of the revenue from taxes paid by insurance companies on the gross premiums they collect on property insurance and given current member premium levels, enrollment trends, claim trends, and operating expenditures.

In conducting this analysis, assumptions were made about the following factors:

- tax revenue on gross premiums,
- growth of future claim and loss reserve costs,
- operating expenditures,
- enrollment trends,
- investment income,
- membership premiums, and
- experience-rating surcharges.

These assumptions, along with calculations for the projections of future Fund performance with different levels of claims costs, are detailed in Appendix A.

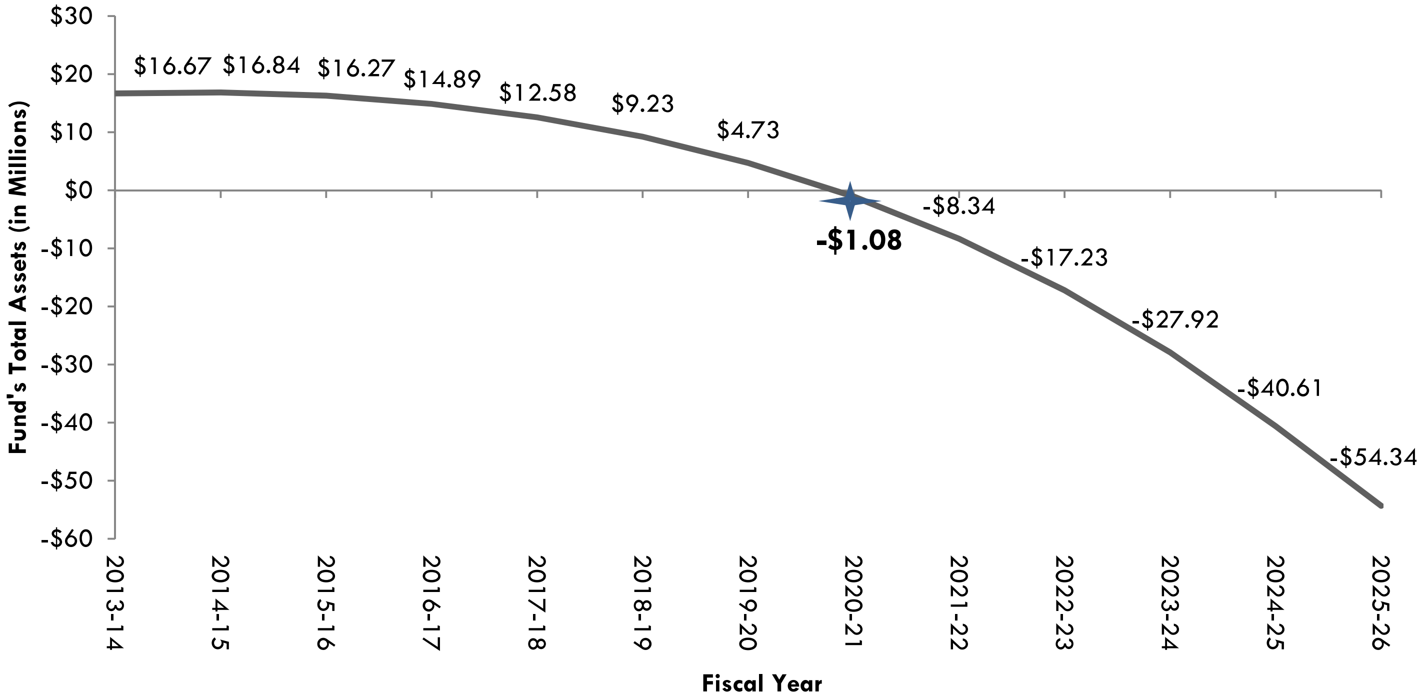
The Fund's claim and loss reserve costs are projected to grow at a compounded annual rate of 8.5% and tax revenue on gross premiums is projected to grow at 1.6%, leading to an ever-increasing gap between expenses and revenue.[24]

Using these assumptions, the Program Evaluation Division projects that annual Fund expenditures will deplete total assets (investments plus cash from annual revenue) in Fiscal Year 2020–21. This projection assumes annual Fund expenses incurred in the next several years will be paid for by premium revenue, tax revenue on gross premiums, investment interest, and through the sale of the Fund's assets, which include approximately $16 million in investments and cash. The depletion of these assets to cover annual Fund expenses will mean that there will be less principal upon which to earn future interest income.

As shown in Exhibit 6, the Fund will have no assets remaining in Fiscal Year 2020–21 without either an increase in revenue or a reduction in claim costs.

[24] The Program Evaluation Division chose to use a growth rate of 8.5%, which is the average of two claims-based rates (9.2% and 10.1%) and the claims plus loss reserve growth rate (7.4%). This growth rate is slightly higher than the 8% growth rate used by the Department of Insurance's Chief Actuary in his October 2012 actuarial study.

Exhibit 6: Without a Revenue Increase, Fund's Total Assets Will Be Depleted in FY 2020–21



Notes: Projections do not factor in non-current liabilities or possible department exit and re-entry into the Fund. As of June 30, 2013, the Fund had $9.9 million in non-current liabilities.

Source: Program Evaluation Division based on North Carolina Accounting System data and current cost trends. See Appendix A, Table 1 for more detail.

The Program Evaluation Division projects the Fund's annual expenses will exceed annual revenue by Fiscal Year 2015–16. The Fund's annual revenue will exceed annual expenses in Fiscal Year 2013–14 due to the receipt of approximately $6.1 million in state funding from tax revenue. The board's decision to increase premiums for part-time and full-time firefighters and rescue workers beginning in Fiscal Year 2014–15 will allow annual revenue to exceed annual expenses for that year. However, the Fund's annual expenses will again exceed annual revenue in Fiscal Year 2015–16 and in the years that follow.

The Program Evaluation Division's analysis indicates claim costs will outpace current and foreseeable revenue from state funding, member premiums, and investment income. For this reason, it is important to assess the current sources of Fund revenue and how claim costs and frequency could be reduced to alleviate some of the financial pressure placed on the Fund. Cost containment matters will be addressed in detail in Finding 3.

The General Assembly has several options to increase Fund revenue. First, it could use General Fund appropriations to generate Fund revenue as it has in the past. The General Assembly, however, amended statute in 2013 to eliminate the appropriation and create a more reliable state funding source by allocating to the Fund up to 20% of the net proceeds from the taxes insurance companies pay on the gross premiums they collect on property insurance.

The General Assembly also could provide more revenue for the Fund by increasing the Fund's allocated percentage of the net proceeds from the taxes insurance companies pay on the gross premiums they collect on property insurance. In 2012, the Volunteer Safety Workers' Compensation Board proposed that the Fund should receive 27% of these proceeds. The General Assembly's decision during the 2013 legislative session to set the maximum level at 20% indicates that it has determined the level at which the State will support the Fund.

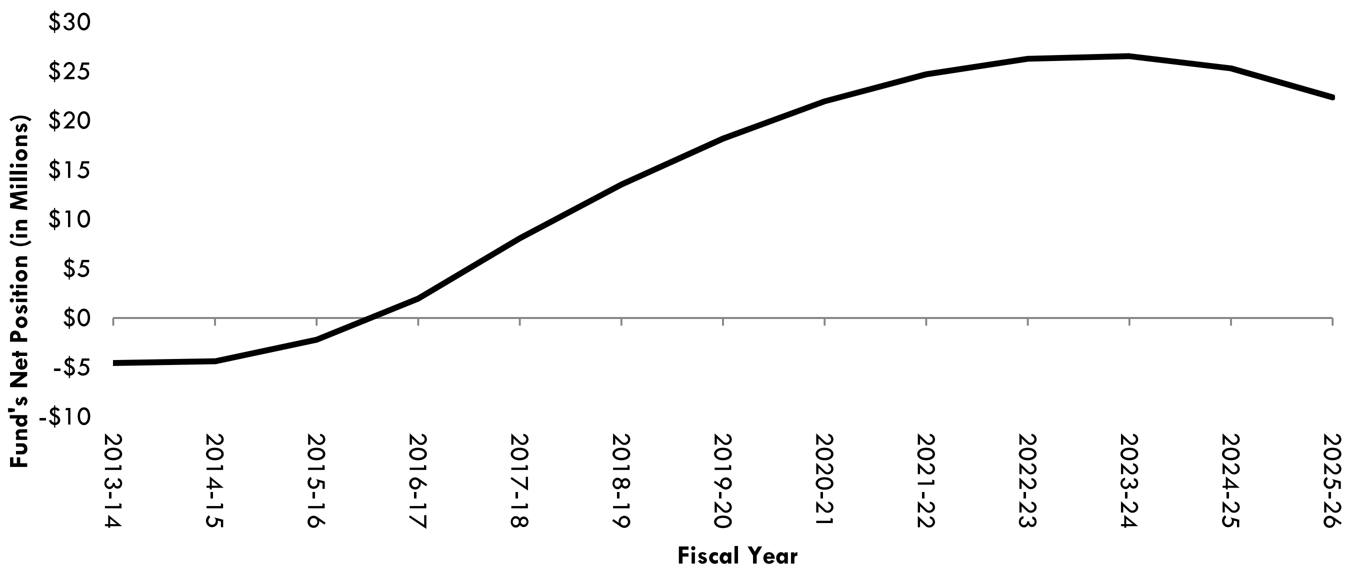
Another way for the Fund to meet its financial obligations is to raise member premiums paid by fire and rescue departments. Statute requires the State Fire and Rescue Commission to set annual member premiums that will allow the Fund to meet its payment obligations.[25] Departments pay for member premiums through fire district taxes, county general funds, fundraisers, grants, relief fund money, and donations.

At the Fund's inception in Fiscal Year 1996–97, departments were charged $50 annually per member. In Fiscal Year 2002–03, annual premium amounts were increased to $55 per volunteer, $125 per part-time worker, and $250 per full-time worker. In Fiscal Year 2011–12, those amounts were increased to $65, $250, and $500, respectively. In November 2013, the board voted to raise member premiums from $250 to $375 for part-time workers and from $500 to $750 for full-time workers, beginning in Fiscal Year 2014–15; volunteer premiums will remain at $65 per volunteer.

Even with increased state funding and the most recent member premium increase, the long-term health of the Fund is in jeopardy. The Program Evaluation Division projects the member premium increase for part-time and full-time firefighters and rescue workers beginning in Fiscal Year 2014–15 will raise Fund premium revenue from $4.8 million in Fiscal Year 2013–14 to $5.8 million in Fiscal Year 2014–15. However, to ensure the financial sustainability of the Fund, the Program Evaluation Division projects premium income would need to be increased to $14.3 million by Fiscal Year 2017–18. Exhibit 7 illustrates the Program Evaluation Division's projection of the Fund's net position given these increases in member premium income.

[25] N.C. Gen. Stat. § 58-87-10(e).

Exhibit 7: Increasing Member Premium Income to $14.3 Million by FY 2017–18 Would Help Fund Maintain Positive Net Position



Notes: Projections do not account for possible department exit and re-entry into the Fund.

Source: Program Evaluation Division based on assumptions listed in Finding 1 and historical information from the Department of Insurance. See Appendix B, Table 1 for more detail.

Incrementally increasing premium amounts from fiscal years 2015–16 to 2017–18 would give fire tax districts time to raise their tax revenue to cover higher premium costs and would give rescue departments time to identify ways to fund the higher premium costs. Moreover, gradually increasing premiums would allow the assigned risk market to adjust to changing market conditions. While the premiums for volunteers in these markets may initially be less expensive than the state-subsidized premiums offered by the Fund, private companies would likely have to raise premiums to remain profitable as a result of the influx of volunteer firefighters and rescue workers as well as rising indemnity (loss of wages) and medical costs. In addition, while departments with low risk might be able to find affordable premiums in the assigned risk market, higher-risk departments might be unable to find affordable insurance outside of the Fund.

Even with the premium increases implemented by the board for Fiscal Year 2014–15 and the premium increases factored in by the Program Evaluation Division for fiscal years 2015–16 through 2017–18, the Fund's change in net position (annual income minus annual expenses) will be negative again in Fiscal Year 2024–25.[26] Premiums will have to be reconsidered before this time. The calculations for this projection are presented in Appendix B.

