



Ohio Bureau of Workers' Compensation Comprehensive Study

Executive Summary

Deloitte Consulting LLP
January 2009

Audit • Tax • Consulting • Financial Advisory •

Contents

- Background..... 1**
 - Purpose of the Executive Summary 1
 - Comprehensive Study Approach 1
 - Workers’ Compensation System Components 2
 - The Highest Priorities 2
- Net Assets 4**
- Actuarial Audit Reserve 7**
- Rating and Ratemaking 12**
 - Group Rating..... 12
 - Ratemaking 14
 - State Agency Rate Setting 14
 - Retrospective Rating..... 15
 - Ancillary Funds (DWRF, MIF, and CWPF)..... 15
 - Change of Employer Experience Rates 16
 - Out-of-State Employer Experience Rating 16
 - NCCI Classification System 17
 - Minimum Premium..... 17
- Claims Management 19**
 - MIRA II 19
 - MCOs and Medical Payments 20
 - Subrogation..... 21
- Actuarial Department Organization..... 22**
- Programs 24**
- Self Insured 25**
- Benefit Structure..... 26**
- ACF 27**
- Appendix 1 – Deliverables Index 28**
- Appendix 2 – Performance Assessment..... 31**
- Appendix 3 – Recommendation Impacts 36**

Background

Purpose of the Executive Summary

Pursuant to House Bill 100, State of Ohio Bureau of Workers' Compensation ("BWC") engaged Deloitte Consulting to perform a comprehensive study to measure the performance of the Ohio workers' compensation system (the "System") and to compare the System to other state systems and private workers' compensation insurers (the "Comprehensive Study"). Accordingly, stand alone reports (the "Reports" in their entirety or a "Report" for a single component report) have been prepared for BWC's Administrator to provide detailed documentation to support our work. Deloitte Consulting (or "we") also provided presentations to the Actuarial Committee of BWC's Board which summarize our work (the "Presentations"). We have likewise provided a presentation to the Workers' Compensation Council on our work. We have provided scores of recommendations in the Comprehensive Study, and the Reports cover many thousands of pages. To facilitate the transparency of the Comprehensive Study to stakeholders, we have prepared for the Administrator this Executive Summary which provides a high level description of our approach and highlights some of our highest priority recommendations. We note whether in our judgment the recommendation is highest, high, or medium priority and if it could be achieved in the short term (less than three months), intermediate term (three months to a year) or longer term (a year or more). We also note whether in our judgment the effort to implement the recommendation is relatively small, medium, or large. Finally, we provide our impact assessment as high, moderate, low, negative, or no impact for implementing the recommendation. The Executive Summary contains references to the appropriate Report and exhibits to obtain more detailed information.

Comprehensive Study Approach

The Request for Proposals ("RFP") specifies 39 tasks to complete for the Comprehensive Study, of which 36 relate to performance assessment and three relate to reporting and documentation. We reported on the 36 tasks in four groups to the Administrator and the Actuarial Committee of the Board, dated June, August, October, and December 2008. Some tasks included multiple elements. An index of the Reports, which document our work, is provided in Appendix 1. The Reports will be posted on BWC's website. The Reports provide performance assessment ratings on the degree to which the elements supported overarching themes of the System. We view the overarching themes to be the effectiveness and efficiency of the System to serve injured workers and employers, the ability of the System to have the financial strength to pay benefits over time and support pricing stability, transparency of the System to appropriate stakeholders, and the System's having a positive impact on the State of Ohio economic development. Appendix 2 provides a summary of the Performance Assessment ratings for the elements reviewed. The Reports also summarize the task-specific recommendations with ratings on how significantly they would impact the System's overarching themes, which are summarized for all tasks in Appendix 3. The assessment and impact ratings can assist BWC in developing priorities for actions to enhance the System.

We interviewed BWC personnel including but not limited to the Administrator and representatives from actuarial, financial reporting, claims, counsel, investments, employer management, employer consulting, safety and hygiene, self insurance, IT, subrogation, loss control, MCOs, and more. We also interviewed the Industrial Commission ("IC") and external parties including attorneys who represent injured workers, union representatives, employers, self insured representatives, the external actuaries, and the external investment advisors. Without exception the parties were responsive and cooperative in providing information.

Workers' Compensation System Components

A workers' compensation system is complex and has many components. The constituents who are a significant component of the System include employees, employers, the BWC, the Industrial Commission, the Governor of Ohio, the Legislature, the State Court, medical care providers, MCOs, TPAs, attorneys, and other parties. The benefit structure is an important component which provides a broad range of benefits ranging from small medical only benefits to long term disability, death, and survivor benefits with medical care related to the injury being provided as necessary over the worker's lifetime. An effective and efficient System is financially sound, balances benefits and costs, provides for stability in pricing, provides high quality service, controls costs, provides incentives for safety, and is transparent to its constituents. In addition, an effective and efficient System is supported by a strong capability to monitor System performance and to recommend and/or drive actions to improve the System.

The Highest Priorities

We expect that readers of the Reports would want to know our suggestions for which of the recommendations from the Comprehensive Study are of the highest priority, and our rationale for our suggestion. We provide these highest priority recommendations for the following areas.

First, a system needs to have the financial strength to pay the benefits prescribed by law. The net assets in the various funds managed by BWC provide the financial support to continue to pay benefits if the costs from work-related injuries are worse than expected or the financial resources to pay those costs are less than expected. For example, events or situations could result in a financial strain on the system from a decline in the value of a fund's invested assets due to the current financial crisis, or decreasing payrolls, and consequently decreasing premiums, with benefits costs that decline at a slower pace. The net assets also provide for a stable pricing environment so that if adverse contingencies do arise, premiums don't necessarily need to be immediately adjusted as much as might otherwise be required to maintain benefits payments. BWC has not had a policy on the level of net assets to hold to support a desired level of financial strength and stability. We recommend that BWC should have a net asset level policy, and we discuss in the Net Asset Report the process by which this could be done, as well as the concepts of "funded" assets, "unfunded" assets, and the consequences of each for financial strength and stability.

Closely related to the level of net assets is the actuarial audit reserve, or the reserve to make future payment on claims and related expenses that have occurred as of a financial reporting date. This is the largest component of the balance sheet for BWC. As of June 30, 2008 the total reserve for all Funds is \$19.4 billion. This reserve is based on an estimate of the costs of unpaid claims. There is significant uncertainty in the estimates used to select a reserve and therefore a relatively small percentage difference in the actual costs versus the estimated costs could consume the net assets of \$2.0 billion held as of that date. Therefore, formulating a reserve funding policy in conjunction with a net asset policy is of highest priority. These concepts are addressed in the Report entitled "2.1 Financial Provisions: Loss Reserves".

Addressing the group rating inequity is also recommended as one of the highest priorities. In this Executive Summary and the underlying report we suggest alternatives to repair and/or replace the current group rating process. Although the system currently produces approximately the correct total premium revenue, the premium charged to employers is not allocated to them fairly and equitably according to actuarial principles, and this can be a significant consideration for employers who must decide on the number, types and location of jobs in Ohio, or in other states. These concepts are addressed in the Report entitled "1.1 Pricing Process: Experience Rating".

An area of substantial opportunity and therefore highest priority is claim cost control. BWC has begun using the MIRA II system for its process to predict the value of claim costs. The sole use of claim reserve predictions generated by such a system to set individual claim reserves is not an industry standard. Standard practice is to have a trained and supervised personnel in a claim function set claims reserves and settlement values, and for claim personnel to use tools, such as MIRA II, to assist in setting reserves as an integral part of efficiently and effectively managing claims. The human elements of judgment in the claim management process can have a significant, positive impact on controlling claim costs. Thus, we believe BWC could significantly improve claim cost control through establishing and staffing a comprehensive claim management process. These concepts are addressed in the Report entitled "1.1 Pricing Process: MIRA II".

Through the course of the Comprehensive Study, we have observed that the depth of detailed data desirable to do analysis is not typically and/or easily available. An example of this is the analysis of safety programs. The

programs appear to be valuable in preventing injuries in concept, but the data is not readily available to support evaluating and improving the effectiveness of these and other safety initiatives and their performance in avoiding accidents and reducing losses. We believe that if more comprehensive and timely data were available, BWC would be better positioned to design, monitor, and adjust safety programs to achieve highly effective results. As a highest priority, we have recommended that the capability of the Actuarial Department be expanded to assess the effectiveness and efficiency of the workers' compensation system, to recommend and/or drive continuing efforts to improve the system, and to communicate information to the public, Legislature, BWC management, and the WCC on matters related to actuarial analysis. Within the organizational structure that we recommend that the foundation for achieving the actuarial mission and supporting the workers' compensation system is a sound data management capability. This would require a substantial investment over time by BWC. These concepts are addressed in the Report entitled "4.5 Actuarial Department Functions & Resources: Actuarial Department Organization".

