

Common Sense Business Regulation (BWC Rules)

(Note: The below criteria apply to existing and newly developed rules)

Rule 4123-17-72

Rule Review

1. The rule is needed to implement an underlying statute.

Citation: R.C. 4123.29

2. The rule achieves an Ohio specific public policy goal.

What goal(s): Provide for a large deductible program that is considered the industry standard and facilitates employers creating safer workplaces and receiving a financial incentive for their safety and claims management efforts and performance attained.

3. Existing federal regulation alone does not adequately regulate the subject matter.

4. The rule is effective, consistent and efficient.

5. The rule is not duplicative of rules already in existence.

6. The rule is consistent with other state regulations, flexible, and reasonably balances the regulatory objectives and burden.

7. The rule has been reviewed for unintended negative consequences.

8. Stakeholders, and those affected by the rule were provided opportunity for input as appropriate.

Explain: Meetings were held with various *stakeholders, and their support was obtained.
* Central Ohio Builders' Exchange, COSE, NFIB, Ohio Chamber of Commerce, Ohio Farm Bureau, Ohio Manufacturers' Association, Frank Gates, CCI, Sheakley, Gates McDonald, CompManagement (Sedgwick) and members of the SAO and WC Forum

Local roundtables with employers were held in various locations around the state for input.

9. The rule was reviewed for clarity and for easy comprehension.

10. The rule promotes transparency and predictability of regulatory activity.

11. The rule is based on the best scientific and technical information, and is designed so it can be applied consistently.

12. The rule is not unnecessarily burdensome or costly to those affected by rule.

If so, how does the need for the rule outweigh burden and cost? _____

13. The Chief Legal Officer, or his designee, has reviewed the rule for clarity and compliance with the Governor's Executive Order.

BWC Board of Directors Executive Summary

Deductible Program Rules Changes

Introduction

The changes to the Deductible Program Rule will expand the program to allow for the selection of larger deductible amounts. Several other changes were also made to the deductible rule to clarify bureau policy and update deadline dates.

Background Information

Rule 4123-17-72 was passed by BWC's Board of Directors in February of 2009. This rule enabled Ohio employers to receive a premium discount for agreeing to pay a per claim deductible. The program allows employers to choose a \$500, \$1,000, \$2,500, \$5,000 or \$10,000 deductible level.

Proposed Changes

Qualifying employer will be allowed to choose additional deductible levels of \$25,000, \$50,000, \$100,000, or \$200,000. Additional financial screening will be needed to offset the potentially large liability that may result from selecting these levels. Employers will annually submit financial statements for analysis and must adhere to more restrictive eligibility criteria.

An annual aggregate stop loss limit will be available to employers choosing a deductible level of \$25,000 or greater. The aggregate limit will cap an employer's total deductible liability related to the program year to three times the deductible level chosen.

The bureau has determined that the deadline dates for employer programs will be standardized as the last business day in April (for PA employers) and the last day business day of October (for PEC employers). The deadline dates for the deductible program will change from May 31st to the last business day in April and from the last day in November to the last business day in October.

To clarify the methodology used by the bureau to determine an employer's primary hazard group, section (K)(1) of the rule was updated to specify that experience premium from the last full policy year will be used.

Several definitions were also updated to improve the clarity and accuracy of the rule.

4123-17-72 Deductible rule.

(A) As used in this rule:

(1) "Coverage period" means the twelve month period beginning July first through June thirtieth for private employers, and January first through December thirty-first for public employers. The deductible selected by the employer will apply only to claims with a date of injury within the coverage period defined in the deductible agreement.

(2) "Deductible" means the maximum amount an insured participating in the deductible program must reimburse the bureau for each claim that occurs during the policy year. ~~specified amount of money that the insured must pay on a claim before the bureau covers the costs of a workers' compensation claim.~~

(3) "Experience rated premium" means the premium obligations of an employer for the policy year excluding DWRP and administrative cost assessments. This may include any experience premium related to policy combinations.

(~~3~~4) "Modified rate" means the rate that employers who are experience rated pay as a percentage of their payroll. This rate is calculated by taking the base rate and multiplying it by the employer's experience modification (EM) factor.

(~~4~~5) "NCCI base rate" means the rate that employers who are not experience rated pay as a percentage of their payroll.

(~~5~~6) "Policy in good standing" means the employer is current on all payments due to the bureau and is in compliance with bureau laws, rules, and regulations at the time of enrollment or reenrollment.

(~~6~~7) "Premium" means money paid (due) from an employer for workers' compensation insurance. It does not include money paid as fees, fines, penalties or deposits.

(~~7~~8) "Qualified employer" means an employer that has a bureau policy that is in good standing at the time of enrollment or reenrollment. Although the employer may be a qualified employer, the bureau may not accept the employer into the deductible program for other reasons set forth in this rule.

(B) Eligibility requirements.

Each employer seeking to enroll in the bureau deductible program shall have active workers' compensation coverage and shall meet the following standards:

(1) The employer shall have a bureau policy that is in good standing at the time of enrollment.

(2) The employer shall be a private state funded employer or public employer taxing district. A self-insuring employer or a state agency public employer shall not be eligible for participation in the deductible program.

(3) The employer shall be current on all premium payments and deductible billings as of the original application deadline or anniversary date of participation.

(4) The employer shall have active coverage as of the original application deadline or anniversary date of participation.

(5) The employer shall demonstrate the ability to make payments under the deductible program based upon a credit score established by the bureau on an annual basis which will be applicable to all applicants for the program year. The bureau shall obtain the credit reports from an established vendor of such information.

(6) ~~The employer~~ If the employer selects a deductible amount of five-hundred dollars, one-thousand dollars, two-thousand five-hundred dollars, five-thousand dollars, or ten-thousand dollars, the employer may not have cumulative lapses in workers' compensation coverage in excess of forty days within the twelve months preceding the original application deadline or subsequent anniversary deadline wherein the employer seeks renewal in the deductible program. If the employer selects a deductible amount of twenty-five thousand dollars, fifty-thousand dollars, one-hundred thousand dollars, or two-hundred thousand dollars, the employer may not have cumulative lapses in workers' compensation coverage in excess of fifteen days within the five years preceding the original application deadline or subsequent anniversary deadline wherein the employer seeks renewal in the deductible program.

(C) In selecting an employer deductible program under this rule, the employer must select, on an application provided by the bureau, a per claim deductible amount, which shall be applicable for all claims with dates of injury within a one year coverage period. The employer shall choose one deductible level from the following:

(1) Five-hundred dollars.

(2) One-thousand dollars.

(3) Two-thousand five-hundred dollars.

(4) Five-thousand dollars.

(5) Ten-thousand dollars.

(6) Twenty-five thousand dollars.

(7) Fifty-thousand dollars.

(8) One-hundred thousand dollars.

(9) Two-hundred thousand dollars.

(D) In choosing a deductible amount of five-hundred dollars, one-thousand dollars, two-thousand five-hundred dollars, five-thousand dollars, or ten-thousand dollars ~~under paragraph (C) of this rule~~, the employer may not choose a deductible amount that exceeds twenty-five percent of their ~~total~~ experience rated premium ~~paid by the obligation employer~~ during the most recent full policy year. For a new employer policy, the deductible amount shall not exceed twenty-five percent of the employer's expected premium. In choosing a deductible amount of twenty-five thousand dollars, fifty-thousand dollars, one-hundred thousand dollars, or two-hundred thousand dollars, the employer may not choose a deductible amount that exceeds forty percent of their experience rated premium obligation for the most recent full policy year. For self-insured employers re-entering the state fund system, the bureau will use the paid workers' compensation benefits from the last full policy year in place of experience rated premium.

(1) BWC may estimate a full year's premium should only a partial year be available or if no premium is available in the most recent full policy year.

(E) A deductible level of twenty-five thousand dollars, fifty-thousand dollars, one-hundred thousand dollars, or two-hundred thousand dollars will be considered a Large Deductible and will undergo additional credit analysis. Employers enrolling in a Large Deductible program must submit financial information to the bureau during the enrollment period preceding each policy year they elect to participate in the program.

(1) An employer choosing a deductible level of twenty-five thousand dollars or fifty-thousand dollars must submit reviewed or audited financials for at least the three most recent fiscal years. The financials must be prepared in accordance with Generally Accepted Accounting Principles.

(2) An employer choosing a deductible level of one-hundred thousand dollars or two-hundred thousand dollars must submit audited financials for at least the three most recent fiscal years. The financials must be prepared in accordance with Generally Accepted Accounting Principles.

(3) The bureau may require an employer to adopt additional risk mitigation measures as a prerequisite for participation in the program. These measures may include, but are not limited to: adoption of an alternative payment plan, providing securitization in the form of a letter of credit or surety bond, and selection of an aggregate stop-loss limit.

(F) An employer may elect an annual aggregate stop-loss limit option in combination with deductible levels of twenty-five thousand dollars, fifty-thousand dollars, one-hundred thousand dollars, or two-hundred thousand dollars. If the employer elects the aggregate stop-loss limit option, the bureau will limit deductible billings for injuries which occur during the associated policy year to three times the deductible level chosen.

(EG) The employer shall file the application provided by the bureau and any other paperwork required for enrollment in the deductible program by the bureau by the appropriate enrollment period as follows:

(1) For a private employer, between ~~April first~~ **March first** and ~~May thirty-first~~ **the last business day of April** preceding a policy year that begins on July first.

(2) For a public employer taxing district, between ~~October~~ **September first** and ~~November thirty-first~~ **the last business day of** October preceding a policy year that begins on January first.

~~(a) Where the due date falls on a weekend or holiday, the application and any related documentation must be received no later than the next business day following the deadline.~~

~~(b)~~ Applications and any supporting documentation may be submitted by U.S. postal service, fax, e-mail containing scanned documentation, or online submission, so long as such paperwork is received by the bureau on or before the due date.

(3) The bureau shall not permit an employer to enroll in a deductible program outside of the deadlines set forth in this rule, except that the bureau will consider a new employer, establishing a policy in Ohio for the first time, for participation where the employer submits its deductible program application to the bureau within thirty days of obtaining coverage.

~~(F)~~ Renewal in the deductible program at the same level for each subsequent year shall be automatic, subject to review by the bureau of the employer's continued eligibility under paragraph (B) of this rule, unless the employer notifies the bureau in writing that the employer does not wish to participate in the program or that the employer wants to change the deductible amount for the next coverage period. The employer shall provide such notice to the bureau within the time and in the manner provided in paragraph ~~(E)~~ **(G)** of this rule.

~~(G)~~ An employer shall not be permitted to withdraw from the deductible program during the policy year, and no changes shall be made with respect to any deductible amount selected by the employer within the policy year. However, the bureau shall have the option of removing an employer from the deductible program for any of the reasons described in paragraph ~~(L)~~ **(N)** of this rule.

~~(H)~~ The bureau shall pay the claims costs under a deductible program and the employer shall reimburse to the bureau the costs under the deductible program as follows:

(1) The bureau shall pay all claims costs in accordance with the laws and rules governing payment of workers' compensation benefits. The bureau shall include the entire cost in the employer's experience for the appropriate policy year.

(2) The bureau shall bill the employer on a monthly basis for any claims costs paid by the bureau for amounts subject to the deductible as elected by the employer for the policy year. In addition to amounts paid by the bureau for which the bureau is seeking reimbursement from the employer, such monthly billings shall also reflect the payments to date for any claims to which a deductible is applicable.

(3) The employer shall pay all deductible amounts billed by the bureau within twenty-eight days of the invoice date. The employer will be subject to any interest or penalty provisions to which ~~premiums~~ other monies owed the bureau are subject, including certification to the attorney general's office for collection.

(4) The employer shall continue to be liable beyond any deductible program period for billings covered under a deductible program for injuries that arose during any period for which a deductible is applicable, regardless of when payment was made by the bureau.

(K) The bureau will apply the premium reduction calculation under the deductible program directly to the NCCI base rate established for the policy year for base-rated employers, or after the modified premium rate is established for experience rated employers, but prior to any other premium discounts, as well as DWRF and administrative expenses. An individual employer participating in both group rating under rules 4123-17-61 to 4123-17-68 of the Administrative Code and the deductible program under this rule may implement the deductible program and receive the associated premium discounts in addition to the group discount; provided, however, the combined discounts may not exceed the maximum discount allowed under the group rating plan. ~~The maximum discount with group rating will be the maximum credibility of a rating group without the application of the break-even factor.~~ The bureau will calculate the reduction in accordance with appendix A to this rule, which takes into account both the deductible amount chosen by the employer and the applicable hazard group under the most current version of NCCI as established by the primary manual classification of the employer as determined at the end of the enrollment period for that year.

(1) In determining the primary manual classification and appropriate hazard group, the bureau shall utilize payroll ~~and the associated experience premium~~ for the rating year beginning two years prior to the period in which the employer is seeking to enroll in the deductible program.

(2) For new employers, the bureau shall base the appropriate primary manual classification and hazard group upon estimated payroll.

(L) Where there is a combination or experience transfer of an employer within a deductible program policy period, following the application of any other rules applicable to a combination or experience transfer, the employer may be eligible to remain in a deductible program as follows:

(1) Successor: entity not having coverage.

Predecessor: enrolled in deductible program currently or in prior policy years.

Where there is a combination or experience transfer, where the predecessor was a participant in the deductible program and the successor is assigned a new policy with the bureau, the successor shall make application for the deductible program within thirty days of obtaining a bureau policy, as set forth in paragraph (EG)(3) of this rule. Notwithstanding this election, the successor shall be responsible for any and all existing or future liabilities stemming from the predecessor's

participation in the deductible program prior to the date that the bureau was notified of the transfer as provided under paragraph (C) of rule 4123-17-02 of the Administrative Code.

(2) Successor: enrolled in the deductible program.

Predecessor: not enrolled in the deductible program.

Where there is a combination or experience transfer involving two or more entities, each having Ohio coverage at the time of the combination or experience transfer, and the successor policy is enrolled in the deductible program for the program year, the successor shall automatically remain in the deductible program for the program year and is subject to renewal in accordance with paragraph (FH) of this rule.

(3) Successor: not enrolled in deductible program.

Predecessor: enrolled In deductible program.

Where there is a combination or experience transfer involving two or more entities, each having Ohio coverage at the time of the combination or experience transfer, and the successor policy is not enrolled in the deductible program, the predecessor shall not be automatically entitled to continue in the deductible program. The successor may make a formal application should it desire to participate in the deductible program for the next policy year.

Whether or not the successor chooses or is otherwise eligible to participate in a deductible program, under paragraph (C) of rule 4123-17-02 of the Administrative Code, the successor remains liable for any existing and future liabilities resulting from a predecessor's participation in the deductible program.

(KM) An employer participating in the deductible program shall be entitled to participate in any other bureau rate program, including group rating, concurrent with its participation in the deductible program, except that an employer cannot utilize or participate in, with respect to any injuries which occur during a period for which the employer is enrolled in a deductible program, the following bureau rate programs:

(1) Retrospective rating, whether group or individual.

(2) The fifteen-thousand medical-only program.

(3) Salary continuation.

(4) Group Rating if a deductible level of twenty-five thousand dollars, fifty-thousand dollars, one-hundred thousand dollars, or two-hundred thousand dollars is selected.

(LN) The bureau may remove an employer participating in the deductible program from the program, effective the second half of the program year, with thirty days written notice to the employer based upon any of the following:

- (1) Where the employer participates in any plan or program prohibited under paragraph (~~K~~M) of this rule.
- (2) Where the bureau certifies a balance due from the employer to the attorney general during the program year.
- (3) Where the employer makes direct payments to any medical provider for services rendered or supplies or to any injured worker for compensation associated with a workers' compensation claim.
- (4) Where the employer engages in misrepresentation or fraud in conjunction with the deductible program application process.

Summary of PA Large Deductible Premium Discounts

Hazard Group A

Premium Size	Deductible Level				Deductible Level with Aggregate Limit			
	\$25,000	\$50,000	\$100,000	\$200,000	\$25,000	\$50,000	\$100,000	\$200,000
\$ 62,500	41%				41%			
\$ 75,000	41%				40%			
\$ 100,000	41%				38%			
\$ 125,000	41%	53%			36%	51%		
\$ 150,000	41%	53%			34%	50%		
\$ 175,000	41%	53%			31%	48%		
\$ 200,000	41%	53%	65%		28%	45%	63%	
\$ 250,000	41%	53%	65%		23%	40%	59%	
\$ 300,000	41%	53%	65%		21%	38%	58%	
\$ 400,000	41%	53%	65%		16%	30%	51%	
\$ 500,000	41%	53%	65%	77%	13%	25%	45%	68%
\$ 600,000	41%	53%	65%	77%	11%	21%	40%	65%
\$ 700,000	41%	53%	65%	77%	10%	19%	35%	61%
\$ 800,000	41%	53%	65%	77%	8%	16%	31%	56%
\$ 900,000	41%	53%	65%	77%	8%	15%	28%	52%
\$ 1,000,000	41%	53%	65%	77%	7%	14%	26%	48%

Hazard Group B

Premium Size	Deductible Level				Deductible Level with Aggregate Limit			
	\$25,000	\$50,000	\$100,000	\$200,000	\$25,000	\$50,000	\$100,000	\$200,000
\$ 62,500	32%				32%			
\$ 75,000	32%				32%			
\$ 100,000	32%				31%			
\$ 125,000	32%	44%			29%	43%		
\$ 150,000	32%	44%			26%	40%		
\$ 175,000	32%	44%			24%	39%		
\$ 200,000	32%	44%	57%		22%	37%	53%	
\$ 250,000	32%	44%	57%		19%	34%	51%	
\$ 300,000	32%	44%	57%		17%	30%	49%	
\$ 400,000	32%	44%	57%		13%	24%	42%	
\$ 500,000	32%	44%	57%	71%	11%	21%	37%	60%
\$ 600,000	32%	44%	57%	71%	9%	17%	33%	55%
\$ 700,000	32%	44%	57%	71%	8%	15%	29%	51%
\$ 800,000	32%	44%	57%	71%	7%	14%	26%	48%
\$ 900,000	32%	44%	57%	71%	7%	13%	24%	45%
\$ 1,000,000	32%	44%	57%	71%	6%	12%	22%	42%

Hazard Group C

Premium Size	Deductible Level				Deductible Level with Aggregate Limit			
	\$25,000	\$50,000	\$100,000	\$200,000	\$25,000	\$50,000	\$100,000	\$200,000
\$ 62,500	31%				30%			
\$ 75,000	31%				29%			
\$ 100,000	31%				28%			
\$ 125,000	31%	42%			27%	40%		
\$ 150,000	31%	42%			25%	39%		
\$ 175,000	31%	42%			25%	39%		
\$ 200,000	31%	42%	55%		22%	36%	52%	
\$ 250,000	31%	42%	55%		19%	34%	51%	
\$ 300,000	31%	42%	55%		17%	30%	48%	
\$ 400,000	31%	42%	55%		13%	25%	43%	
\$ 500,000	31%	42%	55%	69%	11%	21%	38%	60%
\$ 600,000	31%	42%	55%	69%	9%	18%	33%	55%
\$ 700,000	31%	42%	55%	69%	8%	16%	30%	52%
\$ 800,000	31%	42%	55%	69%	8%	15%	28%	50%
\$ 900,000	31%	42%	55%	69%	7%	13%	25%	45%
\$ 1,000,000	31%	42%	55%	69%	6%	12%	23%	43%

Hazard Group D

Premium Size	Deductible Level				Deductible Level with Aggregate Limit			
	\$25,000	\$50,000	\$100,000	\$200,000	\$25,000	\$50,000	\$100,000	\$200,000
\$ 62,500	29%				29%			
\$ 75,000	29%				27%			
\$ 100,000	29%				27%			
\$ 125,000	29%	39%			24%	35%		
\$ 150,000	29%	39%			24%	34%		
\$ 175,000	29%	39%			23%	34%		
\$ 200,000	29%	39%	51%		21%	34%	49%	
\$ 250,000	29%	39%	51%		18%	32%	47%	
\$ 300,000	29%	39%	51%		16%	29%	46%	
\$ 400,000	29%	39%	51%		13%	24%	41%	
\$ 500,000	29%	39%	51%	64%	10%	20%	36%	56%
\$ 600,000	29%	39%	51%	64%	9%	17%	32%	52%
\$ 700,000	29%	39%	51%	64%	8%	15%	29%	50%
\$ 800,000	29%	39%	51%	64%	7%	14%	26%	46%
\$ 900,000	29%	39%	51%	64%	7%	13%	25%	44%
\$ 1,000,000	29%	39%	51%	64%	6%	12%	23%	42%