Another option the General Assembly has is to end state funding for the Fund, which would make the Fund entirely dependent on member premiums for revenue. When the Fund was first established, the board

[26] This projection is based on the assumptions listed at the beginning of Finding 1 and detailed in Appendix A.

envisioned that the Fund would become self-sustaining, or entirely funded by member premiums.[27] The Department of Insurance's October 2012 actuarial report indicated that for the Fund to become self-sustaining, it would need to raise member premiums and increase its asset base. The report stated that to be self-sufficient, member premium levels would have to be raised in 2012 from $500 to $1,470 per year for full-time workers and from $65 to $185 per year for volunteer workers (with no change for part-time workers). This increase in individual premiums would have been equivalent to raising total premium income from $4.3 to $10.5 million in 2012.

In summary, the Program Evaluation Division projects that annual Fund expenditures will deplete all assets in Fiscal Year 2020–21and member premiums will have to be further increased to maintain the long-term sustainability of the Fund. If premiums are raised to the amount the Program Evaluation Division recommends, the Fund will have a positive change in net income until Fiscal Year 2024–25.

Finding 2. Statute limits the Department of Insurance's actuarial responsibility to evaluate the different sources of revenue needed to maintain Fund solvency.

The Fund is established under Chapter 58 (Insurance) of the North Carolina General Statutes.[28] The Volunteer Safety Workers' Compensation Board and Key Risk interact with the Department of Insurance regarding Fund matters in the following ways:

- After every quarterly meeting, the Board Chairman provides the Insurance Commissioner with a copy of board minutes, which includes a list of open claims, and Fund financials.
- On a monthly basis, the Department of Insurance reconciles the bank account from which the department and Key Risk write checks for administrative and claim expenses.
- At the end of the fiscal year, Key Risk provides the Department of Insurance with audited financial statements and an actuarial analysis of loss reserves.

State law has varied with regard to the Department of Insurance's specific responsibility in ensuring the Fund meets its financial obligations. In each of the last two legislative sessions, the Department of Insurance has been directed to conduct actuarial studies.

- In 2012, the General Assembly directed the Department of Insurance, on a one-time basis, to contract with an independent actuary to assess the Volunteer Safety Workers' Compensation

[27] In a 2011 interview with the *Insurance Journal*, Paul Miller, who was the North Carolina State Firemen's Association Executive Director at the time, stated that although the plan was for the Fund to become self-sustaining, the Fund did not receive the necessary state appropriation of $4.5 million per year during its first seven years to generate the revenue and subsequent investment income to make a self-sustaining Fund possible.
[28] N.C. Gen. Stat. § 58-78-1.

Fund.[29] The directive stated that the assessment should include the following components:

1. Recommendations as to the level of funding required to ensure that the Fund can meet its financial obligations.
2. The level and duration of funding required for the Fund to become self-sufficient in the future.
3. The nature of the claims paid by the Fund and any claims-related trends that impact the health of the Fund.
4. Recommendations as to the appropriate level of premiums to be paid by members or their departments.
5. A projection of revenues to the Fund from sources other than State funding.
6. A comparison of the projected timing and risk of the cash flow from investments with the cash flow needed to pay claims.

- In 2013, the General Assembly directed the Department of Insurance to conduct a periodic actuary study, beginning in April 2016, to calculate the amount required to meet the needs of the Fund,[30] given a contribution limit of 20% of the net proceeds from the taxes insurance companies pay on the gross premiums they collect on property insurance.[31]

Under current statute, the Department of Insurance's responsibility to determine the percentage of tax to be allocated to the Fund is disconnected from the claims review process and puts the department in the position of determining the state's financial obligations to the Fund without considering other revenue sources or claim activity. Unlike the actuarial study the Department of Insurance was directed to do in 2012, the Department of Insurance's Chief Actuary interprets the directive given in 2013 as limiting the scope of the study to focus exclusively on the amount of money needed to keep the Fund actuarially sound and further interprets an investigation of appropriate premium levels and claim trends as being beyond the scope of the study.

Under current statute, the Department of Insurance is instructed to base its recommended percentage of tax revenue to go to the Fund on the greater of

- the premium amount set by the State Fire and Rescue Commission for the fiscal year in which the actuarial study is taking place or
- the premium amount set for Fiscal Year 2012–13.[32]

Accordingly, the Department of Insurance does not have to consider how member premium rates are affecting the financial status of the Fund or propose ways to adjust this variable. Instructing the Department of Insurance to base their recommendations on established premium amounts set by the commission, which customarily accepts the board's suggestions

[29] N.C. Sess. Law 2012-142, Section 20.4(a).
[30] N.C. Sess. Law 2013-360, Section 20.2(e) amended N.C. Gen. Stat. §58-87-10. The study will be reviewed by the Office of State Budget and Management and then communicated to the Secretary of Revenue.
[31] N.C. Gen. Stat. 105-228.5(d)(3).
[32] N.C. Gen. Stat. §§ 58-87-10(e) and 58-87-10(f).

regarding the Fund, assumes that the commission and the board have given proper consideration to the possibility of raising premium rates.

The board has been resistant to raising member premiums above current levels. The Board Chairman stated that raising member premiums would trigger a series of events. First, it would drive volunteer workers back to the assigned risk market in search of lower premiums from private insurers. Second, the private sector would see a cost increase when the departments re-entered the market because the injury costs from firefighters and rescue workers from which they had previously been insulated would return. Finally, departments would not be able to properly staff their units because they would not be able to afford to pay workers' compensation premiums for full-time and part-time workers.

The Department of Insurance has demonstrated its ability to evaluate premium amounts and offer another perspective regarding the consequences of raising Fund premiums. While the 2012 audit commissioned by the board did not consider premium income when determining the factors contributing to the Fund's net losses and negative net assets, the Department of Insurance's Chief Actuary evaluated how premium levels could be set to generate more revenue in his October 2012 actuarial study.

In addition, although the Department of Insurance's Chief Actuary acknowledged that a large premium increase could drive volunteer workers into the assigned risk market, he pointed out that the market also would have to raise premiums in order to remain profitable if medical and indemnity (loss of wages) claim costs continued to rise.

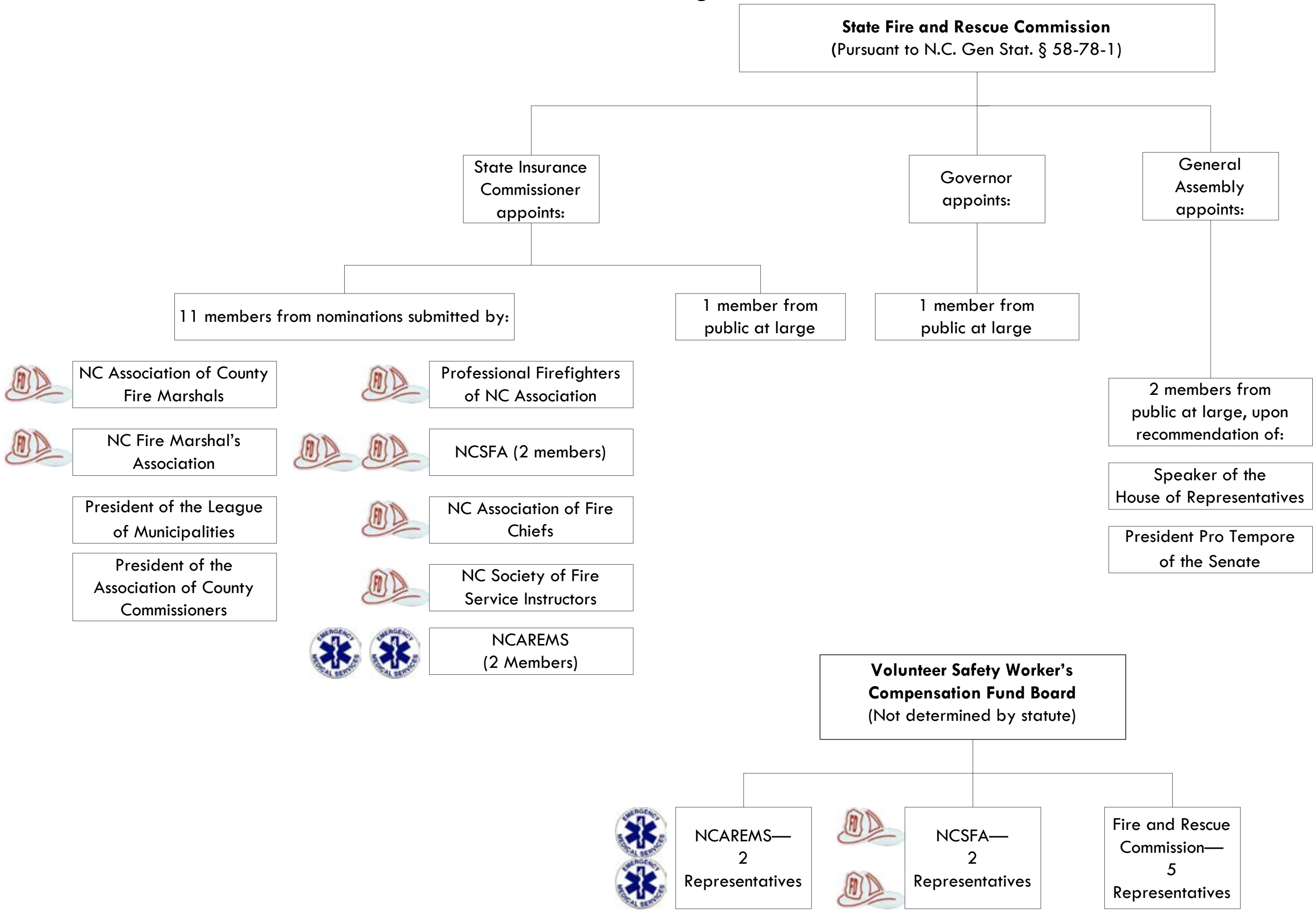
Having the Department of Insurance conduct a more extensive actuarial study that includes an analysis of premiums and claims would offer a more independent assessment of the Fund's financial status. As shown in Exhibit 8, the composition of both the State Fire and Rescue Commission and the Volunteer Safety Workers' Compensation Board favors firefighters and rescue workers, who have a vested interest in keeping member premium amounts low.

- **State Fire and Rescue Association.** The Insurance Commissioner appoints 12 of the 15 members of the commission, with 9 of the 12 appointments coming from nominations submitted by state fire and rescue associations.[33]
- **Volunteer Safety Workers' Compensation Board.** The State Fire and Rescue Commission and its Senior Deputy determine the membership of the board, but no formal guidelines exist. Currently, the board has nine members: five members represent the Fire and Rescue Commission, two members represent the North Carolina State Firemen's Association, and two members represent the North Carolina Association of Rescue and EMS, Inc. The board reserves a

[33] N.C. Gen. Stat. § 58-78-1(a).

place for a Department of Insurance member to sit on the board, but currently that position is vacant.[34]

Exhibit 8: Member Composition of the Volunteer Safety Workers' Compensation Fund Board and the State Fire and Rescue Commission Favors Firefighters and Rescue Workers



Source: Program Evaluation Division based on data from the Department of Insurance.

In summary, the financial oversight role of the Department of Insurance with regard to the Fund has varied over the years. More actuarial involvement by the Department of Insurance would offer a holistic assessment of the Fund's financial obligations because the composition of the commission and board favors keeping premium costs low for fire and rescue departments.