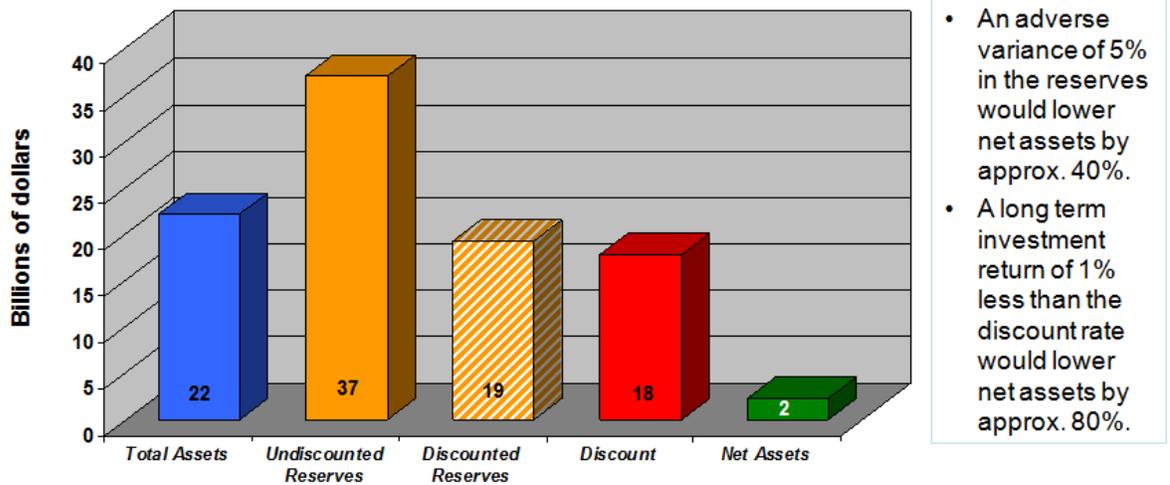
Net Assets

The financial position of the workers' compensation funds managed by BWC is protected by their net assets, which is the amount by which the financial assets exceed the liabilities. The most significant component of liabilities is the provision to pay injured worker benefits and the related expenses on unpaid claims, which is called loss and loss adjustment expense (LAE) reserves, or loss reserves hereinafter. The funds have significant assets consisting of cash, financial securities, property, and other tangible items. These assets are the "funded" assets. There are also significant accrued assets for future unbilled premiums and assessments; that is, they are not cash, financial securities, property, or other tangible items, but are amounts expected to be billed and paid by policyholders after the financial reporting date. These assets do not produce investment income, but represent future funding that is needed to pay future obligations on a pay-as-you-go basis. The "unfunded" assets comprise approximately 14% of the total assets for the BWC funds. The amount of net assets varies by the specific accounts ("Funds") administered by BWC/IC; those are: State Insurance Fund ("SIF"), Disabled Workers' Relief Fund (DWRF), Coal-Workers' Relief Fund ("CWRF"), Public Work-Relief Employees' Fund ("PWREF"), Marine Industry Fund ("MIF"), Self-Insuring Employers' Guaranty Fund ("SIEGF"), and Administrative Cost Fund ("ACF").

The need for financial strength for the Ohio workers' compensation system is due to the financial risks associated with funding for the future cost to provide benefits to injured workers. Invested assets, and the investment income from those assets, provide the cash needed to pay the benefits on the unpaid claims. Net assets are also needed if the reserves are insufficient to pay the benefits for future claims, whether due to payment pattern fluctuations, operational risk, or other reasons. A prudent level of net assets secures the payment of benefits and avoids potentially large future premiums to pay benefits each year. In addition, net assets provide funds if there are catastrophic events or economic downturns. If the System is financially sound, it will encourage economic development in that new business will be more confident of a stable premium outlook and will not have as much concern about having to pay premiums to cover unfunded or under-funded obligations from prior years' claims as they would with a financially unsound system.

BWC lacks a policy to provide guidance on the level of net assets or other measures to ensure financial security at a prudent level. The ability to make peer comparisons to BWC is limited due to differences in organizational form, applicable accounting standards, applicable laws/regulations, reserve margins, and other explicit margins. Notwithstanding these limitations, BWC's net assets currently do not indicate sufficient financial strength when compared to their peers.

For all funds combined, BWC's net assets are heavily leveraged relative to its peers, meaning that relatively small decreases in asset values or lower than expected investment returns would result in a loss of a very large portion of the net assets. Likewise, a relatively small increase in the liability for loss reserves would result in a loss of a large portion of net assets. For example, BWC has \$37 billion of estimated future benefits to pay on previous injuries as of June 30, 2008. BWC records a discounted (present value) loss reserve liability of \$19 billion to pay the future benefits, because they recognize that the assets will produce investment income to amortize or cover the \$18 billion difference between the undiscounted and discounted amounts of the liability. The anticipated investment return is 5%. However, if actual investment returns are only 4%, then that return would provide \$2.0 billion less in investment income, and this difference would result in a loss of 80% of the net asset value of \$2.5 billion as of June 30, 2008. In addition, the market value of BWC's invested assets has decreased due to the financial crisis, resulting in a significant decrease (\$2.3 billion) in the net assets from \$2.5 billion as of June 30, 2008 to \$0.2 billion as of October 31, 2008. Furthermore, if the estimated discounted liability were underestimated by 5% of the current estimate of \$19 billion, the increase would produce a further loss of another \$1.0 billion, substantially more than the latest reported net assets. Any of these impacts could occur together or over time. The June 30, 2008 values are illustrated in the Table below.



Recommendation: <i>BWC should develop and implement a policy for the level of net asset to maintain for each fund.</i>	Priority:	Highest
	Time:	Intermediate
	Effort:	Large
	Impact:	High

Therefore, we recommend that BWC develop and implement a policy for the level of net assets to maintain for each fund. Such policy could be defined by a Funding Ratio, which is the amount of funded assets divided by the amount of funded liabilities. Funded liabilities are those backed by funded assets, and do not include “pay-as-you-go” liabilities, which are backed by unfunded assets. The prudent oversight of the unfunded assets and unfunded liabilities also needs to be addressed. A possible way to address this is to fund a margin as a financial backstop that can be used to protect the ability to meet the unfunded liabilities on a timely basis and to stabilize the potential for dramatic increases in the pay-as-you-go premium charges to employers. The policy could incorporate the concept of an acceptable range for the Funding Ratio. A funding policy could be tailored to each of the BWC’s seven Funds where a material amount of a Fund’s obligations are funded, as opposed to pay-as-you-go. A funding policy would not address potential financial issues associated with pay-as-you-go funding. However, simple metrics could be developed to assess the ultimate cost impact of pay-as-you-go funding.

We recommend that BWC use a customized approach to develop a funding policy, based on guidelines driven by a few key metrics. The approach would be dynamic and self-adjusting. The approach, such as that based on simulation techniques, could be used to estimate the amount of uncertainty in the system and the probable impact of the uncertainty on net assets at various funding ratios. This tool would be used to specify the funding ratio necessary to protect the system from variation a given percentage of the time. We developed the beginnings of such a framework for this study. We recommend that a target funding ratio be developed which will preserve BWC’s net assets at a selected level of confidence, such as at least 95%, or for about 19 years out of 20.

If the funding ratio goes outside a targeted range and indicates excessive or inadequate net assets, a policy should be in place for premium credits or surcharges to bring the funding ratio back to the targeted range over some time period.

Recommendation:	Priority:	Medium
<i>Consider reinsurance to provide financial protection.</i>	Time:	Short Term
	Effort:	Small
	Impact:	Moderate

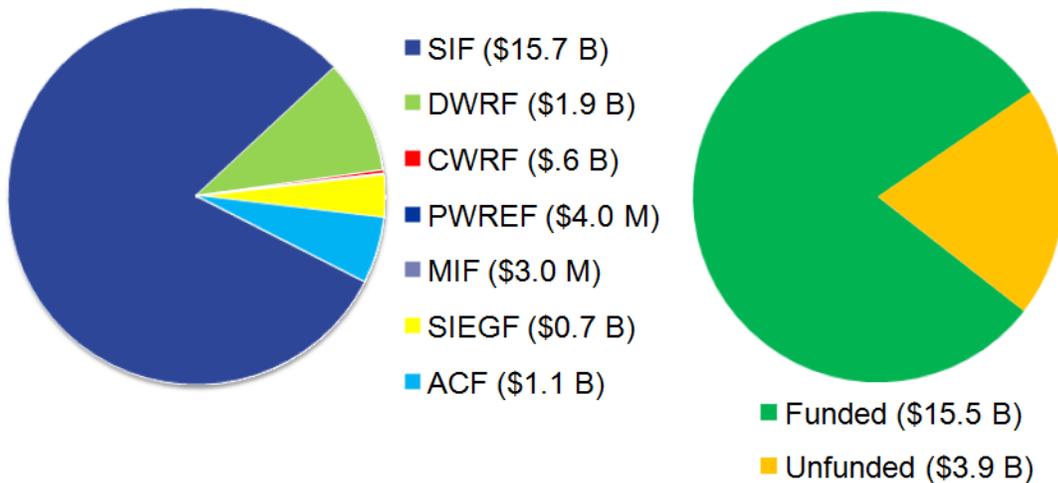
BWC should from time to time determine if insurance protection can be purchased (called “reinsurance”) to limit the impact to BWC from catastrophic events, such as 5% to 10% of net assets. Reinsurance could reduce the level of net assets needed to provide the desired protection, but at an annual cost of reinsurance premium paid by BWC for the protection. Reinsurance is commonly purchased in the insurance industry to protect against very large or catastrophic events that would impair an insurance company’s surplus (the net asset value).

