Deloitte.

Ohio Bureau of Workers' Compensation Comprehensive Study

Pricing Process: Use of NCCI Classification System

Pricing Process: Minimum Administrative Premium

Pricing Process: Ancillary Funds

Cost Controls: Vocational Rehabilitation Program

Pricing Process: Experience Aggregation

Report 4.1

Deloitte Consulting LLP
Group 4
Report Finalized: March 4, 2009

Audit . Tax . Consulting . Financial Advisory.

Contents

Use of NCCI Classification System

Executive Summary

Introduction

The BWC has adopted the National Council of Compensation Insurance ("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. The use of the NCCI classification system provides a convenient means of comparing Ohio's rates to those of other states, as most states and companies also use the NCCI system.

Conclusions

Findings

The BWC uses the NCCI classification system for private employers ("PA") and public taxing districts ("PEC"). The BWC's use of the NCCI classification for rating calculations is consistent with typical industry practice. The BWC has established policies and procedures for the reporting of payroll and premium audit that also appear to be consistent with industry norms. One area in which the BWC differs from the industry is in the number of state special class codes used for PEC. We discuss this in more detail in the Review and Analysis section of this report. Another area in which the BWC differs from the industry is in the extent to which premium audits are conducted, as discussed in the recommendation below.

Recommendations

Deloitte Consulting's primary recommendation with respect to the BWC's use of the NCCI classification system is as follows:

- **Increase the Scope of the Premium Audit Function:** The BWC has well-established policies and procedures for the premium audit function, but the percentage of employers who are audited is far lower than typical industry practice. Deloitte Consulting recommends that the BWC increase the number of premium audits. More detailed recommendations on this and other areas within this task are included in the Conclusions section of this report.

The Situation

Task Background

RFP Task Reference	RFP Task Description	Task Category
Section 5.1.2 #3, page 13	Review and make written recommendations of the BWC's use of the National Council of Compensation Insurance (NCCI) manual classification system for rating calculations. This review would include but not be limited to an analysis of the assignment of classifications to employers, the process of employer's reporting payroll, the premium auditing process and the procedures for non-reporting of payroll.	**Pricing & Programs**

As part of the BWC Comprehensive Study, this section of the Report comprises Deloitte Consulting's deliverable of Section 5.1.2 Task #3.

Methodology

We reviewed BWC's classification rules for rating calculations and compared these rules to common industry practice. In addition, we reviewed BWC's payroll distribution by class code to determine whether any apparent anomalies exist. Lastly, we reviewed the BWC's policies and procedures related to the premium audit function.

Please refer to the "*Information & Data Gathered Section*" of this Report for a list of information and data utilized by Deloitte Consulting.

Primary Constituents

- **BWC Insured Employers** – Employers' rates are dependent upon their NCCI classification.
- **BWC Actuarial Department –** Responsible for rating calculations using the NCCI classification system.

Information and Data Gathered

Interviews

The following individuals were very helpful in answering our questions and responding to requests for information and data.

- Director - Actuarial Department
- Assistant Director – Actuarial Department
- Actuarial Supervisor - Actuarial Department

Information/Data Request

Deloitte Consulting was provided information by responsible officers and employees of the BWC. Specifically, we were provided with the following:

- Ohio BWC State Insurance Fund Manual;
- Written descriptions of the BWC's policies and procedures for the reporting of payroll; and
- Written descriptions of the BWC's policies and procedures for premium audit.

In addition, we made use of payroll data by NCCI class provided in our Group 1 tasks related to the review of the PA rating process.

Review and Analysis

Public Taxing Districts

BWC has 14 "state special" codes for PEC. The state specials generally do not differentiate employees by occupation hazard. Instead, the state specials differentiate between characteristics such as location (city vs. village vs. county). Other states typically include a smaller number of state specials for public employees. Oregon has four, and Utah has 3. We believe that classification that emphasizes hazard rather than location would improve the PEC rating process.

Construction Classes

For NCCI construction classes, BWC has a higher proportion of payroll in a low loss cost class than expected - 14% of construction payroll in class 5605 (Construction Estimators) and 5% in class 5606 (Construction Managers). These classes have much lower loss costs than other construction classes. This is a potential payroll audit issue for misallocation of payrolls to lower cost classes. We understand, however, that there are limitations on the amount of payroll that can be reported in certain construction classes which could be contributing at least in part to this phenomenon.

Premium Audit

The BWC's policy and procedures for premium auditing are well documented based on a comparison to industry and other state funds. The BWC has audited approximately 30,000 employers since April, 2006 compared to approximately 300,000 employers in Ohio. This is a much lower proportion compared to typical industry practice. We recommend that the BWC increase the scope of the premium audit function. The details of our recommendation are shown in the Conclusions section.

Conclusions

Findings

The use of the NCCI classification system is very helpful in comparing the BWC's results to those of other states. We recommend that the BWC continue to make use of the NCCI classification system for rating calculations. Doing so contributes favorably to the BWC's transparency. Employers considering whether to operate in Ohio have a means of assessing the workers' compensation costs that would not be as readily available if a state-specific classification system were in place.

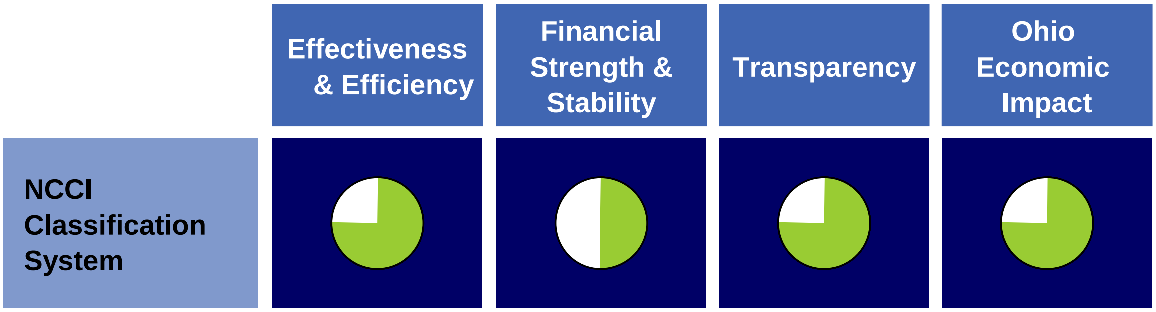
Performance Assessment

We assessed the performance of the Ohio workers' compensation system compared to these four overarching themes: Effectiveness & Efficiency; Financial Strength & Stability; Transparency; and Ohio Economic Impact. Each broad study element (Ohio Benefit Structure; Pricing Process; Cost Controls; Financial Provisions; and Actuarial Department Functions & Resources) is reviewed with these themes in mind to develop a performance assessment of the current state. Our performance assessment is made on each element in the context of its contribution to supporting the overarching themes.

For these performance assessments, the following scoring method applies:

●	Strongly supports system performance
◕	Supports system performance
◑	Some support for system performance
◔	Some opportunity for system performance change/enhancement
○	Significant opportunity for system performance change/enhancement

Based on this scoring method, the performance assessment for the BWC’s use of the NCCI classification system is as follows:



Peers and Industry Standards Considered

Peers: Oregon, Utah, other NCCI states

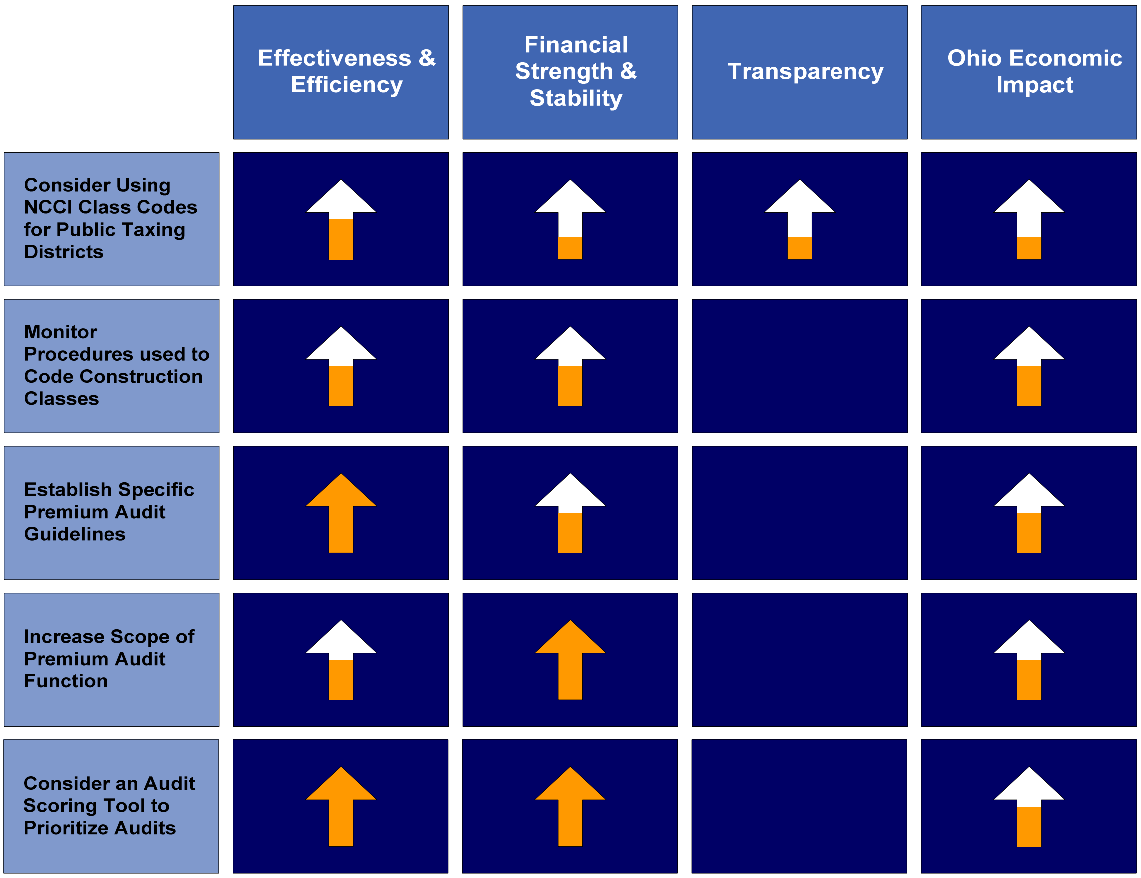
Recommendations

The following comprise Deloitte Consulting's recommendations for the use of the NCCI classification system.

- **Public Taxing Districts: Use NCCI Class Codes for Employees by Job Class:** This would allow for greater differentiation in the relative hazard based on the payrolls for each employee job class, replacing the 14 state specials currently in use;
- **Construction: Design Appropriate Premium Audit Procedures:** This would help ensure that only appropriate payroll is coded to 5605 and 5606, the low loss cost classes within Construction; and
- **Expand the Scope of the Premium Audit Function:** This includes:
  - Developing an expanded approach to audit most employers every three to five years, possibly more frequently (every one to two years) for large employers;
  - Increasing the scope of the premium audit function to introduce different levels of audits (telephone, by mail, physical) and more focused or targeted audits; and
  - Developing an audit scoring system as a tool to prioritize potential audits by employer and to improve effectiveness and efficiency of premium audit resources.

Impact

The impact (high, moderate, or low) of the recommendations for the use of the NCCI classification system as they relate to the overarching themes is shown in the following table:



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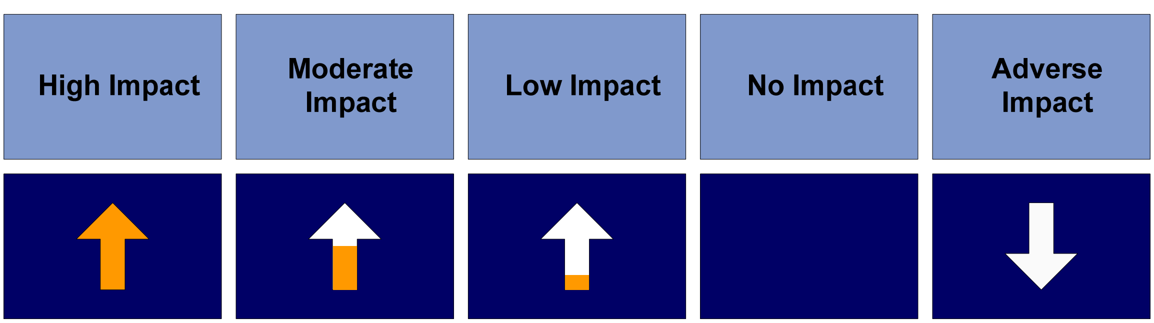


Minimum Administrative Premium

Executive Summary

Introduction

For accounts that do not report payroll, a minimum premium of $50 is charged for each six months of coverage. Similarly, for those accounts that do report payroll, but for which calculated premium is less than $50, the minimum premium of $50 is charged for each six months of coverage. Minimum premium levels in the industry typically range from $500 to $750 for a 12 month period of coverage and can vary by primary class.

Conclusions

Findings

- BWC would need to increase minimum premiums to approximately $75 - $100 per 6 month period in order to cover the level of losses associated with minimum premium accounts for the past several policy periods. Minimum premium accounts have had very high loss ratios since 2003, when the minimum premium was $10 per six months of coverage.
- Ohio household workers who earn less than $160 in any calendar quarter from a single household are excluded from the Workers' Compensation Act. Twenty two states have some workers' compensation requirements for domestic workers. In several states, domestic employees are rated per employee instead of on payroll.

Recommendations

Deloitte Consulting's primary recommendations with respect to the BWC's use of the minimum administrative premium are as follows:

- **Examine the Feasibility of Raising Minimum Premium Levels:** The BWC should consider raising minimum premiums to levels that are more in line with expected losses and with industry minimum premium levels; and
- **Increase Premium Audits on Employers with Claim Activity who Report $0 Payroll:** Of the 70,000-80,000 employers who pay a minimum premium in each six month period, there are roughly 200-300 accounts that have claims while reporting $0 payroll. These employers account for approximately 90% of the reported losses associated with all minimum premium accounts. The BWC should increase premium audits of such employers to ensure that appropriate payroll is reported.
- **Consider a different minimum premium for domestic employees:** We recommend that the BWC consider rule or possibly legislative changes to address how domestic workers are covered for workers' compensation, and how most Ohio households can be relieved of paying a separate premium to BWC. For those few households who regularly employ domestic workers for a significant number of hours per week, a minimum premium could be based on a flat premium per employee. To better analyze the alternatives, we recommend that BWC review their experience for the domestic worker classification, particularly the number of policies, premiums, minimum premium, and loss experience.

The Situation

Task Background

RFP Task Reference	RFP Task Description	Task Category
Section 5.1.2 #5, page 13	Conduct an evaluation on the minimum administrative premium charged to employers operating in Ohio for workers' compensation coverage. This evaluation should determine the minimum acceptable amount of premium that should be charged to employers in Ohio to bind coverage and to cover expected losses.	**Pricing & Programs**

As part of the BWC Comprehensive Study, this section of the Report comprises Deloitte Consulting's deliverable of Section 5.1.2 Task #5.

Methodology

Our approach to the study includes a review of the BWC's minimum premium levels in comparison to industry standards, as well as a review of the historical loss ratios of minimum premium accounts.

Please refer to the "*Information & Data Gathered Section*" of this Report for a list of information and data utilized by Deloitte Consulting.

Primary Constituents

- **BWC Insured Employers –** Smaller companies insured by the BWC who may be subject to the minimum premium;
- **BWC Actuarial Department –** Responsible for determining indicated minimum premium levels.

Information and Data Gathered

Interviews

The following individuals were very helpful in answering our questions and responding to requests for information and data.

- Director - Actuarial Department
- Assistant Director – Actuarial Department
- Actuarial Supervisor - Actuarial Department

Information/Data Request

Deloitte Consulting was provided information by responsible officers and employees of the BWC. Specifically, we were provided with the following:

- Ohio BWC State Insurance Fund Manual; and
- Premium and loss experience for minimum premium accounts for six month policy periods from January 1, 2003, to July 1, 2007.

Review and Analysis

Results for Minimum Premium Accounts

Minimum premium accounts have had very high loss ratios since 2003, when the minimum premium was $10 per six months of coverage. The premium and losses by policy period are shown below. The evaluation date is June 30, 2008.