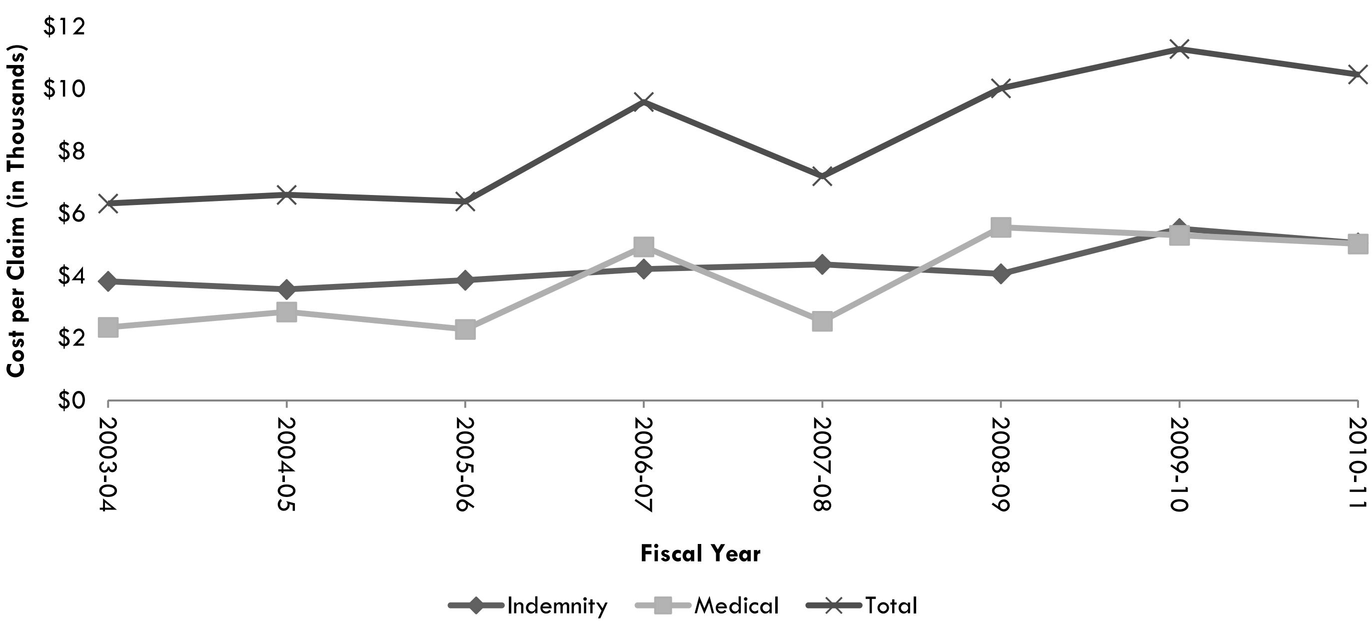
[34] Currently the position is vacant because the Department of Insurance board member took a position outside of the department, and the department has not yet named a replacement.

Finding 3: The Fund's claim frequency and claim cost trends are not out of line with industry rates, but the Volunteer Safety Workers' Compensation Board could use a more data-driven approach to enhance its cost-containment efforts.

Similar to other workers' compensation programs across the country and in North Carolina, the Fund has seen an increase in claim costs due to rising medical and indemnity (loss of wages) expenses. Specifically, the Fund has experienced rising claim costs due to increases in temporary total disability, health care costs, durable medical equipment, prescription drugs, physical therapy, medical case management, settlements, and legal expenses.

Claim costs. Claim costs, which include both medical and indemnity expenses, are increasing. Exhibit 9 shows the Fund's total incurred cost per claim has increased by 66% from Fiscal Year 2003–04 to Fiscal Year 2010–11. During this time period, medical cost per claim has increased by approximately 114%, while indemnity cost per claim has increased by 32%. These claim costs do not include losses that have been incurred but not yet reported. As insurance adjusters continue to receive and process claims, cost per claim will change for the most recent fiscal years. The Program Evaluation Division used data through Fiscal Year 2010–11 for this claim cost analysis due to the likelihood that the data from the most recent years will fluctuate as more losses are reported.

Exhibit 9: Fund's Medical, Indemnity, and Total Net Incurred Cost per Claim, Fiscal Years 2004–2011



Notes: Total cost per claim includes legal expenses and other administrative costs. Costs represent actual payments and reserves for future payments. Costs also include reductions in claim costs from subrogation, which occurs when money is recovered from a claim because the injured party is determined to have been negligent. Exhibit data is valued as of October 31, 2013.

Source: Program Evaluation Division based on data from Key Risk Management Services.

Claim frequency. The Fund's workers' compensation claim frequency has decreased over the last 10 years. Both total claims and claims per individual covered have declined. From Fiscal Year 2007–08 through Fiscal Year 2011–12, the Fund's claim frequency decreased at an average rate of 0.12% per year.[35] During the same time period, the claim frequency of North Carolina's workers' compensation voluntary market decreased at an average rate of 2.24% per year, as reported by the North Carolina Rate Bureau.[36]

It is important to note, however, that the Fund is not directly comparable to other workers' compensation programs because it covers volunteers who perform high-risk activities. All workers' compensation plans are assigned a hazard group designation, which groups together workers' compensation classifications that have similar expected losses. The North Carolina Rating Bureau has assigned firefighters and rescue workers to Group F, the group with the second highest likelihood of serious claims.[37]

Injury Types. Key Risk tracks how many claims by injury type occur each year. Exhibit 10 shows the number of claims by injury type in Fiscal Year 2012–13 and the total expenses incurred for each type.

Exhibit 10: Number of Claims and Cost by Injury Type, Fiscal Year 2012–13

Cause of Injury	Total Incurred	Total Claims
Motor vehicle	$2,434,843	42
Strain or injured by	1,700,040	239
Fall, slip, or trip	923,084	123
Burn/scald; heat/cold exposure; contact with	360,460	130
Struck or injured by	118,791	79
Miscellaneous causes	112,949	84
Striking against or stepping on	34,611	24
Cut, puncture, or scrape	32,299	46
Caught in or between	28,149	14
Rubbed or abraded by	903	1
Total	$5,746,130	782

Notes: "Total Incurred" represents medical and indemnity costs and other administrative costs, as well as reserves. It also includes reductions in claim costs from subrogation. Exhibit data is valued as of October 31, 2013.

Source: Program Evaluation Division based on data from Key Risk Management Services and the Volunteer Safety Workers' Compensation Board.

[35] From Fiscal Year 2011–12 to Fiscal Year 2012–13, the Fund claim frequency rate decreased nearly 6%.
[36] The North Carolina Rate Bureau prepares annual loss cost filings for the voluntary insurance market and rate filings for the assigned risk market.
[37] Hazard groups range from A-G, with A being the lowest hazard group with the least likelihood of serious claims, and G being the hazard group with the highest likelihood of serious claims.

In response to rising claim costs and steady claim frequency, the Volunteer Safety Workers' Compensation Board and Key Risk engage in several cost containment efforts. These efforts include

- loss prevention,
- experience-rating premium surcharges,
- settlement of claims, and
- fraud investigation.

Loss prevention. The board and Key Risk use loss prevention, which focuses on accident prevention in the workplace, to attempt to limit claim frequency and control claim costs. The board contracts with a former Department of Insurance trainer who conducts prevention and safety training, works with departments to create safety protocols, and makes site visits.

The board and Key Risk look at trends in workers' compensation to identify the need for particular types of loss prevention activities. For example, in 2008, the board implemented a statewide program for the prevention of vehicle rollovers after noticing that some of the Fund's most expensive claims resulted from this cause of injury. From 1999 through 2008, there were 17 firefighter and rescue worker deaths from rollovers; since the program's implementation in 2008, there have only been two such deaths.

The board has also created comprehensive accident reduction kits that have been requested by other states. These kits include DVDs on rollover prevention, highway safety for emergency services, and reduction of lifting injuries.

Experience-rating premium surcharges. In 2008, the board and Key Risk implemented an Experience Rating Modification Model to identify departments with excessive loss experience, or higher than average claim frequency and severity. The board assigns each department an experience rating based on the model and charges a premium surcharge to qualifying departments in addition to the premiums departments already pay for their members.

Exhibit 11 displays the current Experience Rating Modification Model used to determine experience-rating premium surcharges. Claims count as "losses" only if actual payments (indemnity, medical, or expense) are made on the claim. The loss ratio is calculated based on two factors:

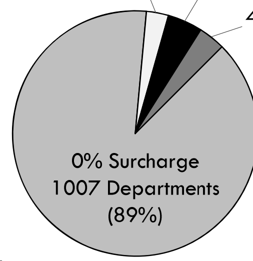
- total workers' compensation losses (capped at $100,000 per claim) for the most recent three years divided by the total premium paid in those years, and
- the number of claims in the three-year period examined.

Departments are given a percentage experience rating based on these two factors. For example, a department with four losses and a loss ratio of 300% would be charged a surcharge of 50%.

Exhibit 11: Fund's Experience Rating Modification Model and Number of Departments Assigned an Experience-Rating Premium Surcharge

Current Experience Rating Modification Model

Loss Ratio	3 losses	4 or more losses	5 or more losses
100–199%	N/A	N/A	25% surcharge
200–499%	25% surcharge	50% surcharge	50% surcharge
500% & Greater	50% surcharge	100% surcharge	100% surcharge



Notes: The loss ratio is based on total workers' compensation losses (capped at $100,000 per claim) for the most recent three years divided by the total premium paid and the number of claims in the three-year period examined.

Source: Program Evaluation Division based on data from Key Risk Management Services.

Departments rated at 25%, 50%, and 100% are the only departments that are charged an experience-rating premium surcharge.[38] As shown in Exhibit 11, approximately 11% of all departments paid a surcharge in Fiscal Year 2012–13 based on their experience rating calculated in Fiscal Year 2011–12.[39]

The experience-rating premium surcharge allows the Fund to defray some of the additional costs associated with departments that have excessive loss experience. Since Fiscal Year 2008–09, experience-rating premium surcharges have accounted for 6-8% of the Fund's total annual revenue from premium income.

Settlements and legal expenses. In Fiscal Year 2003–04, the Fund paid $82,299 in legal expenses. In Fiscal Year 2012–13, it paid $183,140, an increase of nearly 123% in 10 years. One of the ways the board and Key Risk attempt to control legal costs is by settling cases. The board's approach is to settle claims expeditiously and make reasonable offers to claimants. The board's contracted attorneys settle cases and answer legal questions from the claims' handlers.

Fraud. The board and Key Risk combat fraud by verifying all reported claims with the appropriate contact at the claimants' respective departments. All lost-time claims are reported and indexed with the national Insurance Services Office, Inc. (ISO). When claims seem suspicious, Key Risk goes back to employers and workers to substantiate claims.

A data-driven approach by the board and Key Risk would maximize their cost-containment efforts. The board primarily relies on year-end audits and actuarial reports as well as quarterly meeting reports, which list claims on a case-by-case basis, to review the Fund's claims and finances.

[38] Pursuant to N.C. Gen. Stat. § 58-36-16, department experience ratings are shared with the Department of Labor and the North Carolina Industrial Commission.
[39] This experience-rating calculation is based on fiscal years 2008–09 through 2010–11.

The contract between Key Risk and the board specifies Key Risk must assist in analysis regarding loss reserve adequacy, loss projections, Fund solvency, Fund premium adequacy, and other analysis as requested by the Fund. The board has complete access to the information in Key Risk's database, and the board can ask Key Risk to run analyses or reports at any time. Currently, however, the board does not instruct Key Risk to track and analyze certain information regarding claims that the board could use to realize its cost-containment goals with regard to loss prevention, experience ratings, legal expenses, and fraud.

More sophisticated data analysis on loss prevention is needed. The board and Key Risk currently track the amount of claims and the total amount of expenses incurred by injury type each year. When the Program Evaluation Division asked the board to provide information on the effectiveness of its loss prevention efforts, the board highlighted the work it did on rollovers, seat belts, and vehicle operations over the last couple of years. The board has data showing

- claims from motor vehicle injuries decreased from 51 to 36, or 29%, between Fiscal Year 2010–11 and Fiscal Year 2011–12, and
- claim expenses for motor vehicle injuries decreased from approximately $3.1 million to $1.2 million between Fiscal Year 2010–11 and Fiscal Year 2011–12.

Although the board and Key Risk are collecting this data and use it as evidence that loss prevention is working, more sophisticated statistical monitoring and analysis of the data is necessary in order to measure the effectiveness of loss prevention activities. The board and Key Risk need to compare data for a period of time longer than two years to assess the effect of a loss prevention intervention. Although the board showed that claims from motor vehicles decreased from 51 to 36 from Fiscal Year 2010–11 to Fiscal Year 2011–12, in the next fiscal year the number of claims from motor vehicle injuries increased from 36 to 42, and claim expenses from these injuries increased from $1.2 million to $2.4 million. More comprehensive data and analysis would enable the board and Key Risk to distinguish single events from trends in claim activity. Furthermore, the board and Key Risk need to consider additional factors beyond a comparison of the incident rate before and after a loss prevention intervention to properly measure the effectiveness of the intervention.

Specifically, the board and Key Risk could use a performance management system to more clearly define, set, and track both short-term and long-term loss prevention goals. A program is more likely to accomplish its desired results when its goals have been clearly established. In addition, the board and Key Risk need to identify the observations that have to be made and the metrics by which loss prevention can be measured in order to analyze the effectiveness of loss prevention activities.