Actuarial Audit Reserve

As part of the BWC Comprehensive study, one of our objectives was to evaluate the actuarial audit reserves and expected payments established by the BWC's third party actuary, and to assist the BWC in establishing objective quality management principles and methods by which to review these reserves. Our evaluation of the actuarial audit reserves was not intended for the purposes of recording an amount in BWC's financial statements. Our evaluation process consisted of reviewing the June 30, 2007 Annual Actuarial Audit Report and the December 31, 2007 Quarterly Actuarial Audit Report, prepared by the BWC's third party actuary, to understand and assess the actuarial process, methodologies, and underlying assumptions used to determine the third party actuary's discounted unpaid loss and loss adjustment expense estimate and expected future payments for each Fund. We also performed a comprehensive actuarial analysis of the Private Employers ("PA"), Public Employers –Taxing Districts ("PEC") and Public Employers-State Agency ("PES") business within the SIF to determine Deloitte Consulting's own actuarial central estimate of losses for unpaid claims as of June 30, 2008 and expected future payments using data as of December 31, 2007. In addition, we compared the actual payments through June 30, 2008 with the expected payments.

The table below shows the relative size of the BWC recorded reserves for loss and LAE as of June 30, 2008 by Fund and by Funding basis.

**BWC Loss & LAE Reserves @ 6/30/08
By Fund and By Funding**



A brief description of a loss reserve estimation process is appropriate in the context of the Executive Summary. Loss and LAE data are generally organized by the year in which the claim occurred, called an "accident year". The individual claim estimates for losses generally increase over time, because generally the facts which emerge regarding the severity of an injury tend to increase the incurred value of a claim. The incurred value of a claim is the amount of payments made to date on a claim plus the payments expected to be made over the remaining life of the claim. The aggregate of these values are the incurred losses (which in this context include the loss adjustment expenses). Actuaries track how the paid and incurred losses change by accident year over time. The data are also split by categories such as indemnity, medical, expense, type of benefit, and other categories. Because workers compensation claims can pay out over 50 years or more, the losses develop to their ultimate level quite slowly. Actuaries generally use multiple methods based on paid losses, incurred losses, and other data to estimate the loss reserve, which is the ultimate value to be paid on a group of claims less the amount paid to date.

The BWC’s recorded reserves for unpaid loss and LAE as of June 30, 2008 appears reasonable when considering a risk margin for variability in unpaid losses or a contingency provision for the risk that future investment yields are less than anticipated. However, the BWC’s recorded reserves do not include an explicit risk margin and, therefore, appear conservative. This conservatism adds some strength to the BWC’s financial statements beyond that indicated by the current level of net assets.

For the State Insurance Fund, Deloitte Consulting’s actuarial central estimate of the discounted losses for unpaid claims as of June 30, 2008, based on data as of December 31, 2007, is \$1.9 billion, or 13%, lower than that estimated in the third party actuary’s December 31, 2007 Quarterly Audit Report. The majority of the difference is associated with medical on lost time claims and varies by employer groups. Deloitte Consulting’s estimate is 8% lower for Private Employers, 29% lower for Public Employers – Taxing Districts, and 31% lower for Public Employers – State Agencies. On a nominal (undiscounted) basis, Deloitte Consulting’s actuarial central estimate is \$5.4 billion, or 19% lower than that estimated in the third party actuary’s December 31, 2007 Quarterly Audit Report. The percentage difference between Deloitte Consulting and the third party actuary is smaller on a discounted basis due to differences in the respective estimated payment patterns.

Deloitte Consulting’s actuarial central estimate of discounted losses for unpaid claims does not include a risk margin or contingency provision. Therefore, Deloitte Consulting cautions that the difference in the discounted unpaid loss estimates between the BWC’s third party actuary and Deloitte Consulting should not be interpreted as indicating that the BWC’s recorded reserves need to be adjusted at this time.

Recommendation:	Priority:	High
<i>Perform the actuarial audit earlier in the year.</i>	Time:	Short Term
	Effort:	Small
	Impact:	Moderate

The performance of the quarterly interim evaluations is an appropriate process that allows BWC to understand claim data development throughout the fiscal year and monitor potential impacts on the BWC’s recorded loss reserves. However, prior to the issuance of the fiscal year end statements there is only a limited time frame to perform analysis and to implement new or revised processes or methods, if necessary. Further, BWC does not have sufficient time to review the Actuarial Audit Report in detail in order to make judgments about the findings. We recommend that an evaluation date prior to June 30 of the annual actuarial audit would provide more time prior to closing the financial statements for the analysis and BWC’s review. In the insurance industry, the equivalent of BWC’s actuarial audit is often performed earlier than the end of the financial year.

Recommendation:	Priority:	High
<i>Increase the level of documentation and methodology in the Actuarial Audit process.</i>	Time:	Short Term
	Effort:	Small
	Impact:	Moderate

Certain aspects of the Actuarial Audit Report are transparent and include sufficient support while other aspects are not as transparent and lack supporting details. Additional documentation in the Annual Actuarial Audit Report would further assist a reviewing actuary in evaluating the analysis and increase transparency to the BWC. Multiple actuarial methods in the Actuarial Audit Report may provide greater insight on the dynamics and uncertainty affecting loss reserves. Given the potential variability in unpaid loss estimates, a comparison of

estimates from different methods for the same type of loss may assist the BWC in assessing reserve risk and could provide greater insight on the dynamics affecting loss reserves. The runoff analysis, which shows how losses have emerged against prior estimates of unpaid losses, should be performed on an undiscounted basis by accident year and type of loss in order to allow the BWC to develop a more thorough understanding of the changes in the loss reserve estimates and their magnitude over time. These recommendations are supported by similar analyses commonly performed in the insurance industry.

Recommendation:	Priority:	Highest
<i>Include and disclose a risk margin and/or contingency provision in the loss reserves.</i>	Time:	Intermediate
	Effort:	Medium
	Impact:	High

There are substantial uncertainties in estimating loss reserves, such as inflation, future development relative to historical development, the impact of MIRA II, medical cost controls, settlement activity, and deviation of future investment yields from those expected. Also, there are favorable trends in the frequency of claims which, if reversed, would introduce more uncertainty in to the estimation process.

The SIF does not include a risk margin for variability in the loss reserves or a contingency provision for the risk that future investment yields are less than anticipated. Therefore, we recommend that a provision in both areas be included when evaluating the financial strength of the “funded” obligations managed by the BWC. We determined preliminary risk margin estimates for the funded loss reserves as part of the net asset analysis. We also recommend reducing the discount factor from 5% to 4%, which is more reflective of a risk-free rate (at the time our work was done). A lower rate should be considered at this time given the financial crises and the possible timelines for economic recovery. This would alleviate the need for a separate contingency provision for investment yields. The risk provision could be included in the recorded reserves and should be considered in evaluating net assets.

We recommend that BWC disclose the amount of any significant risk provision, margins, or discount to the extent they are included in the financial statements. The BWC should include the risk and discount elements when evaluating its financial strength even if they do not disclose them in the financial statements. Disclosures are an important and common aspect of transparency in financial reporting in the insurance industry.

Recommendation:	Priority:	High
<i>Prepare an annual Statement of Actuarial Opinion on loss reserves.</i>	Time:	Short
	Effort:	Small
	Impact:	Moderate

A Statement of Actuarial Opinion is a document prepared by a qualified actuary which primarily provides an opinion on the reasonableness of the loss and LAE liabilities of an insurance entity or self insured entity. Important disclosures and information are also typically provided. While there is an annual actuarial audit reserves report for the BWC liabilities, we recommend that an annual Statement of Actuarial Opinion be provided by a qualified actuary on the loss and LAE reserve amounts in the BWC financial statements for each fund. The Statement of Actuarial Opinion is a requirement for most insurers in the industry, with few exceptions.

Recommendation:	Priority:	High
<i>Increase internal BWC emphasis on reserves and conduct further in-depth studies on the potential savings from Lump Sum Settlements.</i>	Time:	Intermediate
	Effort:	Medium
	Impact:	High

- The BWC should consider one or more approaches to test or validate the loss reserve estimates provided by the external actuary. Specifically, as the BWC builds its internal capability, more effort can be focused on internal data analysis and performing various reviews, tests and validations on the external actuary's loss reserve estimates. A lump sum settlement (LSS) is a payment to an injured worker to close a claim so that no more payments are due on the claim. The increase in lump sum settlement activity may result in a reduction in ultimate loss estimates and cash flow projections for open claims, but measurement of the cost savings benefit is difficult to assess due to limited information. The BWC should consider further in-depth study of the lump sum settlement program to measure the potential impact on the financial statements. The study should include consideration of the types of claims eligible for lump sum settlement, estimation practices of expected future compensation benefits and medical expenses, loss of future investment income, and Medicare Set-Aside Agreements.