Hazard Group E

Premium Size	Deductible Level				Deductible Level with Aggregate Limit			
	\$25,000	\$50,000	\$100,000	\$200,000	\$25,000	\$50,000	\$100,000	\$200,000
\$ 62,500	22%				22%			
\$ 75,000	22%				22%			
\$ 100,000	22%				22%			
\$ 125,000	22%	32%			21%	31%		
\$ 150,000	22%	32%			20%	29%		
\$ 175,000	22%	32%			19%	29%		
\$ 200,000	22%	32%	43%		18%	29%	41%	
\$ 250,000	22%	32%	43%		16%	26%	39%	
\$ 300,000	22%	32%	43%		14%	24%	38%	
\$ 400,000	22%	32%	43%		12%	21%	35%	
\$ 500,000	22%	32%	43%	56%	10%	19%	32%	49%
\$ 600,000	22%	32%	43%	56%	9%	17%	30%	47%
\$ 700,000	22%	32%	43%	56%	8%	15%	27%	45%
\$ 800,000	22%	32%	43%	56%	7%	13%	25%	42%
\$ 900,000	22%	32%	43%	56%	6%	13%	24%	41%
\$ 1,000,000	22%	32%	43%	56%	6%	12%	22%	39%

Hazard Group F

Premium Size	Deductible Level				Deductible Level with Aggregate Limit			
	\$ 25,000	\$50,000	\$100,000	\$200,000	\$25,000	\$50,000	\$100,000	\$200,000
\$ 62,500	20%				19%			
\$ 75,000	20%				19%			
\$ 100,000	20%				19%			
\$ 125,000	20%	28%			19%	28%		
\$ 150,000	20%	28%			19%	28%		
\$ 175,000	20%	28%			18%	27%		
\$ 200,000	20%	28%	39%		17%	27%	39%	
\$ 250,000	20%	28%	39%		16%	26%	38%	
\$ 300,000	20%	28%	39%		15%	25%	37%	
\$ 400,000	20%	28%	39%		13%	22%	35%	
\$ 500,000	20%	28%	39%	52%	11%	20%	33%	49%
\$ 600,000	20%	28%	39%	52%	10%	19%	32%	48%
\$ 700,000	20%	28%	39%	52%	9%	17%	30%	46%
\$ 800,000	20%	28%	39%	52%	9%	16%	28%	45%
\$ 900,000	20%	28%	39%	52%	8%	16%	28%	45%
\$ 1,000,000	20%	28%	39%	52%	8%	15%	27%	44%

Hazard Group G

Premium Size	Deductible Level				Deductible Level with Aggregate Limit			
	\$25,000	\$50,000	\$100,000	\$200,000	\$25,000	\$50,000	\$100,000	\$200,000
\$ 62,500	16%				16%			
\$ 75,000	16%				16%			
\$ 100,000	16%				15%			
\$ 125,000	16%	23%			15%	23%		
\$ 150,000	16%	23%			14%	23%		
\$ 175,000	16%	23%			14%	23%		
\$ 200,000	16%	23%	32%		14%	22%	31%	
\$ 250,000	16%	23%	32%		13%	21%	31%	
\$ 300,000	16%	23%	32%		13%	21%	31%	
\$ 400,000	16%	23%	32%		11%	19%	29%	
\$ 500,000	16%	23%	32%	44%	11%	18%	29%	42%
\$ 600,000	16%	23%	32%	44%	10%	17%	27%	41%
\$ 700,000	16%	23%	32%	44%	9%	17%	27%	40%
\$ 800,000	16%	23%	32%	44%	9%	16%	26%	40%
\$ 900,000	16%	23%	32%	44%	9%	16%	26%	40%
\$ 1,000,000	16%	23%	32%	44%	9%	16%	26%	40%

Effective Date: 2/1/2010

Interested Parties Feedback - 4123-17-72 Deductible Program

Line	Rule #	Draft Rule Suggestions	Interested Parties Rationale	BWC Response	Resolution
1	4123.17-72 (F)	"An employer may elect an annual aggregate stop-loss limit option in combination with deductible levels of twenty-five thousand dollars, fifty-thousand dollars, one-hundred thousand dollars, or two-hundred thousand dollars. ... "	Interested parties suggested an annual aggregate for the large deductible program.	BWC agrees that annual aggregate limits are an industry standard for large deductible programs and should be included.	BWC included an annual aggregate limit at 3 times the deductible level chosen.
2	4123.17-72 (F)	"An employer may elect an annual aggregate stop-loss limit option in combination with deductible levels of twenty-five thousand dollars, fifty-thousand dollars, one-hundred thousand dollars, or two-hundred thousand dollars. ... "	Interested Parties suggested that there would also be demand for an annual aggregate stop-loss for the small deductible levels.	Offering an aggregate stop-loss at these levels is very rare in the workers' comp market because of the associated pricing complications.	BWC will not offer an aggregate stop loss at lower levels but may re-examine this decision in the future.
3	4123.17-72 (F)	"... If the employer elects the aggregate stop-loss limit option, the bureau will limit deductible billings for injuries which occur during the associated policy year to three times the deductible level chosen."	Interested Parties suggested that there may be value in offering more than one aggregate stop-loss levels (for example 3 times or 5 times the deductible amount)	Adding another aggregate level would further complicate an already challenging pricing structure.	BWC will not offer multiple aggregate levels for the coming policy year but may re-examine this decision in the future.

4	4123.17-72 (J) (1)	"The bureau shall pay all claims costs in accordance with the laws and rules governing payment of workers' compensation benefits. The bureau shall include the entire cost in the employer's experience for the appropriate policy year."	Interested Parties suggested that claims costs covered by deductible payments should not be included in the employer's experience.	Per the recent Deloitte study, BWC is attempting to move away from programs that distort an employer's loss experience. NCCI has also published a study that excluding deductible costs disadvantages small employers.	BWC will continue to included deductible costs in an employer's experience.
5	4123.17-72 (M) (3)	"..except that an employer cannot utilize or participate in,(3) Salary continuation."	Allow employers to use salary continuation and participate in the deductible program.	Pricing for the deductible program is based on the full cost of a claim being known and managed. Deductible is an optional program designed to provide an upfront discount as the benefit of participation, not the suppression of loss history.	Salary continuation will continue to be incompatible with the deductible program.
6	4123.17-72 (D) (1)	"BWC may estimate a full year's premium should only a partial year be available or if no premium is available in the most recent full policy year."	Employers who have not been in the system long enough to have a full year of premium should still be allowed to participate in the deductible program.	BWC agrees that employers should be allowed to join the deductible program based on an estimated premium.	Added language to the rule to allow the bureau to estimate premium for employers.

BWC Board of Directors
Executive Summary
BWC Employer Management Services
Employer Program Marketing Plan

Introduction

BWC has developed a comprehensive marketing plan to educate Ohio employers on new and existing incentive programs. The new performance-based programs are more reflective of the insurance-like programs offered in other states by both publicly and privately run insurance carriers. As such, it is necessary to properly market these options, including the potential risks associated with them, to customers. The BWC business consultants (BCs) will take the lead in marketing programs that promote risk tolerance, such as the Large Deductible Program, and act as account managers for such products.

Education and outreach

Beginning in January, BWC will begin its outreach efforts. Our goal is to get our BCs to evaluate an employer's past performance to determine whether or not it would be a good candidate for the programs that require some degree of risk tolerance.

BWC would educate the employer on which options appear best for it, focusing particularly on the pricing impacts and the risk involved with selecting the program. If the employer selects a program, we would assist with implementation and provide risk and safety resources as appropriate.

- Ohio Safety Congress & Expo
- Safety council meetings
- Focus groups – Large employer focus groups are being held in 10 locations across the state and include approximately 100-150 employers.
- Field calls – BCs and employer services specialists as appropriate
- Adhoc on-site presentations
- Partnership meetings with employers and third-party administrators Information on ohiobwc.com

Collateral materials, such as the accompanying brochure, will be printed and distributed by BCs and other field staff as appropriate.

New Program Quality Assurance

Prior to being screened for new program eligibility, each policy will be reviewed to identify any circumstances that could interfere with program acceptance.

Measurement

BWC will strategically reach out to employers whose risk profile appears to match one or more discount programs. We will track those contacts with a goal of communicating directly with as many employers as possible.



Large Deductible Plan

For a business to be successful, it must provide a variety of choices and products to its customers. As your workers' compensation insurer in Ohio, BWC is doing the same.

Beginning July 1, 2010, BWC will offer four additional levels to its deductible program. The highest per-claim deductible amount will be \$200,000. **In exchange for paying a per-claim deductible, employers will receive significant premium discounts based on size and hazard group, which could reach as high as 70 percent.**

Large Deductible Plan

BWC now offers nine deductible levels. The choice is up to you:

Previous levels	New levels
\$500 per claim	\$25,000 per claim
\$1,000 per claim	\$50,000 per claim
\$2,500 per claim	\$100,000 per claim
\$5,000 per claim	\$200,000 per claim
\$10,000 per claim	

How it works

BWC pays the full cost of each claim. You will be responsible for claim costs up to the deductible level for any claim that occurs in the policy year of enrollment. We will then bill you monthly until you reach the deductible level for each claim. If you choose an aggregate limit for the new levels, BWC will bill you up to that limit regardless of individual claim limits.

Who can participate

Any state-fund employer who:

- o Has an active BWC policy;
- o Is current on all payments due to BWC;
- o Provides certified financials;
- o Maintains a required credit score;
- o Does not have cumulative lapses in coverage exceeding 15 days within the five years preceding the program's deadline.

How to apply

Complete the *Application for Deductible Program* (U-148) and submit it to BWC. You can access the application on ohiobwc.com.

- o Click on Ohio Employers.
- o Then click on the Deductible Program link under the Programs heading.

BWC has worked to significantly reform its rate-making operations and revamp its array of discount and incentive programs. With the inception of new options and a host of modifications to existing offerings, it is more important than ever that you fully understand what your choices are and how each program works.

This brochure serves as a resource. It provides an overview of what incentives are offered, and perhaps most importantly, it highlights the level of risk that's associated with each program offering.

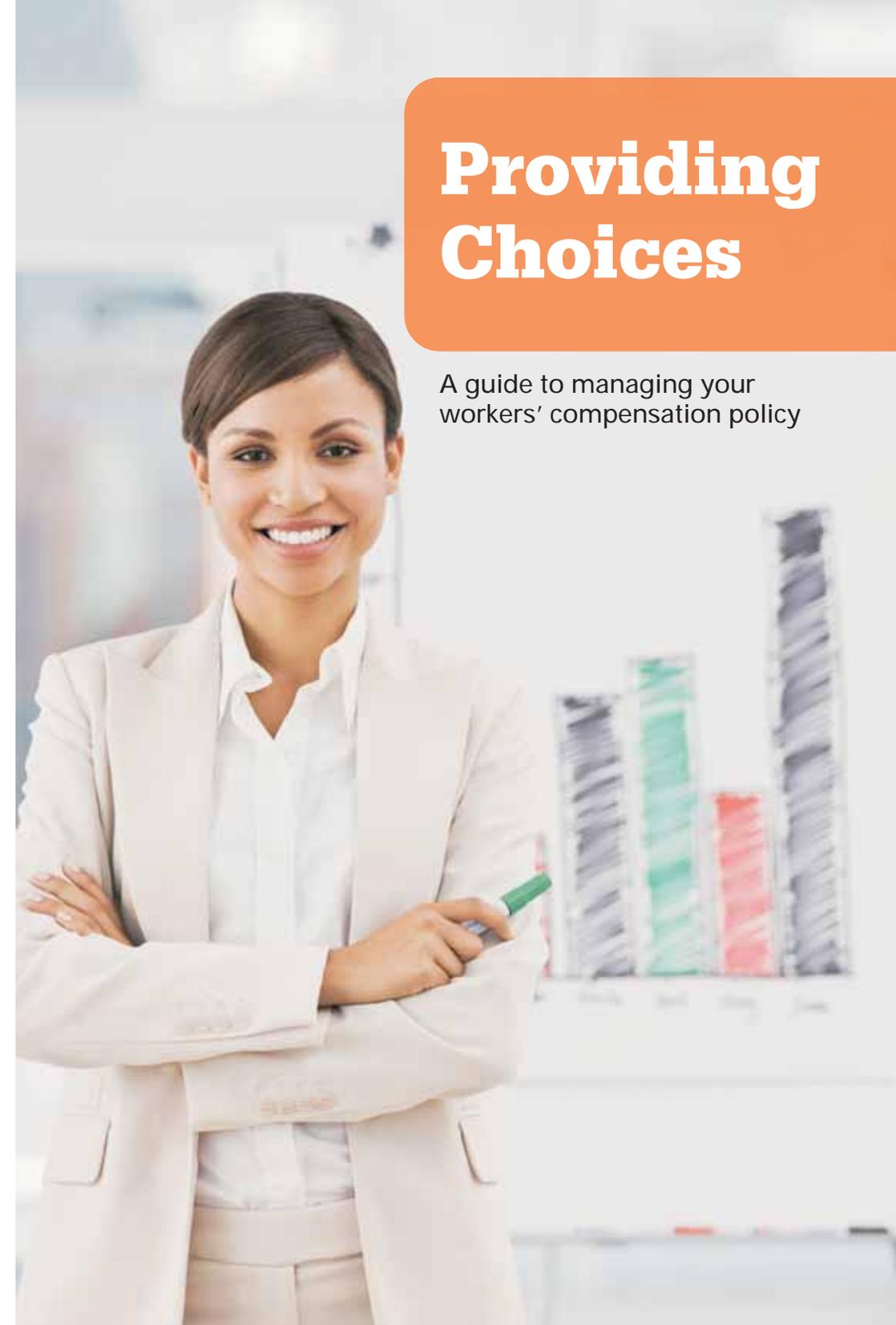
Providing choices is important to us because we want to make sure you're successful in protecting your most valuable asset — your work force. Please contact your local business consultant if we can further assist you.

**See inside
for details**

Ohio | Bureau of Workers'
Compensation
30 W. Spring St.
Columbus, OH 43215-2257
ohiobwc.com
1-800-OHIOBWC

Providing Choices

A guide to managing your
workers' compensation policy



Ohio | Bureau of Workers'
Compensation

Program Offerings



Over the past three years, BWC has improved the accuracy of our pricing and eliminated obstacles that restricted our ability to provide equitable, competitive rates. Our goal is to assess premiums based primarily on one factor — you and your performance.

Like most insurance companies, BWC is interested in offering a variety of product choices to Ohio employers. This allows you to determine the amount of risk you want to assume in exchange for premium discounts or rebates. This year, BWC is introducing the Large Deductible program, which will give you an additional option for managing your workers' compensation policy.

The introduction of risk tolerance will make our system more competitive because it gives you more choices while allowing you to customize your policy to suit your needs. Risk tolerance requires employers to determine their individual willingness to share in the direct cost of claims or have premiums adjusted retrospectively based on actual losses. If done successfully, it can significantly reduce your workers' compensation costs and improve safety in your workplace.

The table below provides a breakdown of these options and compares incentives and eligibility requirements. It also indicates the level of risk associated with each program.

Program name	Incentive	Value of incentive	Eligibility*	Risk tolerance
Large deductible plan	Premium discount	Up to 70 percent	Employer can choose deductible level no greater than 40 percent of standard premium	High
Individual retrospective rating	Premium discount	Varies	Employer must have at least \$25,000 in estimated premium, and supply audited financials for a five-year period to demonstrate financial strength and stability	High
Self insurance	Privilege to pay workers' compensation costs directly	Varies	Employer must have 500 employees in Ohio, have been in business for two years in Ohio, have paid premiums for two years, demonstrate financial strength and stability, have five years of audited financials, and possess the ability to administer a workers' comp program	High
Small deductible plan	Premium discount	Up to 26 percent	Employer can choose deductible level no greater than 25 percent of standard premium	Medium
Group-retrospective rating	Rebate	Varies	Employer must pay full, standard premium up front, and may earn a rebate based on performance of the entire group or pay additional premiums for poorer performance	Medium
Individual-incurred retrospective rating (release date TBD)	Rebate	Varies	Employer must pay full, standard premium up front and may earn a rebate based on performance or pay additional premiums for poorer performance	Medium
Group-experience rating	Premium discount	Up to 51 percent (with break-even factor)	Employer must be selected by a certified-sponsoring association	Small

* All employers must be in good standing with BWC. This includes maintaining an active policy, complying with lapsed requirements, being current on all BWC obligations and, in certain cases, maintaining a required credit score and/or submitting financial information about your company.

Common Sense Business Regulation (BWC Rules)

(Note: The below criteria apply to existing and newly developed rules)
Rules 4123-17-03

Rule Review

1. The rule is needed to implement an underlying statute.

Citation: R.C. 4123.29, 4123.34

2. The rule achieves an Ohio specific public policy goal.

What goal(s): Rule 4123-17-03 establishes the formula for calculating the experience modification for workers' compensation rates. This amendment is being made to eliminate the policy year specificity and make the rule more generic, reducing the likelihood of bringing the rule back every six months to update the effective policy years.

3. Existing federal regulation alone does not adequately regulate the subject matter.

4. The rule is effective, consistent and efficient.

5. The rule is not duplicative of rules already in existence.

6. The rule is consistent with other state regulations, flexible, and reasonably balances the regulatory objectives and burden.

7. The rule has been reviewed for unintended negative consequences.

8. Stakeholders, and those affected by the rule were provided opportunity for input as appropriate.

Explain: Third Party Administrators; Group rating sponsors

9. The rule was reviewed for clarity and for easy comprehension.

10. The rule promotes transparency and predictability of regulatory activity.

11. The rule is based on the best scientific and technical information, and is designed so it can be applied consistently.

12. The rule is not unnecessarily burdensome or costly to those affected by rule.

If so, how does the need for the rule outweigh burden and cost? _____

13. The Chief Legal Officer, or his designee, has reviewed the rule for clarity and compliance with the Governor's Executive Order.

Board of Directors

Executive Summary

Employer Classification Rates

Introduction

Rule 4123-17-03 of the Administrative Code contains the methodology to calculate an employer's experience modification percent (EM), including language that implements the 100% EM cap.

Background Information

In October 2009 the board of directors approved a change to this rule to include the methodology for applying the 100% EM cap to public employer taxing districts effective with the policy year beginning January 1, 2010.

Rule Changes

Paragraph (G) and (H) of rule 4123-17-03 have been amended to remove language that is specific to a particular policy year and insert language that makes this rule effective for each succeeding policy year with references to the current and prior policy years, rather than specific policy years.

Executive summary

The Administrator is recommending that the EM cap methodology be applied in future rating years without the need to revisit the rule each year. The intent of the rule is to limit the premium fluctuations for an employer from year to year to no more than a 100% increase. These changes will allow BWC to continue to implement the 100% EM cap without coming to the board every six months to update the specific policy years. The recommended changes are applicable to both private employers and public employer taxing districts.

4123-17-03 Employer's classification rates.

(A) An employer's premium rates shall be the manual basic rates as provided under rules 4123-17-02, 4123-17-06, and 4123-17-34 of the Administrative Code for each of its classifications except as modified by its experience rating, and shall apply for the first two six-month periods beginning on or after the first of July for private employers and shall apply for the calendar year beginning on or after the first of January for public employer taxing districts.

(1) In calculating the manual base rate under this rule, the bureau shall exclude the experience of an employer that is no longer active if the inclusion of the inactive employer's experience would have a significant negative impact upon the remaining active employers in a particular manual classification.

