

MONTANA STATE FUND
 MINIMUM LOSS BASED PREMIUM COMPONENT
 EXPENSE CONSTANT
 FISCAL YEAR 2011 RECOMMENDATION

The following discussion covers two components of Montana State Fund's (MSF) charges to customers that comprise total Minimum Premium.

- Minimum Loss-Based Premium Component is assessed on small policies and represents the loss-based portion of the insurance coverage provided to the smaller accounts.
- Expense Constant is a charge on all policies and represents the common expenses of issuing and administering a policy regardless of the size of the policy.

Annually, the Board of Directors approves each of these components. MSF management recommends that the loss-based portion of minimum premium be established at \$245 for policy year 2011, representing no change from the expiring policy year 2010 loss based component of \$245.

In addition, management is recommending the expense constant charge to all MSF accounts regardless of the size of the account be established at \$155 for policy year 2011. This is the same as the 2010 policy year expense constant charge of \$155.

In combination, the total minimum premium account charge would remain the same at \$400 effective for policies renewing on and after July 1, 2010.

As a point of reference, the past ten years minimum premium levels have been:

Fiscal Year	Minimum Premium	Loss-Based Component (LBC) and Expense Constant (EC)
2001	\$245	\$150 LBC + \$95 EC
2002	\$255	\$155 LBC + \$100 EC
2003	\$275	\$165 LBC + \$110 EC
2004	\$300	\$185 LBC + \$115 EC
2005	\$330	\$200 LBC + \$130 EC
2006	\$350	\$210 LBC + \$140 EC
2007	\$370	\$225 LBC + \$145 EC
2008	\$380	\$230 LBC + \$150 EC
2009	\$390	\$235 LBC + \$155 EC
2010	\$400	\$245 LBC + \$155 EC
2011 Recommend	\$400	\$245 LBC + \$155 EC

The following pages summarize the analysis used to develop the recommendation.

MONTANA STATE FUND
FISCAL YEAR 2011 EXPENSE CONSTANT

One component of Montana State Fund's (MSF) charges to all customers is the expense constant that represents the direct expenses of issuing and administering a policy. Management recommends that the fiscal year 2011 expense constant be set at \$155. The fiscal year 2011 expense constant will remain the same as established for fiscal year 2010.

The objective of the expense constant is to recover the costs of functions required to set up and issue policies. These required functions are common to all policies; therefore, the charge is the same for all policies. Authorization for MSF to charge the expense constant is provided in section 39-71-2311(1), MCA.

The estimated revenue recovered from the expense constant offsets estimated premium required in the rate setting process and in effect will decrease the premium revenue requirement in the overall rate level adjustment. As a result, the expense constant is revenue neutral in that it does not result in additional revenue to Montana State Fund.

There are direct and indirect costs allocable to the expense constant. Direct costs are provided by staff or through contracted services that are common to all policies, e.g., staff time in issuing a policy. Indirect costs in the expense constant support a direct cost function, e.g., the computer processing time that is used when staff enters policy information into the system.

Each MSF department was reviewed to determine if it performed functions related to the policy issuance process. Departmental positions are analyzed for the percentage of time they dedicate to these functions over the course of a year. The percentage is then applied to personal services of the position and operating cost necessary to support the position.

There are other underwriting functions performed by MSF that are not included in the expense constant. Premium audits and loss control functions are two examples. These functions are determined not to be involved in the policy issuance process and therefore are excluded from the expense constant.

In prior years, MSF was generally receiving the level of expense constant revenue anticipated by the approved amount of the expense constant. The recent trend, driven by a reduction in policies, is that actual expense constant revenue is falling short of the expense constant revenue estimate. The following table shows the estimated expense constant approved in comparison to the actual / current estimate.

	FY 2010	FY 2009	FY 2008	FY 2007
Estimated Recovery at time Expense Constant Approved	\$4,492,365	\$4,698,670	\$4,416,600	\$4,380,552
Actual / Current Estimated Recovery	\$4,031,681	\$4,450,765	\$4,538,260	\$4,424,665

The amount of the expense constant does not recover the full amount of the costs of issuing and administering all policies. In previous years, MSF incrementally shifted its expense constant to recapture a greater percentage of the actual costs associated with the issuance of an individual

policy. The table below reflects the historical amounts for actual expense constant passed on to our policyholders and the costs incurred by Montana State Fund to issue a policy.

