



# **Texas Department of Insurance**

**Workers' Compensation Research and Evaluation Group**

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## **Effects of Reforms on the Insurance Market**

December 2012

This report was published as Section 2 of the 2012 Biennial Report - Setting the Standard: An Analysis of the Impact of the 2005 Legislative Reforms on the Texas Workers' Compensation System, 2012 Results. The Property and Casualty Actuarial Office of the TDI prepared this section.



## 2. Effects of Reforms on the Insurance Market

### Introduction

HB 7 requires the commissioner to report on the affordability and availability of workers' compensation insurance for employers of Texas. This chapter looks at the effects of the HB 7 reforms on market competition and carrier financial solvency. A review of the workers' compensation insurance market's concentration and profitability, insurers' rate filings, and insurers' use of competitive rating tools helps to evaluate the affordability and availability of coverage for Texas employers.

### Market Concentration

In 2011, more than 270 insurance companies had positive direct written premium for workers' compensation insurance. The total direct written premium for the workers' compensation insurance market was about \$2.16 billion in Texas. Table 2.1 shows the direct written premium since 2005. Calendar years 2009 and 2010 both experienced significant decreases in direct premium. This drop was a likely byproduct of the recession since the recession affected employer payrolls, which are the exposure used to price workers' compensation insurance. In 2011, the direct written premium increased to almost the level that it was in 2009.

**Table 2.1: 2005 - 2011 Direct Written Premium**

Calendar Year	Direct Written Premium	Change in Direct Written Premium
2005	\$2,702,011,275	
2006	\$2,801,145,442	3.7%
2007	\$2,730,265,013	-2.5%
2008	\$2,581,298,283	-5.5%
2009	\$2,183,885,939	-15.4%
2010	\$1,922,770,862	-12.0%
2011	\$2,163,990,743	12.5%

Source: The department's compilation of the Texas Statutory Page 14 of the NAIC Annual Statement for Calendar Years Ending December 31, 2005 – 2011.

The top 10 insurance company groups write 81.7 percent of the market and the top writer, Texas Mutual Insurance Company, has 33.8 percent of the market based on its 2011 direct written premium. Texas Mutual, formerly the Texas Workers' Compensation Fund, wrote nearly \$730 million in direct written premium. The Legislature created Texas Mutual in 1991 to serve as a competitive force in the marketplace, to guarantee the availability of workers' compensation insurance in Texas, and to serve as an insurance

company of last resort. While Texas Mutual is the insurer of last resort, it predominately writes voluntary business, competing with the rest of the workers' compensation market. The involuntary market makes up less than a quarter of one percent of the workers' compensation insurance market.<sup>1</sup>

Table 2.2 shows the historic market shares for the top 25 insurance company groups, based on each group's ranking in 2011. These groups wrote over 90 percent of the direct written premium for workers' compensation insurance in 2011. The table shows the market share for these same groups back to 2007, even though they may not have all been in the top 25 or at the same rank during those years. Additionally, the table does not show some groups, which may have been top writers historically but are no longer active or a top 25 writer in 2011.