(2) The calculation of the base rate and the experience rate shall be applied to all employers reporting payroll in the manual classification, whether or not the premiums of the individual employers are reduced.

(3) Once the bureau has determined that the loss data of a specific inactive employer shall be removed from the manual classification experience, the bureau shall exclude the data of that employer from all future manual classification rate calculations. If that inactive employer reactivates its account with the Ohio state insurance fund, the bureau shall include the loss data in rate calculations for the manual classification.

(4) As used in this rule, an employer that is "no longer active" or is "inactive" is defined as an employer that satisfies all of the following criteria:

(a) The employer is assigned the policy status "bankrupt cancel," "cancel effective date," "final cancel," "canceled uncollectible," "no coverage due to claim," or "no coverage;"

(b) The employer is not reporting payroll;

(c) The employer is not paying premiums or assessments to the Ohio state insurance fund as of the rate cut off date under either its own identity, the identity of any successor entity, or as a self-insured entity; and

(d) The employer does not employ employees for which Ohio workers' compensation jurisdiction would apply.

(5) As used in this rule, a "significant negative impact" is defined as occurring when the inactive employers in the manual reported forty per cent or more of the payroll in the manual classification in any calendar year in the experience period and when the loss rate and loss/premium ratio of the inactive employers taken as a whole are significantly higher than those of the active employers taken as a whole as measured using the data from the prior policy year's most current four years data. For private employer rates effective July 1, 1997, the bureau shall use the experience period data of the current policy year.

(B) An experience-rated employer's manual classification rate modification (credit or debit) shall be determined by multiplying its experience modification (EM) times the basic manual rate for each assigned manual classification. The amount of the modification shall then be subtracted from or added to the respective basic rate to obtain the employer's premium rate for each classification.

(C) The experience modification (EM) shall be determined on the basis of the employer's experience and applied to the basic rate. The experience modification is determined in accordance with the following formula:

Subtract the TLL from the TML (TML - TLL), then divide by the TLL; multiply the resulting number by the C%; which will equal the EM.

TML = Actual losses of the employer for the experience period as reduced in accordance with the maximum value.

TLL = Total limited losses = TEL x LLR

TEL = Total expected losses as determined by applying the national council of compensation insurance (NCCI) expected loss rate to the NCCI classification payroll of each NCCI classification in the employer's experience period, as provided in appendix A to rule 4123-17-05.1 of the Administrative Code for private employers and rule 4123-17-33.1 of the Administrative Code for public employer taxing districts. The total expected losses are then used to determine credibility group, credibility, and the maximum value of a loss.

LLR = Limited loss ratio. This ratio is calculated for each credibility group within each industry group and is published as Table 1, Part B, in rule 4123-17-05 of the Administrative Code for private employers and Part B of rule 4123-17-33 of the Administrative Code for public employer taxing districts.

C% = Credibility given to an employer's own experience. Credibility is assigned by applying the employer's total expected losses to Table 1, Part A, in rule 4123-17-05.1 of the Administrative Code for private employers and rule 4123-17-33.1 of the Administrative Code for public employer taxing districts.

EM = Credit or debit applied to the basic rate.

(D) The "experience period" shall be the oldest four of the latest five calendar years immediately preceding the beginning of the payroll reporting period to which the revised rates are applicable.

(E) Experience modification per cent (EM) shall be subject to the following conditions and limitations:

(1) Actual losses include all incurred costs and shall be limited at the claim level to the amounts provided in Table 1, Part A, to rule 4123-17-05.1 of the Administrative Code for private employers and rule 4123-17-33.1 of the Administrative Code for public employer taxing districts according to the total expected losses of an employer;

(2) An employer shall not be eligible for experience modification of basic rates unless its expected losses are at least the minimum amount in the credibility table as provided in Table 1, Part A, to rule 4123-17-05.1 of the Administrative Code for private employers and rule 4123-17-33.1 of the Administrative Code for public employer taxing districts, as periodically established for the applicable rating period by rule adopted by the administrator with the advice and consent of the bureau of workers' compensation board of directors;

(F) Commencing with the rating year beginning July 1, 1987, and all subsequent rating years, all manual classifications of the state insurance fund are subject to experience rating (i.e., merit rating).

(G) Private employer year-to-year cap: Commencing with the rating year beginning July 1, 2009, the bureau shall cap or limit at one hundred per cent the increase to the employer's experience modification (EM) from the ~~July 1, 2008~~ prior rating year published EM. The bureau will not adjust the prior rating year published EM for the purposes of determining the cap for the current rating year. The bureau will not apply a cap to any EM decreases.

(1) Eligibility requirements:

(a) The employer shall be current as of June first immediately prior to the policy year to which the cap will be applied (not more than forty-five days past due) on any and all premiums, assessments, penalties or monies otherwise due to any fund administered by the bureau, including amounts due for retrospective rating.

(b) The employer cannot have cumulative lapses in workers' compensation coverage in excess of forty days within the twelve months preceding June first immediately prior to the policy year to which the cap will be applied.

(c) The bureau will only apply the cap to a policy that has an initial published EM of 1.01 or greater. Any subsequent adjustments to the initial published EM will not affect the employer's cap eligibility, including an employer that does not initially qualify for the cap.

(d) To be eligible for the cap in the first policy year, an employer must complete steps one, two, six, and any other two steps of the ten step business plan for safety of rule 4123-17-70 of the Administrative Code. The employer shall submit the required documentation by March thirty-first of the year in which the cap applies. To be eligible for the cap in the second year, an employer must complete the remaining steps of the ten step business plan for safety of rule 4123-17-70 of the Administrative Code. The employer shall submit the required documentation by March thirty-first of the second policy year. If the employer fails to comply with these requirements, the bureau will remove the cap for the policy year in which the requirements were not met.

(2) Opt-out provision:

The bureau will automatically apply the cap to an employer that meets the eligibility requirements of paragraphs (G)(1)(a) to (G)(1)(c) of this rule. If an employer wishes to not have the cap applied, the employer must notify the bureau in writing by September thirtieth of the policy year.

~~(3) The bureau will cap the July 1, 2009 EM at a one hundred per cent increase from the published July 1, 2008 EM which used the experience period data calculated as of December 31, 2007. The bureau will not adjust the July 1, 2008 published EM for the purposes of determining the cap for the July 1, 2009 rating year. The bureau will not apply a cap to any EM decreases.~~

~~(4)~~(3) Exclusion to the one hundred per cent EM cap: Where more than one employer policy's experience is used to develop an EM, the resulting EM is not subject to the one hundred per cent year to year cap.

~~(5)~~(4) Exceptions to the exclusion:

(a) The bureau will allow the cap to be applied to a debtor in possession policy combination as a result of bankruptcy proceedings. This transaction is a change in policy number without any change in exposure. The baseline EM of the successor will be the predecessor's ~~July 1, 2008~~ prior rating year published EM.

(b) The bureau will allow the cap to be applied to a succeeding employer policy that is base rated as of the effective date of the transfer that wholly or partially succeeds only one other policy. This exception acknowledges the change in exposure. The baseline EM of the successor will be the predecessor's ~~July 1, 2008~~ prior rating year published EM.

(H) Public employer taxing district year-to-year cap: Commencing with the rating year beginning January 1, 2010, the bureau shall cap or limit at one hundred per cent the increase to the employer's experience modification (EM) from the ~~January 1, 2009~~ prior rating year published EM. The bureau will not adjust the prior rating year published EM for the purposes of determining the cap for the current rating year. The bureau will not apply a cap to any EM decreases.

(1) Eligibility requirements:

(a) The employer shall be current as of December first immediately prior to the policy year to which the cap will be applied (not more than forty-five days past due) on any and all premiums, assessments, penalties or monies otherwise due to any fund administered by the bureau, including amounts due for retrospective rating.

(b) The employer cannot have cumulative lapses in workers' compensation coverage in excess of forty days within the twelve months preceding December first immediately prior to the policy year to which the cap will be applied.

(c) The bureau will only apply the cap to a policy that has an initial published EM of 1.01 or greater. Any subsequent adjustments to the initial published EM will not affect the employer's cap eligibility, including an employer that does not initially qualify for the cap.

(d) To be eligible for the cap in the first policy year, an employer must complete steps one, two, six, and any other two steps of the ten step business plan for safety of rule 4123-17-70 of the Administrative Code. The employer shall submit the required documentation by September thirtieth of the year in which the cap applies. To be eligible for the cap in the second year, an employer must complete the remaining steps of the ten step business plan for safety of rule 4123-17-70 of the Administrative Code. The employer shall submit the required documentation by September thirtieth of the second policy year. If the employer fails to comply with these requirements, the bureau will remove the cap for the policy year in which the requirements were not met.

(2) Opt-out provision:

The bureau will automatically apply the cap to an employer that meets the eligibility requirements of paragraphs (H)(1)(a) to (H)(1)(c) of this rule. If an employer wishes to not have the cap applied, the employer must notify the bureau in writing by March thirty-first of the policy year.

~~(3) The bureau will cap the January 1, 2010 EM at a one hundred per cent increase from the published January 1, 2009 EM which used the experience period data calculated as of June 30, 2008. The bureau will not adjust the January 1, 2009 published EM for the purposes of determining the cap for the January 1, 2010 rating year. The bureau will not apply a cap to any EM decreases.~~

~~(4)~~(3) Exclusion to the one hundred per cent EM cap: Where more than one employer policy's experience is used to develop an EM, the resulting EM is not subject to the one hundred per cent year to year cap.

(5)(4) Exceptions to the exclusion:

(a) The bureau will allow the cap to be applied to a debtor in possession policy combination as a result of bankruptcy proceedings. This transaction is a change in policy number without any change in exposure. The baseline EM of the successor will be the predecessor's ~~January 1, 2009~~ [prior rating year](#) published EM.

(b) The bureau will allow the cap to be applied to a succeeding employer policy that is base rated as of the effective date of the transfer that wholly or partially succeeds only one other policy. This exception acknowledges the change in exposure. The baseline EM of the successor will be the predecessor's ~~January 1, 2009~~ [prior rating year](#) published EM.

Effective:

Promulgated Under: 111.15

Statutory Authority: 4121.12, 4121.121, 4121.13

Rule Amplifies: 4123.29, 4123.34

Prior Effective Dates: 8/19/77, 7/2/78, 7/1/79, 7/1/80, 7/1/82, 7/1/83, 7/1/87, 7/1/88, 1/1/92, 7/1/97, 9/8/97, 7/1/02, 7/21/08, 2/7/09, 05/21/09, [11/27/09](#)

Stakeholder Feedback on the EM capping 4123-17-03 (G) and (H)

Line	Rule #	Draft Rule Suggestions	Stakeholder/Suggestions	BWC Response	Resolution
1	4123-17-03 (G) and (H)	<p>Current: "Commencing with the rating year beginning July 1, 2009, the bureau shall cap or limit at one hundred percent the increase to the employer's experience modification (EM) from the <u>July 1, 2008</u> published EM."</p> <p>Proposed: "Commencing with the rating year beginning July 1, 2009, the bureau shall cap or limit at one hundred per cent the increase to the employer's experience modification (EM) from the <u>prior rating year</u> published EM."</p>	None	N/A	N/A
2	4123-17-03 (G) and (H)	<p>Current: "Commencing with the rating year beginning July 1, 2009, the bureau shall cap or limit at one hundred percent the increase to the employer's experience modification (EM) from the <u>July 1, 2008</u> published EM."</p> <p>Proposed: "Commencing with the rating year beginning July 1, 2009, the bureau shall cap or limit at one hundred per cent the increase to the employer's experience modification (EM) from the <u>prior rating year</u> published EM."</p>	BWC received feedback from one stakeholder. When BWC created the cap, the group break even factor (GBEF) did not exist. With the GBEF, a group rated employer will actually pay at a higher "effective" EM than their published EM. For example, an employer in a maximum discount group for 7/1/09 has had an EM of 0.23 but an effective EM of 0.30 after the GBEF was applied. Under the interpretation of the rule, this employer will receive an EM of 0.46 for the 7/1/10 policy year. The stakeholder believes BWC should use the EM after applying the GBEF, which would result in an employer receiving a capped EM of 0.60.	BWC acknowledges the comment but does not have an issue with applying the EM cap rule as it is currently written. The intent of the EM cap is to limit an employer's premium increase to no more than 100% from year to year. The rule continues to offer that protection to employers. By applying the rule as it is currently written, some employers will not see a 100% increase in premiums, that otherwise will if the suggested change is made.	BWC will continue to apply the 100% EM cap to the prior rating year published experience modification.

Loss Reserve Methodologies
Jon Turnes, FCAS, MAAA, Manager of Reserving
BWC Actuarial Committee
January 21, 2010

While the loss development method is the most often used actuarial method to project future loss payments, it does have certain weaknesses. Two of these weaknesses are:

- 1) The loss development method is not able to project losses where there are no historical losses, in particular for the tail liability. Tail liability is defined as payments made beyond the last development age in the triangle.
- 2) The loss development estimate for the most recent years is highly volatile due to the higher volatility in the early age to age factors and to the even higher volatility of the first payment in a given year.

There are two versions of the loss development method that are typically used to project losses. The *incremental loss development method*, which we have used in previous sessions, is an intuitive approach that relates payments in one period directly to payments in the previous period. However, using this approach as a basis for loss projections can be problematic when one attempts to address the two weaknesses identified above. The *cumulative loss development method* is an alternate approach that lends itself much better to calculating the tail liability and adjusting for early age to age factor volatility.

Cumulative Loss Development Method

The cumulative loss development method is similar to the incremental loss development method in several respects. A triangle is used to calculate age to age factors, which are then applied to the most recent actual data to create a projection. The rows of a cumulative triangle are defined exactly the same as the rows of an incremental triangle; they indicate the accident year in which an injury first occurred. The columns are different. Rather than represent the payments that have been made during the current development period, they represent all payments that have been made since the beginning of the accident year to the end of the current development period.

A cumulative triangle can be constructed from an incremental triangle by setting the first column equal. To calculate subsequent columns, take the entry from the same accident year and same development age in the incremental triangle and add it to the entry from the same accident year and the prior development age in the cumulative triangle.

The age to age factors in a cumulative triangle are calculated in the same manner as an incremental triangle. They are also applied in the same manner as in incremental triangle to arrive at a loss projection. Because of the way the development age columns are

defined, our projections will be of total losses paid by a certain age. Therefore, to calculate the future losses paid, one must take the final projected total and subtract actual losses paid to date.

In general, the projections of future losses using an incremental and a cumulative triangle will not be equal. A cumulative triangular analysis results in mathematical equations that are more tractable when applying special adjustments, such as a tail factor calculation or a Bornhuetter-Ferguson method (discussed later). In addition, the age to age factors in a cumulative triangle tend to be more stable than those in an incremental triangle, and therefore there is less uncertainty when making selections. However, changes in historical patterns such as inflation rates or benefit levels are less evident when looking at a cumulative triangle. In general, one must balance the need for well-behaved data against the benefits of data that can be much more explanatory.

Tail Liability and the Inverse Power Curve (IPC)

The loss development method cannot be used on its own to calculate the tail liability, defined as the future loss payments beyond the final development age present in the loss triangle. This is because the loss development method depends upon historical ratios of loss payments, which do not exist beyond the final development age in the triangle. One approach to calculate the tail liability is to fit a curve to the age to age factors that do exist. This curve then defines the age to age factors for development ages beyond the triangle. Once the curve is selected, one can project future loss payments in the usual manner, using the curve to calculate the age to age factors that do not have historical backup.

For an example of the details of a curve fitting procedure, please refer to Appendix 1.

There are several considerations involved when curve fitting. Broadly, these fall into two considerations:

- 1) Is the curve being used an appropriate choice?
- 2) Does the fit of the chosen curve appear reasonable for age to age factors beyond the last available development age?

There are several attributes of a good curve fit. The first is that the future age to age factors generated by the curve will always be greater than or equal to one, except in the unlikely event that negative loss payments are expected in the future. The second is that the curve fits the oldest existing age to age factors well. The third is that the curve smoothly decreases toward 1.000. When any of these conditions aren't met, either the curve is not appropriate, or a special adjustment must be made.

Just as loss projections become more uncertain as they're projected further into the future, projections of age to age factors from a curve fit also become more uncertain further into the future. Thus the projection of the tail liability has several compounding

sources of uncertainty. First, the age to age factors used to fit the curve have variability in them. Second, the further out the curve is used, the more uncertain the fit becomes. Finally, these uncertain future age to age factors are being applied to loss projections that are already rather uncertain themselves due to how far out they've been projected.

Bornhuetter-Ferguson (BF) Method and the Expected Loss Method

The loss development estimate is quite volatile for the most recent accident years, due both to rather large age to age factors which are generally based on historical factors that have a lot of variation in them, and to rather volatile actual loss emergence in the year being projected. The Bornhuetter-Ferguson method, or BF method, is the typical method used to calculate a more stable loss projection. There are two basic steps to the BF method:

- 1) Make an estimate of total losses paid in the accident year
- 2) Split that estimate into the amount expected to be paid already, and the amount expected to be paid in the future.

The estimate of total losses paid is based on historical data, and can theoretically be made at age 0 before the accident year has even started. In standard practice, historical loss rates (defined as total projected loss payments divided by payroll) or loss ratios (defined as total projected loss payments divided by premium) are used. Since payroll or premium is known relatively quickly for the most recent years, applying a loss rate or a loss ratio can lead to an early estimate of total losses to be paid.

The historical loss rate is not generally selected as the loss rate for the year being projected. Instead, historical loss rates will be trended for frequency, severity, and payroll, to be on the same level as the year being projected, after which an average can be taken. Alternately, a trend line can be fit to the historical loss rates, and the loss rate for the year being projected can be read from that trend line.

Once the historical loss rate is selected and applied to payroll, an estimate of total losses is obtained. This estimate is often called the Expected Loss Method estimate. Using this estimate of total losses, one can obtain an estimate of future losses by subtracting actual paid losses to date.

The BF method uses a further refinement of the Expected Loss Method. This refinement requires that the estimate is split into an amount expected to be paid already and an amount expected to be paid in the future. For detail on how this split is calculated, see Appendix 2. Once the estimate is broken into the expected unpaid losses and the expected paid losses, the BF method estimate of total losses is set equal to actual losses paid to date + expected unpaid losses.

The Loss Development, BF, and Expected Loss methods offer 3 different views of what it means when loss emergence is different than expected. When losses differ from

expected, the Loss Development method scales all future losses by the percentage difference, which is equivalent to saying that the payment patterns should still be used as estimates, but the expected loss rate needs to be adjusted. The BF method leaves the initial projections of future payments unchanged, which is equivalent to saying that the difference between actual and expected losses was due purely to random chance. The Expected Loss method scales down future payments so that the total amount is unchanged, which is equivalent to saying that the original loss estimate should still be used, but the payment patterns needs to be adjusted.

Final Selection of Total Losses

Once all of the various reserve estimates have been calculated, a final selection must be made. In making this selection, one typically looks at the results of each projection by accident year. When the estimates agree for a given accident year, then they are generally all considered to be good estimates for that year, and the selection is relatively straightforward. When estimates differ for a given year, then further research must be done to determine the cause of the difference. For example, in the most recent years, the BF and loss development estimates will typically differ because the loss development method is highly leveraged on early loss emergence which is typically quite volatile. Often, in determining why the estimates are different, the best selection becomes apparent.

We're fortunate at the BWC to have an unparalleled database of workers' compensation claims. We have a triangle that extends into quite mature development ages, and a lot of the variability that one typically sees in historical age to age factors is absent due to the volume of claims. Whenever more data is available, judgment is easier to apply because true changes in the underlying patterns are more apparent.

Appendix 1 – The Inverse Power Curve Fit

The inverse power curve is defined as $f(t) = 1 + (\alpha t)^\beta$, where α is a scale parameter that determines the height of the curve, β is a shape parameter that determines how quickly the curve flattens, and t is the development age for which we want an age to age factor. The α and β parameters are calculated using least squares regression.