Payroll Policy Period	Minimum Administrative Fee	Policy Count	Payroll Amount	Calculated Blended Premium	Minimum Administrative Premium	Claim Count	Incurred Claims Costs	Loss Ratio
1/1/2003	10	65,825	4,428,139	24,279	658,250	343	9,011,609	**1369%**
7/1/2003	10	64,406	4,357,924	22,471	644,060	351	8,997,300	**1397%**
1/1/2004	10	69,743	4,673,351	25,273	697,430	380	7,437,931	**1066%**
7/1/2004	10	67,210	5,654,007	25,978	672,100	303	4,788,673	**712%**
1/1/2005	10	71,012	5,788,941	27,298	710,120	274	5,049,070	**711%**
7/1/2005	10	68,177	6,663,641	27,671	681,770	310	5,048,506	**740%**
1/1/2006	10	70,273	6,904,450	28,969	702,730	319	4,518,260	**643%**
7/1/2006	50	79,555	158,532,035	603,649	3,977,750	357	6,664,485	**168%**
1/1/2007	50	78,424	152,274,736	599,204	3,921,200	377	4,891,822	**125%**
7/1/2007	50	72,245	141,010,141	542,693	3,612,250	380	5,572,541	**154%**
			490,287,365	1,927,484	16,277,660	3,394	61,980,197	**381%**

This table shows that loss ratios have been extremely unfavorable for minimum premium accounts. The increase from $10 to $50 in July 1, 2006 has helped mitigate the loss ratios, but the loss ratios remain very high. It appears that increasing the minimum premium level to $75 or $100 per six month policy period would result in more reasonable loss ratios for these accounts. Industry norms are $500 to $750 for 12 month policy periods.

The results for minimum premium accounts with claims but no reported payroll is shown below.

Payroll Policy Period	Minimum Administrative Fee	Policy Count	Payroll Amount	Calculated Blended Premium	Minimum Administrative Premium	Claim Count	Incurred Claims Costs	Loss Ratio
1/1/2003	10	269	-	-	2,690	332	8,688,067	**322976%**
7/1/2003	10	263	-	-	2,630	334	8,377,114	**318521%**
1/1/2004	10	266	-	-	2,660	371	6,886,953	**258908%**
7/1/2004	10	229	-	-	2,290	293	4,753,476	**207575%**
1/1/2005	10	192	-	-	1,920	254	4,715,461	**245597%**
7/1/2005	10	218	-	-	2,180	293	4,998,281	**229279%**
1/1/2006	10	195	-	-	1,950	294	4,265,155	**218726%**
7/1/2006	50	196	-	-	9,800	279	5,746,891	**58642%**
1/1/2007	50	195	-	-	9,750	280	3,132,073	**32124%**
7/1/2007	50	222	-	-	11,100	301	4,374,696	**39412%**
			-	-	46,970	3,031	55,938,167	**119093%**

This table shows that the vast majority of the losses ($55.938 million of $61.980 million) associated with minimum premium accounts result from employers reporting $0 payroll. This suggests a need to audit the accounts above to ensure that appropriate payroll is reported. Since April, 2006, 292 payroll audits have been performed on these accounts. We recommend that the BWC audit all of these accounts.

Conclusions

Findings

The minimum premium levels in Ohio are much lower than those seen in the industry. As expected under these circumstances, the loss ratios associated with minimum premium accounts have been relatively poor. We believe that the BWC should consider raising the minimum premium levels to be more in line with industry. We also believe that the BWC should audit all employers who report $0 payroll but have reported claim activity.

Ohio household workers who earn less than $160 in any calendar quarter from a single household are excluded from the Workers' Compensation Act. Twenty two states have some workers' compensation requirements for domestic workers. In some of these states, employers of domestic employees are subject to the act if they employ these workers for more than a specified number of hours per week or if the employee is paid more than a specified sum over a certain period of time. In several states, domestic employees are rated per employee instead of on payroll. In a few states, not only are domestic employees covered under the act, regardless of the number of hours worked, but all homeowners policies must provide workers' compensation coverage for these workers. Twenty seven states exempt domestic employees from workers' compensation coverage, and two states require that workers' compensation insurance be purchased for all domestic employees.

Performance Assessment

We assessed the performance of the Ohio workers' compensation system compared to these four overarching themes: Effectiveness & Efficiency; Financial Strength & Stability; Transparency; and Ohio Economic Impact. Each broad study element (Ohio Benefit Structure; Pricing Process; Cost Controls; Financial Provisions; and Actuarial Department Functions & Resources) is reviewed with these themes in mind to develop a performance assessment of the current state. Our performance assessment is made on each element in the context of its contribution to supporting the overarching themes.

For these performance assessments, the following scoring method applies:

	Strongly supports system performance
	Supports system performance
	Some support for system performance
	Some opportunity for system performance change/enhancement
	Significant opportunity for system performance change/enhancement

Based on this scoring method, the performance assessment for the minimum administrative premium is as follows:

Peers and Industry Standards Considered

Peers: Other NCCI states

Recommendations

Our recommendations for the minimum administrative premium are shown below.

- **Examine the Feasibility of Raising Minimum Premium Levels:** A phase-in of increases in minimums may be appropriate. The BWC could consider implementing minimum premium levels with some variation by class; and

- **Increase Premium Audits on Employers with Claim Activity who Report $0 Payroll:** The BWC should audit the $0 payroll accounts with reported claims to determine if fraud exists and if the minimum premium is appropriate for these employers.

- **Consider a different minimum premium for domestic employees:** We recommend that the BWC consider rule or possibly legislative changes to address how domestic workers are covered for workers' compensation, and how most Ohio households can be relieved of paying a separate premium to BWC. For those few households who regularly employ domestic workers for a significant number of hours per week, a minimum premium could be based on a flat premium per employee. To better analyze the alternatives, we recommend that BWC review their experience for the domestic worker classification, particularly the number of policies, premiums, minimum premium, and loss experience.

Impact

The impact (high, moderate, or low) of the recommendations for minimum premium as they relate to the overarching themes is shown in the following table:

	Effectiveness & Efficiency	Financial Strength & Stability	Transparency	Ohio Economic Impact
Examine the Feasibility of Raising the Minimum Premium				
Increase Premium Audits for Accounts that Report No Payroll but Have Claims				

Legend

High Impact	Moderate Impact	Low Impact	No Impact	Adverse Impact

Ancillary Funds

Executive Summary

Introduction

The Disabled Workers Relief Fund ("DWRF"), Marine Industry Fund ("MIF"), and Coal Workers Pneumoconiosis Fund ("CWPF") are collectively termed the "ancillary funds" in this report. The DWRF provides supplementary payments to workers whose combined permanent total disability (PTD) plus Social Security Disability benefits are lower than a specified entitlement amount, which is indexed to the CPI each year. The MIF insures maritime employers from exposure arising from Federal USL&H. The CWPF insures employers with mining operations from exposure to black lung claims subject to federal benefits. The BWC's independent actuary prepares annual rate recommendations for the DWRF, MIF, and CWPF.

The DWRF is by far the largest of these three Funds. The BWC's financial statements as of June 30, 2008 include $1.8 billion of discounted loss reserves related to DWRF obligations. In contrast, the loss reserves of the MIF are approximately $3 million, and the loss reserves of the CWPF are approximately $59 million. Thus, the DWRF is the primary focus of our recommendations with respect to these Funds.

By statute, the DWRF operates on a pay-as-you-go basis. Premiums are intended to cover paid losses in the prospective policy year. They are not intended to fully fund the liabilities. The BWC records an asset for unbilled assessments to offset the unfunded liability. The amount of this asset is approximately $1.5 billion as of June 30, 2008. This asset represents an obligation for Ohio's employers in future years.

Conclusions

Findings

The net assets in the DWRF are approximately $850 million as of June 30, 2008. This includes the $1.5 billion assets for unbilled assessments. It is important to recognize that the net assets in the DWRF would be negative by a substantial amount ($650 million) without the asset for future assessments. We believe that the BWC should develop a funding policy for DWRF, as well as the MIF and CWPF, similar to our recommendations for the State Insurance Fund ("SIF") described in our report on the BWC's net assets.

Recommendations

Deloitte Consulting's primary recommendations for the ancillary funds are shown below.