Recommendation:	Priority:	High
<i>Conduct further analysis of the risk of inflation on the DWRP.</i>	Time:	Intermediate
	Effort:	Medium
	Impact:	High

This fund pays benefits on the PTD claims for annual cost of living adjustments (COLA) for claims below a certain threshold. The COLA adjustment increases annually based on the consumer price index. Therefore, the number of existing claims eligible for COLA benefits increases over time as the threshold is adjusted each year. There can be a highly leveraged effect of inflation on the obligations of the DWRP and on the future assessments needed to pay the COLA benefits. Consequently, this fund is subject to significant risk and uncertainty due to future inflation. BWC should conduct further analysis of the risk of inflation on this Fund since future inflation is subject to significant changes over relatively short periods of time.

Recommendation:	Priority:	Highest
<i>Consider Comprehensive Study Reserve Audit findings in developing risk margin and contingency provision policy.</i>	Time:	Short
	Effort:	Medium
	Impact:	High

The following findings have potentially favorable implications for loss reserves. However, the findings need to be considered in the context of the need for a risk margin and a contingency provision in loss reserves. When these factors are considered the level of indicated loss reserves could increase.

The external actuary's discounted unpaid estimate for all Funds combined at 6/30/08, based on data as of 12/31/07, is \$20.1 billion. This consists primarily of SIF at \$16.2 billion, DWRF at \$2.0 billion, ACF at \$1.1 billion, and SIEGF at \$0.7 billion.

For SIF the external actuary's unpaid estimate for private employers, public taxing districts, and state agencies at 6/30/08 based on data at 12/31/07 is \$28.2 billion undiscounted and \$15.2 billion discounted (the \$1.0 billion difference from above consists of the Health Partnership Plan and self-insured amounts). Our undiscounted estimate is \$5.4 billion (19%) lower. Our discounted estimate is \$1.9 billion (13%) lower using a 5% discount rate. We are 8% lower for private employers, 29% lower for public taxing districts, and 31% lower for state agencies. The discounted difference is smaller than the undiscounted difference due to differences in the estimated future annual payments. The majority of the difference is due to medical on lost time claims. We observe that actual payments for the first six month of 2008 were consistent with expected payments under our liability estimates.

Rating and Ratemaking

Group Rating

Experience rating is a process to adjust the subsequent (prospective) rate of a policy based on the previous loss experience of the policy. There are two tenants of an experience rating program. First, the better the loss experience, the lower the subsequent rate, and the worse the loss experience, the higher the subsequent rate. Loss ratios by employer which reflect experience rated premiums should be closer to the overall average loss ratios than loss ratios produced before any experience rating adjustment. Second, the program should balance stability of price with responsiveness. A policy's experience should have sufficient premium that the losses generated from the policy have "credibility" for experience rating purposes.

Group rating allows employers of similar business types to be experience rated as if they were one employer. Combining experience allows small employers in a group who would otherwise be base rated, or experience rated with minimal credibility, to receive the maximum credibility available to a very large individual employer. The existing design and operation of Group experience rating in Ohio is inconsistent with the above tenants; in fact, the results show that group rating exacerbates the post experience rated loss ratios so that there is more dispersion about the average loss ratio rather than less. Also, policyholders in the group experience rating process experience significant variability in their pricing as they move in to a group, to another group, or out of a group, which occurs frequently. We are unaware of any other state that has a program which functions as poorly as the existing group rating program does in Ohio.

The nature of the present group rating formula is that it gives unduly large credibility to a group of small "loss free" employers in a group, which were selected to generate large credits, i.e., reductions in the subsequent premium rates. The subsequent year's experience of the group is not closer to the average loss ratio experience of all policies, but rather the loss ratios are substantially higher than the average. As a result, the plan is not in balance such that the overall loss ratio of groups is about the same before and after group experience rating is applied. Rather, the subsequent loss ratios of group rated policies are much higher than those same group policies, so that an off-balance adjustment factor substantially higher than in other states is applied to the base rates of all policy holders to bring the system back in to balance. The focus of the group is less about controlling losses through safety, preventing injuries, and mitigating the severity of injuries, and more about selecting and excluding employers from the group to obtain the best group experience rating credit for the group.

Recommendation:	Priority:	Highest
<i>Revise or replace group experience rating and terminate related programs.</i>	Time:	Intermediate
	Effort:	High
	Impact:	High

Possible solutions if group rating continues include:

- Change the structure of group rating to mitigate the present inequities
- Provide appropriate incentives for groups to focus primarily on accident prevention and loss mitigation activities
- Eliminate the use of the individual experience rating formula for group rating
- Determine group rating through the use of a group discount factor which is based on the actual past experience of each specific group

- Establish a minimum number of years of experience for a group to qualify for a discount factor, and to determine the group discount factor, include the experience of all group members only during the period when they were in the group, including members who leave the group
- Apply a separate group rating off-balance adjustment to the group discount factors, rather than applying an overall off-balance adjustment to all employers through class rating
- Apply the group discount factor to the individual experience rated premium of each member of the group
- Vary the maximum discount factor with the premium size of the group, reflecting the credibility of the group size, but without a credibility formula
- Apply a phase-in period of at least two years to new group members prior to receiving the full group discount

Alternatives to group rating should be considered, which include:

- Group dividend plan, in which dividends are credited to group members based on the actual profits generated by the group
- Group retrospective rating plan, in which premiums are adjusted upward or downward within certain limits depending on the actual loss experience of the group
- Per accident loss limitations, which limit the impacts of large losses in various rating programs
- Tiers within groups, which allow varying discounts by tier, keeping the average discount across tiers equal to the total discount for the group

Another option which has been discussed is to use a different type of individual experience rating plan for groups, called the "split plan". This plan assigns lower credibility to group experience compared to the current plan and therefore may mitigate some of the inequity currently produced by group rating. However, a split plan shares the same basic flaw as the current plan in that it applies a formula designed for an individual employer, not a plan designed for a group of employers. The opportunity to change the composition of a group in order to maximize discount will still be present under such a split plan, and inequity will persist.

There are three programs which were developed to help preserve an employer's experience rating credit (group or individual), or which mitigate the transition out of group rating, which are contrary to industry practices. First, the \$15,000 Medical Only Program allows employers to pay medical expense on injured workers without reporting the claim to the BWC. Second, the Salary Continuation Program allows employers to continue payment of full salary in lieu of filing temporary total claims against their policy. BWC does not include the loss reserve on that claim or the amount of salary paid to the injured worker in the experience rating modification calculation. For both these programs, the loss of certain claim economies by the BWC is highly likely, and the cost of claims within the programs is not directly known by BWC. In addition, claims in these programs are reported to BWC after efforts to get the injured worker back to work have been unsuccessful, and much of the opportunity to apply early loss control strategies has passed. The third program is the One Claim Program. This program offers a discount of 40% to certain employers with a significant compensable claim in the most recent policy period. It is designed to lessen the impact of transitioning out of a group experience rating program. The credit available under this program is out of line with other states. We recommend terminating all three of these programs.

Ratemaking

The overall statewide rate level indication process uses a fairly standard actuarial approach. However, there are significant differences in the methodology compared to peer states.

Recommendation:	Priority:	High
<i>Make adjustments to the overall statewide rate level and classification rate indications to provide a better and more transparent estimate for the Administrator’s consideration.</i>	Time:	Short
	Effort:	Small
	Impact:	Moderate

We recommend that more responsiveness be given to Ohio trends by using three to five years of loss data in the calculation rather than ten years. The baseline indication is performed by calculating historical loss costs which are individually discounted for anticipated investment income. We believe the calculation would be more transparent if the discount were applied after the average historical loss cost was selected. We also recommend that additional methods be used to calculate the indicated rate change, and that a range of rate changes be developed to assess the potential impact of the risk if actual experience is worse than expected.

Regarding ratemaking for classifications, the reserves that are included in the process are attributed to indemnity losses only, rather than divided between the indemnity and medical portions of a claim. This approach is not used elsewhere, it is a potential source of bias, and the reserves for claims should be split between indemnity and medical to estimate the historical class loss costs. Because the off-balance for experience rating is built in to class base rates, the class base rates are much higher than peer states; therefore, we recommend eliminating the application of the experience rating off-balance adjustment factor to class base rates, and including the off-balance adjustment directly in the experience rating factors.

State Agency Rate Setting

Recommendation:	Priority:	Moderate
<i>Make adjustments to the state agency rate setting process to provide a better and more transparent estimate for the Administrator’s consideration.</i>	Time:	Short
	Effort:	Small
	Impact:	Low

The process is intended to cover the expected paid losses in the prospective policy year, as opposed to a premium which would be sufficient to pay all claims incurred in the year from their occurrence to final payment; that is, the rate setting process operates on a pay-as-you-go basis. BWC should change the manner in which state agency rates are calculated. The overall trend factor, which is currently used to arrive at the targeted rate, should reflect only actual loss cost trends in the data. Any adjustment required to arrive at a targeted rate should be made explicitly rather than through the overall trend factor selection. BWC should change the method by which it determines expected paid losses in the prospective policy year. A process which tracks losses by the occurrence year (accident year) of the claims would serve as an improved basis for the process.