Because regression fits points to a line, the equation is transformed as follows:

$$f(t) = 1 + (\alpha t)^\beta$$

$$f(t) - 1 = (\alpha t)^\beta$$

$$\ln(f(t) - 1) = \beta \ln(\alpha t)$$

$$\ln(f(t) - 1) = \beta \ln(\alpha) + \beta \ln(1/t)$$

let $y^* = \ln(f(t) - 1)$, and $x^* = \ln(1/t)$. Then fit the regression $y^* = A + Bx^*$. Once A and B are derived from the regression, they are then transformed back into α and β by

$$\beta = B$$

and

$$\beta \ln(\alpha) = A$$

$$\ln(\alpha) = A / \beta$$

$$\alpha = e^{A/\beta}$$

The quantities A and B are given by

$$B = \frac{\sum(x_i^* - x_{avg}^*)(y_i^* - y_{avg}^*)}{\sum(x_i^* - x_{avg}^*)(x_i^* - x_{avg}^*)}$$

$$A = y_{avg}^* - B x_{avg}^*$$

As an example, consider the following (all quantities rounded to 5 decimals):

<u>Development Age (=t)</u>	<u>ATA factor (=f(t))</u>
54	1.095
66	1.076
78	1.064
90	1.053

<u>$x^* = \ln(1/t)$</u>	<u>$y^* = \ln(f(t) - 1)$</u>
-3.98898	-2.35388
-4.18965	-2.57702
-4.35671	-2.74887
-4.49981	-2.93746

$$x_{avg}^* = -4.25879 \qquad y_{avg}^* = -2.65431$$

$\frac{x^* - x^*_{avg}}{y^* - y^*_{avg}}$	$y^* - y^*_{avg}$	$(x^* - x^*_{avg})(y^* - y^*_{avg})$	$(x^* - x^*_{avg})(y^*$
0.26981	0.30043	0.08106	0.07280
0.06914	0.07729	0.00534	0.00478
-0.09792	-0.09456	0.00926	0.00959
-0.24102	-0.28315	0.06824	0.05809

$$\text{Sum}[(x^* - x^*_{avg})(y^* - y^*_{avg})] = 0.1639$$

$$\text{Sum}[(x^* - x^*_{avg})(y^* - y^*_{avg})] = 0.14526$$

$$B = 1.12832$$

$$A = 2.15097$$

$$\beta = 1.12832$$

$$\alpha = 6.72847$$

$$\text{then } f(102) = 1 + (6.72847 / 102)^{1.12832} = 1.04654$$

Appendix 1 – BF Method Split of Total Expected Losses

In a cumulative triangle, we have ATA factors ATA_a for ages $a = 6, 18, \dots$, all the way through to the tail, which we'll assume is age 594. The projected ultimate loss for an accident year at age 6 is given by

$$L_6 * ATA_6 * ATA_{18} * ATA_{30} * \dots * ATA_{594} = \text{Total Losses.}$$

We can define an Age To Ultimate factor ATU_6 as

$$ATU_6 = ATA_6 * ATA_{18} * ATA_{30} * \dots * ATA_{594}$$

Similarly, $ATU_{18} = ATA_{18} * ATA_{30} * \dots * ATA_{594}$, and

$$ATU_n = ATA_n * ATA_{n+12} * \dots * ATA_{594}, \text{ where } n = (6, 18, 30, \dots, 594)$$

Since total projected payments are then given by $L_6 * ATU_6$, the total future payments are equal to

$L_6 * ATU_6 - L_6$, which is just subtracting actual paid losses from total projected losses. This can be rewritten as

$$L_6 * (ATU_6 - 1)$$

The losses paid at time 6 as a percent of the total loss projection is given by

$$L_6 / (L_6 * ATU_6) = 1 / ATU_6$$

Note 2 things here. First, the losses at time 6 as a percent of total losses is independent of the actual amount of losses paid at time 6. Second, ATU_6 is a function of ATA factors for ages 6 and beyond, which can only be calculated from accident years that have losses paid at 18 months and later. Therefore, if we are projecting from an accident year at age 6, the actual losses from that accident year do not enter into the ATU calculation. As a result, the percent of total losses paid at time 6 is independent of the actual losses.

If we have an expected total loss E for an accident year at age 6 months, we can break it into the amount expected to be paid already and the amount expected to be paid in the future as follows:

$$\text{Amount Expected to be Paid Already} = E * 1 / ATU_6$$

$$\text{Amount Expected to be Paid in the Future} = E * (1 - (1 / ATU_6)) = E * (ATU_6 - 1) / ATU_6$$

For example, if total projected losses at time 6 are 1,314,342, and current paid losses at time 6 are 34,162, then by definition $1,314,342 = 34,162 * ATU_6$

$$ATU_6 = 1,314,342 / 34,162 = 38.473$$

If our *a priori* estimate of total losses for the accident year were 1,233,843, then the amount expected to be paid already is given by

$$1,233,843 * (1 / 38.473) = 32,070$$

and the expected amount to be paid in the future is given by

$$1,233,843 * (1 - 1/38.473) = 1,201,773.$$

The BF estimate would become $34,162 + 1,201,733 = 1,235,935$

Cumulative Projected Triangle (000's omitted)

Accident Year	Age in Months																					
	6	18	30	42	54	66	78	90	102	114	126	138	150	162	174	186	198	210				
2000	19,313	158,374	245,745	293,880	331,674	364,203	394,080	419,678	441,900	462,497	481,502	499,166	515,684	531,211	545,869	559,760	572,967	585,562				
2001	22,122	162,933	249,629	297,054	333,820	368,163	398,637	424,165	446,625	467,442	486,650	504,503	521,198	536,890	551,705	565,745	579,093	591,823				
2002	19,848	149,732	222,945	264,431	298,268	326,638	349,389	371,923	391,617	409,870	426,712	442,367	457,005	470,765	483,755	496,065	507,770	518,931				
2003	22,360	153,078	233,018	280,166	316,401	345,798	372,151	396,154	417,131	436,574	454,513	471,187	486,780	501,436	515,272	528,384	540,852	552,740				
2004	25,939	193,294	302,419	363,840	410,696	449,862	484,147	515,373	542,662	567,956	591,295	612,986	633,271	652,338	670,339	687,397	703,616	719,082				
2005	25,168	210,775	329,917	396,935	447,593	490,278	527,642	561,674	591,415	618,981	644,416	668,057	690,164	710,944	730,561	749,152	766,828	783,684				
2006	27,347	207,393	318,875	381,258	429,915	470,914	506,803	539,490	568,057	594,534	618,965	641,672	662,906	682,865	701,708	719,564	736,542	752,732				
2007	26,219	180,754	277,087	331,296	373,576	409,203	440,389	468,792	493,615	516,623	537,852	557,583	576,035	593,378	609,752	625,268	640,022	654,090				
2008	34,162	253,220	388,175	464,116	523,348	573,257	616,946	656,737	691,512	723,744	753,484	781,126	806,975	831,271	854,209	875,946	896,614	916,323				
ATA	7.412	1.533	1.196	1.128	1.095	1.076	1.064	1.053	1.047	1.041	1.037	1.033	1.030	1.028	1.025	1.024	1.022	1.021				
									Given by $f(t) = 1 + (6.817 / t)^{1.133}$													
	222	234	246	258	270	282	294	306	318	330	342	354	366	378	390	402	414	426				
2000	596,868	608,392	619,459	630,106	640,368	650,272	659,846	669,113	678,094	686,807	695,269	703,496	711,501	719,297	726,895	734,307	741,541	748,607				
2001	603,250	614,897	626,082	636,843	647,214	657,225	666,901	676,268	685,344	694,151	702,703	711,018	719,108	726,988	734,667	742,158	749,470	756,611				
2002	528,951	539,164	548,972	558,407	567,501	576,279	584,763	592,976	600,935	608,656	616,156	623,446	630,540	637,449	644,183	650,751	657,162	663,424				
2003	563,413	574,291	584,738	594,788	604,474	613,824	622,861	631,609	640,086	648,311	656,299	664,064	671,620	678,979	686,152	693,148	699,977	706,647				
2004	732,967	747,119	760,709	773,784	786,385	798,548	810,306	821,686	832,714	843,414	853,806	863,908	873,739	883,312	892,643	901,745	910,629	919,306				
2005	798,816	814,239	829,051	843,300	857,033	870,289	883,103	895,505	907,524	919,185	930,511	941,521	952,234	962,668	972,837	982,757	992,439	1,001,895				
2006	767,266	782,081	796,307	809,994	823,185	835,917	848,224	860,137	871,682	882,882	893,760	904,336	914,626	924,647	934,415	943,942	953,242	962,325				
2007	666,719	679,593	691,954	703,848	715,310	726,374	737,068	747,420	757,451	767,184	776,637	785,826	794,768	803,476	811,964	820,243	828,324	836,217				
2008	934,016	952,050	969,368	986,029	1,002,087	1,017,586	1,032,568	1,047,070	1,061,123	1,074,758	1,088,000	1,100,874	1,113,401	1,125,600	1,137,491	1,149,089	1,160,409	1,171,467				
ATA	1.019	1.018	1.017	1.016	1.015	1.015	1.014	1.013	1.013	1.012	1.012	1.011	1.011	1.011	1.010	1.010	1.010	1.009				
	438	450	462	474	486	498	510	522	534	546	558	570	582	594	606	Tail Liab = 606 - 102						
2000	755,299	762,051	768,658	775,126	781,462	787,672	793,760	799,731	805,591	811,344	816,994	822,545	828,001	833,364	838,639	396,739						
2001	763,375	770,199	776,877	783,414	789,818	796,093	802,246	808,282	814,205	820,019	825,730	831,340	836,854	842,274	847,606	400,981						
2002	669,355	675,339	681,194	686,926	692,541	698,044	703,439	708,731	713,924	719,023	724,030	728,949	733,784	738,537	743,211	351,595						
2003	712,964	719,337	725,574	731,680	737,660	743,522	749,268	754,905	760,437	765,867	771,201	776,440	781,590	786,653	791,632	374,501						
2004	927,524	935,815	943,929	951,872	959,653	967,278	974,754	982,087	989,284	996,348	1,003,287	1,010,103	1,016,803	1,023,389	1,029,867	487,204						
2005	1,010,852	1,019,888	1,028,730	1,037,387	1,045,867	1,054,177	1,062,325	1,070,317	1,078,160	1,085,859	1,093,421	1,100,850	1,108,151	1,115,329	1,122,389	530,974						
2006	970,928	979,608	988,101	996,415	1,004,560	1,012,542	1,020,368	1,028,045	1,035,578	1,042,973	1,050,236	1,057,372	1,064,385	1,071,279	1,078,060	510,003						
2007	843,692	851,234	858,614	865,840	872,917	879,853	886,653	893,324	899,870	906,296	912,607	918,808	924,902	930,893	936,785	443,170						
2008	1,181,939	1,192,505	1,202,844	1,212,966	1,222,880	1,232,597	1,242,124	1,251,469	1,260,639	1,269,642	1,278,483	1,287,169	1,295,706	1,304,099	1,312,354	620,842						
ATA	1.009	1.009	1.008	1.008	1.008	1.008	1.008	1.007	1.007	1.007	1.007	1.007	1.006	1.006								

Incremental Projected Triangle (000's omitted)

Accident Year	Age in Months																	
	6	18	30	42	54	66	78	90	102	114	126	138	150	162	174	186	198	210
2000	19,313	139,060	87,371	48,136	37,794	32,528	29,877	25,598	22,222	20,597	19,005	17,664	16,518	15,526	14,658	13,891	13,208	12,594
2001	22,122	140,811	86,696	47,426	36,766	34,343	30,474	25,528	22,460	20,818	19,208	17,853	16,695	15,692	14,815	14,039	13,349	12,729
2002	19,848	129,884	73,213	41,487	33,837	28,370	22,750	22,535	19,694	18,254	16,842	15,654	14,639	13,760	12,990	12,310	11,705	11,161
2003	22,360	130,719	79,940	47,148	36,236	29,396	26,354	24,003	20,977	19,443	17,939	16,674	15,593	14,656	13,836	13,112	12,467	11,889
2004	25,939	167,356	109,124	61,422	46,856	39,166	34,285	31,226	27,289	25,294	23,338	21,692	20,285	19,067	18,000	17,058	16,219	15,466
2005	25,168	185,607	119,143	67,017	50,658	42,685	37,365	34,031	29,741	27,566	25,435	23,641	22,107	20,780	19,618	18,591	17,676	16,856
2006	27,347	180,047	111,481	62,383	48,657	40,999	35,889	32,687	28,566	26,478	24,430	22,707	21,234	19,959	18,843	17,857	16,978	16,190
2007	26,219	154,535	96,334	54,208	42,281	35,626	31,186	28,404	24,823	23,008	21,229	19,731	18,452	17,343	16,374	15,517	14,753	14,068
2008	34,162	219,058	134,955	75,941	59,231	49,910	43,689	39,791	34,775	32,232	29,740	27,642	25,849	24,297	22,938	21,737	20,668	19,709
Year	222	234	246	258	270	282	294	306	318	330	342	354	366	378	390	402	414	426
2000	11,306	11,525	11,067	10,647	10,261	9,905	9,574	9,267	8,981	8,713	8,462	8,227	8,005	7,796	7,598	7,412	7,234	7,066
2001	11,427	11,648	11,185	10,761	10,371	10,011	9,677	9,366	9,077	8,806	8,553	8,315	8,091	7,879	7,680	7,491	7,312	7,142
2002	10,020	10,213	9,807	9,436	9,094	8,778	8,485	8,213	7,959	7,722	7,499	7,291	7,094	6,909	6,734	6,568	6,411	6,262
2003	10,672	10,879	10,446	10,050	9,686	9,349	9,038	8,748	8,477	8,225	7,988	7,766	7,556	7,359	7,173	6,996	6,829	6,670
2004	13,884	14,152	13,590	13,075	12,601	12,163	11,757	11,380	11,028	10,700	10,392	10,103	9,830	9,574	9,331	9,101	8,884	8,677
2005	15,132	15,424	14,811	14,250	13,733	13,256	12,814	12,403	12,019	11,661	11,325	11,010	10,713	10,434	10,169	9,919	9,682	9,457
2006	14,534	14,815	14,226	13,687	13,191	12,732	12,308	11,913	11,545	11,200	10,878	10,575	10,290	10,022	9,768	9,527	9,300	9,083
2007	12,629	12,873	12,362	11,893	11,462	11,064	10,695	10,352	10,032	9,733	9,453	9,189	8,942	8,708	8,488	8,279	8,081	7,893
2008	17,693	18,034	17,318	16,661	16,057	15,499	14,982	14,502	14,054	13,635	13,242	12,874	12,527	12,200	11,890	11,598	11,321	11,057
Year	438	450	462	474	486	498	510	522	534	546	558	570	582	594	606	Tail Liab = sum (102-606)		
2000	6,692	6,752	6,607	6,468	6,336	6,209	6,088	5,972	5,860	5,753	5,650	5,551	5,455	5,363	5,275	396,739		
2001	6,764	6,824	6,677	6,537	6,404	6,276	6,153	6,036	5,923	5,814	5,710	5,610	5,514	5,421	5,331	400,981		
2002	5,931	5,984	5,855	5,732	5,615	5,503	5,395	5,292	5,193	5,098	5,007	4,919	4,835	4,753	4,675	351,595		
2003	6,317	6,373	6,236	6,106	5,981	5,861	5,747	5,637	5,532	5,431	5,333	5,240	5,150	5,063	4,979	374,501		
2004	8,218	8,292	8,113	7,943	7,781	7,625	7,476	7,333	7,196	7,065	6,938	6,817	6,699	6,586	6,478	487,204		
2005	8,956	9,036	8,842	8,657	8,480	8,310	8,148	7,992	7,843	7,699	7,562	7,429	7,301	7,178	7,060	530,974		
2006	8,603	8,680	8,493	8,315	8,145	7,982	7,826	7,677	7,533	7,395	7,263	7,136	7,013	6,895	6,781	510,003		
2007	7,475	7,542	7,380	7,225	7,077	6,936	6,800	6,671	6,546	6,426	6,311	6,200	6,094	5,991	5,892	443,170		
2008	10,472	10,566	10,339	10,122	9,915	9,717	9,527	9,345	9,170	9,003	8,841	8,686	8,537	8,393	8,254	620,842		
ATA	1.009	1.009	1.008	1.008	1.008	1.008	1.008	1.007	1.007	1.007	1.007	1.007	1.006	1.006				

Actuarial Committee Meeting

Thursday, January 21

Last Month - Simulated Medical Triangle (000's omitted)

Accident Year	Age in Months								
	6	18	30	42	54	66	78	90	102
2000	19,313	139,060	87,371	48,136	37,794	32,528	29,877	25,598	22,222
2001	22,122	140,811	86,696	47,426	36,766	34,343	30,474	25,528	
2002	19,848	129,884	73,213	41,487	33,837	28,370	22,750		
2003	22,360	130,719	79,940	47,148	36,236	29,396			
2004	25,939	167,356	109,124	61,422	46,856				
2005	25,168	185,607	119,143	67,017					
2006	27,347	180,047	111,481						
2007	26,219	154,535							
2008	34,162								

Accident Year	Age in Months							
	6:18	18:30	30:42	42:54	54:66	66:78	78:90	90:102
2000	7.200	0.628	0.551	0.785	0.861	0.919	0.857	0.868
2001	6.365	0.616	0.547	0.775	0.934	0.887	0.838	
2002	6.544	0.564	0.567	0.816	0.838	0.802		
2003	5.846	0.612	0.590	0.769	0.811			
2004	6.452	0.652	0.563	0.763				
2005	7.375	0.642	0.562					
2006	6.584	0.619						
2007	5.894							
Average	6.521	0.621	0.563	0.780	0.862	0.873	0.847	0.868
Selected	6.412	0.613	0.558	0.773	0.837	0.845	0.847	0.868

Incremental Simulated Medical Triangle (000's omitted)

Accident Year	6	18	30	42	54	66	78	90	102
2000	19,313	139,060	87,371	48,136	37,794	32,528	29,877	25,598	22,222
2001	22,122	140,811	86,696	47,426	36,766	34,343	30,474	25,528	
2002	19,848	129,884	73,213	41,487	33,837	28,370	22,750		
2003	22,360	130,719	79,940	47,148	36,236	29,396			
2004	25,939	167,356	109,124	61,422	46,856				
2005	25,168	185,607	119,143	67,017					
2006	27,347	180,047	111,481						
2007	26,219	154,535							
2008	34,162								

Cumulative Simulated Medical Triangle

Accident Year	6	18	30	42	54	66	78	90	102
2000	19,313	158,374	245,745	293,880	331,674	364,203	394,080	419,678	441,900
2001	22,122	162,933	249,629	297,054	333,820	368,163	398,637	424,165	
2002	19,848	149,732	222,945	264,431	298,268	326,638	349,389		
2003	22,360	153,078	233,018	280,166	316,401	345,798			
2004	25,939	193,294	302,419	363,840	410,696				
2005	25,168	210,775	329,917	396,935					
2006	27,347	207,393	318,875						
2007	26,219	180,754							
2008	34,162								