- **Address the large amount of unrecognized and unfunded obligations, including possible long term funding:** The BWC should address the large unfunded liability generated by the DWRF. Deloitte Consulting recommends a legislative change to no longer require the DWRF to operate on a pay-as-you-go basis; and

- **Reconsider whether DWRF, MIF, and CWPF should remain separate funds:** The BWC should consider whether ancillary funds should be combined with the SIF. Changing this would require legislation. The benefits to be gained include the efficiencies from reducing the obligation to manage a large number of separate funds.

Other recommendations specific to each of these Funds are included in the Conclusions section of this report.

The Situation

Task Background

RFP Task Reference	RFP Task Description	Task Category
Section 5.1.2 #7, page 13	Review and make written recommendations with regard to the Coal-Workers Pneumoconiosis Fund. This review would include a complete analysis of the rating program. This analysis should compare the methodology used in BWC's rating calculation to industry standards and the actuarial standards of practice promulgated by the Actuarial Standards Board of the American Academy of Actuaries.	**Pricing & Programs**
Section 5.1.2 #10, page 13	Review and make written recommendations with regard to the Marine Industry Fund. This analysis should compare the methodology used in BWC's rating calculation to industry standards and the Actuarial Standards of Practice promulgated by the Actuarial Standards Board of the American Academy of Actuaries.	**Pricing & Programs**
Section 5.1.2 #13, page 13	Review and make written recommendations with regard to the Disabled Workers' Relief Funds. This review would include a complete analysis of the funds including but not limited to the loss information, payroll information, and other rating calculations. This analysis should compare the BWC's rating calculation to industry standards and the Actuarial Standards of Practice promulgated by the Actuarial Standards Board of the American Academy of Actuaries.	**Pricing & Programs**

As part of the BWC Comprehensive Study, this section of the Report comprises Deloitte Consulting's deliverable of Section 5.1.2 Task #29.

Methodology

Our approach to the study includes a review of Oliver Wyman's Annual Rate Reviews for the DWRF, MIF and the CWPF. In addition, we discussed these funds with the BWC and Oliver Wyman.

Please refer to the "*Information & Data Gathered Section*" of this Report for a list of information and data utilized by Deloitte Consulting.

Primary Constituents

- **BWC Insured Employers –** Companies insured by the BWC who participate in the Coal-Workers Pneumoconiosis Fund, Marine Industry Fund, and/or Disabled Workers' Relief Fund.
- **Oliver Wyman –** Responsible for annual rate studies for the ancillary funds.
- **BWC Administrator, BWC Chief Actuarial Officer –** Make overall rate change recommendation to Actuarial Committee to take to Board.

Information and Data Gathered

Interviews

The following individuals were very helpful in answering our questions and responding to requests for information and data.

- Director - Actuarial Department
- Assistant Director – Actuarial Department
- Actuarial Supervisor - Actuarial Department

Information/Data Request

Deloitte Consulting was provided information by responsible officers and employees of the BWC. Specifically, we were provided with the following:

- Mercer Oliver Wyman rate review studies for the DWRF, MIF, and CWPF for policy years July 1, 2003 through July 1, 2008; and
- Supplemental Schedule of Net Assets in the BWC's Financial Statements, which provides balance sheet and income statement information on the ancillary funds.

In addition, the BWC provided information showing the impact of rule changes on the allowance of Social Security offsets with respect to past DWRF and PTD payments.

Review and Analysis

DWRF

DWRF revenue is derived from assessments on employers' payrolls or premiums. Two separate assessments are applied to employers, one related to accidents occurring prior to 1987 ("DWRF I") and another for accidents occurring in 1987 and subsequent ("DWRF II"). DWRF I assessments are based on a rate applied to the employer's payroll. This rate is limited by current law to no more than $0.10 per $100 of payroll. DWRF II assessments are based on a rate applied to the employer's base-rated premium.

Under current law, DWRF is funded on a pay-as-you-go basis. Assessments are typically based on projected payments for the next 12 months. House Bill 100 permits BWC to assess employers in future periods for amounts needed to fund DWRF. As a result, BWC reflects an asset for unbilled assessments receivable in both the June 30, 2007 and June 30, 2008 financial statements. The amount of the unbilled assessments receivable is approximately $1.6 billion as of June 30, 2007 and $1.5 billion as of June 30, 2008. The net assets of DWRF are $800 million as of June 30, 2007 and $849 million as of June 30, 2008. Consequently, without the accrual for the unbilled assessments receivable, DWRF would be in a significant deficit position of $650 million as of June 30, 2008.

The asset of $1.5 billion on BWC's balance sheet for unbilled assessments is based on BWC's statutory right to assess employers in future periods for DWRF funding. It is our understanding that there is no corresponding liability reflected on the balance sheet of employers who will be subject to these assessments. Therefore, considering the state of Ohio as a whole, there is an unrecognized obligation of employers for their collective potential future premium liability related to this Fund equal to $1.5 billion.

For the past several fiscal years prior to June 30, 2008, receipts have exceeded disbursements related to DWRF I benefits, as seen in the table below (dollars shown in thousands).

Fiscal Year ending	DWRF I Receipts	DWRF I Disbursements
June 30, 2005	109,890	102,316
June 30, 2006	111,717	101,298
June 30, 2007	107,318	95,416
June 30, 2008	110,849	92,584

As a result, reductions in the assessment rate for DWRF I have been recommended.

For DWRF II, where the indicated assessment rate (0.7% of base premium) is higher than the actual rate (0.1% of base premium), no change has been recommended in the assessment rate. According to the BWC, this is due to the fact that DWRF II benefits were originally fully funded until a statute change converted the DWRF II basis to a pay-as-you-go, the same basis as DWRF I. During the time in which DWRF II was fully funded, net assets accumulated. As a result, the BWC believes that DWRF II is in a surplus position. Thus the DWRF II rates are set lower than the indication from the rate study.

We recommend that the BWC set DWRF II rates at the level of expected payments rather than below this level, so as to reduce the accumulated unfunded liability which exists in the DWRF.

DWRF – Social Security Retirement Offsets

Claimants are eligible for DWRF benefits when the combination of their PTD and Social Security retirement benefits fall below a certain threshold. If a claimant is eligible to receive DWRF benefits, the amount of DWRF benefits is determined as the difference in the threshold and the PTD benefit; in other words, without regard to Social Security Retirement benefits. According to the BWC, the vast majority of DWRF disbursements in the last 10 years would be eliminated if the BWC had the authority to offset Social Security Retirement payments against the calculated DWRF benefit. If a legislative or rule change is enacted that causes this to occur, we would expect the pricing for DWRF benefits to indicate much lower rates than are currently in place.

MIF

The MIF is funded by premiums that are intended to be sufficient to cover incurred losses and all outstanding liability for unpaid claims. The premium and loss experience of the MIF is shown below.

Marine Industry Fund - Results as of 12/31/07
Dollars in Thousands

Accident Year	Earned Premium	Earned Premium at 7/1/07 Rates	Discounted Incurred Losses as of 12/31/07
1995	1,439	1,025	1,104
1996	986	703	777
1997	777	583	390
1998	732	579	180
1999	762	604	297
2000	719	570	138
2001	701	555	17
2002	752	595	3
2003	825	653	108
2004	819	690	952
2005	799	719	-
2006	677	641	337

As can be seen above, premium has exceeded discounted incurred losses in all years from 1995 to 2006 with the exception of 2004.

The MIF rates have been reduced several times from 1995 to 2007, including a 10% decrease effective 7/1/97, a 12% decrease effective 7/1/05, and a 10% decrease effective 7/1/07. In the 7/1/08 rate analysis for the MIF, two scenarios are presented, which indicate rate changes of -27% and -48%. As a result of this analysis, and the likely variability of results from year to year, the recommended rate change was 0% to -20%. This is consistent with the rate analysis from prior years, in which large decreases were indicated and the rate change recommendation reflected a smaller, or no rate change. We believe this is a reasonable recommendation given the volatility of results and the fact that only a small amount of premium is collected each year for this Fund.

CWPF

The results for the CWPF are shown below.