Retrospective Rating

Recommendation:	Priority:	High
<i>To encourage a higher degree of participation, BWC should consider redesigning the retrospective rating program to be more in line with programs commonly used in other states.</i>	Time:	Intermediate
	Effort:	Medium
	Impact:	High*

*As potential alternative to group rating.

Ancillary Funds (DWRP, MIF, and CWPF)

Recommendation:	Priority:	Moderate
<i>The Legislature should consider alternative funding and/or consolidation of some of the Funds.</i>	Time:	Long
	Effort:	Large
	Impact:	High

For DWRP we recommend changing the legislation to require funding which is more supportive of reducing DWRP’s unfunded obligations of \$1.5 billion over time. We recommend that DWRP assessment rates be set at a level to cover the expected payments for the upcoming year and possibly additional amounts to reduce the burden to future employers for the DWRP unfunded liability.

While the net assets of the CWPF appear to be more than sufficient to meet the obligations of that fund, the current practice of only charging premium to new employers can create issues of equity and fairness among past, current, and future employers who need this coverage. We recommend charging some premium to both on-going and new employers seeking this coverage, perhaps with appropriate reductions, credits, or dividends for employers who have paid into CWPF for a long time.

We recommend that the Legislature conduct research and consider alternatives to consolidate the funds and have them be supported by net assets which are funded assets, versus the pay-as-you-go process which is in place for DWRP and ACF. Specifically, we recommend considering whether DWRP, MIF, and CWPF should be separate funds or should be combined with the SIF, noting that:

- Separate funds also create additional responsibilities to manage the risks to each fund and to maintain each fund’s financial strength and stability, which could be better accomplished under a combined fund.
- Separate funds create an obligation for the BWC to manage them separately, including separate funding policies and creating separate processes.

Change of Employer Experience Rates

Ohio has rules for recalculating an employer’s experience rates for previous years, for which we found no comparable practice in the industry.

Recommendation:	Priority:	High
<i>Revise the rules for change of experience rates.</i>	Time:	Short
	Effort:	Small
	Impact:	Moderate

- Eliminate or restrict changes in an employer experience rate for prior years due to subrogation recoveries, handicapped claims, fraudulent claims, dismissed claims, disallowed claims, or other factors.
- Restrict the time period for the reporting of errors for changes to employer experience rate to follow typical industry practice.
- Establish shorter and more clearly defined time constraints, similar to industry practices elsewhere, to replace current rules where there is no time constraint or an extended reporting period.

Out-of-State Employer Experience Rating

Ohio has rules for out-of-state experience rating which are inconsistent with industry practices.

Recommendation:	Priority:	High
<i>Revise the rules for out-of-state experience rating.</i>	Time:	Short
	Effort:	Small
	Impact:	Moderate

- Utilize only the Ohio based information for experience rating in Ohio (including whether the Ohio exposure alone qualifies an employer for experience rating). Discontinue using out-of-state experience rating factors.
- Adopt the industry standard of using base premium level instead of expected losses as the eligibility criteria for experience rating and retaining the time frame requirement. Document the State Fund Manual with the specific amount of base premium required to qualify.

NCCI Classification System

Ohio has adopted the National Council on Compensation (NCCI) guidelines for the purposes of assigning classifications to employers. BWC has largely adopted the NCCI classification system in a manner consistent with other states.

Recommendation:	Priority:	Moderate
<i>Make the following classification revisions.</i>	Time:	Short
	Effort:	Low
	Impact:	Low

Use NCCI class codes for municipal workers by employee job class which would allow for greater differentiation in the relative hazard based on the payrolls for each employee job class, replacing the 14 state special classes currently in use. Design and implement audit procedures to ensure that only appropriate payroll is coded to 5605 and 5606, the low cost classes within Construction.

Recommendation:	Priority:	High
<i>Expand the premium audit function.</i>	Time:	Long
	Effort:	High
	Impact:	High

Establish specific audit objectives, including developing an expanded approach to audit most employers every three to five years, possibly more frequently for large employers and certain other types of employers. Increase the scope of the premium audit function to introduce different levels of audits (telephone, by mail, physical) and more focused or targeted audits. Develop an audit scoring system as a tool to prioritize potential audits by employer and to improve effectiveness and efficiency of premium audit resources.

Minimum Premium

Minimum premium accounts have had very high loss ratios since 2003, ranging from approximately 150% in more recent periods to over 1000% in 2003-4. The current minimum premium has been increase to \$50 per six months of coverage from \$10.

Recommendation:	Priority:	High
<i>Consider adjusting minimums, conduct analysis on the minimum premium group, and increase the premium audit focus.</i>	Time:	Short
	Effort:	Low
	Impact:	Moderate

- Examine the feasibility of raising the minimum premiums to a level that is more in line with expected losses and with industry minimum premium levels, possibly with some differences by class. A phase-in of increases may be appropriate.
- Conduct further analysis on the characteristics of employers who pay the minimum premium.
- Increase the involvement of the premium audit function with respect to review accounts which have claims, but no payroll, and to evaluate the possibility of fraud.

Claims Management

MIRA II

House Bill 100 requires the BWC to implement a new claims reserving system. BWC transitioned from the previous system, called MIRA, to MIRA II during 2008. MIRA II is designed to predict the total incurred cost of claims at the individual claim level. The incurred cost is the cost of payments made to date on a claim plus the payments expected to be made over the remaining life of the claim, called “claim reserves”. The previous MIRA system used by BWC produced incurred values at the claim level, but also was designed to factor in the cost of claims in the aggregate. Individual claim reserving tends to lead to under-estimation of claim values in the aggregate, which is true throughout the insurance industry. As a result, the predicted cost on an individual claim could appear to be inconsistent with the facts known about the claim at that time. Also, the data used in the experience rating formula consisted of paid loss data and MIRA claim reserves for the four years immediately preceding the latest available full year. Therefore, employers had questions and concerns about the impact of claims level reserves on their experience modification factor. For MIRA II, our expectation is that the value of all claims taken together under MIRA II is likely to be lower than the aggregate value of claims under MIRA, which had the aggregate adjustment. While MIRA II predicts claims objectively, it cannot reflect the human element of informed judgment for particular claim circumstances. The sole use of predicted reserves to set individual claim reserves is not an industry standard. Standard industry practice is to have a claim function set claim reserves, and use tools, such as MIRA II, to assist in more efficiently managing smaller claims, or to provide insight on managing claims above a threshold such as \$50,000 or \$75,000.

Recommendation:	Priority:	High
<i>Study the impact of MIRA II on pricing.</i>	Time:	Intermediate
	Effort:	Medium
	Impact:	Moderate

Because MIRA II is expected to produce different claim values than MIRA, we recommend studying the impact of the new MIRA II claim reserves on class rate and on experience rating. MIRA II claim values should be studied to determine where they are most predictive, such as for smaller, high volume claims and to determine a process for input from professional adjusters to best manage claims and to adjust the claim values.

Recommendation:	Priority:	Highest
<i>Develop a comprehensive claim management process.</i>	Time:	Long
	Effort:	High
	Impact:	High

We also recommend developing a long term alternative which uses MIRA II, or other claim predictive model, in conjunction with other processes and/or products to better manage claims and control costs. MIRA II could be used as input for managing claims, negotiating settlement and setting benchmarks for claim reserves.

MCOs and Medical Payments

Managed Care Organizations were established under the Health Partnership Program (HPP) in 1997 and generally follow established industry standards for management and administration. In total, MCOs are effective in meeting stated HPP goals in providing managed care services to injured workers and employers. We note that two uncommon features in Ohio’s HPP are that MCOs are responsible for direct payment to providers, subject to review, adjustment, and reimbursement by the BWC, and MCOs are responsible for retrieving and documenting First Report of Injury (FROI) information from injured workers and medical providers.

The relatively large number of MCOs (23) and many duties for which they are responsible causes the BWC to spread audit and oversight functions over a relatively large population of programs and vendors. The non-competitive and bundled service MCO environment limits options for determining the value of specific services and to compare them one to another or to other out-of-state arrangements. Delays exist in the treatment authorization process due to narrowly defined “allowable conditions” causing MCOs and treatment providers to resubmit treatment authorization forms, subject to BWC approval by law. Independent Medical Exams (IMEs) are statutorily required at 90 days of lost time, but deliver little value. The BWC concurs with MCOs over 95% of the time in the medical Alternative Dispute Resolution (ADR) Program.

Ohio is one of 42 states using fee schedules to control costs and one of 11 states that formally recognize URAC (guidelines for managed care functions) standards in some fashion.

Consistent with the industry, average claim costs in Ohio continue to rise due annual increases in the average weekly wage and medical inflation, but these are largely mitigated by the decreasing trend in frequency of claim filings.

Recommendation:	Priority:	High
<i>Make operational and legislative changes to improve the effectiveness and efficiency of MCOs.</i>	Time:	Long
	Effort:	Low to High
	Impact:	High

We recommend several actions which we believe will improve the effectiveness and efficiency of MCOs.