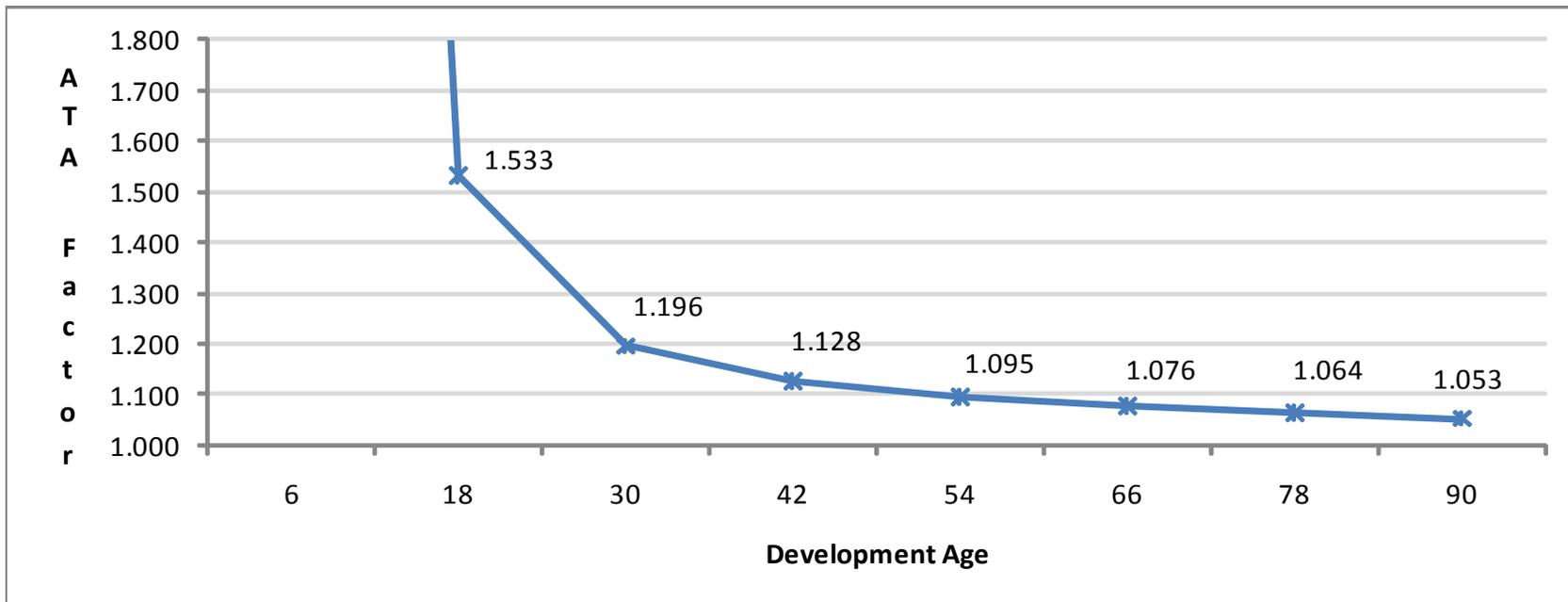
Cumulative Simulated Medical Triangle (000's omitted)

Accident Year	Age in Months								
	6	18	30	42	54	66	78	90	102
2000	19,313	158,374	245,745	293,880	331,674	364,203	394,080	419,678	441,900
2001	22,122	162,933	249,629	297,054	333,820	368,163	398,637	424,165	
2002	19,848	149,732	222,945	264,431	298,268	326,638	349,389		
2003	22,360	153,078	233,018	280,166	316,401	345,798			
2004	25,939	193,294	302,419	363,840	410,696				
2005	25,168	210,775	329,917	396,935					
2006	27,347	207,393	318,875						
2007	26,219	180,754							
2008	34,162								

Accident Year	Age in Months							
	6:18	18:30	30:42	42:54	54:66	66:78	78:90	90:102
2000	8.200	1.552	1.196	1.129	1.098	1.082	1.065	1.053
2001	7.365	1.532	1.190	1.124	1.103	1.083	1.064	
2002	7.544	1.489	1.186	1.128	1.095	1.070		
2003	6.846	1.522	1.202	1.129	1.093			
2004	7.452	1.565	1.203	1.129				
2005	8.375	1.565	1.203					
2006	7.584	1.538						
2007	6.894							
Average	7.533	1.537	1.197	1.128	1.097	1.078	1.064	1.053
Avg ex 05	7.412	1.533	1.196	1.128	1.095	1.076	1.064	1.053

Age to Age Factors

Age	6	18	30	42	54	66	78	90
Cumulative ATA	7.412	1.533	1.196	1.128	1.095	1.076	1.064	1.053

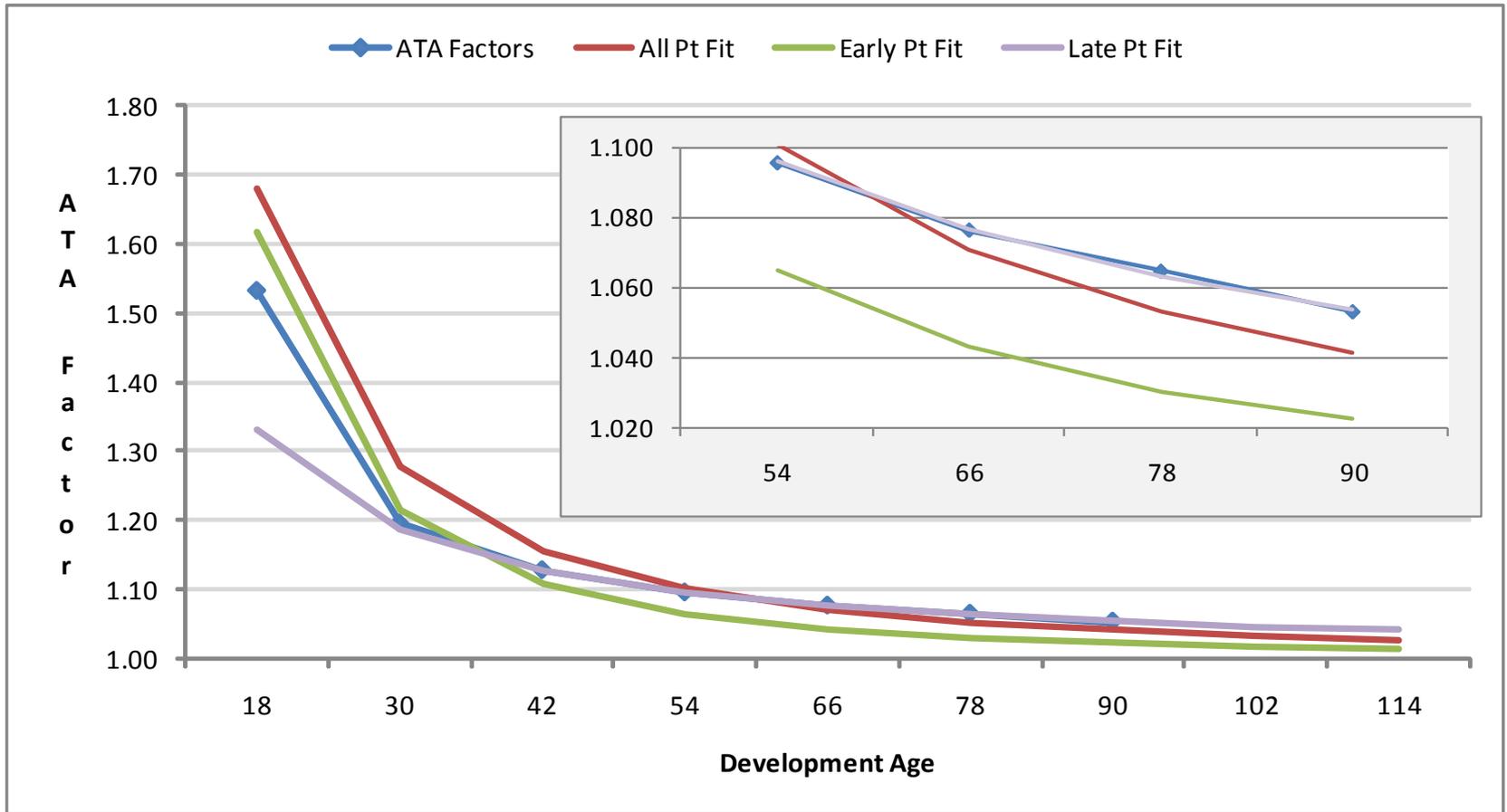


Curve Fitting the Age to Age Factors

Cumulative ATA factor -> fit to Inverse Power Curve $f(t) = 1 + (\alpha/t)^\beta$

Choices

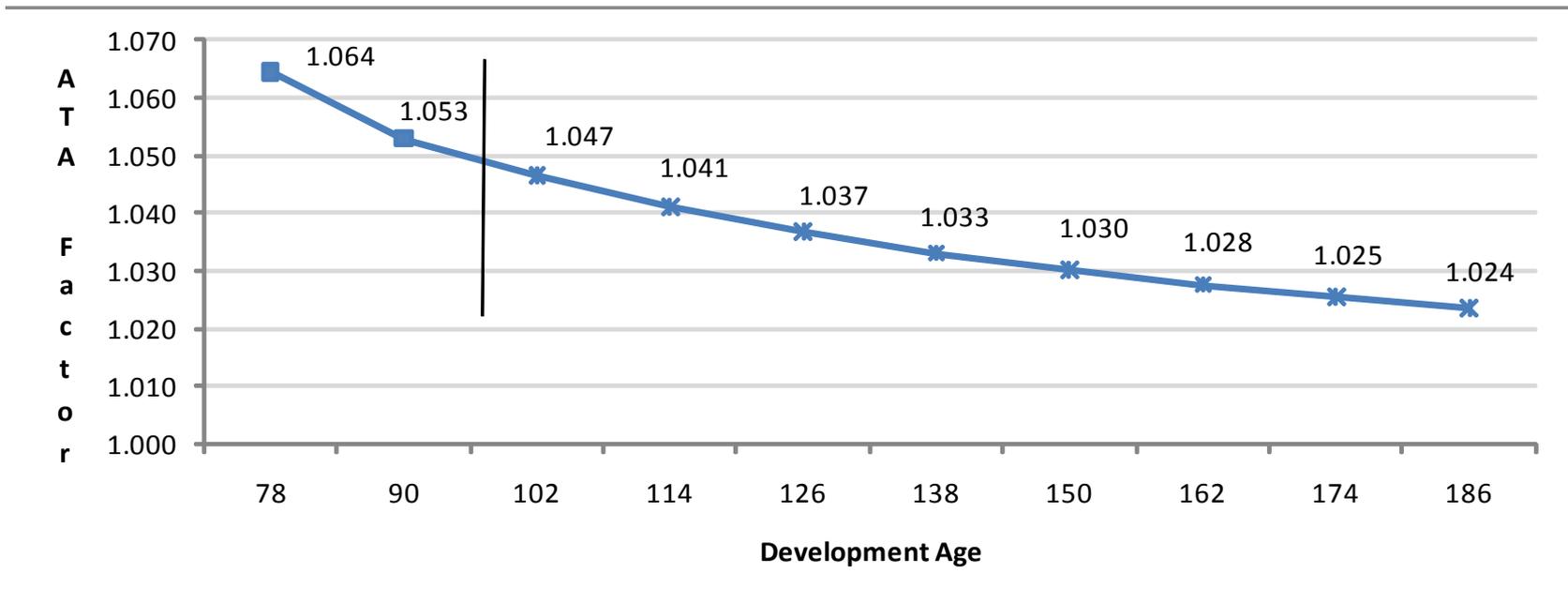
	Fit to All	Fit to Early	Fit to Late
Beta	1.738	2.056	1.133
Alpha	14.405	14.239	6.817



Projecting the Age to Age Factors

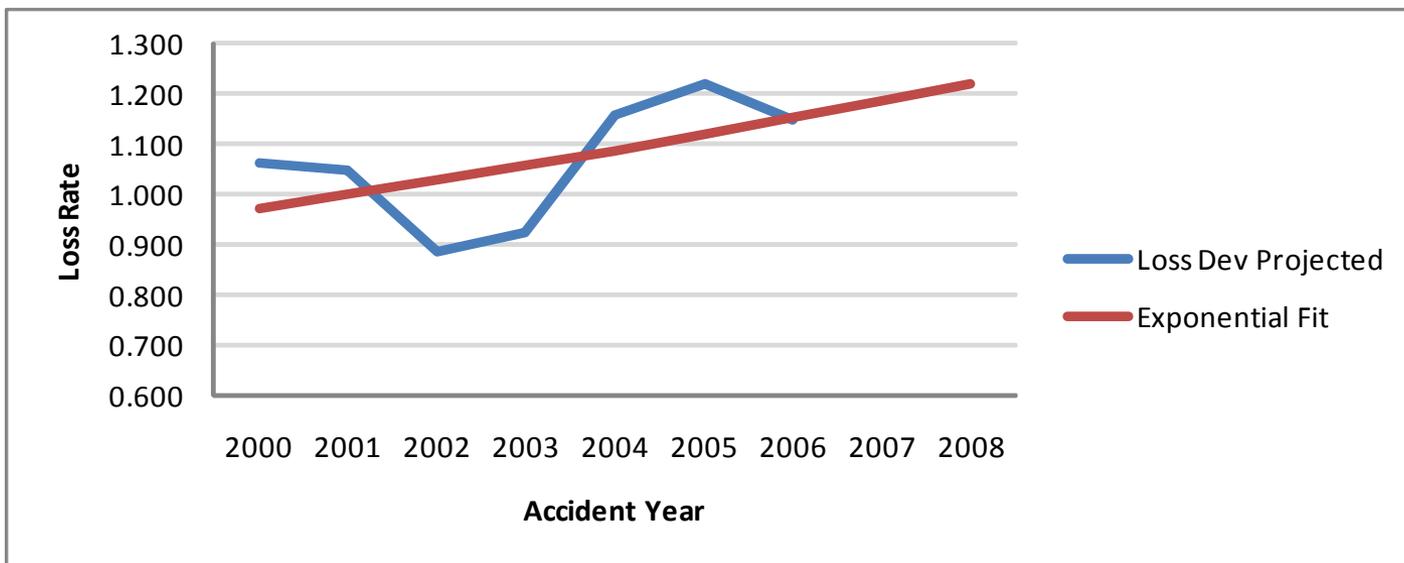
Cumulative ATA factor -> fit to Inverse Power Curve $f(t) = 1 + (\alpha/t)^\beta$

Beta 1.133 Example: Age 126 = t
Alpha 6.817 $1.037 = 1 + (6.817 / 126) ^ 1.133$



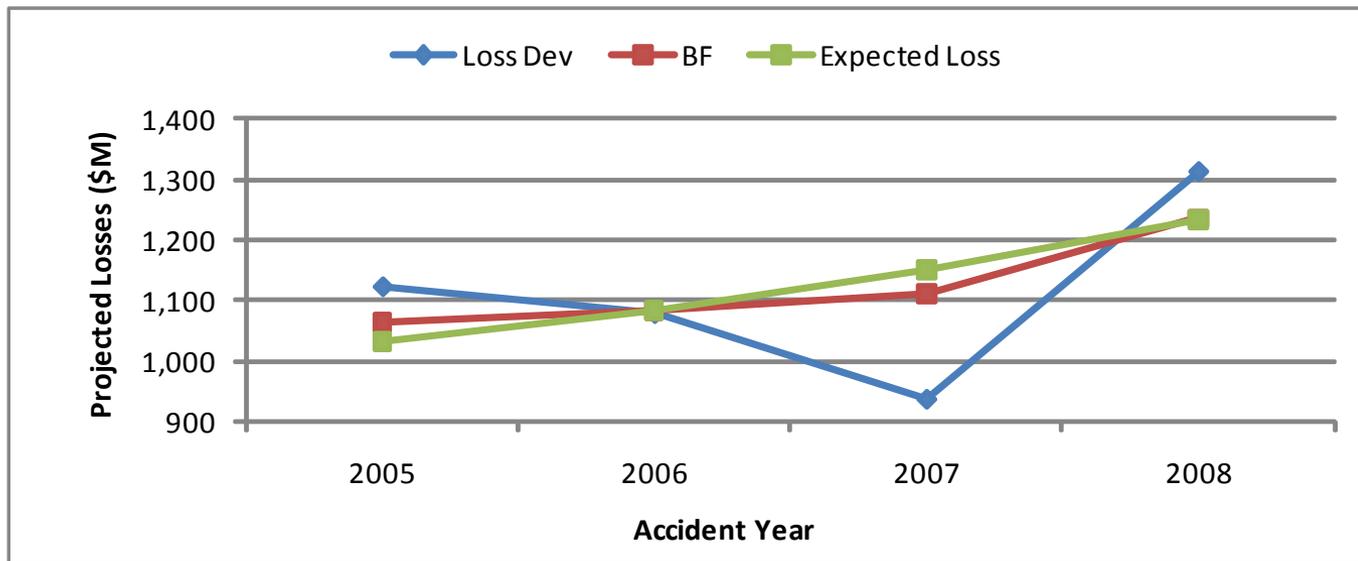
The Bornhuetter-Ferguson Method - Expected Losses Based on Exposure (000's omitted)

Accident Year	Payroll (00's)	Actual Paid To Date	Total Projected Loss Payments	Projected Loss Rate	Fitted Loss Rate	Selected Loss Rate	Expected Total Payments	Expected Future Payments
2000	790,000	441,900	839,909	1.063	0.970			
2001	810,000	424,165	848,890	1.048	0.998			
2002	840,000	349,389	744,337	0.886	1.028			
2003	860,000	345,798	792,831	0.922	1.058			
2004	890,000	410,696	1,031,427	1.159	1.089			
2005	920,000	396,935	1,124,089	1.222	1.120	1.120	1,030,783	633,848
2006	940,000	318,875	1,079,693	1.149	1.153	1.153	1,083,994	765,119
2007	970,000	180,754	938,204		1.187	1.187	1,151,305	970,552
2008	1,010,000	34,162	1,314,342		1.222	1.222	1,233,843	1,199,680



The Bornhuetter-Ferguson Method - An Alternate Loss Estimate (000's omitted)

Accident Year	Actual Paid Loss To Date	Expected Total Payments	Expected Paid Loss To Date	Expected Future Payments	BF Total Payments
2000	441,900				441,900
2001	424,165				424,165
2002	349,389				349,389
2003	345,798				345,798
2004	410,696				410,696
2005	396,935	1,030,783	363,987	666,796	1,063,731
2006	318,875	1,083,994	320,145	763,849	1,082,724
2007	180,754	1,151,305	221,809	929,496	1,110,249
2008	34,162	1,233,843	32,070	1,201,773	1,235,935



Method comparison (000's omitted)

1,233,843 Expected Total Losses, AY 2008

Original Projection (Time 0)

Age 6	Age 18	Age 30	Age 42	Age 54+	Total
32,070	205,641	126,690	71,290	798,152	1,233,843

34,162 Actual Age 6 Losses

New Projections (Time 6)

	Age 6	Age 18	Age 30	Age 42	Age 54+	Total	Remaining
Loss Development	34,162	219,055	134,954	75,940	850,216	1,314,327	1,280,165
BF Method	34,162	205,641	126,690	71,290	798,152	1,235,935	1,201,773
Expected Loss Method	34,162	205,283	126,469	71,166	796,763	1,233,843	1,199,681

Projection to Age 102 (000's omitted)

AccYr	Paid Loss	Incr Dev Projected Future Payments to Age 102	Tail Liability	Incr Dev Total
2000	441,900		398,010	839,909
2001	424,165	22,162	401,997	848,323
2002	349,389	19,272	363,845	732,506
2003	345,798	25,649	407,679	779,126
2004	410,696	39,225	567,758	1,017,679
2005	396,935	51,708	666,360	1,115,003
2006	318,875	62,471	677,638	1,058,984
2007	180,754	94,609	633,447	908,809
2008	34,162	215,743	1,032,648	1,282,554

Selection of Ultimate Losses (000's omitted)

Accident Year	Paid To Date	Cumul. Dev Total Payments	Incr. Dev Total Payments	BF Total Payments	Expected Loss Total Payments	Selected Total Payments
2000	441,900	839,909	839,909			839,909
2001	424,165	848,890	848,323			848,323
2002	349,389	744,337	732,506			732,506
2003	345,798	792,831	779,126			779,126
2004	410,696	1,031,427	1,017,679			1,017,679
2005	396,935	1,124,089	1,115,003	1,063,731	1,030,783	1,115,003
2006	318,875	1,079,693	1,058,984	1,082,724	1,083,994	1,058,984
2007	180,754	938,204	908,809	1,110,249	1,151,305	1,110,249
2008	34,162	1,314,342	1,282,554	1,235,935	1,233,843	1,235,935
Total	2,902,672	8,713,723	8,582,894			8,737,716
05-08	930,725	4,456,328	4,365,350	4,492,639	4,499,925	4,520,172

Ohio Bureau of Workers' Compensation Comprehensive Study
BWC Implementation Quarterly Progress Report

Executive Summary

January 2010

Highlights since October Report

Legislative interest in limiting WC rate reform changes.