Coal Workers Pneumoconiosis Fund
Dollars in Thousands

Year	Assets	Liabilities	Fund Balance	Loss+LAE Reserves	Premiums
1997	141,647	43,357	98,290	34,500	264
1998	149,317	35,858	113,459	35,600	260
1999	148,102	37,043	111,059	36,782	(16)
2000	152,326	38,249	114,077	38,021	3
2001	187,512	53,271	134,241	37,026	-
2002	186,115	50,758	135,257	50,190	1,232
2003	211,290	63,398	147,891	52,600	267
2004	220,527	68,809	151,718	55,700	256
2005	224,739	63,320	161,419	57,500	824
2006	221,894	61,756	160,138	61,100	921

As can be seen above, the net assets ("Fund Balance") of the CWPF have generally risen over time. This is despite the fact that the BWC has collected premium only for new employers seeking coverage from the CWPF for the past several years, and for a period of time collected no premium at all.

There is currently a recommendation to continue the practice of charging premium only to new employers, due to the relatively large net assets in the CWPF. As a result of this practice, BWC has been collecting premium that is less than the expected losses for the past several years. Estimated discounted ultimate losses for the CWPF average approximately $1.5 million each year, and annual premiums have averaged approximately $700 thousand for the past five years. Net assets have grown despite this fact due to the investment income generated by the existing asset base, which exceeds the shortfall in annual premium accumulated over the past several years.

The rationale for charging only new employers for the CWPF coverage is understandable from the perspective of the relatively high level of net assets in the CWPF (relative to the loss reserves) and from the standpoint of practicality. However, this practice can lead to issues of equity and fairness among past, current, and future employers who require this coverage.

Conclusions

Findings

Our conclusion from our review of the rating process for the DWRF, MIF, and CWPF is that the methodology and recommendations are reasonable in light of the rationale for each individual Fund.

However, we believe that significant changes should be made with respect to these Funds.

Most importantly, the BWC should implement a funding policy to address the $1.5 billion unfunded liability associated with DWRF. This amount represents an unfunded burden to future employers in the state of Ohio.

We have also found that certain recommendations in the rate studies are understandable, but present issues with equity, fairness, and financial stability. These include the recommendation to charge the minimum premium rate for DWRF II despite expected payments which exceed this level, and the recommendation to charge CWPF premium only to new employers seeking the coverage. We recommend that the BWC consider changing these approaches to one which promotes fairness and equity to employers as well as the long-term financial stability of the BWC.

The BWC should consider whether it is feasible to combine the Funds so as to make the management of the overall risk presented by the Funds more effective and efficient.

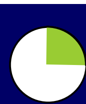
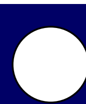
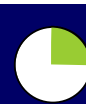
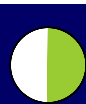
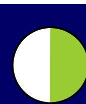
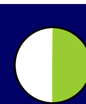
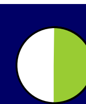
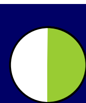
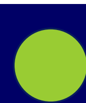
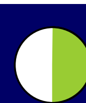
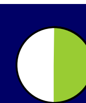
Performance Assessment

We assessed the performance of the Ohio workers' compensation system compared to these four overarching themes: Effectiveness & Efficiency; Financial Strength & Stability; Transparency; and Ohio Economic Impact. Each broad study element (Ohio Benefit Structure; Pricing Process; Cost Controls; Financial Provisions; and Actuarial Department Functions & Resources) is reviewed with these themes in mind to develop a performance assessment of the current state. Our performance assessment is made on each element in the context of its contribution to supporting the overarching themes.

For these performance assessments, the following scoring method applies:

●	Strongly supports system performance
◕	Supports system performance
◑	Some support for system performance
◔	Some opportunity for system performance change/enhancement
○	Significant opportunity for system performance change/enhancement

Based on this scoring method, the performance assessment for the safety and hygiene program is as follows:

	Effectiveness & Efficiency	Financial Strength & Stability	Transparency	Ohio Economic Impact
Rating (DWRF)				
Rating (MIF)				
Rating (CWPF)				

Peers and Industry Standards Considered

Peers: NCCI
Referenced Standards: Statement of Principles Regarding Property and Casualty Ratemaking and Actuarial Standards of Practice

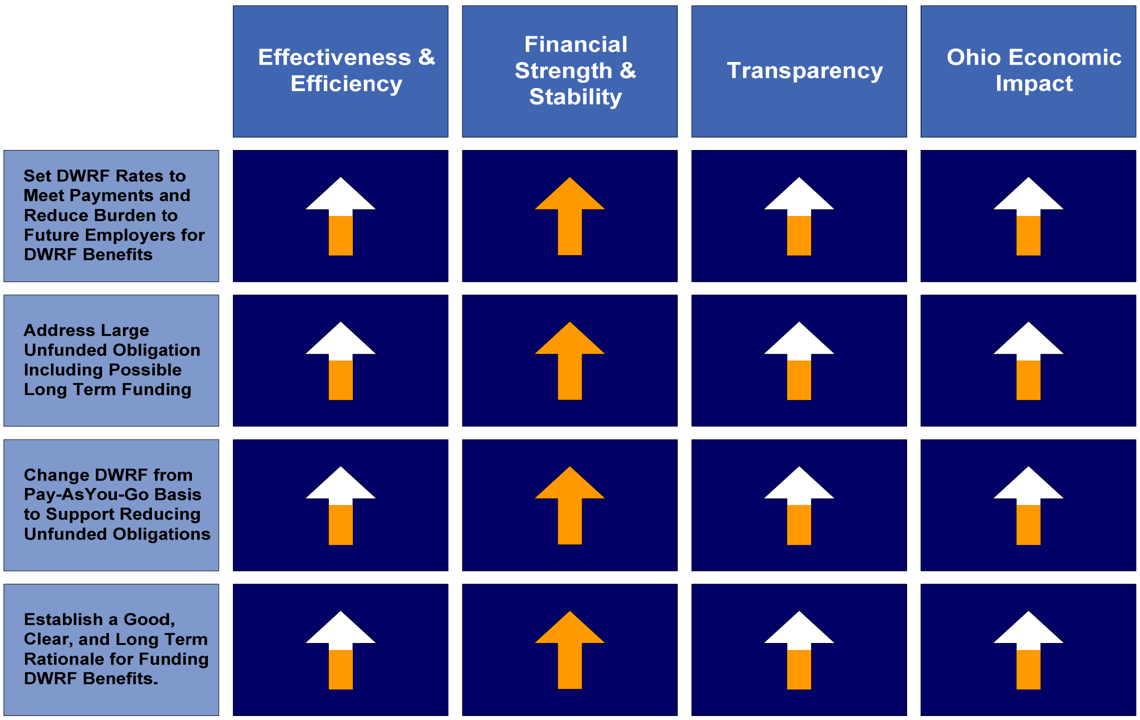
Recommendations

Our recommendations for the ancillary funds are shown below.

- **Address the Large Unfunded and Unrecognized Liabilities in the DWRF:** We recommend that the BWC consider a long-term funding solution for the DWRF unfunded liabilities;
- **Change the Legislation that Requires the DWRF to Operate on a Pay-As-You-Go Basis:** such a change would be more supportive of reducing the DWRF unfunded obligation over time;
- **Set DWRF Assessment Rates at a Level to Cover Expected Payments:** This will reduce the burden to future employers for the DWRF unfunded liability;
- **Establish a Clear and Long-Term Public Policy Rationale for Funding DWRF;**
- **Set Policy Rationale Between Past, Current, and Future Employers to Pay DWRF Benefits;**
- **Charge Premium for CWPF Coverage with Credits/Dividends for Long-Term CWPF Employers;**
- **Develop Funding Policies for the DWRF, MIF, and CWPF;** and
- **Conduct Further Research to Support Legislative Change to Combine Funds.**

Impact

The impact (high, moderate, or low) of the recommendations for the ancillary programs as they relate to the overarching themes is shown in the following table:



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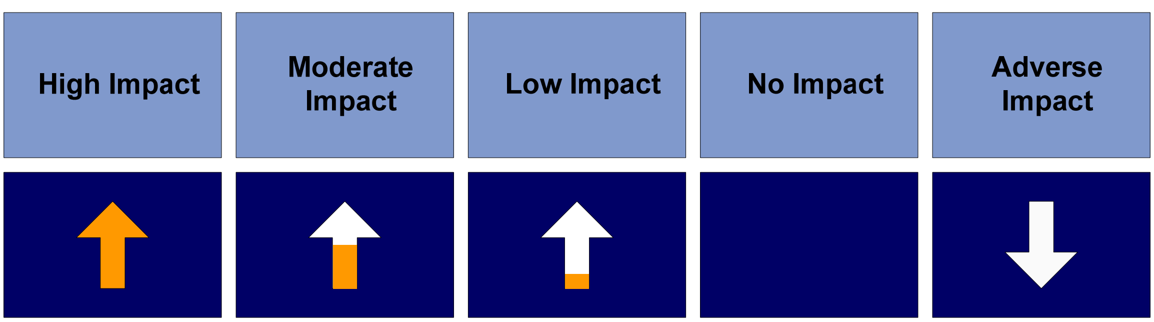


Vocational Rehabilitation

Executive Summary

Introduction

The BWC offers vocational rehabilitation (“voc rehab”) to workers in order to accelerate the return-to-work process and reduce lost time claim costs. Injured workers who have stabilized are referred to a field case manager. The case manager is overseen by two parties: a disability management coordinator (“DMC”) from BWC, and an MCO. The DMC and MCO have the ability to authorize rehabilitation services. The role of the DMC is to oversee both the field case manager and the MCO.