**Table 2.2: 2007 - 2011 Market Share by Insurance Company Group**

Group	Rank (2011 Annual Statement)	2007	2008	2009	2010	2011
Texas Mut Ins Co	1	27.5%	29.3%	29.1%	31.1%	33.8%
Liberty Mutual Grp	2	9.0%	11.3%	10.9%	10.0%	9.2%
Hartford Fire Grp	3	6.7%	6.9%	7.4%	8.1%	7.4%
Travelers Grp	4	6.3%	6.4%	7.8%	7.9%	7.4%
American Intl Grp Inc	5	12.6%	11.3%	8.1%	7.7%	7.0%
Zurich Ins Co Grp	6	8.6%	7.6%	7.3%	7.2%	6.6%
Ace Ltd Grp	7	4.8%	3.0%	4.3%	2.1%	3.4%
Continental Cas Grp	8	2.9%	2.8%	2.8%	2.6%	2.6%
Service Lloyds Grp	9	1.7%	1.9%	2.2%	2.3%	2.2%
Chubb & Son Inc Grp	10	1.9%	1.9%	1.8%	2.1%	2.0%
Amerisure Co	11	1.6%	1.8%	1.9%	1.4%	1.4%
Old Republic Ins Grp	12	1.7%	1.3%	1.6%	1.5%	1.4%
Fairfax Fin Grp	13	0.5%	1.1%	1.2%	1.0%	0.6%
BCBS of MI Grp	14	0.1%	0.1%	0.2%	0.5%	0.8%
WR Berkley Corp Grp	15	0.4%	0.5%	0.5%	0.7%	0.7%
Delek Grp	16	1.0%	1.1%	1.2%	1.0%	0.6%
Sentry Ins Grp	17	0.8%	0.8%	0.8%	0.7%	0.6%
SeaBright Ins Co	18	0.5%	0.7%	0.7%	0.7%	0.6%
Arch Ins Grp	19	0.5%	0.5%	0.6%	0.7%	0.6%
Berkshire Hathaway Grp	20	0.0%	0.1%	0.2%	0.5%	0.6%
Amerisafe Grp	21	0.5%	0.5%	0.5%	0.5%	0.5%
American Financial Grp	22	0.2%	0.4%	0.5%	0.5%	0.4%
BCBS of SC Grp	23	0.0%	0.0%	0.0%	0.2%	0.4%
XL Amer Grp	24	0.2%	0.3%	0.3%	0.4%	0.4%
Federated Mut Grp	25	0.4%	0.4%	0.4%	0.4%	0.4%
<b>Total</b>		<b>90.5%</b>	<b>91.8%</b>	<b>92.2%</b>	<b>91.7%</b>	<b>91.9%</b>

Source: The department's compilation of the Texas Statutory Page 14 of the NAIC Annual Statement for Calendar Years Ending December 31, 2007 - 2011.

<sup>1</sup> Texas Mutual writes the involuntary market in its START program.

One indicator of a competitive market is a lack of concentration by those participants in the market. A commonly accepted economic measure of market concentration is the Herfindahl-Hirschman Index, or HHI, which considers the relative size and distribution of firms, or insurers, in a market. A market with an HHI index between 1,000 and 1,800 is considered moderately concentrated and one with an HHI index above 1,800 is considered concentrated. The HHI based on insurance company group market shares for Texas is 1,464.

## **Profitability**

Two important measures of the financial health of the Texas workers' compensation insurance market are the loss ratio and the combined ratio. The loss ratio is the relationship between premium collected and the losses incurred (amounts already paid out plus amounts set aside to cover future payments) by the insurance companies. The combined ratio is similar to the loss ratio, except that it compares the premiums collected with both the losses and expenses incurred by the insurance company.

Each year the department analyzes historical loss ratios and combined ratios on an accident year basis. In an accident year analysis, the losses tie back to the year in which the accident occurred, regardless of when the claimant reports the loss or the company pays the loss. For example, accident year 2008 reflects claims or losses from all accidents that happened in 2008 even if, for example, a loss was initially reported in 2009 and paid at a later date. In other words, all payments associated with a particular accident are associated with the year in which the accident occurred, in this case 2008, regardless of when the company pays for the covered loss.

The loss ratio used in the department's analysis equals the projected direct ultimate incurred losses divided by the direct earned premium. This ratio is a widely accepted metric that gauges underwriting results by comparing losses to premium. In its analysis, the department uses ultimate incurred losses, which estimate the cost of claims from a given accident year when they are ultimately or finally settled. It may take many years for a company to settle a claim because there may be ongoing payments for medical treatment or income benefits. As the name implies, loss ratios focus on the impact of losses. To ascertain overall profitability, it is necessary to factor in other types of expenses.

The combined ratio literally combines the loss ratio with the expense ratio to gauge overall profitability, before consideration of insurance companies' investment earnings. The expense ratio includes loss adjustment expenses, other types of expenses, and policyholder dividends. Loss adjustment expenses are those costs incurred in processing, investigating, and settling claims. Other types of expenses include insurance company

administrative overhead; commissions, and; taxes, licenses, and fees. Policyholder dividends are a return of a percentage of the premiums in excess of losses and expenses to policyholders by certain types of insurance companies.