New products (Large Deductible, Individual Incurred Retro, Drug-Free) presented.

Transition from Oliver Wyman to Deloitte Consulting complete.

Accomplishments since October Report

4 additional recommendations in place

3 additional "no action" decision

21 stage upgrades

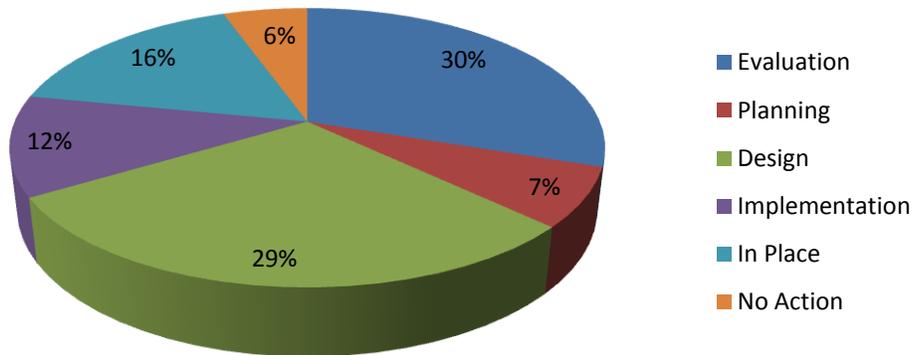
Up-coming quarter

Project emphasis

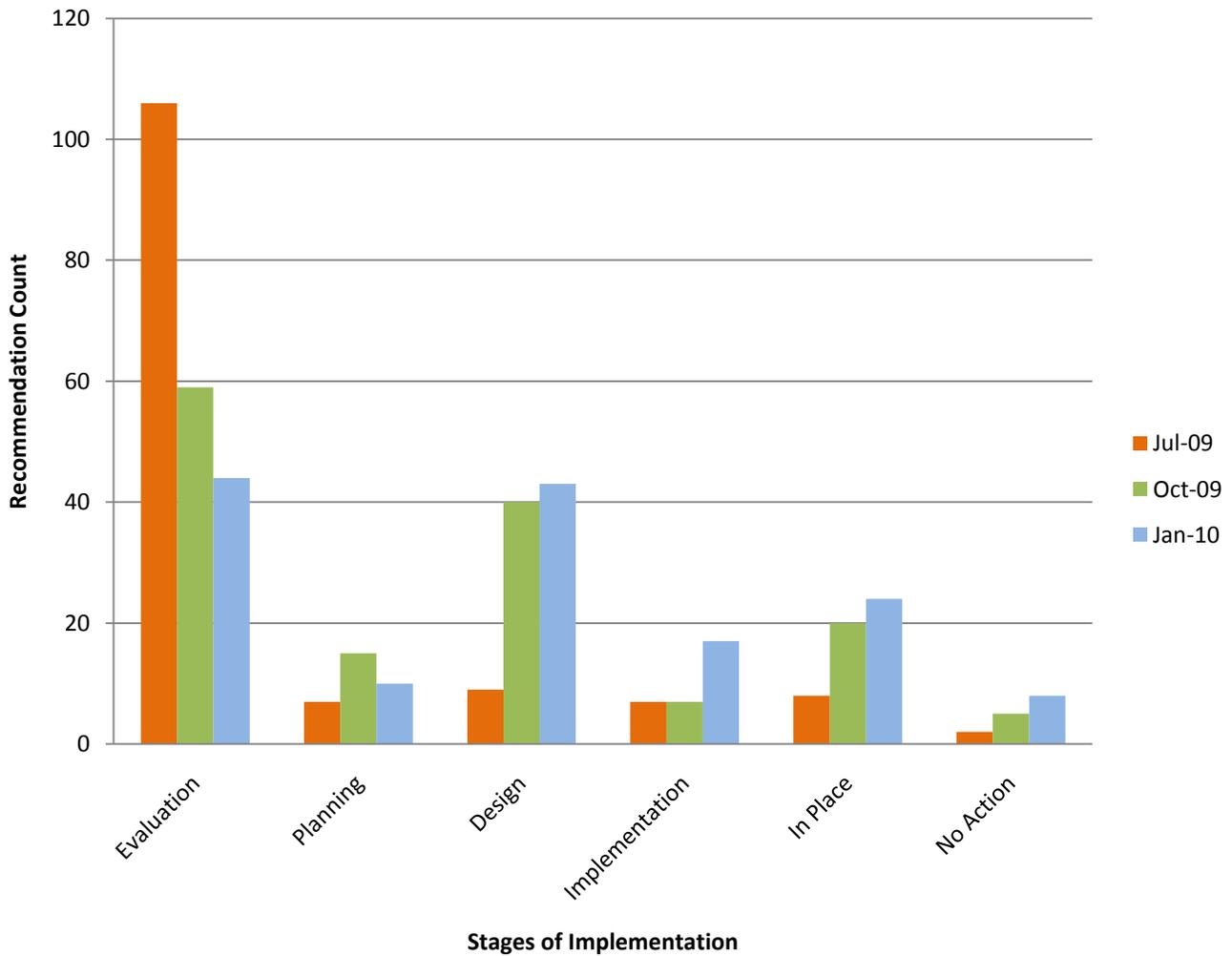
- o Split Plan discussions with stakeholders
- o Drug-Free Safety Program design decisions
- o Self-Insurance eligibility & securitization recommendations
- o Deloitte applying recommendations to Actuarial Audit

Very few target dates in February through April window

Stages of Implementation



Deloitte Implementation Progress



Deloitte Recommendations - Stage of Implementation

Actuarial Audit Reserves and Expected Payments

- 2.1 1 Include Risk Margins
- 2.1 2 Disclose Margins/Discounts
- 2.1 3 Require Statement of Actuarial Opinion
- 2.1 4 Further study of LSS Savings
- 2.1 5 Analyze risk of inflation on DWRF
- 2.1 6 Increase emphasis on actuarial audit reserves
- 2.1 7 Additional documentation in the Annual Actuarial Audit Report
- 2.1 8 Retrospective analysis of prior estimates in the Annual Actuarial Audit Report
- 2.1 9 Additional actuarial methods in the Annual Actuarial Audit Report (assess reserving risks)
- 2.1 10 An evaluation date prior to June 30th for the Annual Actuarial Audit Report
- 2.1 11 Consider supplementing PEC and PES historical development patterns
- 2.1 12 Limit potential distortions that may occur in the unpaid claim estimate
- 2.1 13 Consider claims counts for given type of loss when calculating historical severity patterns
- 2.1 14 Consider alternate methods to estimate unpaid losses for years 1976 & prior

Actuarial Organization

- 4.4 1 Establish Rating & Programs Pricing Team
- 4.4 2 Establish Reserving & Net Asset Level Analysis Function
- 4.4 3 Establish Data Management
- 4.4 4 Actuarial Hiring and Development Program
- 4.4 5 Expand the BWC actuarial division responsibilities.
- 4.4 6 Transition data gathering from the Rating team to a data management team.
- 4.4 7 Utilize external actuarial resources to supplement internal actuarial resources.

Administrative Cost Calculation

- 2.5 1 Re-evaluate portion of Administrative Expenses allocated to LAE

Ancillary (Specialty) Funds

- 4.1 9 Address Large Unfunded Obligation Including Possible Long Term Funding
- 4.1 10 Change DWRF from Pay-As-You-Go Basis to Support Reducing Unfunded Obligations
- 4.1 11 Set DWRF Rates to Meet Payments and Reduce Burden to Future Employers for DWRF Benefits
- 4.1 12 Establish a Good, Clear, and Long Term Rationale for Funding DWRF Benefits
- 4.1 13 Set Policy Rationale for Equity between Past, Current and Future Benefits to Pay DWRF Benefits
- 4.1 14 Charge Some Premium for CWPF Coverage with Credits/Dividends for Long Term CWPF Employers
- 4.1 15 Develop Funding Policies for Each Ancillary Fund (DWRF, MIF, CWPF)
- 4.1 16 Conduct Further Research to Support Legislative Change to Combine Funds

Change of Employer Experience Rates

- 4.2 1 Eliminate/Restrict Changes to Employer Rates Due to Changes in Claims
- 4.2 2 Restrict Time to Report Errors
- 4.2 3 Establish Shorter and Clearly Defined Time Constraints

	Evaluate	Plan	Design	Implement	In Place	FY11 or later
2.1 1 Include Risk Margins	✓					
2.1 2 Disclose Margins/Discounts		✓				
2.1 3 Require Statement of Actuarial Opinion					✓	
2.1 4 Further study of LSS Savings		✓				▶
2.1 5 Analyze risk of inflation on DWRF		✓				▶
2.1 6 Increase emphasis on actuarial audit reserves				✓		
2.1 7 Additional documentation in the Annual Actuarial Audit Report				✓		
2.1 8 Retrospective analysis of prior estimates in the Annual Actuarial Audit Report				✓		
2.1 9 Additional actuarial methods in the Annual Actuarial Audit Report (assess reserving risks)				✓		
2.1 10 An evaluation date prior to June 30th for the Annual Actuarial Audit Report					✓	
2.1 11 Consider supplementing PEC and PES historical development patterns		✓				▶
2.1 12 Limit potential distortions that may occur in the unpaid claim estimate				✓		
2.1 13 Consider claims counts for given type of loss when calculating historical severity patterns				✓		
2.1 14 Consider alternate methods to estimate unpaid losses for years 1976 & prior		✓				
Actuarial Organization						
4.4 1 Establish Rating & Programs Pricing Team			✓			▶
4.4 2 Establish Reserving & Net Asset Level Analysis Function				✓		▶
4.4 3 Establish Data Management			✓			▶
4.4 4 Actuarial Hiring and Development Program		✓				▶
4.4 5 Expand the BWC actuarial division responsibilities.			✓			▶
4.4 6 Transition data gathering from the Rating team to a data management team.					✓	▶
4.4 7 Utilize external actuarial resources to supplement internal actuarial resources.					✓	▶
Administrative Cost Calculation						
2.5 1 Re-evaluate portion of Administrative Expenses allocated to LAE				✓		
Ancillary (Specialty) Funds						
4.1 9 Address Large Unfunded Obligation Including Possible Long Term Funding	✓					▶
4.1 10 Change DWRF from Pay-As-You-Go Basis to Support Reducing Unfunded Obligations	✓					▶
4.1 11 Set DWRF Rates to Meet Payments and Reduce Burden to Future Employers for DWRF Benefits	✓					▶
4.1 12 Establish a Good, Clear, and Long Term Rationale for Funding DWRF Benefits	✓					▶
4.1 13 Set Policy Rationale for Equity between Past, Current and Future Benefits to Pay DWRF Benefits	✓					▶
4.1 14 Charge Some Premium for CWPF Coverage with Credits/Dividends for Long Term CWPF Employers	✓					▶
4.1 15 Develop Funding Policies for Each Ancillary Fund (DWRF, MIF, CWPF)	✓					▶
4.1 16 Conduct Further Research to Support Legislative Change to Combine Funds		✓				▶
Change of Employer Experience Rates						
4.2 1 Eliminate/Restrict Changes to Employer Rates Due to Changes in Claims	✓					▶
4.2 2 Restrict Time to Report Errors	✓					▶
4.2 3 Establish Shorter and Clearly Defined Time Constraints	✓					▶

Deloitte Recommendations - Stage of Implementation		Evaluate	Plan	Design	Implement	In Place	FY11 or later
Class Ratemaking							
1.1	7 Eliminate Use of ER Off-Balance Adjustment Factor for Class Base Rates					✓	
1.1	8 Apply Individual ER Off-Balance Adjustment to Individual ER Risks Only	✓					▶
1.1	9 Calculate Catastrophe Factor by NCCI Hazard Group	✓					▶
1.1	10 Provide More Detailed Documentation for Each Adjustment Factor				✓		
1.1	11 Use Alternative Indication of Class Loss Costs to Credibility Weight Class Loss Costs	✓					▶
1.1	12 Separate Case Reserves in Estimating Historical Loss Costs	✓					▶
Excess Insurance and Reinsurance							
2.4	5 Limit impact of CAT event to 5-10% of Net Assets	✓					
2.4	6 Test Reinsurance Market for CAT Protection					✓	
Experience Aggregation Approach							
4.1	19 Use NCCI Approach to Common Majority Ownership for Experience Rating	✓					▶
4.1	20 Discontinue the current practice of relying primarily on the federal tax identification number to identify separate employers.	✓					▶
Experience Rating							
1.1	30 Change Credibility for Individual Experience to be In Line with Industry Practices			✓			
1.1	31 Prohibit Exclusion of Claims from Experience Rating Calculation				✓		
Group Rating							
1.1	13 Change the structure of the Group Rating Program to mitigate present inequities.			✓			▶
1.1	14 Incent groups to focus on accident prevention and loss mitigation activities.			✓			▶
1.1	15 Eliminate the use of the individual e-mod formula for group rating.			✓			
1.1	16 Determine group rating through the use of a group discount factor.			✓			
1.1	17 Establish a minimum number of years of experience for a group to qualify.	✓					
1.1	18 Develop a group discount formula based on the past performance of each group.			✓			
1.1	19 Apply a separate group rating off-balance adjustment to the group discount factors.			✓			
1.1	20 Develop the group discount factor based on the actual past performance of each group.	✓					
1.1	21 Include the experience of all group members only during the period they were in the group	✓					
1.1	22 Apply the group discount factor to the individual e-mod adjusted premium of each.			✓			
1.1	23 Develop a group discount formula based on a loss ratio or loss rating approach.			✓			
1.1	24 Vary the maximum discount factor with the premium size of the group.			✓			
1.1	25 Apply a phase-in period of at least two years to new group members.			✓			
1.1	26 Evaluate Group Dividend plan as a group rating alternative.			✓			
1.1	27 Evaluate Group Retro Plan as a group rating alternative.				✓		
1.1	28 Evaluate Per Accident Loss Limitations as a group rating alternative.			✓			
1.1	29 Evaluate Tiering within a single group as a group rating alternative.			✓			
Handicap Reimbursement Program							
3.3	1 Terminate the Handicap Reimbursement Program			✓			▶
3.3	2 Exclude Arthritis as a Handicap			✓			▶
3.3	3 Require That Existing Conditions be the Proximate Cause of a More Severe Second Injury			✓			▶
3.3	4 Reduce the Lag Time Allowed for Handicap Reimbursement			✓			▶

Deloitte Recommendations - Stage of Implementation

MCO Effectiveness

- 2.6 1 Sustain Trend of Decreasing Numbers of Participating MCOs
- 2.6 2 Study feasibility of price-of-service competition among MCOs.
- 2.6 3 Remove the BWC from the ADR Appeal Process
- 2.6 4 Legislate Change to Mandatory IME Requirement at 90 Days Lost Time
- 2.6 5 Give MCOs More Flexibility in Allowable Condition Determinations
- 2.6 6 Establish ODG as Mandated Disability Duration Guidelines (replacement for DODM)
- 2.6 7 Integrate use of ODG into the overall MCO performance measurement and compensation system
- 2.6 8 Re-institute Customer Surveys
- 2.6 9 Continue Public Forums
- 2.6 10 Improve Provider Profiling, Credentialing, and De-Certification
- 2.6 11 Update All Fee Schedules Every 1 - 2 Years (duplicate of 2.3.1.2)
- 2.6 12 Build a database and study causes of increasing average medical costs.

Medical Payments

- 2.3 1 Conduct fee schedule update and maintenance
- 2.3 1.1 Phase in pay-for-performance or Tiered Fee Schedule for all service types.
- 2.3 1.2 Update the fee schedule every one-to-two years.
- 2.3 2 Address Medical Payment Process Duplication
- 2.3 2.1 Standardize bill review edits
- 2.3 2.2 Explore elimination of MCO medical bill review process
- 2.3 2.3 Adopt an audit model of provider medical payment monitoring
- 2.3 3 Eliminate the required employer waiver in proactive allowance
- 2.3 4 Continue development of Blue Ribbon panel with provider incentives
- 2.3 5 Continue development of EDI submission of C-9's

Minimum Premium Review

- 4.1 6 Examine the Feasibility of Raising the Minimum Premium
- 4.1 7 Increase Premium Audits for Accounts that Report No Payroll but Have Claims
- 4.1 8 Consider a different minimum premium for domestic employees

MIRA II Reserving

- 1.1 32 Develop an Alternative to the Exclusive Use of MIRA II
- 1.1 33 Determine Where MIRA II Claim Values are Most Predictive
- 1.1 34 Study the Impact of MIRA II Reserves on Class Rates and Experience Rating

NCCI Classification System

- 4.1 1 Consider Using NCCI Class Codes for Public Taxing Districts
- 4.1 2 Monitor Procedures used to Code Construction Classes
- 4.1 3 Audit most employers every three to five years
- 4.1 4 Increase Scope of Premium Audit Function
- 4.1 5 Consider an Audit Scoring Tool to Prioritize Audits

Net Asset Level

- 2.4 1 Adopt a Funding Policy with Guidelines
- 2.4 2 Develop a customized approach to managing net asset level using a few key metrics.
- 2.4 3 Target a Funding Ratio Range & Recommended Actions
- 2.4 4 Policy Guidance with Premium Options based on Funding Ratio

	Evaluate	Plan	Design	Implement	In Place	FY11 or later
2.6 1					✓	
2.6 2	✓					▶
2.6 3					✓	
2.6 4			✓			
2.6 5			✓			
2.6 6			✓			
2.6 7						
2.6 8	✓					▶
2.6 9	✓					▶
2.6 10			✓			▶
2.6 11				✓		
2.6 12		✓				
2.3 1				✓		
2.3 1.1			✓			▶
2.3 1.2				✓		
2.3 2			✓			▶
2.3 2.1			✓			▶
2.3 2.2			✓			▶
2.3 2.3			✓			▶
2.3 3			✓			
2.3 4						
2.3 5	✓					▶
4.1 6	✓					▶
4.1 7					✓	
4.1 8	✓					▶
1.1 32						▶
1.1 33						▶
1.1 34					✓	
4.1 1	✓					▶
4.1 2			✓			▶
4.1 3					✓	
4.1 4					✓	
4.1 5	✓					▶
2.4 1					✓	
2.4 2					✓	
2.4 3					✓	
2.4 4					✓	

Deloitte Recommendations - Stage of Implementation		Evaluate	Plan	Design	Implement	In Place	FY11 or later
Out-of-State Employer Experience Rating							
4.3	1 Utilize only Ohio based Information to Determine Eligibility for Experience Rating					✓	
4.3	2 Adopt the Industry Standard of using Base Premiums as the Eligibility Criteria for Experience Rating						▶
PES Rate Setting							
3.1	1 Change the Manner in which PES Rates are Calculated	✓					▶
3.1	2 Change the Method Used to Determine Expected Paid Losses in the Prospective Policy Year	✓					▶
Retrospective Rating							
3.1	3 Redesign the Retrospective Rating Program			✓			
Safety Programs							
3.2	1 Make Grants Available Even if No Claims Related to the Intervention					✓	
3.2	2 Require Safety Report With Application for Safety Intervention Grant					✓	
3.2	3 Combine DFWP and DF-EZ Programs			✓			
3.1	4 Develop the capability to track the experience of employers participating in the safety & hygiene program		✓				▶
Salary Continuation / \$15K Med Only Program							
1.1	35 Terminate the Salary Continuation Program						▶
1.1	36 Terminate the \$15,000 Medical Only Program						▶
1.1	37 Consider an Appropriately Priced Deductible Program as an Alternative					✓	
1.1	38 Perform periodic actuarial studies to evaluate the appropriateness of the credits offered under the various discount programs.			✓			
Self-Insurance							
1.4	1 Require an Actuarial Study for Self-Insurance Applicants	✓					
1.4	2 Require Additional Security for Employers Applying for Self-Insurance			✓			
1.4	3 Consider Offering Group Self-Insurance						▶
1.4	4 Consider Trends within Industries to Determine Self-insurance Criteria	✓					▶
1.4	5 Incorporate Objective Financial Criteria as Part of the Self-Insurance application			✓			
1.4	6 Consider Offering Enhanced Customer Service Aid to Employers			✓			
1.4	7 Consider Requiring an Anti-Fraud Program as Part of the Self-Insurance Application	✓					▶
1.4	8 Consider Requiring a Formal Safety Program as Part of the Self-Insurance Application	✓					▶
1.4	9 Require Organization Documents for Self-Insurance Application					✓	
1.4	10 Require an Actuarial Study for Self-Insurers Returning to the SIF	✓					▶
1.4	11 Continuation of Security upon Returning to the State Insurance Fund					✓	
1.4	12 Do Not Allow Self-Insurers to Leave the State Insurance Fund Multiple Times			✓			
1.4	13 Expand Reporting Forms to Allow for More Detailed Internal Analysis			✓			▶
SIEGF							
1.3	1 Institute Pre-Assessment Alternatives			✓			
1.3	2 Collect Enhanced Data			✓			
1.3	3 Require Collateral from Higher Risk Employers			✓			
1.3	4 Revise Assessment Base	✓					▶
1.3	5 Reinsure Certain Bankruptcy Losses						▶

Deloitte Recommendations - Stage of Implementation		Evaluate	Plan	Design	Implement	In Place	FY11 or later
Statewide Rate Level							
1.1	1 Provide More Responsiveness to Ohio Trends				✓		
1.1	2 Perform Baseline Indication Before Discounting				✓		
1.1	3 Develop the range of indicated rate changes (Optimistic to Conservative)				✓		
1.1	4 Include Alternative Method in Calculating Indicated Rate Change				✓		
1.1	5 Display Historical Loss Costs at Proposed Cost and Wage Levels	✓					
1.1	6 Display Impact of Collecting Premium in Arrears on the Rate Change Indication	✓					
Subrogation							
1.2	1 Limit caseloads to no more than 400	✓					▶
1.2	2 Build functionality in V-3 to manage subrogation claims	✓					▶
1.2	3 Establish a more robust set of performance metrics	✓					▶
1.2	4 Investigate utilization of text mining	✓					▶
Vocational Rehabilitation Program							
4.1	17 Change Rules to Give BWC Sole Authority to Direct Rehab Services		✓				▶
4.1	18 Reconsider the Rules Associated with the Experience Rating Treatment of LM Claims			✓			▶
Count = 146 total recommendations:		44	10	43	17	24	68



To: Actuarial Committee of the Board of Directors
From: John R. Pedrick, FCAS, MAAA, Chief Actuarial Officer
Date: January 12, 2010
Subject: Senate Bill 94

This memo gives a brief summary of the impact that SB 94 would have on the state insurance fund. In brief, we do not expect it to have more than a minor impact in costs, but have additional research to do before reaching a definitive conclusion.