Conclusions

Findings

The structure of the voc rehab program potentially creates a conflict of interest for MCOs, due to the fact that there is no restriction against MCOs referring cases to affiliated companies. This was identified as a material weakness in an Internal Audit report from October, 2007. Our primary recommendation to the BWC is to change the voc rehab rules such that the BWC has sole authority for recommending rehabilitation services.

The BWC has tracked the indemnity and medical costs associated with injured workers who participate in the voc rehab program. We have analyzed this information and found it to be useful in comparing the costs of workers who successfully return to work as a result of the voc rehab program. This information provides evidence that the voc rehab program functions effectively.

The BWC has rules for the treatment of living maintenance payments made to injured workers while participating in the voc rehab program. These payments are generally equivalent to the amount that would be received for temporary total benefits. In order to provide an incentive to participate in the voc rehab program, reserves are reduced or excluded from experience rating calculations when workers are receiving living maintenance payments. We find that rules such as this complicate the experience rating process. We recommend that the BWC consider changing the rules associated with the treatment of reserves in experience rating when living maintenance is paid.

The Situation

Task Background

RFP Task Reference	RFP Task Description	Task Category
Section 5.1.2 #28, page 14	Conduct a study on the effectiveness of the use of the rehabilitation program by the BWC. This study should evaluate the return to work initiatives, the payment of living maintenance and the application of living maintenance payments in the reserving and rates structure.	**Pricing & Programs**

As part of the BWC Comprehensive Study, this section of the Report comprises Deloitte Consulting's deliverable of Section 5.1.2 Task #28.

Methodology

Our approach to the study includes a review of the results for injured workers who participated in the rehabilitation program between 2001 and 2005.

Please refer to the "*Information & Data Gathered Section*" of this Report for a list of information and data utilized by Deloitte Consulting.

Primary Constituents

- **BWC Insured Employers –** Companies insured by the BWC who utilize the vocational rehabilitation program offered by the BWC.
- **Managed Care Organizations ("MCOs") –** MCOs that are able to authorize rehabilitation services, and shares responsibility for oversight of case managers.
- **BWC Disability Management Coordinators ("DMC's") –** Responsible for oversight of case managers and the MCOs. .

Information and Data Gathered

Interviews

The following individuals were very helpful in answering our questions and responding to requests for information and data.

- Director - Actuarial Department
- Assistant Director – Actuarial Department
- Actuarial Supervisor - Actuarial Department

Information/Data Request

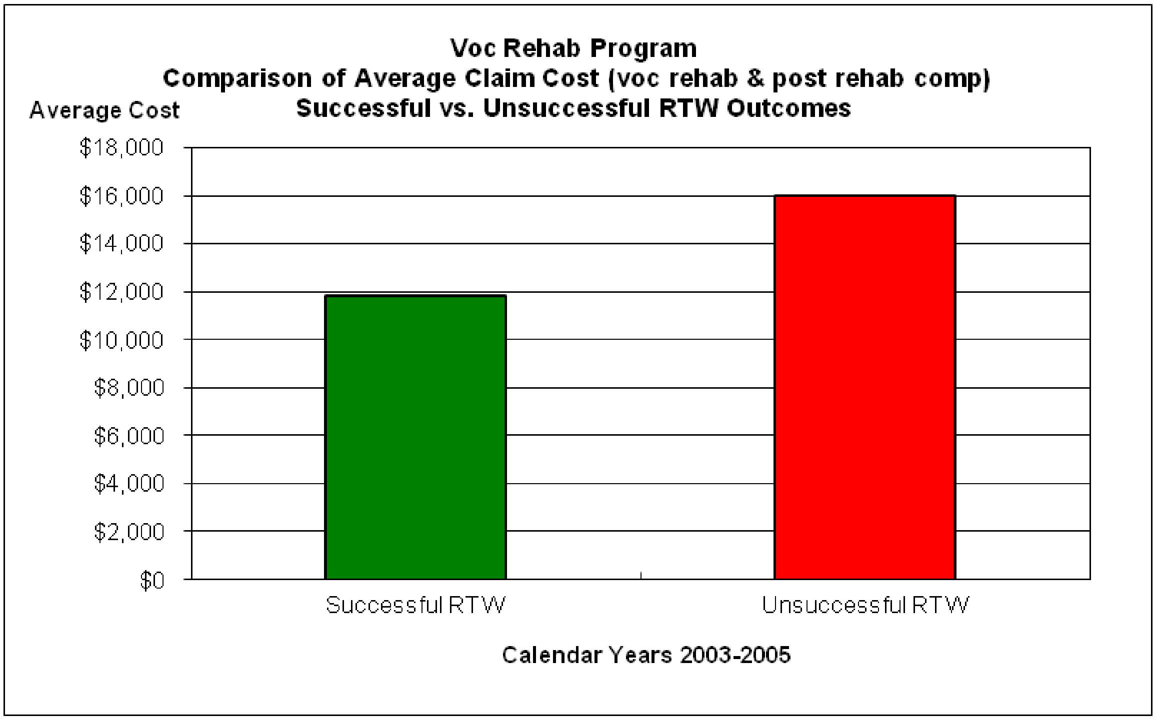
Deloitte Consulting was provided information by responsible officers and employees of the BWC. Specifically, we were provided with the following:

- Internal Audit Report on the Vocational Rehabilitation program, dated October, 2007;
- Monthly statistics on the number of injured workers in the program and the outcomes of their participation, from December, 2004 through October, 2008;
- An analysis from the BWC's Actuarial Department on the indemnity and medical costs for workers who successfully return to work through the voc rehab program versus those who do not; and
- Rules for the treatment of reserves for experience rating purposes when living maintenance is paid.

Review and Analysis

Impact of the Voc Rehab Program on Losses

The BWC conducted a study in 2007 to gauge the effectiveness of the voc rehab program. One of the key results is shown below:



It can be seen above that the total claim costs are relatively favorable when injured workers successfully return to work through the rehab program. The data used to derive these results is shown below.

CY	# Claims		% Claims		Avg Med Cost/Claim		Avg Comp Amt Post Rehab	
	Successful RTW	Unsuccessful RTW	Successful RTW	Unsuccessful RTW	Successful RTW	Unsuccessful RTW	Successful RTW	Unsuccessful RTW
2005	1,785	2,247	40.5%	51.0%	$5,179	$3,462	$5,066	$10,080
2004	1,913	2,095	44.6%	48.8%	$5,231	$3,670	$7,036	$12,763
2003	1,987	2,632	40.6%	53.8%	$5,099	$3,708	$7,798	$14,301
2002	3,268	4,157	42.4%	53.9%	$4,674	$3,636	$7,526	$17,736
2001	3,679	4,630	42.8%	53.9%	$4,119	$3,589	$7,959	$19,274

It can be seen from the table above that the proportion of claims that are successfully resolved in each year has remained fairly consistent between 2001 and 2005. The figures shown do not sum to 100% because not all outcomes are resolved. It is notable that the difference in medical costs is higher for those who successfully return to work through the voc rehab program, but this difference is more than offset by the difference in indemnity paid post-rehab. It is the combination of these two factors that is displayed in the bar chart. Thus, it does appear that the voc rehab program can have a positive impact of claim costs when workers are able to return to work through the program.

BWC and MCO Authority

As discussed earlier, the voc rehab program is structured in a manner that gives dual authority to the BWC and MCOs. We believe sole authority for treatment decisions should reside with the BWC.