- MCOs should compete on a price-of-service basis in the HPP.
- Sustain the trend over time to a fewer number of participating MCOs.
- The law should be changed to 1) give MCOs authority in allowable conditions determination; 2) Eliminate mandatory IMEs at 90 days of lost time; and 3) Remove BWC from the ADR process.
- The metrics for determining the degree of disability from an injury are outdated and should be replaced by the Official Disability Guidelines (“ODG”), which BWC should mandate.
- Vocational rehabilitation is appropriately under study for in-sourcing from MCOs to BWC due to concerns about potential conflict of interest.
- Update all fee schedules every 1-2 years.
- Improve medical provider profiling, credentialing and de-certification.
- Eliminate the duplication of the medical bill review process between the MCOs and the BWC

Subrogation

Ohio’s laws are largely consistent with other states with respect to statutes of limitations, statutory subrogation rights, attorney fees and costs, and allocation of recoveries. We find that BWC generally applies reasonable practices for the recognition, determination, processing, and monitoring of subrogation.

Recommendation:	Priority:	High
<i>Improve subrogation technology applications and maintain adequate staffing.</i>	Time:	Intermediate
	Effort:	Medium
	Impact:	Moderate

We recommend that technology be improved to better enable better operational efficiency. BWC should maintain staffing to ensure that subrogation specialist caseloads do not exceed 400 per person, and establish a more robust set of program performance metrics.

Actuarial Department Organization

Currently BWC has limited capacity to analyze data, trends, and findings related to rates, program pricing, and reserves. External actuarial resources are used for most traditional actuarial functions, with limited capacity to perform more core actuarial functions internally.

Recommendation:	Priority:	Highest
<i>Expand the BWC Actuarial Division to more effectively support its mission.</i>	Time:	Long
	Effort:	Medium
	Impact:	High

We perceive the Actuarial Division mission to be:

- Significantly contribute to the ongoing assessment of the effectiveness and efficiency of the Ohio workers' compensation system.
- Recommend and/or drive continuing efforts to improve the financial security and stability of the system.
- Communicate to the public, Legislature, and the Workers' Compensation Commission to facilitate transparency and transfer of information on matters related to actuarial analysis.

Therefore, we recommend expanding the BWC Actuarial Division responsibilities to:

- Analyze and assess loss reserves and net asset level needs.
- Evaluate appropriate rate levels and pricing programs.
- Design and analyze programs.
- Monitor and assess the impact of cost control efforts.
- Analyze system benefits.
- Ensure analysis is based on appropriate data and assumptions.

We recommend organizing and developing around four functional areas reporting to the Chief Actuary:

- Rate Levels & Programs Pricing – Responsible for pricing and ratemaking functions, including the implementation of other Comprehensive Study task recommendations.
- Reserving and Net Asset Analyses – Over time has primary responsibility for reserving and net asset level analyses, including reinsurance evaluation and coordination and analysis of external studies, as well as for support of the claim operations and development of claim diagnostics.
- Data Management – Responsible for improving the depth of data, data quality, and understanding of data, as well as to provide data needed for internal and external actuarial studies, including the development of an actuarial database over time. In addition, we recommend that the existing Rate Adjustment Team transition to be part of this new functional area since much of the function surrounds data.
- Rating – Existing function performed by the private employer and public employer (taxing districts and state agencies) teams, focusing on calculation of rates and ensuring accuracy.

External resources would be used to supplement actuarial resources, perform special analysis or deeper review, provide industry perspective and specific expertise, independent review of pricing and rate assumptions, and an annual second opinion on loss reserves and net asset levels. These resources will assist the BWC in meeting state and BWC Board requirements, and provide additional controls or support for the actuarial functions.

In order to make this organizational expansion successful over time, we recommend that BWC establish an actuarial hiring and development program to enhance its ability to attract and retain actuarial talent.

Programs

Included in this section are Salary Continuation, \$15K Medical Only, One Claim Program, Safety Intervention Grant, Drug-Free Grants, Safety & Hygiene, Handicap Reimbursement, and Vocational Rehabilitation.

Recommendation:	Priority:	Moderate
<i>Various by Program. Please see below.</i>	Time:	Short
	Effort:	Low
	Impact:	Moderate

- Programs that are effectively designed, maintained, and monitored can have a positive impact on safety and rehabilitation of injured workers. Other possible programs could be considered such as a merit rating program which are offered in several states and provide a rate credit, usually for smaller policyholders for loss free experience.
- There are certain programs which we recommend terminating in their present form. These include the salary continuation program, 15K medical only program, and One Claim Program. We recommend replacing these programs with an appropriately priced deductible program.
- In general, there is limited data and information available to evaluate the effectiveness of BWC’s programs. We recommend that BWC maintain and track the performance of these programs, on both a standalone basis and in terms of the interactive effects and possible redundancies of programs.
- The One Claim Program (“OCP”) is an example of a program that has very limited data with which to evaluate the program’s effectiveness. We note that the discount offered in the OCP of 40% is much larger than the discounted offered by other states for comparable programs.
- To promote a proactive mindset to safety, BWC should consider revising the requirement that an employer must have experienced a claim directly related to the intervention grant. Also, requiring a safety consultation report with a Safety Grant application could provide BWC with a more comprehensive look at an applicant’s overall safety practices and could help improve the effectiveness of providing a safety grant.
- Due to usage and cost/benefit trends, BWC should consider combining the DFWP and DF-EZ Programs into a single, simplified program focused primarily on smaller employers.
- The Safety & Hygiene Program/Department tends to produce effective results, as employers receiving services have lower loss ratios than those who do not (before the application of experience rating). However, we are unable to analyze the cause and effect relationship. We recommend that the BWC develop the capability to track the loss experience of employers who participate in the various aspects of the safety & hygiene program. This will allow BWC to continually monitor the effectiveness of the program over time.
- The American with Disabilities Act makes the program’s original purpose of the Handicap Reimbursement Program largely obsolete. We recommend terminating the program. The program is presently improperly utilized as the preponderance of claims is attributed to arthritis causation which is difficult to verify. BWC would save approximately \$300,000 per year in overhead expenses.

Self Insurance

The assessment rates for the Self Insurance Employers Guaranty Fund (SIEGF) do not significantly vary based on the credit worthiness or financial strength of a self insured employer. The insolvency of a large self insured may result in a current increase in the financial burden on remaining self insured employers.

Recommendation:	Priority:	High
<i>Consider a pre-assessment methodology for the SIEGF which reflects the insolvency risk of the individual self insured. Collateral could be required from higher risk self-insureds, and the cost of insolvencies from the lower risk self-insureds could be financed by less costly alternatives.</i>	Time:	Intermediate
	Effort:	Medium
	Impact:	Moderate

We recommend that BWC consider a pre-assessment methodology to help improve the ability of the SIEGF to address the cost of future bankruptcies and mitigate the additional financial burden that this would pose to remaining self-insured employers. The methodology should allow for the proactive identification of industries or characteristics of individual employers that might pose a particularly high risk of future uncollateralized bankruptcy losses that would be covered by the SIEGF. Our enhanced collateral recommendation would require that collateral be posted for high risk self-insured employers, and the portion of the cost of future insolvent self-insureds related to lower risk self-insured employers could be financed by other alternatives less costly than collateral. In addition, objective metrics should be established for granting self-insurance privileges to ensure consistency in application processing. An actuarial study by an appropriately qualified actuary should be required for each self-insured entity for better understanding of the amount of the applicant’s self-insurance liabilities.

Benefit Structure

Our task did not call for specific recommendations and we do not endorse a specific benefit plan reform agenda. We do note that Ohio is largely consistent with other states with respect to benefit and compensation levels. However and significantly, Ohio's number of benefit types is more extensive than found in most other jurisdictions. There are thirteen types of compensation paid by the BWC based on the request from the injured worker. Ohio is one of only a few states with Permanent Total Disability Cost of Living Adjustments. We note that the BWC's actual number of newly awarded PTD claims continues to far exceed the national norm. The June 2007 actuarial audit includes the following table of surrounding states.

Claim Frequencies per 100,000 Workers

State	2007 NCCI Annual Statistical Bulletin			2006 NCCI Annual Statistical Bulletin		
	Policy Year	PTD Count	Lost-Time Claim Count	Policy Year	PTD Count	Lost-Time Claim Count
Illinois	4/03 – 3/04	5	1,255	4//02 – 3/03	5	1,273
Indiana	7/03 – 6/04	1	947	7/02 – 6/03	1	977
Kentucky	5/03 – 4/04	12	1,072	5/02 – 4/03	11	1,139
Michigan	4/03 – 3/04	5	1,050	4/02 – 3/03	6	1,040

BWC PA and PEC Combined		
Policy Year	PTD Count	Lost-Time Claim Count
1998	65	2,714
1999	71	2,831
2000	75	2,839
2001	65	2,492
2002	68	2,497
2003	70	2,327
2004	72	2,240
2005	72	2,100

Source of Data:

The NCCA data are from the Annual Issues Symposium 2007, Dennis Mealy, FCAS, MAAA and NCCI Chief Actuary. The BWC data are from the 6/30/07 Actuarial Audit, by Oliver Wyman, Actuarial Consultants.