The Legal Division's Assistant General Counsel, Tom Sico has prepared a legal summary of Senate Bill 94, which is attached to this memo. The most notable changes identified in the legal summary are that the bill:

- Adds scheduled diseases that were previously not scheduled (but currently possible for workers compensation). – *page 2, 3rd and last paragraph*
- Creates a presumption that the condition is due to employment, thereby relieving the worker of the necessity of proof of causation. – *page 2, last paragraph*
- Eases the burden of proof by the employee/injured worker and places the burden to disprove the claim onto the employer or BWC. – *page 4, 1st and 3rd paragraph*
- Establishes that the years of hazard duty for a firefighter or public emergency medical services worker is three years, but has no such requirement for years of duty for a police officer. – *page 4, 1st paragraph*
- Allows for an expanded ability for police and firemen to receive double benefit payments from the BWC and the Ohio Police and Fire Pension Fund. – *page 5, 1st paragraph*
- Applies to claims arising on or after the effective date of the Act – *page 5, 4th paragraph*
- Applies to any death claim made by dependents in which the date of death is after the effective date of this bill. – *page 5, last paragraph*

Benchmarking and Analysis of Senate Bill 94

Deloitte Consulting provided an existing report created by the Connecticut General Assembly's research department that detailed the coverage afforded to firefighters in other states. In summary, the report researches 15 states laws on the presumption for cancer and infectious diseases for police and firefighters. The only state with estimated costs is California. California laws require that the cancer conditions be funded by the Workers' Compensation system and the infectious diseases are funded through its retirement fund. "Until 1990, California paid approximately \$4 million for the workers' compensation cancer presumption." (As quoted from OLR Research Report completed for the Connecticut General Assembly.) A copy of the report is attached.

Additionally, the actuarial division located a matrix from the Fire Fighters Cancer Foundation web site listing all 50 states and the District of Columbia showing the presumptive disease legislation by state at the following web site http://www.ffcancer.org/?zone=/unionactive/view_page.cfm&page=Political20Action, this has a copyright and is not included in the documents.

To determine the potential level of exposure, we obtained data from all Ohio employer groups (Private and Public) and determined that the employment of police, firefighters and public emergency medical services worker is limited to the Public Employer Taxing District employer group. We further limited the claim data to only those classifications that would hire police, firefighters and public emergency medical services worker, such as cities, townships and volunteer emergency services. We further refined the data to claims with conditions listed in SB 94 with dates of injury from January 1, 2004 to December 31, 2009 and found that there are only 18 claims filed.

The data in the table below indicates minimal claim activity. The total incurred claim cost on the seven allowed claims below is \$871,000 averaging approximately \$124,000 per claim. It is difficult to anticipate what the increase in claim activity will be after passage of SB 94. BWC is actively seeking information on allowed disability retirement claims from the Ohio Police and Fire Pension Fund. If the BWC can obtain this information, we may be able to have a better idea of the potential Ohio exposure.

Senate Bill 94 – Public Employer Taxing District Claims						
Injury Year	Total Claims filed by entities that would hire Police, Firefighters and Emergency Medical Services	Potential SB 94 Claims filed	Percent of filed claims	Total <u>allowed</u> claims for entities that would hire Police, Firefighters and Emergency Medical Services	SB 94 claims already <u>allowed</u> by BWC	Percent of allowed claims
2004	17,224	6	0.03%	15,062	1	0.01%
2005	16,498	3	0.02%	14,543	2	0.01%
2006	14,982	0	0.00%	13,179	0	0.00%
2007	15,115	2	0.01%	13,369	1	0.01%
2008	14,439	5	0.03%	12,581	3	0.02%
2009	12,549	2	0.02%	10,491	0	0.00%
Totals	90,807	18	0.02%	79,225	7	0.01%

MEMORANDUM

To: Liz Bravender, Actuarial Director, BWC
From: Tom Sico, Assistant General Counsel, BWC
Subject: Legal Summary of S.B. 94
Date: January 11, 2010

This memorandum is a summary of the legal provisions of S.B. 94 of the 128th General Assembly. The bill would amend R.C. 742.38, 4123.57, and 4123.68 to provide that a firefighter, police officer, or public emergency medical services worker who is disabled as a result of certain types of cancer or contagious or infectious diseases is presumed to have incurred the disease in the course of employment for workers' compensation purposes and for disability under the Ohio Police and Fire Pension Fund.

Background Law

Under workers' compensation law, there are two types of allowance of an occupation disease claim: scheduled diseases, and non-scheduled diseases. The primary statute for occupational diseases is R.C. 4123.68, which states, in the first paragraph:

Every employee who is disabled because of the contraction of an occupational disease or the dependent of an employee whose death is caused by an occupational disease, is entitled to the compensation provided by [the workers' compensation statutes]

The second paragraph of R.C. 4123.68 provides for the first type of occupational disease claims, scheduled diseases:

The following diseases are occupational diseases and compensable as such when contracted by an employee in the course of the employment in which such employee was engaged and due to the nature of any process described in this section.

The balance of R.C. 4123.68 contains an extensive list of specific occupational diseases, ranging from anthrax to asbestosis. If an injured worker can show that he or she has the disease and has contracted it through the described process, then the disease is compensable. For example, under Division (C), if an employee has lead poisoning, and can prove that he or she contracted it from "any industrial process involving the use of lead or its preparations or compounds," the claim is compensable.

If an occupational disease is not specifically scheduled, a worker may still file a claim for the disease as a non-scheduled disease. The second sentence of the second paragraph of R.C. 4123.68 states:

A disease which meets the definition of an occupational disease is compensable pursuant to this chapter though it is not specifically listed in this section.

The definition of a non-scheduled occupational disease is found in R.C. 4123.01(F):

“Occupational disease” means a disease contracted in the course of employment, which by its causes and the characteristics of its manifestation or the condition of the employment results in a hazard which distinguishes the employment in character from employment generally, and the employment creates a risk of contracting the disease in greater degree and in a different manner from the public in general.

A non-scheduled disease is more difficult to establish under this definition. The injured worker must prove that the employment creates a hazard for the disease that is different than employment generally, and that the risk of contracting the disease in the employment is greater and different than the risk faced by the general public. Especially for some widespread infectious diseases, it is difficult to prove the unique or special exposure of one type of employment over the general public or other employment.

Current Law on Allowance of Cancer or Contagious Diseases Claims

S.B. 94 would add to the schedule of occupational diseases under R.C. 4123.68 certain cancers or contagious or infectious diseases of firefighters, police officers, or public emergency medical services workers. However, these diseases could be compensable under current law. Since these conditions are not listed as scheduled diseases under current R.C. 4123.68, a firefighter, police officer, or public emergency medical services worker would need to prove a cancer or contagious or infectious disease as a non-scheduled disease under the definition of an occupational disease in R.C. 4123.01(F).

As stated earlier, there is a higher burden of proof for a non-scheduled disease. Because of the unknown or multiple possible causes of certain cancers or contagious or infectious diseases, it may be difficult for a firefighter, police officer, or public emergency medical services worker to prove that the condition was the result of the employment. Even if there is proof of an employment relationship, the worker also needs to prove that the condition is due to an employment hazard for the disease different than other employments, and that the risk of the disease in the employment is greater and different than the risk faced by the public.

S.B. 94 Amendments

For the purpose of workers' compensation claims, S.B. 94 makes two significant changes that make it easier for a firefighter, police officer, or public emergency medical services worker to have an allowable claim for certain types of cancer or contagious or infectious diseases. The bill adds these conditions as scheduled diseases, and the bill creates a presumption that the disease is due to the employment, thereby relieving the worker of the necessity of proof of causation.

S.B. 94 would amend R.C. 4123.68 to add a new Division (X), which would create the following scheduled occupational diseases:

(X)(1) Cancer or disease contracted by a firefighter, police officer, or public emergency medical services worker: Any of the following types of cancer or disease contracted by a firefighter, police officer, or public emergency medical services worker who, in the case of a firefighter or public emergency medical services worker, has been assigned at least three years of hazard duty as a firefighter or public emergency medical services worker, constitutes a presumption, which may be refuted by affirmative evidence, that the cancer or disease was contracted in the course of and arising out of the firefighter's, police officer's, or public emergency medical services worker's employment:

- (a) Cancer of the lung, brain, kidney, bladder, rectum, stomach, skin, or prostate;
- (b) Non-Hodgkins lymphoma;
- (c) Leukemia;
- (d) Multiple myeloma;
- (e) Testicular or colorectal cancer;
- (f) A contagious or infectious disease specified in rules adopted pursuant to division (F) of section 3701.248 of the Revised Code.

R.C. 4123.68(X)(1)(f) references an unspecified rule adopted by the Department of Health. The rule based upon R.C. 3701.248(F), the statute cited in the statute, is Rule 3701-3-02.2 of the Administrative Code. The rule lists "contagious or infectious diseases that the public health council, by rule, has specified as reasonably likely to be transmitted by air or blood during the normal course of an emergency medical services worker's duties." The list of 23 contagious or infectious diseases is in Paragraph (B) of that rule:

- (B) The following diseases are specified as reasonably likely to be transmitted by air or blood during the normal course of an emergency medical worker's duties:
- (1) Crimean-Congo hemorrhagic fever;
 - (2) Diphtheria;
 - (3) Ebola-marburg virus infection;
 - (4) Fifth disease (human parvovirus infection);
 - (5) Hansen's disease (leprosy);
 - (6) Acute or chronic infection with hepatitis B virus;
 - (7) Acute or chronic infection with hepatitis C virus;
 - (8) Infection with delta hepatitis virus;
 - (9) Human immunodeficiency virus (HIV) infection, including acquired immunodeficiency syndrome (AIDS) and AIDS-related illnesses;
 - (10) Infection with human t-lymphotropic virus (HTLV-1 and HTLV-2);
 - (11) Lassa fever;
 - (12) Leishmaniasis, visceral (Kala-Azar);
 - (13) Leptospirosis;
 - (14) Listeriosis pneumonia;
 - (15) Measles (rubeola);

- (16) Meningococcal infection (neisseria meningitidis);
- (17) Mumps (infectious parotitis);
- (18) Pertussis (whooping cough);
- (19) Pneumonic plague (yersinia pestis);
- (20) Rabies;
- (21) Rubella (German measles);
- (22) Tuberculosis; and
- (23) Varicella (herpes zoster) infection, including chicken-pox, disseminated varicella, varicella pneumonia, and shingles.

As scheduled occupational diseases, the cancers or contagious or infectious diseases listed in the statute or rule are easier to establish than under current law. Further easing the burden of proof is that the bill provides that there is a presumption that the disease is due to the occupation. For a firefighter or a public emergency medical services worker, the presumption applies if the firefighter or public emergency medical services worker has been assigned at least three years of hazard duty as a firefighter or public emergency medical services worker. For a police officer, the presumption applies without any employment time limit or hazard duty requirement.

It is not clear why the statute requires three years hazard duty for firefighters or public emergency medical services workers but not for police officers. Further, it appears that the three year hazard duty requirement for firefighters or public emergency medical services workers may apply even for a claim for a contagious or infectious disease under R.C. 4123.68(X)(1)(f), even though such claims do not necessarily develop over a period of time, but may be due to a single incident of exposure. For example, if a firefighter contracts HIV, one of the 23 contagious or infectious diseases listed at Rule 3701-3-02.2(B)(9), a strict reading of the statute would require that the firefighter or public emergency medical services worker must have three years hazard duty exposure for the presumption to apply. For a police officer exposed to and contracting HIV, there would not be a three year or a hazard duty requirement.

A presumption under the law addresses the issue of the burden of proof. Normally, an injured worker has the burden of proving entitlement to a claim by a preponderance of the evidence. With a presumption, the burden of proof is met by establishing the mere facts establishing the presumption. For example, for cancer of the lung, a police officer need only prove that he or she has cancer of the lung and that he or she is an employed police officer. In all cases, the presumption may be refuted by the employer or bureau by affirmative evidence to the contrary. In this example, it would be the burden of the employer or bureau to either show that the police officer does not have lung cancer or that the cancer was due to causes other than the employment. Just as under current law it is difficult in many cases for the injured worker to establish the causation of a cancer because of the unknown or multiple possible causes of certain cancers, for the employer or bureau to rebut the presumption, it would be difficult to prove that the cancer was not caused by the employment and that it was due by other causes.

Dual Recovery under the Ohio Police and Pension Fund and Workers' Compensation

S.B. 94 permits a police officer, firefighter, or public emergency medical services worker to receive both a disability benefit under the Ohio Police and Fire Pension Fund and workers' compensation benefits simultaneously without offset by either fund. Note that current law permits double payment, but the bill would expand the situations to include these additional conditions because in addition to adding the cancers and contagious or infectious diseases to the workers' compensation statutes, the bill amends R.C. 742.38 to add the same presumption for cancers and contagious or infectious diseases for the purposes of disability benefits under the Ohio Police and Fire Pension Fund.

Effective Date of Amendments

If S.B. 94 were to be enacted as written, uncodified Section 4 establishes that the amendments in the bill apply to claims filed on or after the effective date of the Act.

Section 4. The amendments made by this act to sections 4123.57 and 4123.68 of the Revised Code apply only to claims pursuant to Chapters 4121. and 4123. of the Revised Code arising on and after the effective date of this section.

For workers' compensation purposes, Section 4 has little practical significance for cancer claims, but could have some impact on claims for exposure to contagious or infectious diseases. Since cancers generally develop over a period of time, so long as a police officer is employed on or after the effective date of the Act, and the diagnosis of a cancer disease occurs thereafter, Section 4 would not appear to bar a claim. For firefighters or public emergency medical services workers, Section 4 could be interpreted to require that the three years of hazard duty exposure as a firefighter or public emergency medical services worker occur after the effective date of the Act. If so, the impact for firefighters or public emergency medical services workers for cancer claims would be delayed. For contagious or infectious disease claims, Section 4 likely requires that the exposure must occur after the effective date of the Act for the claim to "arise on or after" the effective date of the Act.

Death Benefits

A death claims for dependents of a deceased worker is new causes of action, to be filed within two years of the date of death. It is likely that any claim for a police officer or firefighter or public emergency medical services worker allowed due to a cancer or exposure under the Act would also lead to death claim if the cause of death was related to the cancer or exposure. Also, since a death claim is a new cause of action, it is very possible that a death claim filed after the effective date of the Act could be covered by the presumptions in the Act, regardless of the date of onset of the cancer or the exposure.

Location:

DISEASES; FIRE DEPARTMENTS AND FIREMEN; WORKERS' COMPENSATION;



February 24, 2009

2009-R-0110

**PRESUMPTION FOR CANCER AND INFECTIOUS DISEASE FOR
FIREFIGHTERS**

By: Laura Cummings, Legislative Fellow

John Moran, Principal Analyst

You wanted to know, from a sample of 15 states, how many have a rebuttable presumption for firefighters with cancer and infectious diseases under workers' compensation or disability retirement law, and the cost associated with the presumption.

SUMMARY

Of the 15 states surveyed, some provide legal presumptions for diseases under workers' compensation law and others under disability retirement. Of the states surveyed, only California provided data related to cost. Until 1990, the state paid approximately \$ 4 million a year for its workers' compensation cancer presumption.

We obtained information by contacting each state and conducting legal and internet research. Table 1 shows the number of states with presumptions for these benefits and whether it is provided under workers' compensation or disability retirement law.

Table 1: Number of States Providing a Presumption for Benefits

	<i>Infectious Disease</i>	<i>Cancer</i>
Workers' Compensation	4	6
Disability Retirement	4	4
Number Providing No Presumption	7	5
Total Surveyed	15	15

A “rebuttable presumption” of the cause of an occupational disease means the disease is assumed to have an occupational cause unless there is evidence to the contrary. For example, a firefighter diagnosed with hepatitis is covered under such a presumption unless evidence is produced showing an exposure outside of work.

Under Connecticut workers' compensation law, an employee must prove his or her disease was due to work and not to outside work exposures. In many situations, such as emergency medical service or criminal apprehensions, employees may have difficulty meeting this burden because they do not know if the people involved are contagious.

STATES THAT PROVIDE A REBUTTABLE PRESUMPTION

California, Illinois, Maine, New York, Pennsylvania, Rhode Island, Virginia, and Washington all have rebuttable presumption for infectious disease. Four provide the presumption through workers' compensation benefits and four through disability retirement.

California, Illinois, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, Vermont, Virginia, and Washington all have rebuttable presumptions for cancer. Six provide the presumption through workers' compensation and four through disability retirement.

New York provides benefits for both cancer and infectious disease. However, the presumption is only available to firefighters who work in cities of more than one million people (i. e. , New York City).

Delaware, New Jersey, and Ohio were also surveyed, but do not have rebuttable presumptions for either category.

The laws vary as to how they are funded, which cancers and diseases are covered, and what firefighters are covered. Tables 2 through 5 describe these states' laws.