Living Maintenance

The rules for the treatment of reserves when living maintenance is paid are as follows:

Salary Continuation followed by Living Maintenance: Any claim where only salary continuation is immediately followed by living maintenance or living maintenance wage loss, and only these two types of indemnity have been paid in the claim, will have their reserves suppressed.

Living Maintenance Reserve Reduction: Any claim where living maintenance or living maintenance wage loss is the latest type of indemnity paid, with the exception of Permanent Total Disability or Death benefits, in the claim will have its reserve reduced by half (50%).

Deloitte Consulting's view is that it is a reasonable goal to encourage participation in the voc rehab program. However, we do not believe that it is appropriate to do so through the experience rating program. Rules such as these complicate the experience rating program and have the potential to cause imbalance in the system.

Conclusions

Findings

The voc rehab program provides valuable services to injured workers. We believe that the program has performed relatively well. Our primary recommendations for the voc rehab program are to remove the authority granted to MCO's under the current program design, and to consider changing the rules for the treatment of reserves related to LM claims in experience rating.

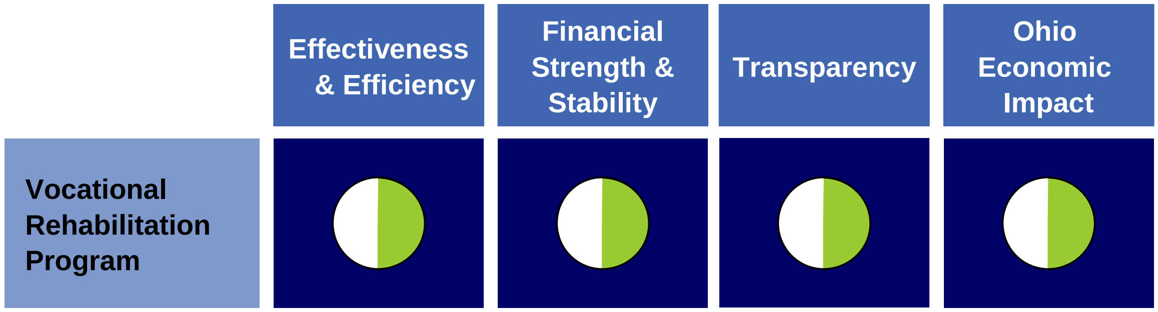
Performance Assessment

We assessed the performance of the Ohio workers' compensation system compared to these four overarching themes: Effectiveness & Efficiency; Financial Strength & Stability; Transparency; and Ohio Economic Impact. Each broad study element (Ohio Benefit Structure; Pricing Process; Cost Controls; Financial Provisions; and Actuarial Department Functions & Resources) is reviewed with these themes in mind to develop a performance assessment of the current state. Our performance assessment is made on each element in the context of its contribution to supporting the overarching themes.

For these performance assessments, the following scoring method applies:

	Strongly supports system performance
	Supports system performance
	Some support for system performance
	Some opportunity for system performance change/enhancement
	Significant opportunity for system performance change/enhancement

Based on this scoring method, the performance assessment for the voc rehab is as follows:



Peers and Industry Standards Considered

Peers: State Comparisons - All for MCO participation, choice of physician, & Voc Rehab provisions; CA, HI, KS, MO, ND, TN, TX for use of ODG

Referenced Standards: State Laws, URAC, US Dept. of Labor, NAIC

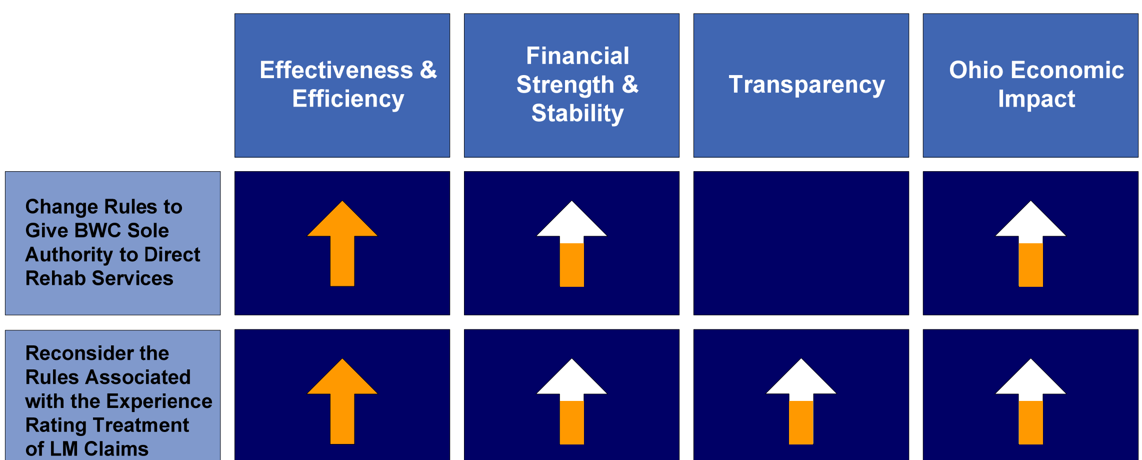
Recommendations

Our recommendations for the voc rehab program are shown below.

- **Change the Voc Rehab Rules to give the BWC Sole Authority for Recommending Treatment:** This will mitigate the potential conflict of interest created by allowing MCO's to refer cases to affiliated companies; and
- **Reconsider the Rules Associated with the Experience Rating Treatment of Living Maintenance Claims:** Removing losses from experience rating can have adverse affects on the soundness of the experience rating mechanism.

Impact

The impact (high, moderate, or low) of the recommendations for the voc rehab program as it relates to the overarching themes is shown in the following table:



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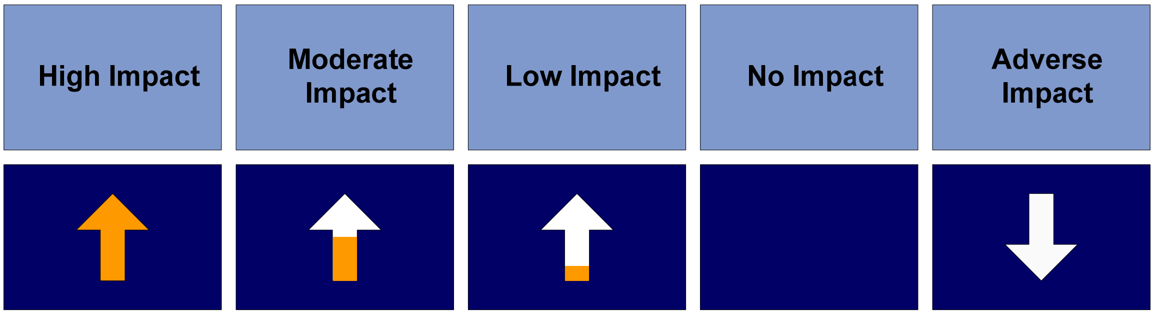

High Impact
Moderate Impact
Low Impact
No Impact
Adverse Impact

Experience Aggregation

Executive Summary

Introduction

Experience aggregation is an important aspect of experience rating. The BWC does not apply the common majority ownership principle in defining an individual employer for experience rating. Entities are tracked and assigned for experience rating purposes primarily based upon their federal tax identification numbers.

Conclusions

Findings

One concern with the current approach is the potential for abuse from using tax identification numbers to define an employer rather than common majority ownership. Employers with poor experience resulting in an experience rating debit have an incentive to create business/ownership structures in order to become base rated.

Recommendations

Deloitte Consulting's recommendation with respect to experience aggregation is as follows:

- **Adopt the Common Industry Approach for Experience Aggregation:** Typical industry practice is to use common majority ownership rather than tax identification number as the basis for aggregation. The BWC should discontinue the use of federal tax identification number to identify separate employers.

The Situation

Task Background

RFP Task Reference	RFP Task Description	Task Category
Section 5.1.2 #32, page 14	Evaluate and assess the experience aggregation approach used by BWC compared to industry standards. The BWC currently tracks entities at the tax identification level versus a common or majority ownership of the company. This evaluation would identify industry standards in tracking employer ownership.	**Pricing & Programs**

As part of the BWC Comprehensive Study, this section of the Report comprises Deloitte Consulting's deliverable of Section 5.1.2 Task #32.

Methodology

We reviewed BWC's experience aggregation approach and compared this approach to common industry practice.