ACF

BWC includes an administrative loading to cover the internal BWC and IC costs of administration, salaries, rent, and other operating costs. BWC’s overall administrative cost loading appears to be lower for similar functions performed within the industry and other state funds in relation to premium. The revenue and expenses associated with administrative costs are recorded in the ACF. The ACF operates on a pay-as-you go basis. The primary liabilities recorded in the ACF are the estimated LAE reserves. The current proportion of operating expenses associated with LAE is 82%, which appears to be significantly higher than the industry average of approximately 75% in recent years.

Recommendation:	Priority:	Low
<i>Re-evaluate ACF expense allocations and consider a code change to improve consistency in financial reporting for ACF.</i>	Time:	Intermediate
	Effort:	Medium
	Impact:	Low

This suggests a potential need to re-evaluate the BWC’s expenses, in particular the allocation between LAE and other operating expenses. Due to a lack of authority in the Ohio Revised Code, the ACF does not record an accrued asset for future assessments from private employers and public entity taxing districts to cover the unpaid LAE costs. Consequently, there is a substantial deficit of \$0.8 billion as of June 30, 2008. This deficit is apparently the result of different financial reporting treatment regarding unbilled assessments receivable, and this treatment is inconsistent with the accounting treatment for other BWC funds for unbilled premiums receivable or unbilled assessments receivable. We suggest that a possible code change be considered in order to have more consistent financial reporting for these unfunded assets.

Appendix 1 – Deliverables Index

Report Number	Section Title	Description	Task
1.1	Pricing Process: Class Ratemaking Pricing Process: Statewide Rate Level	Review of rating program	1
1.1	Pricing Process: Experience Rating	Review of experience rating system and resulting public and private rates	6
1.1	Pricing Process: MIRA II	Review of reserving methodology used in the ratemaking process	12
1.1	Pricing Process: Salary Continuation and the \$15,000 Medical Only Program	Study on the payment of salary continuation by employers in lieu of temporary total compensation	22
1.1	Pricing Process: Statewide Rate Level	Comparison of loss rates and base rates versus other states	24
1.1	Appears Throughout the Report	Identify rate and reserve setting methods to increase transparency in the process	35
1.2	Cost Controls: Subrogation	Review of subrogation standards	8
1.3	Assessment Process: Self-Insurance	Review assessments for self-insured employers for the surplus fund and for the Self-Insuring Employers' Guaranty Fund	11
1.3	Financial Provisions: SIEGF	Evaluation of selection criteria for self-insured employers	19.2
1.3	Financial Provisions: SIEGF	Evaluation of SIEGF sufficiency requirements and employers' contributions thereto	20
1.4	Pricing Process: Self-Insurance	Evaluation of rules, laws, policies and procedures for self-insured employer who wants to return to BWC	18
1.4	Pricing Process: Self-Insurance	Evaluation of selection criteria for self-insured employers	19.1

Report Number	Section Title	Description	Task
2.1	Financial Provisions: Loss Reserves	Evaluation of expected payments	15
2.1	Financial Provisions: Loss Reserves	Review of loss reserves	21
2.2	Cost Controls: Benefits & Compensation Industry Comparison	Comparison of BWC benefits paid versus industry peers	23
2.3	Cost Controls: Medical Payments	Comparison of medical payments to medical providers in Ohio versus industry peers	25
2.4	Financial Provisions: Net Asset Level	Study on the surplus/net assets held by BWC	26
2.4	Financial Provisions: Excess Insurance and Reinsurance	Evaluation of the excess or reinsurance requirements	31
2.5	Pricing Process: Administrative Cost Calculation	Study on the administrative cost calculation	27
2.6	Cost Controls: MCO Effectiveness	Study on the effectiveness of MCOs	30
3.1	Pricing Process: Public Employer State Agency Rates	Review of public employer state agency rating program	2
3.1	Cost Controls: Retrospective Rating Program	Review of retrospective rating program	4
3.1	Cost Controls: Safety and Hygiene Program	Study on the effectiveness of safety and hygiene programs	29
3.1	Cost Controls: Effect of Rates on Frequency, Severity, and Loss Ratios	Study on the effects of BWC's rates in reducing the number and severity of claims in Ohio	33
3.1	Cost Controls: Effect of Rates on Frequency, Severity, and Loss Ratios	Study on the effect that saving money has had on safety in the workplace in Ohio	34
3.2	Cost Controls: Safety Grant Program	Review of safety grant programs	9
3.3	Pricing Process: Handicap Reimbursement Program	Evaluation of effectiveness of handicap reimbursement program	17

Report Number	Section Title	Description	Task
4.1	Pricing Process: Use of NCCI Classification System	Review of use of NCCI class plan for rating calculations	3
4.1	Cost Controls: Vocational Rehabilitation Program	Study on the effectiveness of the rehabilitation program	28
4.1	Cost Controls: Vocational Rehabilitation Program	Study on the effectiveness of the rehabilitation program	28
4.1	Pricing Process: Experience Aggregation	Evaluation and assessment of the experience aggregation approach	32
4.1	Pricing Process: Minimum Premium	Evaluation of minimum administrative premium	5
4.1	Pricing Process: Ancillary Funds	Review of Disabled Workers' Relief Funds	13
4.1	Pricing Process: Ancillary Funds	Review of Coal Workers Pneumoconiosis Fund	7
4.1	Pricing Process: Ancillary Funds	Review of Marine Industry Fund	10
4.2	Pricing Process: Change of Employer Experience Rates	Evaluation of changing rates due to appeals or clerical errors	14
4.3	Pricing Process: Calculation of Experience Modifications for Out-of-State Employers Who Wish to Enter Ohio	Evaluation of rules, laws, policies, and procedures for an employer operating ex-Ohio requesting Ohio rating	16
4.4	Actuarial Department Functions & Resources: Actuarial Department Organization	Comparison and analysis of actuarial department organization, structure, and staffing versus industry standards	36

Appendix 2 – Performance Assessment

Group 1 Performance Assessment

	Effectiveness & Efficiency	Financial Strength & Stability	Transparency	Ohio Economic Impact
Statewide Rate Level				
Class Ratemaking				
Experience Rating				
MIRA II Reserving			Not Rated	
Salary Continuation and \$15,000 Medical Only Programs				
Overall Subrogation Indication				
SIEGF Situation				
Overall Self-Insurance Process				

Group 2 Performance Assessment

	Effectiveness & Efficiency	Financial Strength & Stability	Transparency	Ohio Economic Impact
Actuarial Audit Reserves				
Benefit Comparisons				
Treatment Authorization Request and ADR				
Medical Payment Process				
Fee Schedule				
Net Asset Level				
Excess Insurance and Reinsurance				
Administrative Cost Calculation				
MCO Effectiveness				

Group 3 Performance Assessment

	Effectiveness & Efficiency	Financial Strength & Stability	Transparency	Ohio Economic Impact
PES Rate Setting				
Retrospective Rating				
Safety & Hygiene Program				
Impact of Rates				
Overall Safety Grant Programs				
Overall Handicap Reimbursement Program				

Group 4 Performance Assessment

	Effectiveness & Efficiency	Financial Strength & Stability	Transparency	Ohio Economic Impact
NCCI Classification System				
Minimum Premium Review				
Ancillary Funds (DWRP)				
Ancillary Funds (MIF)				
Ancillary Funds (CWPF)				
Vocational Rehabilitation Program				
Experience Aggregation Approach				
Change of Employer Experience Rates				
Out-of-State Employer Experience Rating				
Actuarial Organization				

Appendix 3 – Recommendation Impacts

Recommendation Impacts

Report	Recommendation	Effectiveness & Efficiency	Financial Strength & Stability	Transparency	Ohio Economic Impact
1.1	Provide more responsiveness to Ohio trends.	High	Moderate	Low	Moderate
1.1	Perform baseline indication before discounting.	Moderate	Moderate	High	Moderate
1.1	Include alternative method in calculating indicated rate change.	High	High	Moderate	Moderate
1.1	Display historical loss costs at proposed cost and wage levels	None	None	High	None
1.1	Display impact of collecting premium in arrears on the rate change indication.	None	None	High	None
1.1	Eliminate use of ER Off-Balance Adjustment Factor for Class Base Rates.	High	High	Moderate	Moderate
1.1	Apply individual ER Off-Balance Adjustment to individual ER risks only.	High	High	Moderate	Moderate
1.1	Calculate catastrophe factor by NCCI Hazard Group.	Moderate	Moderate	None	Moderate
1.1	Provide more detailed documentation for each adjustment factor.	None	None	High	None
1.1	Use alternative indication of Class Loss Costs to credibility weight class loss costs.	Low	Low	None	High
1.1	Separate case reserves in estimating historical loss costs.	Low	Low	None	Low
1.1	Change the structure of the Group Rating program.	High	High	High	High
1.1	Change credibility for individual experience to be in line with industry practices.	Low	Moderate	None	Low
1.1	Prohibit exclusion of claims from Experience Rating calculation.	Low	Low	Low	Low
1.1	Develop an alternative to the exclusive use of MIRA II.	Moderate	High	High	High
1.1	Determine where MIRA II claim values are most predictive.	Moderate	High	High	High
1.1	Study the impact of MIRA II reserves on class rates and Experience Rating.	Moderate	Moderate	Moderate	Moderate
1.1	Terminate the Salary Continuation program.	High	High	Moderate	High