Table 2: Workers' Compensation Presumptions for Infectious Disease

State and Law Citation	Covered Diseases	Requirements to Obtain Presumption
<p>Maine 39-A M. R. S. A. § 328-A</p>	<p>Hepatitis A, B, and C; meningococcal meningitis; and tuberculosis</p>	<p>Must give sufficient notice of the disease, sign a written affidavit stating the disease is work related, and test negatively for the disease in a pre-employment physical exam.</p> <p>Standard to Rebut: Not specified</p>
<p>Pennsylvania 77 P. S. § 413 and 77 P. S. § 27. 1</p>	<p>Hepatitis C</p>	<p>Must show that at, or immediately before, the date of disability the firefighter was “employed in any occupation or industry in which the occupational disease is a hazard. ”</p> <p>Prescreening must show there was no prior job related exposure.</p> <p>Standard to Rebut:</p>

		Not specified
Virginia VA ST § 65. 2-402	Hepatitis, meningococcal meningitis, tuberculosis, or HIV	Full-time or part-time firefighters who have documented exposure to blood or body fluids who, if requested of them, underwent a pre-employment physical examination. Standard to Rebut: Rebuttable by a preponderance of competent evidence
Washington RCWA § 51. 32. 185	HIV/AIDS, all strains of hepatitis, meningococcal meningitis, or mycobacterium tuberculosis	All full-time public firefighters or private sector firefighters of a department greater than 50. Standard to Rebut: Rebuttable by a preponderance of the evidence

Table 3: Disability Retirement Law Presumptions for Infectious Disease

<i>State and Law Citation</i>	<i>Covered Diseases</i>	<i>Requirements to Obtain Presumption</i>
California Cal. Gov. Code § 31720. 7	Blood-borne infectious disease or methicillin-resistant staphylococcus skin infection	Must be permanently incapacitated from the performance of duty as a result of the disease. Standard to Rebut: Rebuttable by other evidence.
Illinois 40 ILCS § 5/4-110. 1	Tuberculosis	Any active firefighter who has completed five or more years of service. Those firefighters entering service after August 27, 1971 must be examined by a physician and the result must show an absence of cancer. Standard to Rebut: Not specified
New York NY Gen Mun § 207-p	HIV, tuberculosis, or hepatitis	Any member who works in a city with a population of one million or more, who passed a medical exam upon entry into service that did not reveal such condition. Standard to Rebut: Rebuttable by competent evidence
Rhode Island RI ST § 23-28. 36-1	HIV, hepatitis B and C	Standard to Rebut: Not specified

Table 4: Workers' Compensation Presumptions for Cancer

<i>State and Law Citation</i>	<i>Covered Cancers</i>	<i>Requirements to Obtain Presumption</i>
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<p>California Cal. Labor Code § 3212. 1</p>	<p>All cancer, including leukemia</p>	<p>Active, volunteer, full-time, or part-time firefighters. Standard to Rebut: Rebutted by evidence that the primary site of the disabling cancer is not linked to any work-related exposure.</p>
<p>Maryland MD Code Labor and Employment, § 9-503</p>	<p>Leukemia, pancreatic, prostate, rectal, or throat cancers</p>	<p>Five years of service as a volunteer or full-time firefighter. Standard to Rebut: Not specified</p>
<p>New Hampshire N. H. Rev. Stat. § 281-A: 17</p>	<p>Any cancer which may be caused by exposure to heat, radiation, or a known or suspected carcinogen, as defined by the International Agency for Research on Cancer</p>	<p>Full-time, or volunteer member of a fire department who has recorded evidence that they were cancer-free upon entry into the profession. Retired members have a presumption up to five years from retirement. Standard to Rebut: Not specified</p>

Table 4: -Continued-

State and Law Citation	Covered Cancers	Requirements to Obtain Presumption
<p>Vermont VT ST T. 21 § 601</p>	<p>Leukemia, lymphoma, multiple myeloma, bladder, brain, colon, gastrointestinal, kidney, liver, pancreas, skin, or testicular cancer</p>	<p>Firefighters who (1) are under age 65, (2) served at least five years in Vermont, (3) are diagnosed with cancer within 10 years of the last active date of employment, and (4) have not used tobacco products within the last 10 years before diagnosis. Standard to Rebut: Rebuttable by a preponderance of the evidence</p>
<p>Virginia VA ST § 65. 2-402. 1</p>	<p>Leukemia, pancreatic, prostate, rectal, throat, ovarian, or breast cancer</p>	<p>Volunteer or full-time firefighter who have completed 12 years of continuous service and have contact with toxic substances in the line of duty. Standard to Rebut: Rebuttable by a preponderance of competent evidence</p>
<p>Washington RCWA § 51. 32. 185</p>	<p>Prostate in men younger than 50, brain cancer, malignant melanoma, leukemia, non-Hodgkin's lymphoma, bladder, ureter, colorectal, multiple myeloma, testicular, and kidney</p>	<p>Any active or formerly active full-time firefighter who served at least 10 years, and who submitted to a preemployment physical. Standard to Rebut: Not specified</p>

Table 5: Disability Retirement Law Presumptions for Cancer

State and Law Citation	Covered Cancers	Requirements to Obtain Presumption

<p>Illinois 40 ILCS § 5/4-110. 1</p>	<p>Any type of cancer that may be caused by exposure to heat, radiation, or a known carcinogen as defined by the International Agency for Research on Cancer</p>	<p>Any active firefighter who has completed five or more years of service. Those firefighters entering service after August 27, 1971 must be examined by a physician, and the result must show an absence of cancer.</p> <p>Standard to Rebut: Not specified</p>
<p>Massachusetts M. G. L. A 32 § 94B</p>	<p>Any cancer effecting the skin, central nervous, lymphatic, digestive, hematological, urinary, skeletal, oral, prostate, lung, or respiratory systems</p>	<p>Must successfully pass a physical exam upon entry to the profession.</p> <p>Standard to Rebut: Rebuttable by a preponderance of the evidence</p>
<p>New York NY Gen Mun § 207-kk</p>	<p>Lymphatic, digestive, hematological, urinary, neurological, breast, reproductive, prostate, or melanoma cancer</p>	<p>Must result in total or partial disability to a member who works in a city with a population of one million or more, who passed a medical exam upon entry into service that did not reveal such condition.</p> <p>Standard to Rebut: Rebuttable by competent evidence</p>

Table 5: -Continued-

State and Law Citation	Covered Cancers	Requirements to Obtain Presumption
<p>Rhode Island RI ST § 45-21. 2-9</p>	<p>Any cancer arising out of employment as a firefighter, due to injury from exposure to smoke or fumes or carcinogenic, poison, toxic, or chemical substances while in the performance of active duty</p>	<p>Any state or municipal firefighter who participates in the optional retirement fund for firefighters.</p> <p>Standard to Rebut: Not specified</p>

REBUTTABLE PRESUMPTIONS

The presumption that the employee contracted an infectious disease or cancer through workplace exposure applies only to employees who meet the requirements set out in the “Requirements to Obtain Presumption” column in each table. This presumption does not guarantee the claimant will be given the benefit.

Presumptions are rebuttable by legitimate evidence to the contrary in several state statutes. New York requires a rebuttal be based on “substantial evidence to the contrary.” Substantial evidence is generally defined as “more than a mere scintilla. It means such relevant evidence as a reasonable mind might accept as adequate to support a conclusion” (*Richardson v. Perales*, 402 U. S. 389, 401 (1971)).

Massachusetts, Vermont, Virginia, and Washington require a “preponderance of the evidence” to rebut the presumption. In these states, a city must prove it is more probable than not that a firefighter's illness is not work related.

COST

Tables 2 through 5 show benefits are afforded by states through one of two means. States using workers' compensation payouts rely on municipalities to pay premiums to insure against claims. Injured workers then submit a claim to the state workers' compensation board for an award. Some municipalities may self insure for workers' compensation so the employer pays the benefits directly.

States that afford benefits through retirement funding usually rely on workers and employers to pay contributions into the retirement system during the employee's career. An injured worker then petitions the retirement board for work related disability retirement. Generally the payout is a percentage of the firefighters pay either permanently or for a determined period of time.

California is the only state that provides a presumption for both cancer and infectious disease, but funds them differently. It funds cancer through its workers' compensation laws and infectious disease through its retirement fund.

According to Jason Dickerson of the Legislative Analyst's Office of the California General Assembly, controversy arose over the cancer presumption. Municipalities fought the law as an unfunded mandate, requiring them to pay higher workers' compensation premiums without state assistance. Initially, the presumption was deemed an unfunded mandate and California law at the time required the state to reimburse localities for costs related to the unfunded mandate. During this period of reimbursement, California paid approximately \$ 4 million a year to municipalities. The policy of reimbursement was reversed in *City of Sacramento et al. v. State of California* (785 P. 2d 522 (1990)). As it stands today, municipalities are not reimbursed by the state for increased workers' compensation premiums created by law.

LC/JM: ts

BWC Board of Directors
Actuarial Committee
CAO Report
John Pedrick, Chief Actuarial Officer
January 21, 2010

As we begin 2010, there are many key issues, developments and decisions that will come before the Actuarial Committee and the Board, particularly as we approach the July 1 start of the next policy year for private employers.

Deloitte Consulting LLP is fully engaged in many tasks and deliverables. Their first report on reserves will be the December 31, 2009 quarterly update, which we expect to discuss with the Committee in March. The next report on reserves will be the audit, based on data through March 31, which we expect to see in May. The third reserve report will use the June 30, quarter-end data to finalize the reserve audit for 2010. These three reports will accomplish the full change in reserving methods from Oliver Wyman to Deloitte.

Deloitte will also provide the indicated rate change for private employers for the July 1, 2010 policy year. When we discussed the group rating program and the group/non-group structure last year, we assumed an overall revenue neutral impact. The rate level indication will show us whether an overall change is justified.

Development of the split experience rating plan is in full swing. Work done by Oliver Wyman and BWC staff will be reviewed by Deloitte, allowing us to provide the Board and all interested parties with concrete information on the plan's structure and parameters. By the summer of 2010 we will be able to demonstrate the differences in experience modifiers under the current plan and the split plan. This will give employers and all interested parties ample lead time as the implementation date July 1, 2011, approaches.

The Drug Free Safety Program (DFSP) is scheduled for discussion with the Medical Services and Safety Committee this month. This program will be the successor to the current Drug Free Workplace Program (DFWP). Last year when we discussed the discount levels for the DFWP and eliminated the discounts for group rated employers, the Board asked that staff review this program and its pricing. As a result, all elements of the program are being reviewed to determine the program's structure and its role in comprehensive safety programs. As the new DFSP emerges we will work with Deloitte on the pricing implications.

Last month, we continued the discussion of the large deductible program and the individual incurred loss (IIL) retrospective program, and indicated that we would request a vote on both of them this month. That is still the case for the large deductibles. However, after seeing the pricing analysis from Oliver Wyman for the IIL, we have decided to do more analysis and investigation to be sure this is likely to meet the needs in the market. We tentatively plan to bring this program back to the Board in March.

Further details and current timelines for our various projects follow.

Comprehensive Plan Implementation

1. Communications/Group Structure and Governance Team

Jeremy Jackson		
Task/Function	Timeline	Status
Communications, Outreach	8/1/2008 start	Ongoing
PEC and PA group rating structure	1/1/2009 start	Ongoing
Split Plan Discussions	Late 2009	Ongoing
Targeted Employer Communications	8/1/2008 start	Ongoing

- Informational letters were mailed to the Private Employer and Public Employer Taxing Districts to inform them of the percent decrease of their primary operating manual.
- The BWC remains open to meeting with representatives of employer groups to discuss the rate reform changes.

2. Capping/Split Plan Team

Terry Potts and Zia Rehman		
Task/Function	Timeline	Status
Capping strategy for PA employers effective	July 1, 2009	Completed
Capping strategy and Group Break Even Factor for PEC employers effective	January 1, 2010	Completed
Rating strategies for PA employers effective July, 2010	October, 2009	Completed
Split Plan parameters decided	Winter 2009-2010	In-Progress
Split plan development	September, 2009 to July, 2010	In-Progress
Split Plan implementation	July 1, 2011	

- The split plan programming development is continuing. Analysis also continues to determine the appropriate split points. The plan is to run 2010 rates using the split plan to evaluate the affect on employers. This analysis should take place in the summer of 2010.
- The BWC continues to evaluate group rating options for 2011 and beyond. The BWC is working with Deloitte Consulting, LLP to review ideas to determine the best course of action.

3. New Products

Joy Bush and Jamey Fauque, Centric Consulting		
Task/Function	Timeline	Status
Small Deductible Plan Implemented	July, 2009	Completed
Group Retro Program Implemented	July, 2009	Completed
Research and Development of employer programs	Fall, 2009	In-Progress

- The Large Deductible Program and Individual Incurred Loss Retro program have had initial presentations to the actuarial committee.
- The BWC received applications for three new PEC group retro's by the December 31, 2009 deadline. These three groups represent School Boards, County Commissioners,

and Ohio townships. In total the three groups include 54 employers with an estimated \$15 million in premium.

7/1/2011 Private Employer (PA) Rates

Terry Potts		
Task/Function	Timeline	Status
Private Employer Rate Calculation	January 2010 to July 2010	In-Process
Summary Payroll	January-February 2010	In-Process
Summary Losses	January – February 2010	In-Process
Rate Calculations	February – June 2010	
Rate recommendation received from Deloitte	March 2010	
Rate decision from WCB	April 2010	
Final Rates to WCB	June 2010	
Mailing of Employer Rate Letters	July 2010	

1/1/2010 Public Employer Taxing Districts (PEC) Rates

Terry Potts		
Task/Function	Timeline	Status
Public Employer Taxing District Rates	July 2009 to November 2009	Completed
Summary Payroll	July – August 2009	Completed
Summary Losses	August – September 2009	Completed
Rate Calculations	September 2009 to November 2009	Completed
Rate recommendation received from Oliver Wyman	July 30, 2009	Completed
Rate decision from WCB	September 2009	Completed
Final Rates to WCB	November 2009	Completed
Mailing of Employer Rate Letters	January, 2010	Completed

Deloitte Consulting Preparation

- The BWC has officially transitioned over to Deloitte Consulting, LLP as the actuarial consultant effective January 1, 2010.
- The BWC met with Deloitte consulting, LLP on December 16th and 17th. Topics discussed included Initial Reserve estimates, group rating, Drug Free Workplace, and employer program development.
- The BWC and Deloitte are sharing a SharePoint site. This site allows the BWC and Deloitte to transfer information quickly and collaborate using the same files.
- The BWC continues to transfer data to Deloitte to evaluate. Information provided recently included information to review the split plan development and also information to assist with the preparation of the rate indications.
- The BWC and Deloitte continue to have weekly phone conferences. During these calls the project plan is discussed and the completion dates of tasks have been finalized to ensure that information is presented to the actuarial committee timely.

Comprehensive Study Implementation

- The BWC continues to prioritize, update and implement the recommendations from the comprehensive study.

12 - Month Actuarial Committee Calendar

Date	January 2010
1/21/2010	1. Quarterly Update on the H.B.100 Comprehensive report Deloitte recommendations
	2. Experience modifier capping rule 4123-17-03 - 1 st reading
	3. Reserving education session
	4. Legislative analysis - possibly SB 94
Date	February 2010
2/25/2010	1. Group Retrospective Rating Loss Development Factors - 1 st reading (no rule)
	2. Experience modifier capping rule 4123-17-03 - 2 nd reading
	3. State of the Line report
	4. Individual Incurred Retrospective Rating program - 2 nd reading
Date	March 2010
3/25/2010	1. Private employer rate change indication - 1 st reading
	2. Public employer state agency rate change - 1 st reading
	3. Group Retrospective Rating Loss Development Factors - 2 nd reading (no rule)
	4. Quarterly reserve analysis for financial reporting for fiscal year ending June 30, 2010 based on data as of December 31, 2009
	5. Drug Free Safety Plan (plan to be presented at Medical Committee - may need to discuss pricing here)
Date	April 2010
4/29/2010	1. Private employer rate change indication - 2 nd reading
	2. Private employer draft base rates and expected loss rates
	3. Public employer state agency rate change - 2 nd reading
	4. Disabled Workers' Relief Fund and Additional Disabled Workers' Relief Fund rule 4123-17-29 - 1 st reading
	5. Marine Industry Fund - rule 4123-17-19 - 1 st reading
	6. Coal-Workers' Pneumoconiosis Fund - rule 4123-17-20 - 1 st reading
	7. Quarterly Update on the H.B.100 Comprehensive report Deloitte recommendations
	8. Private employer group breakeven factor rule 4123-17-64.1 (possible)
Date	May 2010
5/27/2010	1. Private employer base rates and expected loss rates - rules 4123-17-05 and 4123-17-06 - 1 st reading
	2. Administrative Cost Fund - rule 4123-17-36 - 1 st reading
	3. Disabled Workers' Relief Fund and Additional Disabled Workers' Relief Fund rule 4123-17-29 - 2 nd reading
	4. Marine Industry Fund - rule 4123-17-19 - 2 nd reading
	5. Coal-Workers' Pneumoconiosis Fund - rule 4123-17-20 - 2 nd reading
	6. Annual Reserve Audit projection for June 30, 2010 using data as of March 31, 2010 (full study)
	7. Reserve update for financial reporting for fiscal year ending June 30, 2010 and projection for June 30, 2011 based on data as of March 31, 2010
	8. Safety & Hygiene assessment- 1 st reading
	9. Self-Insured assessments - rule 4123-17-32 - 1 st reading
Date	June 2010
6/17/2010	1. Private employer base rates and expected loss rates - rules 4123-17-05 and 4123-17-06 - 2 nd reading
	2. Administrative Cost Fund - rule 4123-17-36 - 2 nd reading
	3. Split plan rating rules - 1 st reading

12 - Month Actuarial Committee Calendar

	4. Self-Insured Assessments - rule 4123-17-32 - 2 nd reading
	5. Safety & Hygiene assessment- 2 nd reading
Date	July 2010
7/29/2010	1. Reserve adjustments as of June 30, 2010 - discussion if necessary
	2. Private employer credibility table effective 7-1-2011 - rule 4123-17-05.1 - 1 st reading
	3. Public employer taxing districts credibility table effective 1-1-2011- rule 4123-17-33.1 - 1 st reading
	4. Public employer taxing districts group break even factor rule 4123-17-64.2 - 1 st reading
	5. Public employer taxing districts capping recommendation - 1 st reading (may not need if done in Jan)
	6. Quarterly Update on the H.B.100 Comprehensive Report Deloitte recommendations
	7. Split plan rating rules - 2 nd reading
Date	August 2010
8/26/2010	1. Final Reserve Audit as of June 30, 2010 update - final
	2. Quarterly reserve true up for financial reporting for fiscal year ending June 30, 2010 and updated estimate for fiscal year ending June 30, 2011 based on data as of June 30, 2010
	3. Private employer credibility table effective 7-1-2011 - rule 4123-17-05.1 - 2 nd reading
	4. Public employer taxing districts rate change - 1 st reading
	5. Public employer taxing districts credibility table effective 1-1-2011- rule 4123-17-33.1 - 2 nd reading
	6. Public employer taxing districts group break even factor rule 4123-17-64.2 - 2 nd reading (possible)
	7. Public employer taxing districts capping recommendation - 2 nd reading (may not need if done in Jan)
	8. Annuity table rule 4123-17-60 - 1 st reading
Date	September 2010
9/23/2010	1. Public employer taxing districts rate change - 2 nd reading
	2. Public employer taxing districts draft base rates and expected loss rates
	3. Annuity table rule 4123-17-60 - 2 nd reading
Date	October 2010
10/21/2010	1. Public Employer Taxing Districts base rates and expected loss rates - rule 4123-17-33 and 4123-17-34 - 1 st reading
	2. Quarterly Update on the H.B.100 Comprehensive report Deloitte recommendations
	November 2010
11/18/2010	1. Public Employer Taxing Districts base rates and expected loss rates - rule 4123-17-33 and 4123-17-34 - 2 nd reading
	2. Quarterly reserve analysis for financial reporting for fiscal year ending June 30, 2011 based on data as of September 30, 2010
	December 2010
12/15/2010	