The board and Key Risk could use a cost model to determine the data needed to measure the financial effectiveness of loss prevention. According to the International Risk Management Institute, Inc., a cost model should include

- the costs that need to be considered,
- the procedures for defining costs, and
- the ways costs will be sorted and categorized.

Moreover, the board and Key Risk could use data analytics software to generate sophisticated claim cost predictive models. Such software has enabled insurers to change their claim cost management strategies by

- identifying and estimating future high-cost claims earlier,
- identifying and quantifying the cost drivers of these claims, and
- creating a focused, early-intervention medical management program to prevent adverse claim development.

More sophisticated data analysis on the relationship between loss prevention spending and experience-rating determinations is needed. The board and Key Risk need to collect data in order to determine whether the amount of Fund money spent per department on loss prevention services to reduce experience ratings is offset by the experience-rating premium surcharges paid by each respective department. The board and Key Risk could use this information to set appropriate experience-rating premium surcharges and make departments more financially accountable for failing to take measures to prevent injury.

While analysis conducted by Key Risk found that increasing the current $100,000 cap placed on compensation losses would not generate additional experience-rating revenue, the board and Key Risk have not analyzed how much additional revenue could be raised by lowering the loss ratio or loss thresholds in the Experience Rating Modification Model.

Tracking and compilation of data on legal claims are needed. The Program Evaluation Division was not able to obtain a cumulative record of legal claims and associated expenses because the board and Key Risk handle these claims on a case-by-case basis. The compilation of these records would allow the board and Key Risk to identify possible commonalities in the types of compensation claims that result in legal proceedings, the reasons they are filed, and the conditions of settlements or court rulings. Accordingly, this data would allow the board and Key Risk to implement possible cost-control interventions. Moreover, cumulative data would provide claims' processors with a record of precedent when examining claims, which could reduce the frequency with which they have to pay for legal advice regarding claims.

Tracking and compilation of data on fraudulent claims are needed. The Program Evaluation Division was not able to obtain a record of claims suspected of fraudulent activity because the board and Key Risk do not flag these claims. Flagging and compiling these claims in a database would allow the board and Key Risk to identify trends in fraudulence by claim type or department. Accordingly, the board and Key Risk could develop a focused fraud prevention program based on this information to increase the efficiency of case management.

In summary, the Fund's claim disbursements have continued to increase due to a steady workers' compensation claim frequency and rising claim costs. The board and Key Risk have implemented several cost-containment measures, but more sophisticated tracking and analysis of data could help the board and Key Risk realize greater cost savings.

Finding 4. The Volunteer Safety Workers' Compensation Board does not cumulatively track or analyze claims affected by the minimum weekly compensation provision or claims in which volunteer firefighters or rescue workers receive indemnity compensation even though they are able to return to their paid occupations.

In 1985, the North Carolina Workers' Compensation Act was amended to establish a minimum weekly indemnity (loss of wages) compensation for certain volunteer workers, including volunteer firefighters and rescue workers.[40] The act set minimum weekly workers' compensation based on 66 2/3% of the maximum weekly benefit established under the general workers' compensation statute.[41] Maximum weekly benefit amounts are set July 1 of each year and become effective January 1 of the next year.[42] At the time of this report, rates were set such that injured volunteers would receive two-thirds of their wages from their paid occupations, not to exceed $884 and not to be less than $589 per week of tax-free compensation. Pursuant to N.C. Gen. Stat. § 97-29(b), an injured worker will receive benefits for a maximum of 500 weeks from the date of first disability unless the worker qualifies for extended compensation under N.C. Gen. Stat. § 97-29(c).[43]

The purpose of the amendment was to protect students, the unemployed, and other volunteers without an income who could become permanently injured while volunteering as a firefighter or rescue worker. Pursuant to N.C. Gen. Stat. § 97-2(5), workers' compensation indemnity wages for volunteer firefighters and rescue workers are based on the average weekly wage a volunteer firefighter or rescue worker was earning in the employment wherein he or she principally earned his or her livelihood as of the date of the injury. Accordingly, prior to the minimum weekly compensation provision, volunteer firefighters and rescue workers without an income would receive the minimum amount allowed by statute, or $30 per week, because they did not have a position of paid employment in addition to their volunteer service.

Volunteer firefighters and rescue workers can draw indemnity compensation from the Fund even if they are physically able to return to their regular, paid occupations. The North Carolina Industrial Commission determines eligibility for indemnity compensation for all

[40] Session Law 1985-133 amended N.C. Gen. Stat. § 97-2(5). N.C. Gen. Stat. § 97-2(5) also applies to authorized pickup firefighters of the Division of Forest Resources of the Department of Agriculture and Consumer Services, sworn members of auxiliary police departments, and senior members of the State Civil Air Patrol.
[41] N.C. Gen. Stat. § 97-29(a).
[42] N.C. Gen. Stat. § 97-29(i): "The amount of this maximum weekly benefit shall be derived by obtaining the average weekly insured wage, as defined in G.S. 96-1, by multiplying such average weekly insured wage by 1.10, and by rounding such figure to its nearest multiple of two dollars ($2.00)." N.C. Gen. Stat. § 96-1(b)(2) defines that average weekly insured wage: "The weekly rate obtained by dividing the total wages reported by all insured employers for a calendar year by the average monthly number of individuals in insured employment during that year and then dividing that quotient by 52."
[43] Pursuant to N.C. Gen. Stat. § 97-38, the death benefit under workers' compensation is subject to the same time limits and amounts. At the time of the report, the death benefit would not be less than $294,500 ($589 x 500 weeks).

workers' compensation claims in North Carolina. For most claims considered by the commission, the claimant was injured at their regular, paid occupation and receives indemnity compensation for no longer being able to perform that job. For the Fund's claims, on the other hand, the claimant was injured as a volunteer. As a result, the commission determines workers' compensation based on a volunteer's ability to perform as a firefighter or rescue worker. The commission does not consider the volunteer's ability to perform the duties of his or her paid occupation. As such, the volunteer may receive indemnity compensation from the Fund for no longer being able to perform his or her volunteer duties while still performing and getting paid for his or her regular occupation.

Exhibit 12 summarizes potential scenarios that could result from the minimum weekly compensation provision and the way indemnity wages are determined for volunteers.

Exhibit 12: Depending on Ability to Perform, Injured Volunteers Can Earn More from Workers' Compensation than from their Regular Jobs

	 Unemployed student	 Teacher's aide earning $430 weekly income	 Teacher's aide earning $430 weekly income	 Lawyer earning $2,200 weekly income	 Factory worker earning $710 weekly income
Can perform regular job	Not applicable	No	Yes	Yes	No (can no longer stand for 10 hours/day)
Can perform volunteer job	No	No	No	No	Yes
Weekly income from regular job	$0	$430	$430	$2,200	$0
Weekly workers' compensation	$589 (66.6% of maximum weekly benefit)	$589 (66.6% of maximum weekly benefit)	$589 (66.6% of maximum weekly benefit)	$884 (maximum weekly benefit)	$0
Total weekly income + weekly compensation	**$589**	**$589**	**$1,019**	**$3,084**	**$0**
Earning more than weekly income from regular job	Yes	Yes	Yes	Yes	No

Source: Program Evaluation Division based on N.C. Gen. Stat. §§ 97-2(5), 97-29(a), 97-29(i), and 96-8(22).

As shown in Exhibit 12, if a volunteer firefighter or rescue worker does not have a paid occupation (e.g. a student who earns no income), the volunteer will receive the minimum weekly compensation amount of $589 until he or she can perform the volunteer duties he or she performed before the injury.

Volunteers who have paid occupations may receive more compensation on a weekly basis than before they were injured as a volunteer. For example, if a volunteer who is also a teacher's aide earning $430 a week cannot perform his or her duties as a teacher's aide or a volunteer, that person will receive $589 a week in workers' compensation from the Fund until he or she can perform the volunteer duties he or she performed before the injury. Because the minimum weekly workers' compensation is greater than the average weekly salary of a teacher's aide, the volunteer would receive more from workers' compensation than they normally would earn as a teacher's aide (in this example, $159 more per week).

If the teacher's aide can return to work as a teacher's aide, he or she will continue to receive $589 a week in workers' compensation from the Fund in addition to his or her teacher's aide's salary until he or she can perform the volunteer duties he or she performed before the injury. Accordingly, the teacher's aide would receive a total of $1,019 per week.

On the other hand, if an injury prevents a worker from performing the duties of the worker's paid occupation but does not interfere with the volunteer responsibilities the worker performed before the injury, the worker will receive no workers' compensation from the Fund.

For instance, if a steelworker is injured while firefighting such that he or she is unable to perform his or her paid occupation as a steelworker, the worker will not receive compensation from the Fund if he or she can resume pre-injury volunteer responsibilities. This situation might occur if, for example, an injury prevents a worker from standing all day as required by his or her paid occupation but does not prohibit the worker from driving a fire truck in his or her volunteer position.

Key Risk stated it can be difficult to get people back to their volunteer duties because of the minimum weekly compensation provision for volunteer firefighters and rescue workers. The Volunteer Safety Workers' Compensation Board Chairman stated the statutory provision causes problems because it can result in people receiving more money than they were making at their full-time jobs.

The board has wrestled with the minimum weekly compensation provision in N.C. Gen. Stat. § 97-2(5). The change most often discussed contains the following three provisions:

- capping the weekly compensation to the gross wages received from the injured person's regular occupation such that if a person is a full-time employee, he or she would not be paid more than his or her full-time gross income;
- keeping the statute the same for those injured while unemployed (e.g., students) and those with occupations with salaries that are difficult to determine (e.g., farmers); and
- adjusting payments for retired individuals making less than $589 (or the current minimum amount), so they would receive the difference between $589 and their retirement amount but not less than half of the minimum amount per week.

However, the Board Chairman stated that making these changes would result in further unintended consequences that need to be investigated before the board would feel comfortable moving forward with a recommendation on if and how the provision should be changed.

The board needs more quantitative data before it can conduct a comprehensive analysis on the effects of the minimum weekly compensation provision on the Fund and assess possible modifications to the provision. The Program Evaluation Division requested data on the number of volunteer firefighters and rescue workers who were affected by the minimum weekly compensation provision and the amount of lost wages paid to workers due to this provision. The board did not have this data readily available and had not cumulatively analyzed it because cases affected by this provision are not flagged.

The board could better determine how the intent of the minimum weekly compensation provision compares to its effects by collecting more data and analyzing it in a more sophisticated manner. Although the provision fulfills its intent of providing volunteer protection and encouraging volunteer retention and recruitment, the effects of the provision have not been quantified or analyzed. The board does not track the data needed to determine how much the provision costs the Fund, how many Fund members it affects, and the way in which it affects these members. Accordingly, it is currently impossible to assess the provision's impact on the Fund.

Exhibit 13 lays out certain data that need to be collected and analyzed with regard to the minimum weekly compensation provision for volunteer firefighters and rescue workers before a more sophisticated analysis on the provision's effects can take place. Exhibit 13 also describes the data that need to be collected and analyzed to determine the effect of awarding compensation based on whether a volunteer can return to his or her volunteer duties rather than his or her regular, paid occupation.

Exhibit 13: Data Needed to Determine Effect of Indemnity Compensation Determinations on Fund

Injured Firefighter or Rescue Worker

(Paid) occupation

Weekly income from occupation

Date of injury

Type of injury

Ability to perform paid occupation

Post-injury return date

Ability to perform volunteer duty

Post-injury return date

Workers' compensation benefit earned, per week and total

Volunteer Safety Workers' Compensation Fund

Number of recipients whose workers' compensation indemnity wages exceed their weekly income

Amount of excess benefit per recipient

Total amount of excess for all recipients

Number of recipients who receive no weekly income because they can return to their volunteer duty but cannot return to their paid occupation

Amount of income lost per recipient

Total amount of income lost for all recipients

Total indemnity compensation awarded for each claim filed

Total dollar amount of indemnity compensation expended for claims

Source: Program Evaluation Division.

The board could use the data it collects to design a return-to-work program. A comprehensive return-to-work program could help incentivize volunteer firefighters and rescue workers to return to their previous volunteer duties as soon as possible and alleviate the financial pressure indemnity costs place upon the Fund.