Recommendation Impacts - continued

Report	Recommendation	Effectiveness & Efficiency	Financial Strength & Stability	Transparency	Ohio Economic Impact
1.1	Terminate the \$15,000 Medical Only program.	High	High	Moderate	High
1.1	Consider an appropriately priced Deductible program as an alternative.	Moderate	Moderate	None	High
1.2	Limit caseloads to no more than 400.	High	Moderate	Low	High
1.2	Build functionality in V-3 to manage subrogation claims.	High	Moderate	Low	Moderate
1.2	Establish a more robust set of performance metrics.	High	Moderate	Moderate	Moderate
1.2	Investigate utilization of text mining.	High	Moderate	Moderate	Moderate
1.3	Institute pre-assessment alternatives.	High	High	Low	Moderate
1.3	Collect enhanced data.	High	High	High	Low
1.3	Require collateral from higher risk employers.	High	High	Moderate	High
1.3	Revise assessment base.	Moderate	Low	Low	Low
1.3	Reinsure certain bankruptcy losses.	Moderate	Moderate	Low	Low
1.4	Require an actuarial study for self-insurers returning to the State Insurance Fund.	High	High	Moderate	High
1.4	Continuation of security upon returning to the State Insurance Fund.	High	High	Moderate	High
1.4	Do not allow self-insurers to leave the State Insurance Fund multiple times.	High	High	Moderate	High
1.4	Expand reporting forms to allow for more detailed internal analysis.	Moderate	Moderate	Moderate	Moderate
1.4	Require an actuarial study for Self-Insurance applicants.	High	High	Moderate	High
1.4	Require additional security for employers applying for Self-Insurance.	High	High	Low	Moderate
1.4	Consider offering Group Self-Insurance.	Moderate	Moderate	Moderate	High
1.4	Consider trends within industries to determine Self-Insurance criteria.	Moderate	Moderate	Low	High
1.4	Incorporate objective financial criteria as part of the Self-Insurance application.	Moderate	Moderate	Moderate	Low

Recommendation Impacts – continued

Report	Recommendation	Effectiveness & Efficiency	Financial Strength & Stability	Transparency	Ohio Economic Impact
1.4	Consider offering enhanced customer service aid to employers.	Low	Low	High	Low
1.4	Consider requiring an anti-fraud program as part of the Self-Insurance application.	Low	Low	Moderate	Low
1.4	Consider requiring a formal safety program as part of the Self-Insurance application.	Low	Low	Moderate	Low
1.4	Require organization documents for Self-Insurance application.	Low	Low	Moderate	Low
2.1	Include risk margins and disclose margins/discounts.	Low	High	High	Low
2.1	Require Statement of Actuarial Opinion.	Low	Moderate	High	Low
2.1	Further study of LSS savings & DWRF risk.	Moderate	Moderate	High	High
2.1	Use additional methods, document better, test estimates, and focus on risk and uncertainty.	Moderate	Moderate	High	Low
2.3	Conduct fee schedule update and maintenance.	High	Moderate	High	Moderate
2.3	Address medical payment process duplication.	High	Moderate	Moderate	Moderate
2.3	Streamline treatment authorization request and ADR process.	High	Moderate	Moderate	Moderate
2.4	Adopt a funding policy with guidelines & metrics.	Moderate	High	High	Moderate
2.4	Target a funding ratio range and recommended actions.	Moderate	High	High	Moderate
2.4	Policy guidance with premium options based on funding ratio.	Moderate	High	High	Moderate
2.4	Limit impact of CAT event to 5-10% of Net Assets.	Moderate	Moderate	Moderate	Moderate
2.4	Test reinsurance market for CAT protection.	Moderate	Moderate	Moderate	Moderate
2.5	Re-evaluate portion of administrative expenses allocated to LAE.	Low	Moderate	Moderate	Low

Recommendation Impacts – continued

Report	Recommendation	Effectiveness & Efficiency	Financial Strength & Stability	Transparency	Ohio Economic Impact
2.6	Sustain trend of decreasing numbers of participating MCOs & study feasibility of competition.	High	Moderate	None	Moderate
2.6	Remove the BWC from the ADR appeal process.	High	Moderate	None	Moderate
2.6	Legislate change to mandatory IME requirement at 90 days lost time.	High	Moderate	Moderate	Moderate
2.6	Allow MCOs authority to make allowable condition determinations.	High	Moderate	Moderate	Moderate
2.6	Establish ODG as mandated disability duration guidelines.	Moderate	Moderate	High	Low
2.6	Update all fee schedules every 1 - 2 years.	Moderate	Moderate	High	High
2.6	Improve provider profiling, credentialing, and de-certification.	Moderate	Moderate	High	Moderate
2.6	Continue Public Forums and re-institute Injured Worker Surveys & employer satisfaction surveys.	Moderate	Moderate	High	None
3.1	Change the manner in which PES rates are calculated.	Moderate	Moderate	High	Low
3.1	Change the method used to determine Expected Paid Losses in the Prospective Policy Year.	Moderate	Low	Low	Low
3.1	Redesign the Retrospective Rating program.	Moderate	Moderate	Moderate	Moderate
3.1	Develop the capability to track the experience of employers participating in the Safety & Hygiene program.	Low	Low	Low	Low
3.1	Impact of rates on frequency, severity, and loss ratios.	Not Rated	Not Rated	Not Rated	Not Rated
3.2	Make Grants Available even if no claims related to the intervention.	Moderate	Negative	None	Low
3.2	Require Safety Report with application.	Moderate	High	Moderate	Moderate
3.2	Combine DFWP and DF-EZ programs.	High	Moderate	Moderate	Low
3.3	Terminate the Handicap Reimbursement program.	Moderate	Moderate	Moderate	Low
4.1	Consider using NCCI class codes for Public Taxing Districts.	Moderate	Low	Low	Low
4.1	Monitor procedures used to code construction classes.	Moderate	Moderate	None	Moderate

Recommendation Impacts – continued

Report	Recommendation	Effectiveness & Efficiency	Financial Strength & Stability	Transparency	Ohio Economic Impact
4.1	Establish specific premium audit guidelines.	High	Moderate	None	Moderate
4.1	Increase scope of Premium Audit function.	Moderate	High	None	Moderate
4.1	Consider an audit scoring tool to prioritize audits.	High	High	None	Moderate
4.1	Examine the feasibility of raising the Minimum Premium.	Moderate	Moderate	None	Moderate
4.1	Increase premium audits for accounts that report no payroll but have claims.	Moderate	Moderate	None	Moderate
4.1	Set DWRP rates to meet payments and reduce burden to future employers for DWRP benefits.	Moderate	High	Moderate	Moderate
4.1	Address large unfunded obligation including possible long term funding.	Moderate	High	Moderate	Moderate
4.1	Change DWRP from pay-as-you-go basis to support reducing unfunded obligations.	Moderate	High	Moderate	Moderate
4.1	Establish a good, clear, and long term rationale for funding DWRP benefits.	Moderate	High	Moderate	Moderate
4.1	Change rules to give BWC sole authority to direct rehab services.	High	Moderate	None	Moderate
4.1	Reconsider the rules associated with the Experience Rating treatment of LM claims.	High	Moderate	Moderate	Moderate
4.1	Use NCCI Approach to Common Majority Ownership for Experience Rating	Moderate	Moderate	Moderate	Moderate
4.2	Eliminate/restrict changes to employer rates due to changes in claims.	High	Low	Moderate	Low
4.2	Establish shorter and clearly defined time constraints, and restrict time to report errors.	Moderate	Moderate	Moderate	Moderate
4.3	Utilize only Ohio based information to determine eligibility for Experience Rating.	High	Low	Moderate	Low
4.3	Adopt the industry standard of using base premiums as the eligibility criteria for Experience Rating.	High	Low	Moderate	Low

Recommendation Impacts – continued

Report	Recommendation	Effectiveness & Efficiency	Financial Strength & Stability	Transparency	Ohio Economic Impact
4.4	Establish rating and programs pricing team.	High	High	Moderate	Moderate
4.4	Establish reserving & net asset level analysis function.	High	High	Moderate	Moderate
4.4	Establish data management.	High	High	Moderate	Moderate
4.4	Actuarial hiring and development program.	Moderate	Moderate	None	None

Note:

*Task 35 is described throughout Task 1.

**No recommendations were made for Task 23 (Report 2.2 - Benefit Levels)

About Deloitte

Deloitte refers to one or more of Deloitte Touche Tohmatsu, a Swiss Verein, and its network of member firms, each of which is a legally separate and independent entity. Please see www.deloitte.com/about for a detailed description of the legal structure of Deloitte Touche Tohmatsu and its member firms. Please see www.deloitte.com/us/about for a detailed description of the legal structure of Deloitte LLP and its subsidiaries.

Copyright © 2008 Deloitte Development LLP. All rights reserved.