Montana State Fund Expense Constant History

Fiscal Year	Actual Cost per Policy	Expense Constant	Percent of Actual Cost Selected
1998	\$95	\$75 Selected	78.9%
1999	\$101	\$80 Selected	79.2%
2000	\$104	\$85 Selected	82.1%
2001	\$112	\$95 Selected	84.5%
2002	\$117	\$100 Selected	85.1%
2003	\$129	\$110 Selected	85.1%
2004	\$133	\$115 Selected	86.5%
2005	\$140	\$130 Selected	92.9%
2006	\$155	\$140 Selected	90.3%
2007	\$161	\$145 Selected	90.1%
2008	\$163	\$150 Selected	92.0%
2009	\$166	\$155 Selected	93.4%
2010	\$165	\$155 Selected	93.9%
2011	\$186 Estimated	\$155 Recommended	83.3%

The estimated total cost for fiscal year 2011 allocable to the policy issuance function is \$5,056,285. Management estimates that 27,223 policies will be assessed the expense constant during fiscal year 2011. This results in an estimated fixed charge per policy of \$186. In light of business and economic conditions in Montana, management does not believe an increase from \$155 per policy to \$186 per policy is a prudent action to take in one year. The following table summarizes various expense constant options:

Indication	Options	% of Actual Cost	Estimated Expense Constant
\$186	\$150	80.6%	\$4,083,450
\$186	\$155	83.3%	\$4,219,565
\$186	\$160	86.0%	\$4,355,680
\$186	\$165	88.7%	\$4,491,795
\$186	\$185	99.5%	\$5,036,255

Management recommends a \$155 expense constant for fiscal year 2011. This is the same as the fiscal year 2010 expense constant. An expense constant of \$155 will recover an estimated 83.3% of the total estimated costs of issuing all policies. This is estimated to be \$4,219,565 of the \$5,056,285 policy issuance cost.

Loss-Based Minimum Premium

Executive Summary:

MSF management recommends establishing a \$245 minimum premium (prior to expense constant) for FY2011 new and renewal policies, no change from the current loss-based minimum of \$245.

- o **Rationale for a Minimum Premium**

A minimum premium is a standard practice in the workers' compensation insurance industry. It may be fair to say that carriers often apply minimum premiums more for reasons having to do with business strategy rather than actuarial reasons but there is an actuarial justification nonetheless. There is little to no discussion of minimum premium in the actuarial literature as it tends not to be a pricing structure of high concern among workers' compensation writers.

A minimum premium is frequently structured in the industry as a minimum payroll assumption (payroll constant) with "maximum minimums". The payroll constant typically represents one full-time equivalent employee regardless of how many FTE's an employer actually covers. The dollar minimum this structure produces will therefore vary depending on the class codes assigned to the employer. MSF currently applies a single dollar threshold irrespective of class codes assigned to an employer. While we may consider a payroll constant approach in the future, the current practice of a dollar minimum is simple and easy for our stakeholders to understand, particularly given the large number of very small Montana employers. Given the complexity of administering a payroll constant minimum premium and the very few premium dollars in this business segment, there may not be sufficient cost-benefit to the more complex approach.

The payroll-based rate structure in the workers' compensation insurance industry is predicated on the assumption that losses increase as exposure increases. That is, an employer with 100 employees has 10 times the expected losses of an employer with 10 employees. This relationship is intuitive and reasonable for most sizes of businesses but tends not to be the case at very small levels of risk exposure. Empirically, employers with \$50 in premium assessments (prior to minimum) tend to produce similar expected losses as employers with \$200 in premium assessments. This is the actuarial basis for a minimum premium.

- o **FY2011 Minimum Premium Indications**

The analysis of loss experience among minimum premium accounts is extremely difficult due to the inherent imbalance between premium volumes and average claim severities. One average wage-loss claim costing approximately \$60,000 must be supported by about 320 minimum premium accounts with no losses. A variance of only a few claims from year to year, particularly catastrophic claims, can wildly swing loss indications. While there are actuarial methods that can be applied to control for this volatility, the analysis is still subject to a wide margin of actuarial "error".

Each year there are approximately 2,000 minimum premium accounts (about 40% of all minimum premium accounts) who report no covered payroll. Taken at face value, this represents employers who have purchased unneeded insurance coverage. Our analysis excludes minimum premium accounts who report no covered payroll. We do not believe it would be prudent to assume that there will be a certain percentage of minimum premium accounts with no risk of loss.

We evaluate minimum premium three ways:

- Apply aggregate loss and expense trends to current minimum premium of \$245. This approach assumes that the current minimum is appropriate (which may or may not be the case). This analysis indicates a FY2011 minimum premium of approximately \$232.
- Evaluate the AY1991-2009 loss experience among accounts with premiums at or under the current minimum threshold of \$245 (adjusted for aggregate rate change). This analysis suggests a minimum premium in a range of \$270-\$320.
- Evaluate the point at which the average loss and expense per policy equals what otherwise would be charged using payroll-based rates. This analysis suggests a minimum premium of about \$275-\$300.
- In evaluating the indications produced by these various methods and considering the strengths and weaknesses of the varying methodologies, we conclude that a minimum premium in the range of \$250-\$300 would be reasonable.

Management recommends MSF generally take gradual, measured steps in the direction of the actuarial indications. Given the very small exposure volumes and the fact that there are some minimum premium policies with no risk of loss (to the extent that there is no covered payroll), we believe that a minimum premium at the lower end of the indicated range would be reasonable. The current minimum premium is just below the selected range. Due to the issues previously discussed, changes in loss trends among minimum premium policies are very slow to be

revealed. Given the general environment of downward pressure on loss costs, we believe it may be prudent to take a one-year pause in further increases.