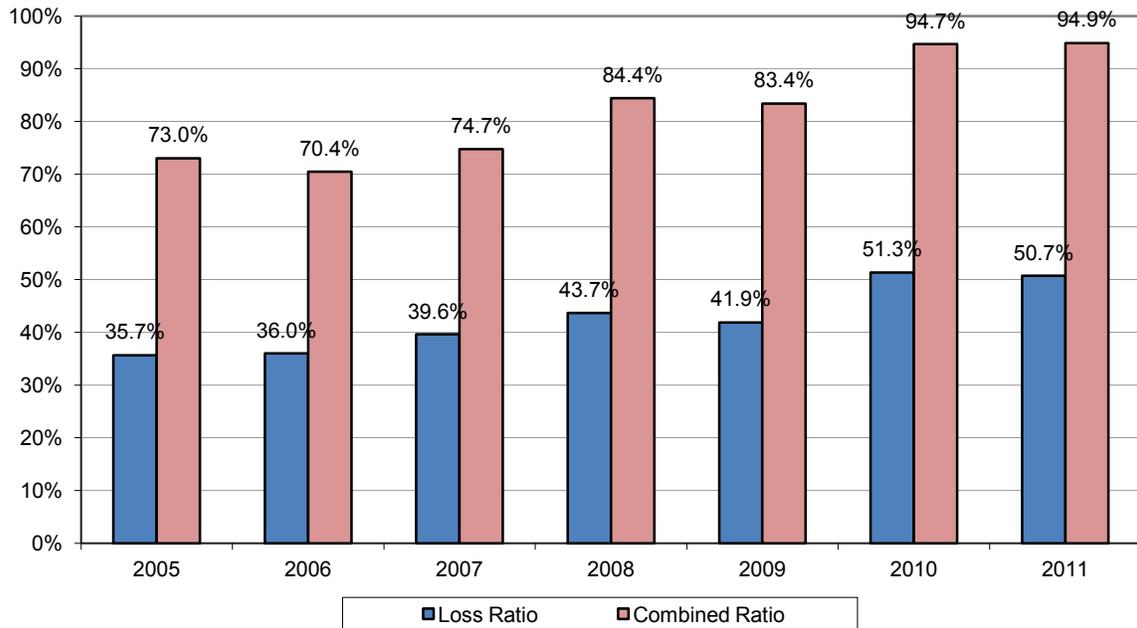
A combined ratio of less than 100 percent indicates that the insurance company earned a profit on its insurance operations (also called an underwriting profit). A ratio greater than 100 percent indicates a loss on insurance operations, although this loss may be more than offset by earnings on investments. For example, if the projected ultimate combined ratio is 110.0 percent, then for every \$1.00 in premium the insurance company collects, it expects that it will use \$1.10 to pay losses and expenses it incurs. The insurance company will need to find other sources to pay the 10 cents that is in excess of the premium. This may be earnings from investments or even a direct charge against the insurance company's surplus. In 2011, the projected accident year combined ratio was 94.9 percent. This means that for every dollar collected by the insurance company, it will pay an estimated 94.9 cents to cover losses and expenses. The insurance company will keep the remaining approximately five cents as profit.

Table 2.3 and Figure 2.1 show the loss ratio and the combined ratio, both of which reflect that the last seven years have been very profitable for insurance companies writing workers' compensation insurance. In 2008 and 2009, the accident year combined ratios deteriorated relative to the prior three years. In 2010 and 2011, the combined ratios deteriorated again, but remained profitable.

**Table 2.3: Projected Ultimate Calendar/Accident Year Loss and Combined Ratios**

Accident Year	Direct Earned Premium	Ultimate Losses	Loss Ratio	Combined Ratio
2005	2,131,103,682	759,805,337	35.7%	73.0%
2006	2,201,815,184	792,228,947	36.0%	70.4%
2007	2,199,889,123	871,174,776	39.6%	74.7%
2008	2,210,241,056	965,664,860	43.7%	84.4%
2009	1,944,612,874	814,329,705	41.9%	83.4%
2010	1,729,558,428	887,418,371	51.3%	94.7%
2011	1,819,827,507	922,905,594	50.7%	94.9%

Source: Texas Workers' Compensation Financial Data Call, Texas Compilation of Statutory Page 14, Texas Compilation of the Insurance Expense Exhibit. Loss development factors used in determining the ultimate losses are from the Financial Data Package as of December 2011.