Please refer to the "*Information & Data Gathered Section*" of this Report for a list of information and data utilized by Deloitte Consulting.

Primary Constituents

- **BWC Insured Employers** – Employers with commonly owned, but separate, businesses.

Information and Data Gathered

Interviews

The following individuals were very helpful in answering our questions and responding to requests for information and data.

- Director - Actuarial Department
- Assistant Director – Actuarial Department
- Actuarial Supervisor - Actuarial Department

Information/Data Request

Deloitte Consulting was provided information by responsible officers and employees of the BWC. Specifically, we were provided with the following:

- Ohio BWC State Insurance Fund Manual; and
- Written descriptions of the BWC's policies for experience aggregation.

In addition, we referenced the NCCI procedures for aggregating experience.

Review and Analysis

The claims experience of commonly owned but separate businesses is not combined. Typical industry practice is to combine such experience and to apply the principle of common majority ownership in defining employers for experience rating purposes, rather than federal tax identification number.

Combining experience based on tax identification creates an incentive for employers with poor experience to create new companies with essentially the same operations. The new company will be base rated, thereby avoiding a debit e-mod.

Our analysis of group rating in an earlier phase of the Comprehensive Study showed a very high level of turnover in the groups. Such turnover is likely to be at least in part a result of this rule for experience aggregation. Employers have an opportunity to avoid the consequences of losses in their premium rates if they can create new companies.

Deloitte Consulting recommends adopting the common industry approach of capturing common majority ownership and aggregate data of private entities for experience rating, and discontinuing the current practice of relying primarily on the federal tax identification number to identify separate employers.

Conclusions

Findings

Experience aggregation that does not rely on common ownership creates incentives for circumventing adverse experience rating results by creating new companies. The system of experience aggregation in Ohio, which relies on tax identification rather than common ownership, should be changed to remove these incentives.

Performance Assessment

We assessed the performance of the Ohio workers' compensation system compared to these four overarching themes: Effectiveness & Efficiency; Financial Strength & Stability; Transparency; and Ohio Economic Impact. Each broad study element (Ohio Benefit Structure; Pricing Process; Cost Controls; Financial Provisions; and Actuarial Department Functions & Resources) is reviewed with these themes in mind to develop a performance assessment of the current state. Our performance assessment is made on each element in the context of its contribution to supporting the overarching themes.

For these performance assessments, the following scoring method applies:

●	Strongly supports system performance
◕	Supports system performance
◑	Some support for system performance
◔	Some opportunity for system performance change/enhancement
○	Significant opportunity for system performance change/enhancement

Based on this scoring method, the performance assessment for experience aggregation is as follows:

	Effectiveness & Efficiency	Financial Strength & Stability	Transparency	Ohio Economic Impact
Experience Aggregation Approach				

Peers and Industry Standards Considered

Referenced Standards: NCCI Experience Rating Manual

Recommendations

The following comprise Deloitte Consulting's recommendations for experience aggregation.

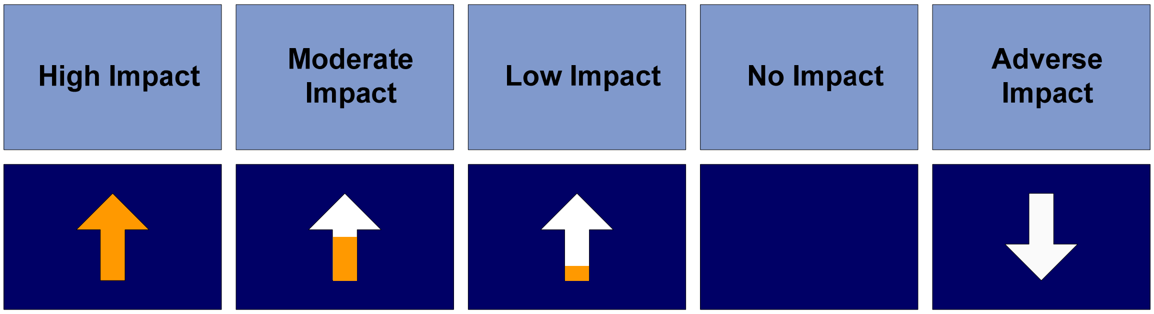
- **Adopt the common industry approach of capturing common majority ownership and aggregate data of private entities for experience rating;** and
- **Discontinue the current practice of relying primarily on the federal tax identification number to identify separate employers.**

Impact

The impact (high, moderate, or low) of the recommendations for experience aggregation as they relate to the overarching themes is shown in the following table:

	Effectiveness & Efficiency	Financial Strength & Stability	Transparency	Ohio Economic Impact
Use NCCI Approach of Common Majority Ownership for Experience Rating				

Legend



The Deloitte Consulting team remains available to clarify or amplify any issues raised in this report. We express our appreciation for the BWC's time, effort and guidance in completing these components of our comprehensive study.

Appendix A – Deliverable Matrix

Group 4 Study Elements

Actuarial Department Functions & Resources
Actuarial Department Organization

Pricing Process
Individual Rate Calculation 1) Private Employers 2) Rating Rules and Laws a. Administrative Appeals b. Out-of-State Coming In
Minimum Administrative Premium
Alternative Pricing Methods (Including NCCI Classes)
Ancillary Funds
1) Coal Workers Pneumoconiosis
2) Marine Industry
3) Disabled Workers Relief

Cost Controls
Rehabilitation Program

Actuarial Department Functions & Resources Area

Actuarial Department Functions & Resources	Tasks Involved
Actuarial Department Organization	36. Compare and analyze the organization and the structure of the BWC's actuarial department to industry standards. This analysis should compare the BWC's actuarial department organization, structure, and staffing levels to industry standards, other state insurance funds and monopolistic state insurance funds.

Pricing Process Areas

Individual Rate Calculation	Tasks Involved
1) Private Employers	32. Evaluate and assess the experience aggregation approach used by the BWC compared to industry standards. The BWC currently tracks entities at the tax identification level versus a common or majority ownership of the company. This evaluation would identify industry standards in tracking employer ownership.
2) Rating Rules and Laws a) Administrative Appeals	14. Evaluate the changing of individual employer rates due to administrative appeals or clerical errors by the BWC. This evaluation would include a review of the rating rules and appeals process for employers. This analysis should include information on industry standards and process.
2) Rating Rules and Laws a) Out-of-State Coming In	16. Evaluate the BWC rules, laws, policies and procedures for rating and employer who is operating in another state and requests to be rated in Ohio. This evaluation would include the experience modifier selected, the use of other states experience, and the future liability for Ohio.

Minimum Administrative Premium	Tasks Involved
Minimum Administrative Premium	5. Conduct an evaluation of the minimum administrative premium charged to employers operating in Ohio for worker's compensation coverage. This evaluation should determine the minimum acceptable amount of premium that should be charged to employers in Ohio to bind coverage and to cover expected losses.

Alternative Pricing Methods (including NCCI classes)	Tasks Involved
Alternative Pricing Methods (including NCCI classes)	3. Review and make written recommendation of the BWC's use of the National Council on Compensation Insurance (NCCI) manual classification system for rating classifications. This review would include but not be limited to analysis of the assignment of classifications to employers, the process of employer's reporting payroll, the premium auditing process and the procedures for non-reporting of payroll.

Pricing Process Areas – continued

Ancillary Funds	Tasks Involved
1) Coal Workers Pneumoconiosis	7. Review and make written recommendations with regard to the Coal-Workers Pneumoconiosis Fund. This review would include a complete analysis of the rating program. This analysis should compare the methodology used in BWC's rating calculation to industry standards the actuarial standards of practice promulgated by the Actuarial Standards Board of the American Academy of Actuaries.
2) Marine Industry Fund	10. Review and make written recommendations with regard to the Marine Industry Fund. This analysis should compare the methodology used in BWC's rating calculation to industry standards and the Actuarial Standards of Practice promulgated by the Actuarial Standards Board of the American Academy of Actuaries.
3) Disabled Workers' Relief Fund	13. Review and make written recommendations with regard to the Disabled Workers' Relief Funds. This analysis would include a complete analysis of the funds including but not limited to the loss information, payroll information, and other rating calculations. This analysis should compare the methodology used in BWC's rating calculation to industry standards and the Actuarial Standards of Practice promulgated by the Actuarial Standards Board of the American Academy of Actuaries.

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