Return-to-work programs attempt to return injured employees back to work as soon as medically appropriate, sometimes in different positions that accommodate their injuries. Return-to-work programs are usually based upon a contract between an employee and employer that clearly delineates each party's responsibilities in the event of an accident. The employer agrees to administer workers' compensation according to the law, while the employee agrees to actively participate in the return-to-work program by reporting incidents in a timely manner, communicating changes in health status to management, and cooperating with medical instruction.

Return-to-work programs are a standard business practice for many public and private entities because they can be a way to keep workers' compensation costs down. They decrease the chances for litigation, limit overtime and retraining costs, and minimize the amount of indemnity compensation paid to an injured worker.

At this time, the board does not require departments that participate in the Fund to have a return-to-work program. Although the majority of Fund members are volunteers, the board's implementation of a return-to-work program would facilitate the process of ensuring that volunteers were eligible to return to their duties as quickly as possible. Key Risk has the ability to assist the board in developing a return-to-work policy for the departments participating in the Fund, but it cannot implement or administer individual programs for the more than 1,000 departments that participate in the Fund.

In summary, the minimum weekly compensation provision for volunteer firefighters and rescue workers was created to protect volunteer workers who did not have a paid occupation. Although the provision has the unintended consequence of potentially incentivizing workers to not return to their volunteer positions, the board needs to collect more data before a specific statutory change can be considered. The board also needs to cumulatively track and analyze claims in which volunteers earn indemnity compensation even when they can return to their regular, paid occupations. Moreover, the Fund does not currently have a comprehensive return-to-work program, but program implementation could help control indemnity costs.

Finding 5. The board's Fund eligibility determinations do not conform with statute.

Although statute specifies that a department must be a volunteer fire department or volunteer rescue/EMS unit to be eligible for the Fund, the Fund provides coverage to non-municipal departments staffed exclusively with paid personnel, and the Volunteer Safety Workers' Compensation Fund Board allows fire and rescue associations to participate in the Fund.

The Fund has specific eligibility requirements. According to N.C. Gen. Stat. § 58-87-10, an "eligible unit" is defined as a "volunteer fire department or volunteer rescue/EMS unit that is not part of a unit of local government and is exempt from State income tax under G.S. 105-130.11." This definition specifies three requirements a department must fulfill to be eligible to participate in the Fund.

1. The department must be a volunteer fire department or volunteer rescue/EMS unit.[44] The ordinary dictionary definition of the term "volunteer" means "a person who does work without getting paid to do it."
2. The department must not be a unit of local government, or, in other words, the department must be a non-municipal unit.
3. The department must be exempt from state income tax under N.C. Gen. Stat. § 105-130.11, or, in other words, the department must be considered a non-profit organization.

As of June 30, 2013, the Fund covered 1,132 total fire departments, rescue squads, emergency medical service (EMS) units, and fire and rescue associations. As shown in Exhibit 14, four of these units were staffed exclusively by paid personnel and three of these units were fire and rescue associations, one of which had no volunteers.

Exhibit 14

Departments with Only Paid Personnel and Fire and Rescue Associations Participate in the Fund

Unit Type	Number	Percentage of Total
Volunteer departments (only volunteer personnel)	644	56.89%
Combination departments (volunteer and paid personnel)	481	42.49%
Paid departments (only paid personnel)	4	0.35%
Fire and rescue associations	3	0.27%
Total	1,132	

Notes: The fire and rescue associations included in the Fund are the North Carolina State Firemen's Association, the North Carolina Association of Rescue and Emergency Medical Services, Inc., and the North Carolina Association of Fire Chiefs.

Source: Program Evaluation Division based on data from Key Risk Management Services and the Voluntary Safety Workers' Compensation Board.

The Volunteer Safety Workers' Compensation Fund covers non-municipal departments staffed exclusively with paid personnel. As of the end of Fiscal Year 2012–13, four departments without any volunteer personnel received workers' compensation coverage under the Fund. Each of these four departments had volunteers when they joined the Fund and are able to take on volunteers at any time. Because the self-insured

[44] As discussed previously, combination departments consist of volunteer, paid full-time, and paid part-time firefighters and rescue workers.

workers' compensation programs established for municipal fire and rescue departments are not available for non-municipal departments, the Board allows non-municipal departments with only paid members to participate in the Fund so they have a workers' compensation program option other than the assigned risk market.

The board applies only two of the three statutory criteria when determining whether a department is eligible to participate in the Fund. The Board Chairman stated that the most important criteria for Fund eligibility are the non-municipal and non-profit designations. However, statute requires a department to meet three criteria to be eligible to participate in the Fund; the department must also be designated as a "volunteer" department to be eligible.

The board's definition of "volunteer" is a misinterpretation of statute. As long as a department is classified as a non-municipal department and is designated as a non-profit organization, the Board considers that department a "volunteer" department and eligible for the Fund. Although the Program Evaluation Division agrees with the Board that the term "volunteer" in statute does not exclude departments with paid personnel, the Program Evaluation Division interprets statute to mean that a department must have at least one volunteer firefighter or rescue worker when the department roster is turned into Key Risk by June 30 of each year to be considered a "volunteer" fire or rescue department.

The board also allows certain fire and rescue associations to participate in the Fund. Currently, the North Carolina State Firemen's Association, the North Carolina Association of Rescue and Emergency Medical Services, Inc., and the North Carolina Association of Fire Chiefs are covered by the Fund. The Fund provides protection in the event that staff members get hurt while performing their paid or volunteer association responsibilities.[45]

The board decided to cover these associations because their staff serve on the Fund's board and provide training to fire and rescue departments. If an association's paid staff did not receive compensation coverage through the Fund, the association could seek coverage through the private market. The associations also have volunteers who are instructors at association events. If the associations did not receive workers' compensation coverage through the Fund, the associations would have to decide how to fund workers' compensation for their volunteers.

The board's inclusion of associations in the Fund is a violation of statute. Nowhere in N.C. Gen. Stat. § 58-87-10 are fire and rescue associations permitted to participate in the Fund. An association does not meet the statutory criteria required to be considered an "eligible unit."

In summary, the board's determination that non-municipal fire and rescue departments staffed exclusively with paid personnel and associations are eligible to participate in the Fund does not conform with statute.

[45] Since 2003, the fire and rescue associations have paid $40,000 in member premiums to the Fund and have not had a single claim.

Recommendations

Recommendation 1. The General Assembly should direct the State Fire and Rescue Commission to increase member premiums paid by departments that participate in the Volunteer Safety Workers' Compensation Fund.

As discussed in Finding 1, the Fund's current revenue streams are not sufficient to support the Fund in the future. The General Assembly has increased its level of support for the Fund by allocating up to 20% of the net proceeds from the taxes insurance companies pay on the gross premiums they collect on property insurance. However, this allocation will not be enough to offset estimated cost increases, and the Program Evaluation Division projects that annual Fund expenditures will deplete total assets in Fiscal Year 2020–21.

The General Assembly has different options to address the projected Fund shortfall, as outlined in Finding 1. The General Assembly could use General Fund appropriations to generate Fund revenue as it has in the past. Alternatively, the General Assembly could provide more revenue for the Fund by increasing the Fund's allocated percentage of the net proceeds from the taxes insurance companies pay on the gross premiums they collect on property insurance. During the 2013 Legislative Session, the General Assembly decided not to pursue either of these options.

Accordingly, it is the opinion of the Program Evaluation Division that the most appropriate option is for the General Assembly to continue to allocate up to 20% of the net proceeds from the taxes insurance companies pay on the gross premiums they collect on property insurance. In addition, the General Assembly should direct the State Fire and Rescue Commission to gradually increase annual member premiums beginning in Fiscal Year 2015–16 by approximately $2.8 million per year so that premium income amounts to at least $14.3 million annually by Fiscal Year 2017–18. The commission should decide how these cost increases should be distributed among paid full-time, paid part-time, and volunteer positions.

Recommendation 2. The General Assembly should expand the actuarial responsibilities of the Department of Insurance regarding the Fund.

As discussed in Finding 2, the Department of Insurance has been directed by the General Assembly to conduct a periodic actuarial study in order to calculate the amount of money required to meet the needs of the Fund. The Department of Insurance, along with the Office of State Budget and Management, must inform the Secretary of Revenue as to how much of the possible 20% of the net proceeds from the taxes insurance companies pay on the gross premiums they collect on property insurance should be given to the Fund.[46]

The General Assembly should amend N.C. Gen. Stat. § 58-87-10(e) so as to direct the Department of Insurance

- to conduct an annual, rather than a periodic, actuarial study; and

[46] N.C. Gen. Stat. § 105-228.5(d)(3).

- to either conduct the actuarial study itself or to contract with a third-party actuary to conduct the study.

The General Assembly should require the Department of Insurance or the contracted third-party actuary to do the following in its annual actuarial study:

- investigate the nature of the claims paid by the Fund and any claims-related trends that impact the financial status of the Fund; and
- recommend the level of funding needed to ensure that the Fund can meet its financial obligations for the next five years.

Once the total level of funding needed to ensure that the Fund maintain a positive change in net position for the next five years is determined, the Department of Insurance or the contracted third-party actuary should break down how much revenue is needed from state tax revenue versus member premiums based on each of the following scenarios:

- presuming 20% of the net proceeds from tax revenue on gross premiums is provided to the Fund;
- presuming member premium levels set by the State Fire and Rescue Commission for the fiscal year in which the actuarial study is taking place;[47] and
- presuming the Fund is entirely funded by member premiums.

In addition, every five years, the Department of Insurance or the contracted third-party actuary should do the following in its actuarial study:

- compare Fund premium levels to the premium levels of employees of municipal fire and rescue departments; and
- calculate the amount of revenue generated by experience-rating premium surcharges and, if necessary, recommend changes to experience-rating premium surcharges given claim trends.

By January 1 of each year, the Department of Insurance should report the results of the actuarial study to the Fiscal Research Division, the House Appropriations Subcommittee on General Government, and the Senate Appropriations Committee on General Government and Information Technology.

Recommendation 3. The General Assembly should direct the State Fire and Rescue Commission to require the Volunteer Safety Workers' Compensation Board to begin tracking and analyzing data that would inform the Fund's cost-containment efforts.

As discussed in Finding 3, data are needed to inform cost-containment efforts in the areas of loss prevention, experience-rating premium surcharges, legal costs, and fraud.

[47] According to the Program Evaluation Division's projections in this report, the needed percentage of the net proceeds from tax revenue on gross premiums will exceed the 20% statutory limit of N.C. Sess. Law 2013-360, Section 20.2(e) if current member premium levels remain in place.

For loss prevention, the Volunteer Safety Workers' Compensation Board, with the assistance of Key Risk, should establish clear goals by which it can measure the effectiveness of its interventions. In addition, the board and Key Risk should determine the data needed to measure the effectiveness of each loss prevention intervention and determine the analyses that would demonstrate its impact. Finally, the board and Key Risk should evaluate how additional data analytics software could help manage claim costs.

For loss prevention and experience-rating premium surcharges, the board and Key Risk should

- determine expenditures per department allocated to loss prevention services geared toward experience-rating reductions;
- compare the expenditures allocated per department to the experience-rating premium surcharges paid by each department;
- assess the different ways in which the Rating Modification Model could be adjusted to generate more revenue and incentivize departments to be more engaged in loss prevention services; and
- if warranted, implement changes to the Experience Rating Modification Model.

For legal costs, the board and Key Risk should track and compile all legal claims and associated expenses. All legal claims open as of July 1, 2014, and filed thereafter should be entered. The database should be assessed at every quarterly board meeting. The database should include information on the reasons each claim was filed and the conditions of the settlement or court ruling.

For fraudulent claims, the board and Key Risk should track and compile suspected and confirmed fraudulent claims. All suspected and confirmed fraudulent claims open as of July 1, 2014, and filed thereafter should be entered. The database should be assessed at every quarterly board meeting.

The board should specify the data and analyses needed from Key Risk to perform these tasks and include this information in the contract service agreement the board plans to renew with Key Risk on June 30, 2014.

By January 1, 2015, the State Fire and Rescue Commission or the Volunteer Safety Workers' Compensation Board should report to the Fiscal Research Division, the House Appropriations Subcommittee on General Government, and the Senate Appropriations Committee on General Government and Information Technology the results of the board's data collection and analysis efforts regarding cost-containment.

Recommendation 4. The General Assembly should direct the State Fire and Rescue Commission to require the Volunteer Safety Workers' Compensation Board to begin tracking and analyzing data regarding the minimum weekly compensation provision of N.C. Gen. Stat. § 97-2(5) and the indemnity compensation determinations of the Industrial Commission and to design a model return-to-work program.