**Figure 2.1: Projected Ultimate Calendar/Accident Year Loss and Combined Ratios**

Source: Texas Workers' Compensation Financial Data Call, Texas Compilation of Statutory Page 14, Texas Compilation of the Insurance Expense Exhibit. Loss development factors used in determining the ultimate losses are from the Financial Data Package as of December 2011.

Note that these ratios exclude the experience for large deductible policies, which prior to the application of the deductible credit represent about half of the market in terms of premium. Additionally, the ratios shown in Table 2.3 and Figure 2.1 do not fully reflect insurers' recent rate changes. Reflection of the rate changes in the recent past would increase the loss ratios and combined ratios since the average rate change has been downward.

Another measure of industry profitability is the return on net worth. The return on net worth is the ratio of net income after taxes to net worth and indicates the return on equity. It includes income from all sources, including investment income, and reflects all federal taxes. The combined ratio reflects only the income from the insurance operations and does not reflect investment income or federal taxes. The return on net worth can also be used to compare insurance companies with firms in other industries. Table 2.4 shows the return on net worth for workers' compensation insurance for Texas and countrywide along with the return on net worth based on Fortune's Industrial and Service sectors. Texas has consistently outperformed the rest of the country in the workers' compensation market.

**Table 2.4: Return on Net Worth**

Year	Workers' Compensation Insurance		All Industries
	Texas	Countrywide	Countrywide
2001	-3.3%	0.2%	10.4%
2002	3.0%	2.4%	10.2%
2003	9.8%	6.9%	12.6%
2004	17.7%	10.1%	13.9%
2005	12.9%	9.6%	14.9%
2006	13.0%	10.0%	15.4%
2007	11.5%	9.0%	15.2%
2008	9.6%	5.1%	13.1%
2009	11.2%	4.2%	10.5%
2010	9.5%	3.9%	12.7%
10-Year Average	9.5%	6.1%	12.9%

Source: NAIC Report on Profitability by Line by State in 2010

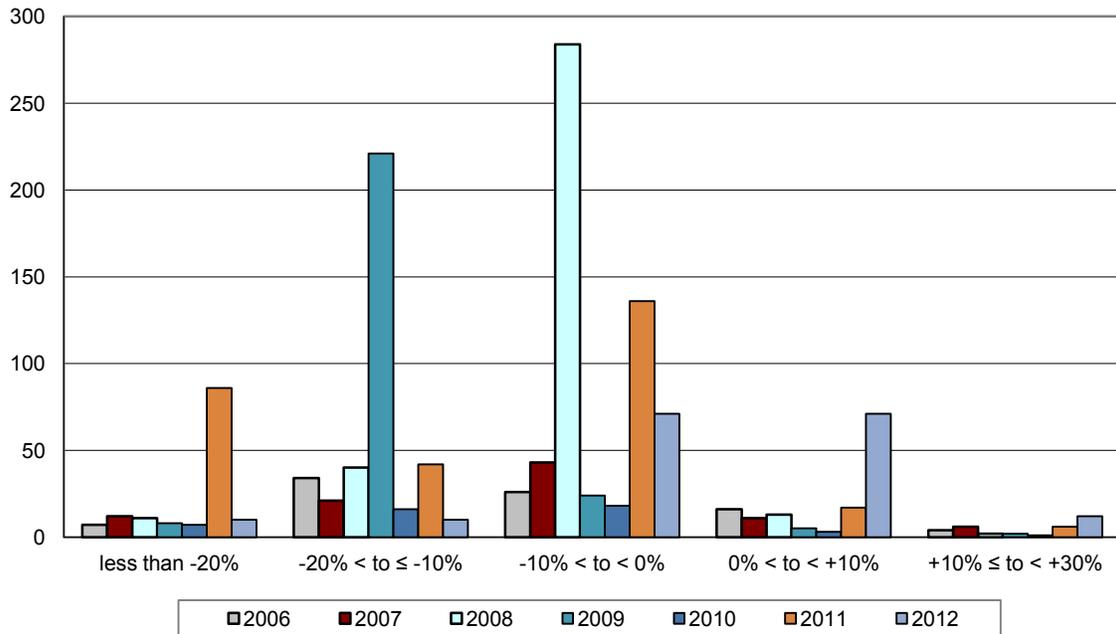
Another difference between the combined ratios shown in this report and the return on net worth is the way the data is collected. The combined ratio used in this report is on an accident year basis while the return on net worth is on a calendar year basis. Unlike the accident year analysis above, calendar year analysis includes all activity during the calendar year.