As discussed in Finding 4, data are needed to inform any policy changes that need to be made to the minimum weekly compensation provision and the indemnity (loss of wages) determinations made by the North Carolina Industrial Commission. The Volunteer Safety Workers' Compensation Board and Key Risk should create a database and begin collecting information for all claims awarded indemnity compensation that are open on July 1, 2014, and filed on or after July 1, 2014. In July 2015, the board and Key Risk should hold a meeting to evaluate and assess the findings.

The board and Key Risk should collect and analyze the following information regarding injured firefighters and rescue workers who receive indemnity compensation:

- (paid) occupation,
- weekly income from paid occupation,
- date of injury,
- detailed description of the type of injury,
- ability to perform paid occupation and post-injury return date,
- ability to perform volunteer duty and post-injury return date, and
- workers' compensation indemnity wages earned, per week and total.

The board and Key Risk should collect the following information regarding how the Fund is affected by the minimum weekly compensation provision and indemnity compensation determinations:

- number of recipients whose workers' compensation indemnity wages exceed their weekly income, including the amount of excess per recipient and total amount of excess for all recipients;
- number of recipients who receive no weekly income because they can return to their volunteer duty but cannot return to their paid occupation, including the amount of income lost per recipient and total amount of income lost for all recipients;
- total indemnity compensation awarded for each claim filed; and
- total dollar amount of indemnity compensation expended for claims.

Once this information is collected, the board should assess how the cost of the minimum weekly compensation provision compares to its intended benefits. The board should calculate how much the provision costs the Fund each year and estimate the possible cost savings if the provision were amended. The board also should consider the different stakeholders involved, including firefighters and rescue workers, fire and rescue departments, the Fund, and the state.

The board should specify the data and analyses needed from Key Risk and include this information in the contract service agreement the board plans to renew with Key Risk on June 30, 2014.

In addition, the board should collaborate with Key Risk to develop a model return-to-work program for use by fire and rescue departments that participate in the Fund. After developing the program, the board and Key Risk should work with a limited number of departments to implement and test the program over a two-year time period. The board and Key Risk should set goals and develop metrics by which to determine if the return-to-work program reduces workers' compensation costs. Based on the findings, the General Assembly should consider requiring the commission and the board to make a return-to-work program a requirement for all fire and rescue departments that participate in the Fund.

By January 1, 2015, the State Fire and Rescue Commission or the Volunteer Safety Workers' Compensation Board should report to the Fiscal Research Division, the House Appropriations Subcommittee on General Government, and the Senate Appropriations Committee on General Government and Information Technology the results of the board's data collection and analysis efforts regarding the minimum weekly compensation provision and indemnity compensation determinations and the status of the board's plan for a model return-to-work program.

In addition, the General Assembly should change the wording in N.C. Gen. Stat. § 97-2(5) to make it clear the provision only applies to volunteer rescue workers. As it is presently written and punctuated, it could be construed as including all rescue squad workers rather than only *volunteer* rescue squad workers. This technical correction would conform to practice and legislative intent.

Recommendation 5. The General Assembly should amend N.C. Gen. Stat. § 58-87-10 so that Fund eligibility requirements allow non-municipal fire, rescue, and EMS units staffed exclusively with paid personnel to participate in the Fund and direct the State Fire and Rescue Commission to direct the Volunteer Safety Workers' Compensation Board to discontinue the Fund memberships of fire and rescue associations.

As discussed in Finding 5, the Fund currently includes non-municipal departments staffed exclusively with paid personnel, and the Volunteer Safety Workers' Compensation Fund Board allows fire and rescue associations to participate in the Fund.

Non-municipal fire and rescue departments staffed exclusively with paid personnel do not have another viable option for workers' compensation coverage and are open to accepting volunteers at any time. Accordingly, the General Assembly should clarify existing statute so that non-municipal fire, rescue, and EMS units staffed exclusively with paid personnel are considered "eligible units" to participate in the Fund. The General Assembly should amend the definition of an "eligible unit" in N.C. Gen. Stat. § 58-87-10 by removing the two references to "volunteer" in section (a).

Because associations do not meet the requirements of an "eligible unit" that are necessary to receive workers' compensation from the Fund, the General Assembly should direct the State Fire and Rescue Commission to direct the Volunteer Safety Worker's Compensation Board to discontinue the associations' memberships in the Fund for Fiscal Year 2014–15 and beyond and not allow associations to join the Fund in the future.

Appendices

Appendix A: Projections of Future Performance of Fund

Appendix B: Net Position of Fund

Agency Response

A draft of this report was submitted to the Department of Insurance and the Volunteer Safety Workers' Compensation Fund Board to review and respond. Their responses are provided following the report.

Program Evaluation Division Contact and Acknowledgments

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Staff members who made key contributions to this report include Jim Horne, Kiernan McGorty, and Sara Nienow. John W. Turcotte is the director of the Program Evaluation Division.

Appendix A

Projections of Future Performance of Fund

The Program Evaluation Division projected how long the Fund would remain solvent given the transition of the state revenue base from General Fund appropriations to the receipt of a portion of the revenue from taxes paid by insurance companies on the gross premiums they collect on property insurance and given current member premium levels, enrollment trends, claim trends, and operating expenditures. This projection is based on a series of assumptions about each component of the Fund's income statement and does not take a standard actuarial approach.

In conducting this analysis, assumptions were made about the following factors:

1. **Tax revenue on gross premiums.** The Fund will receive the full 20% of the net proceeds from the taxes insurance companies pay on the gross premiums they collect on property insurance, and this amount will continue to grow at the historical compounded annual growth rate of 1.6%. In Fiscal Year 2013–14, this amount should be approximately $6.1 million.
2. **Growth of future claim and loss reserve costs.** Claim costs include the current payments made on claims, loss adjustment costs, and a reserve for unpaid losses and loss adjustment expenses. The liability for unpaid losses and loss adjustment expenses is based on an actuarial determination and represents the ultimate cost of losses that are unpaid at the end of the fiscal year, including both losses that have been reported but not yet settled and losses that have been incurred but not yet reported.

   This analysis assumes the Fund's claim and reserve costs will grow at a compounded annual growth rate of 8.5%. Information from Key Risk and the Volunteer Safety Workers' Compensation Board's contracted auditors indicate the approximate compound annual growth of claim costs, without the loss reserve, has been between 9.2% and 10% since Fiscal Year 2003–04.[48] The compound annual growth rate with the loss reserve has been approximately 7.4% since Fiscal Year 2003–04. However, the growth rate with the loss reserve has been more volatile than the rates based on claim activity. The Program Evaluation Division chose to use a growth rate of 8.5%, which was the average of the two claims-based rates and the claims plus loss reserve rate. This growth rate is slightly higher than the 8% growth rate used by the Department of Insurance's Chief Actuary in his October 2012 actuarial study of the Fund.

   It is important to note these projected costs are estimates, and actual costs will vary. Factors such as tax income, administrative costs, and investment returns will affect future Fund performance. An actuarial study, such as the one proposed in Recommendation 2 of this report, could determine that a different growth rate is more appropriate for future projections.

[48] Audits were conducted by Boyce, Furr and Company, LLP, from 2003–2010, and Koonce, Wooten, and Haywood, LLP, from 2011–2013.

3. **Operating expenditures.** Fund operating expenditures will grow at a compounded annual growth rate of 2.4%. This rate is consistent with expenditure growth in the previous five years.
4. **Member enrollment trends.** Fund enrollment trends in the future will be similar to trends of the past five years, meaning that the number of volunteers will gradually decline and the number of paid part-time and full-time positions will increase. Full-time, paid positions will increase by approximately 3.2% each year; part-time, paid positions will increase by approximately 8% per year; and volunteer positions will decline by approximately 1.6% per year.

   The possibility of department exit from and re-entry into the Fund was not factored into the projection of enrollment trends. It is possible that departments could leave the Fund to seek insurance in the assigned risk market if Fund member premiums increase. It is also possible that these departments could re-enter the Fund after a subsequent premium increase in the assigned risk market.[49] This fluctuation could not be considered in the Program Evaluation Division's projections due to the fact that there is not enough history upon which to base such a projection; the only recent Fund premium increase took place in Fiscal Year 2011–12, and it will take about four years to determine the overall impact of the increase.
5. **Investment income.** The Fund's annual interest income will be 4% of total assets. This is a conservative estimate of investment return and the rate suggested by the Department of Insurance's Chief Actuary.
6. **Member premiums.** In November 2013, the Volunteer Safety Workers' Compensation Board voted to raise Fund member premiums from $500 to $750 for full-time workers and from $250 to $375 for part-time workers. Volunteer premiums will remain at $65 per volunteer. This analysis reflects the higher premiums for part-time and full-time workers that will be collected starting in Fiscal Year 2014–15.
7. **Experience-rating premium surcharges.** Fund income from experience-rating premium surcharges will be equal to 6% of future premium revenue every year. The experience-rating surcharge has varied between 6% and 8% of the total premiums since the experience-rating modification model was implemented in 2008.

Non-current liabilities were not calculated into the projections in this appendix. Non-current liabilities are expenses that will need to be paid at some point in the future. The ultimate cost of non-current liabilities is uncertain because claim costs are still evolving and are affected by inflation, future medical care costs, and other factors. As of June 30, 2013, the Fund had an estimated $9.9 million in non-current

[49] Between fiscal years 2011–12 and 2012–13, about 30 volunteer departments were moved by their insurance agent to the North Carolina assigned risk market because the assigned risk market was less expensive than remaining in the Fund.

liabilities. If these non-current liabilities had been factored into the analysis, the Fund's total assets would have been depleted sooner.

As shown in Table 1, under these assumptions, the Program Evaluation Division projects annual Fund expenditures will exceed total assets (investments and cash from annual revenue) in Fiscal Year 2020-21.

Table 1: Program Evaluation Division Projection of Future Performance of Fund with 8.5% Increase in Claim Costs (in Millions)

Fiscal Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Income										
Member Premiums	$4.79	$5.79	$5.94	$6.10	$6.27	$6.46	$6.66	$6.89	$7.13	$7.39
State Appropriations	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Tax Revenue	$6.07	$6.17	$6.27	$6.38	$6.48	$6.59	$6.70	$6.81	$6.92	$7.04
Interest Income	$0.76	$0.58	$0.59	$0.59	$0.57	$0.51	$0.42	$0.29	$0.11	-$0.12
Total Income	$11.62	$12.54	$12.80	$13.07	$13.32	$13.56	$13.78	$13.98	$14.15	$14.30
Expenses										
Claim Loss Expenses	$10.66	$11.57	$12.55	$13.61	$14.77	$16.03	$17.39	$18.87	$20.47	$22.21
Operating Expenses	$0.78	$0.80	$0.82	$0.84	$0.86	$0.88	$0.90	$0.92	$0.95	$0.97
Total Expenses	$11.44	$12.37	$13.37	$14.45	$15.63	$16.91	$18.29	$19.79	$21.42	$23.18
Net Income (Loss) / Change in Net Position	$0.18	$0.18	-$0.57	-$1.39	-$2.31	-$3.34	-$4.51	-$5.81	-$7.26	-$8.88
Total Assets With 8.5% Growth in Claim Costs	$16.67	$16.84	$16.27	$14.89	$12.58	$9.23	$4.73	-$1.08	-$8.34	-$17.23

Note: This analysis does not examine changes in the fair market value of investment assets. In addition, as of June 30, 2013, the Fund had an estimated $9.9 million in non-current liabilities that are not accounted for in this analysis.

Source: Program Evaluation Division based on the FY 2011–13 audits conducted by Koonce, Wooten, & Haywood, LLC, and Key Risk Management Services 2013 pro forma sheet.

The Program Evaluation Division also ran its Fund projection model using a 12% compounded annual growth rate for claim costs in order to test model sensitivity to this assumption. All other factors and assumptions were held constant.

A 12% growth rate reflects an increase in costs that is higher than that represented in Table 1, but in the lower range of actual recent cost increases experienced by the Fund. During the last five Fund years, Key Risk and audit numbers indicate claim costs have risen at a compounded annual growth rate between 11.4% and 15.7%.[50] The compound annual growth rate for claim costs and the loss reserve has been 14.8% for the same time period.[51]

As shown in Table 2, the Program Evaluation Division projects annual Fund expenses will exceed total assets (annual revenue and investments) in Fiscal Year 2019–20 if claim costs grow at an annual compounded growth rate of 12%.

[50] Audits were conducted by Boyce, Furr and Company, LLP, from 2003–2010, and Koonce, Wooten, and Haywood, LLP, from 2011–2013.

[51] The Program Evaluation Division chose to use the nine-year, 8.5% compound growth rate for the first projection in Appendix A, Table 1, because the Department of Insurance's Chief Actuary cautioned that using an estimate based on a five-year time period could result in inflated future cost projections. If expenses remain higher than the nine-year average, however, claim costs may grow faster than the 8.5% annual compounded growth rate used in Table 1.

Table 2: Program Evaluation Division Projection of Future Performance of Fund with 12% Increase in Claim Costs (in Millions)

Fiscal Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Income										
Member Premiums	$4.79	$5.79	$5.94	$6.10	$6.27	$6.46	$6.66	$6.89	$7.13	$7.39
State Appropriations	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Tax Revenue	$6.07	$6.17	$6.27	$6.38	$6.48	$6.59	$6.70	$6.81	$6.92	$7.04
Interest Income	$0.76	$0.58	$0.59	$0.58	$0.52	$0.41	$0.24	-$0.01	-$0.35	-$0.78
Total Income	$11.62	$12.54	$12.80	$13.05	$13.28	$13.46	$13.60	$13.68	$13.70	$13.64
Expenses										
Claim Loss Expenses	$10.66	$11.94	$13.37	$14.98	$16.77	$18.78	$21.04	$23.56	$26.39	$29.56
Operating Expenses	$0.78	$0.80	$0.82	$0.84	$0.86	$0.88	$0.90	$0.92	$0.95	$0.97
Total Expenses	$11.44	$12.74	$14.19	$15.81	$17.63	$19.67	$21.94	$24.49	$27.34	$30.53
Net Income (Loss) / Change in Net Position	$0.18	-$0.20	-$1.39	-$2.76	-$4.36	-$6.20	-$8.34	-$10.80	-$13.63	-$16.88
Total Assets with 12% Growth in Claim Costs	$16.67	$16.47	$15.08	$12.31	$7.96	$1.75	-$6.59	-$17.39	-$31.02	-$47.91

Note: This analysis does not examine changes in the fair market value of investment assets. In addition, as of June 30, 2013, the Fund had an estimated $9.9 million in non-current liabilities that are not accounted for in this analysis.

Source: Program Evaluation Division based on FY 2011–13 audits conducted by Koonce, Wooten, & Haywood, LLC, and Key Risk Management Services 2013 pro forma sheet.

Appendix B

Net Position of Fund

Net Position of Fund. Table 1 is a depiction of the Fund's potential future net position based on historical information, the assumption that claim costs will rise at an 8.5% compounded annual growth rate, and the assumption that member premiums will be gradually increased starting in Fiscal Year 2014–15. The assumptions listed in Appendix A regarding tax revenue on gross premiums, operating expenditures, member enrollment trends, investment income, and experience-rating surcharges will be held constant.

The change in net position (annual revenue minus annual expenses) will turn negative in Fiscal Year 2024–25, even though the Fund will still have a positive net position.

Table 1: Program Evaluation Division Projection of Net Position of Fund with an 8.5% Increase in Claim Costs and a Gradual Increase in Member Premiums

Fiscal Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Revenues							
Member premiums	$4,789,000	$5,790,000	$8,630,000	$11,470,000	$14,305,000	$14,554,707	$14,832,164
State Funding	$6,072,807	$6,172,953	$6,274,749	$6,378,225	$6,483,407	$6,590,324	$6,699,004
Investment earnings, net	$755,000	$585,078	$646,768	$774,508	$959,126	$1,203,759	$1,421,394
Total Revenues	$11,616,807	$12,548,031	$15,551,518	$18,622,733	$21,747,533	$22,348,790	$22,952,562
Expenses							
Services	$782,000	$800,768	$819,986	$839,666	$859,818	$880,454	$901,585
Claims	$10,659,000	$11,565,015	$12,548,041	$13,614,625	$14,771,868	$16,027,477	$17,389,812
Total Expenses	$11,441,000	$12,365,783	$13,368,028	$14,454,291	$15,631,686	$16,907,930	$18,291,397
Change in Net Position	$175,807	$182,248	$2,183,490	$4,168,442	$6,115,847	$5,440,860	$4,661,165
Net position - July 1, As previously stated	($4,745,773)	($4,569,966)	($4,387,718)	($2,204,228)	$1,964,215	$8,080,061	$13,520,921
Net Position	($4,569,966)	($4,387,718)	($2,204,228)	$1,964,215	$8,080,061	$13,520,921	$18,182,086

Table 1 Continued

Fiscal Year	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
Revenues						
Member premiums	$15,139,675	$15,479,310	$15,853,307	$16,264,079	$16,714,229	$17,206,568
State Funding	$6,809,476	$6,921,769	$7,035,915	$7,151,943	$7,269,884	$7,389,770
Investment earnings, net	$1,607,840	$1,758,473	$1,868,171	$1,931,272	$1,941,518	$1,892,008
Total Revenues	$23,556,991	$24,159,553	$24,757,394	$25,347,293	$25,925,632	$26,488,346
Expenses						
Services	$923,223	$945,380	$968,069	$991,303	$1,015,094	$1,039,456
Claims	$18,867,946	$20,471,722	$22,211,818	$24,099,823	$26,148,307	$28,370,914
Total Expenses	$19,791,169	$21,417,102	$23,179,887	$25,091,125	$27,163,401	$29,410,370
Change in Net Position	$3,765,822	$2,742,451	$1,577,507	$256,168	($1,237,770)	($2,922,023)
Net position - July 1, As previously stated	$18,182,086	$21,947,908	$24,690,360	$26,267,866	$26,524,034	$25,286,265
Net Position	$21,947,908	$24,690,360	$26,267,866	$26,524,034	$25,286,265	$22,364,241

Note: This analysis does not examine changes in the fair market value of investment assets.

Source: Program Evaluation Division based on the FY 2011–12 audit conducted by Koonce, Wooten, & Haywood, LLC, and Key Risk Management Services 2013 pro forma sheet.

February 11, 2014

Mr. John Turcotte, Director
NC General Assembly Program Evaluation Division
Legislative Office Building, Suite 100
300 N. Salisbury Street
Raleigh, NC 27603-5925

RE: Revenue and Cost Trends Indicate Deficit in Volunteer Safety Workers' Compensation Fund in FY 2020–21

Dear Mr. Turcotte,

The North Carolina Department of Insurance appreciates the opportunity to review and respond to the Program Evaluation Division report entitled, *Revenue and Cost Trends Indicate Deficit in Volunteer Safety Workers' Compensation Fund in FY 2020–21.*

The Volunteer Safety Workers' Compensation Fund provides workers' compensation benefits to emergency first responders who serve to protect the citizens of the state and their possessions in non-municipal department for compensable injuries or deaths. The fund provides coverage for approximately 42,800 emergency first responders in more than 1100 non-municipal fire departments, rescue squads and emergency medical service units. The majority of these responders are classified as "volunteers".

The PED report recommends that the General Assembly should expand the actuarial responsibilities of the Department of Insurance regarding the Fund. As part of the budget cuts last year, the Department eliminated an actuarial position. The actuarial division has a heavy load. If the new work had to be completed while a rate filing in health insurance, worker's compensation, automobile or homeowner's insurance was pending, it would be extremely difficult. We support the PED report's recommendation of bringing in a third-party actuary if we are unable to do the job with the load the Department has. Funding to contract with a third-party actuary would be required.

We have attached a copy of the 2012 actuarial report the Department completed as required by SL 2012-142 so that members may easily compare the findings of that report to the findings in the PED report.

We are grateful to you and the other staff of the Program Evaluation Division of the General Assembly for the professionalism and proficiency you have shown throughout this process.

Yours very truly,

Wayne Goodwin

Wayne Goodwin
NC Commissioner of Insurance

Attachment

Report to the North Carolina General Assembly regarding the Volunteer Safety Workers Compensation Fund pursuant to HB 950, Session Law 2012-142 Part XX. Section 20.4(a)

Prepared by:
Kevin Conley, FCAS, MAAA
Chief Actuary,
North Carolina Division of Insurance

Introduction and Background

The Volunteer Safety Workers Compensation Fund ("Fund") began operations in 1996, with the legislature providing funding of $4.5 million per year for the first four years. The program rapidly grew to provide the worker compensation coverage to over 40,000 North Carolina firefighters in approximately 1,400 fire departments, rescue squads, EMS units, etc. The larger municipal fire departments with salaried firefighters have not been part of the program. The most recently completely fund year, which ended on June 30, 2012, included 43,477 firefighters, of which nearly 90% were classified as "volunteer", with the remainder being classified as "full-time" or "part-time". A total of 1,156 fire departments are current members of the Fund. There is great variation in the number of first responders in each covered department from just 1 to over 100. *Note that throughout this report, the term"firefighters" includes all emergency first responders.*

The Fund is administered by the State Fire and Rescue Commission. Pursuant to N.C.G.S. 58-87-10(d) the Commission has been contracting with a third-party administrator, Key Risk Management Services, located in Greensboro, North Carolina, to handle the Fund's operations since 2002.

Starting in Fund Year 2001, the contributions from the state began to be irregular. Despite urgent pleas from the Commissioner and the State Fire and Rescue Commission, only three times since then has the state contributed the original amount of $4.5 million. The General Assembly cut 2 million from the fund in 2009. The average annual contribution by the state since 2001 has averaged about $2.5 million, a cumulative shortfall of over $20 million. The Fund is now in strained financial condition.

During its history, the Fund has collected premium from the fire departments, charging $55 per volunteer, $125 for each part-time firefighter, and $250 for each full-time firefighter. In 2011, those amounts were increased to $65, $250, and $500 respectively. With the higher premiums, the Fund collected $4.3 million in premium for the year beginning July 1, 2011.

Recommendations as to the level of funding required to ensure that the Fund can meet its financial obligations.

I estimate that the Fund Year 2012 will incur $10.5 million in losses. Absent a premium increase, the Fund is expected to collect $4.3 million in premium again. The Fund's assets will produce, by my estimate, investment income of approximately $750,000, which will be (roughly) offset by the Fund's operating expenses. Thus, to ensure the Fund can meet its financial obligations for that year, it would need a contribution of $6.2 million ($10.5 million less $4.3 million) from the state. Again, that assumes there is no premium increase, or any other new source of revenue.

Fund losses are projected to increase by 8% per year per insured firefighter. The number of insured firefighters has not changed significantly since 2002, which is oldest year for which I have such information. With no premium increase, the state contribution would have to increase from $6.2 million to $7.0 million the following year, and then to $7.8 million.

Note that the loss amounts cited above are projected estimates. Actual losses will vary, and in any case, not be exactly determined until the last claim is closed, which could be 10 or more years later, given the way the workers compensation benefit structure is set up. Nevertheless, funding should be pegged to expected losses, which could be adjusted on an annual basis per the actuarial report that is done for the Fund. (The actuary who has done the report in recent years is Danny M Allen, ACAS, MAAA of Allen Consulting, Sarasota, FL).

The level and duration of funding required for the Fund to become self-sufficient in the future.

I take self-sufficiency to mean the Fund becoming like the other self-insured workers compensation groups that exist in North Carolina, none of which rely on public monies. To become self-sufficient in this way would entail two changes: one, the Fund would need to raise the premiums it charges its member departments (see below for details), as well as shoring up its asset base to a level commensurate with workers compensation insurers that operate in this state.

A general rule of thumb for worker compensation insurers in acceptable financial condition is that assets are 140% of liabilities (loss and unearned premium reserves). As of June 30, 2012, the Fund had $19.7 million of assets and $22.1 million of liabilities. Thus, the Fund's current ratio of assets to liabilities is 89%, well below the 140% standard of a typical, financially sound WC insurer. Bringing its asset level up to recommended levels would require a capital infusion of $11.2 million. However, the financial condition of the fund is deteriorating, as reflected in the fact that the asset-to-liability ratio was 102% just one year prior. One would expect that at June 30, 2013, the capital infusion needed to achieve self-sufficiency would probably be at least $12 million. This capital infusion could occur over two or three years.

The nature of the claims paid by the Fund and any claims-related trends that impact the health of the Fund.

I obtained a file showing details of every claim incurred by the Fund since inception (13,422 claims) and detected no unusual patterns beyond normal statistical deviations. I make the observation that claim frequency (defined as number of claims divided by number of insured members) has been generally flat over the last several years. The average amount of claims is increasing at an estimated annual rate of 8.0% per year, as mentioned above. These trends in number of claims and size of claims are both somewhat higher than but not out of line with what is happening in the North Carolina workers compensation market as a whole, as can be discerned in annual filings supplied by the North Carolina Rate Bureau.

Recommendations as to the appropriate level of premiums to be paid by members or their departments.

Whether the Fund should be partially subsidized by the state's general budget is for the legislature to decide. Current premiums are charged per capita at $500 for full-time, $250 for part-time, and $65 for each volunteer. If the Fund were to charge premiums with the goal of achieving self-sufficiency (no state funding) then the loss experience suggests that the premiums for full-time and volunteer firefighters should be significantly increased. The actuarially indicated appropriate premiums for the Fund for this fund year would have been:

$1,470 for each full-time
$250 for each part-time (no change)
$185 for each volunteer

These premiums would have generated $10.5 million, which is the total revenue needed to make the fund year 2012-2013 actuarially sound.

I have been informed that the average salary of the full-time firefighter covered in the fund is $27,000. Given this fact, a premium of $1,470 per capita works out to be 5.44% of payroll.

It should be noted that such a large increase in the amount of premium paid for volunteer coverage could cause an exodus of insureds, especially the larger departments, from the Fund to the Assigned Risk market, which recently instituted rules that would produce an average annual premium per volunteer of about $37 (my estimate). However, should the loss experience remain the same as it has been, the Assigned Risk market would soon be seeking similar rate increases to achieve profitability.

A projection of revenues to the Fund from sources other than State funding.

Absent a premium change, the annual revenues to the fund are expected to be $4.3 million. In addition, investment income for this fund year is expected to be approximately $750,000. There are no other significant sources of revenue other than state funding.

A comparison of the projected timing and risk of the cash flow from investments with the cash flow needed to pay claims.

If this item refers to the technical financial question as to the interest rate risk that would be caused by a mismatch of asset and liability durations, I don't have enough information on the investment portfolio to answer it. Nevertheless, I would deem this risk to be negligible.

Due to the fact that assets (investments) are currently lower than liabilities (obligations to make claim payments for injuries that have already happened), it is expected that, without a capital infusion, the Fund's cash flow could result in unpaid claims starting about 2016.

A comparison of the premiums paid into the Fund and premiums paid by municipal fire departments for their employees' workers compensation insurance.

I obtained the following information from the Associate Director of the North Carolina League of Municipalities (NCLOM): Full time firefighters in that organization are charged for their workers compensation coverage at a rate of 4.70% of payroll. After various discounts are applied based mainly on good loss experience, the average overall rate charged during this fund year is 4.26%. By way of comparison, the estimated typical rate that the regular insurance market would charge for full-time firefighters would be 5.19% of payroll. Lastly, it appears that the rate charged by the league is actuarially sound, based on my review of collected premiums and incurred losses.

The NCLOM charges its volunteer firefighters $69 each, which is comparable to the rate charged by the VSWCF ($65). It should be noted that the loss experience of the volunteer firefighters over the last four years suggests that the actuarially sound rate should be closer to $200 each. This parallels the experience of the VSWCF.

I wish gratefully to acknowledge the help provided by the following:

Danny Allen, Allen Consulting; Cloyce Anders, VFIS NC; Tim Bradley, OSFM (NCDOI); Ryan Ezzell, NCLOM; Bryan Helton, Key Risk; Bob Haynes, NCLOM

North Carolina Volunteer Safety Workers' Compensation Fund
(A Program of the North Carolina State Fire and Rescue Commission)

February 11, 2014

Mr. John W. Turcotte
Director, Program Evaluation Division
North Carolina General Assembly
300 N. Salisbury St., suite 100
Raleigh, NC 27603-5925

Dear Mr. Turcotte,

On behalf of the Board of Directors (the Board) of the North Carolina Volunteer Safety Workers' Compensation Fund (the Fund) we appreciate the opportunity to offer our observations and comments on the Program Evaluation Division report No. 2014-02. We appreciate the time and effort of the Program Evaluation Division staff in their efforts to understand the Fund and the workers' compensation insurance industry. With respect to the report, we offer the following observations and comments.

As outlined in the background of the report, the Fund was established "1n 1995 to provide a statewide alternative to the increasing costs of workers' compensation insurance for non-municipal volunteer and combination fire departments and rescue/EMS units. These units provide an essential service in protecting the property, safety, and quality of life of millions of North Carolinians. The State of North Carolina was to assist the Fund, and the member departments, by providing an annual appropriation of $4.5M each year. The annual State appropriations were to continue to supplement the Fund member premiums until the fund balance reached $50M and the Fund could be self-sustaining. Since the inception of the fund in 1996 the appropriation from the State of North Carolina has had a cumulative shortfall of approximately $25M, and the fund balance has never exceed $13M. In response to the lack of appropriations the Board has increased premiums on the member departments and instituted several programs focusing on loss prevention.

The wisdom of creating this fund is demonstrated by the fact the premium costs for members of the Fund for the period 2003-2012 would have been $144,556,441 had the members been insured through the Assigned Risk Plan. Comparing the actual premiums paid by the Fund members during the same period, $31,743,790, shows a significant cost savings for these essential departments. Even including the nearly $28 million in appropriations provided by the State of North Carolina results in a cost savings of approximately $85 million.

The overriding recommendation of the report is the increase of member premiums. We take no exception to the finding that member premiums need to be increased in an effort to maintain the Funds feasibility. In November of 2013 the Board of Directors approved a motion to increase premium rates by 50% for all paid positions. However, this report calls for the members premiums to increase three fold over the next five years. It is our opinion that this recommendation is contrary to the intent of the creation of this fund. Increases of this nature will drive the members of the fund right back to the position they experienced in the late 1980's and early 1990's, with no viable alternative. This Board agrees with the findings of the report presented in that an increase in revenue is necessary. However, we disagree with the recommendation that the burden of the increase be placed squarely on the financial well-being of these volunteer non-profit departments.

We also take exception to the soundness of the estimated 8.5% grow1h rate used in the Program Evaluation Divisions Report. Any analysis of the true cost trends associated with workers' compensation need to take into account the total incurred value of claims, which includes both case reserves and loss payments. This evaluation utilized fiscal year paid losses information only in forecasting future paid losses. The over simplified assumptions as to timing of future payments inherent in this methodology are not necessarily actuarially justified and therefore questionable as being financially sound. Our recommendation is to develop future paid loss projections based on the current case and IBNR by fund year for prior fund years, and projecting total costs for future fund years in order to estimate the future paid loss projections by fiscal year. That calculation along with a balance sheet are essential in order to assess the long term financial status of the Fund before any recommendations can be made regarding the needed premium funding levels. We need an independent actuarial study to determine an accurate growth rate.

Additionally, the board welcomes the inclusion of the North Carolina Department of Insurance Actuaries in determining appropriate premium levels once adequate growth projections have been determined. However, we think it is important to remember that by increasing the premiums charged to members of the Fund three fold, and possibly further, the State of North Carolina will no doubt return to the crisis that began in the 1990's, and defeat the original purpose of its creation. As members are driven out of the Fund to find alternative markets for workers' compensation insurance, the rates that are charged by those alternatives will be driven up as well. Many of the departments covered by the Fund will no longer be able to afford the cost of providing workers' compensation insurance and will be driven out of business, increasing emergency response times to the entire population of the State of North Carolina. As an alternative to burdensome premium increases to fund members, we strongly encourage the General Assembly to re-evaluate the funding provided by the recent changes in the General Statute and provide additional assistance to these essential life-saving and protection services.

As was presented in the report, the Board has approved and implemented several cost containment efforts and continually evaluates additional programs to assist the Fund's member departments in combating the hazards associated with the work performed by those being protected. The Board's loss control efforts have specifically taken aim at the most costly and most prevalent claims. The most costly claims by far have been motor vehicle accidents which the Board has addressed in attempting to prevent rollovers and ensuring proper seatbelt use. The most prevalent claims are injuries due to strains which the board has also addressed through a program on proper lifting techniques. The Board has additionally implemented an experience rating on departments that have continually experienced excessive losses in claim frequency and value. Throughout the Fund's relationship with Key Risk they have been provided with useful and insightful data analysis in their efforts to mitigate losses. Key Risk provides the Board with data on an annual, quarterly, monthly, weekly, and daily basis. Additionally, the Board works closely with Key Risk to adjudicate all claims within the parameters of the workers' compensation laws of the State of North Carolina. The recommendations provided by the Program Evaluation Division, including appropriate return to work policies and analysis of the minimum weekly compensation provision, were very insightful and will be considered as part of the continuing efforts to reduce claims and associated costs.

Finally, while the Board agrees with the recommendation to amend N.C. Gen. Stat. § 58-87-10 to allow units with exclusively paid personnel to participate in the fund, we disagree with assumptions that the units presented are not eligible. With respect to the four units described as "paid departments", although these departments do not currently have any volunteers on their rosters, when they first joined the Fund they did have volunteers. These units can take on volunteers at any time, they are not a part of a unit of local government and continue to be exempt from State income tax under G.S. 105-130.11, and are still considered a non-profit organization. While the associations do not meet the criteria as defined in the statutes, they are volunteer organizations and provide invaluable services to the Fund's member departments. The associations provide leadership through their service on the Board of the Fund and training to member departments which in turn can be a driver for reducing the frequency and cost of claims. This Board would further suggest that the statutes be amended to include the associations.

Thank you again for this opportunity. We continue to be available to answer any questions as they arise.

Sincerely,

Cloyce Anders
Chairman of the Board of Directors,
North Carolina Volunteer Safety Workers' Compensation Fund

Program Evaluation Division Response to the Volunteer Safety Workers' Compensation Fund Board Response

The Program Evaluation Division would like to respond to a portion of the response given by the Volunteer Safety Workers' Compensation Board.

Board Response: "We also take exception to the soundness of the estimated 8.5% growth rate used in the Program Evaluation Divisions Report. Any analysis of the true cost trends associated with workers' compensation need to take into account the total incurred value of claims, which includes both case reserves and loss payments. This evaluation utilized fiscal year paid losses information only in forecasting future paid losses. The over simplified assumptions as to timing of future payments inherent in this methodology are not necessarily actuarially justified and therefore questionable as being financially sound. Our recommendation is to develop future paid loss projections based on the current case and IBNR by fund year for prior fund years, and projecting total costs for future fund years in order to estimate the future paid loss projections by fiscal year. That calculation along with a balance sheet are essential in order to assess the long term financial status of the Fund before any recommendations can be made regarding the needed premium funding levels. We need an independent actuarial study to determine an accurate growth rate."

Program Evaluation Division Response

The Program Evaluation Division's projection model was reviewed by the Department of Insurance's Chief Actuary.

In Appendix A (p. 37), the report explains in detail why the Program Evaluation Division used an 8.5% growth rate to calculate Fund solvency. Finding 1 of the report (footnote 24, p. 10) provides a brief description: "The Program Evaluation Division chose to use a growth rate of 8.5%, which is the average of two claims-based rates (9.2% and 10.1%) and the claims plus loss reserve growth rate (7.4%). This growth rate is slightly higher than the 8% growth rate used by the Department of Insurance's Chief Actuary in his October 2012 actuarial study."

The Program Evaluation Division's analysis of cost trends, specifically the 7.4% claims plus loss reserve growth rate used in the average, does take the incurred value of claims into account. As the report explains (p. 37), "Claim costs include the current payments made on claims, loss adjustment costs, and a reserve for unpaid losses and loss adjustment expenses. The liability for unpaid losses and loss adjustment expenses is based on an actuarial determination and represents the ultimate cost of losses that are unpaid at the end of the fiscal year, including both losses that have been reported but not yet settled and losses that have been incurred but not yet reported."

In Recommendation 2, the Program Evaluation Division recommends that an independent actuarial study be conducted annually by the Department of Insurance or a contracted independent actuary. As the report states (p. 37), "It is important to note these projected costs are estimates, and actual costs will vary. Factors such as tax income, administrative costs, and investment returns will affect future Fund performance. An actuarial study, such as the one proposed in Recommendation 2 of this report, could determine that a different growth rate is more appropriate for future projections."