## Rate Filings

Figure 2.2 shows the number of workers' compensation rate filings, by range of average rate change, effective from January 1, 2006, through October 31, 2012. Insurers continued to file more rate decreases than rate increases through 2011. In 2012, there has been much less rate activity with 91 rate filings to lower rates and 83 rate filings to increase rates. Most of the rate changes in 2012 fall between a 10 percent decrease and a 10 percent increase. In 2011, companies filed to use either the classification relativities that the department promulgates or the initial loss costs filed by the National Council on Compensation Insurance (NCCI). This resulted in 264 rate filings to lower rates and 23 rate filings to increase rates.

The number of rate filings does not include those that were revenue neutral, such as those for schedule rating plans or the introduction of a network premium credit.

**Figure 2.2: Rate Filings Effective from 1/1/2006 Through 10/31/2012 by Amount of Change**

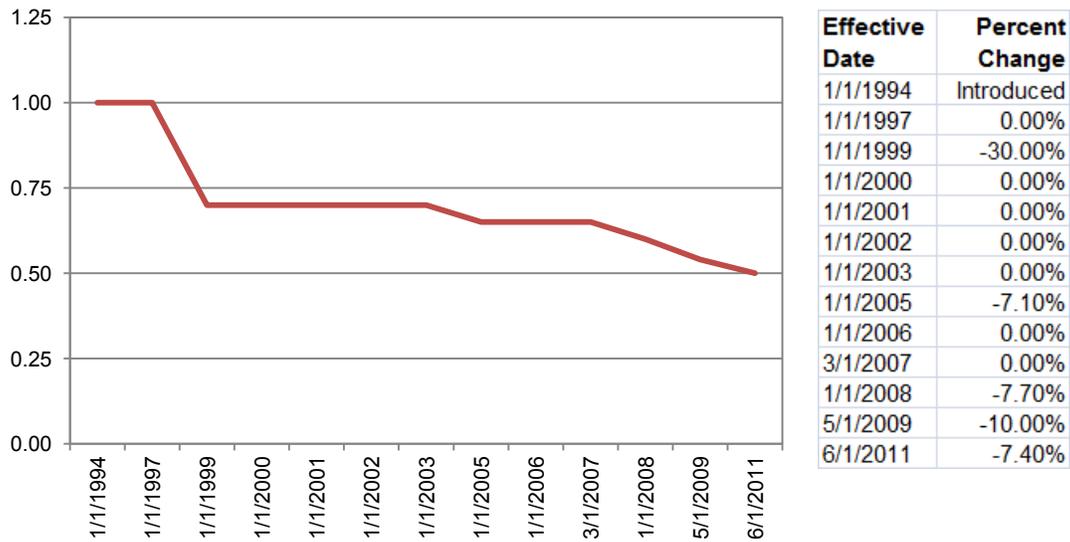


Source: Insurance company rate filings received by the Texas Department of Insurance. The figure does not include filings that were revenue neutral.

Since 2003, rates have come down almost 50 percent. This number includes both changes in companies’ deviations as well as overall changes in the classification relativities established by the department. The rate decrease also includes the impact from companies that adopted the initial loss costs filed by NCCI.

The department usually revises the classification relativities each year so that on average, the change in relativities is revenue neutral, even though a particular class’ relativity may change by plus or minus 25 percent. The department has however, lowered the classification relativities a few times in the last several years, as shown in Figure 2.3.

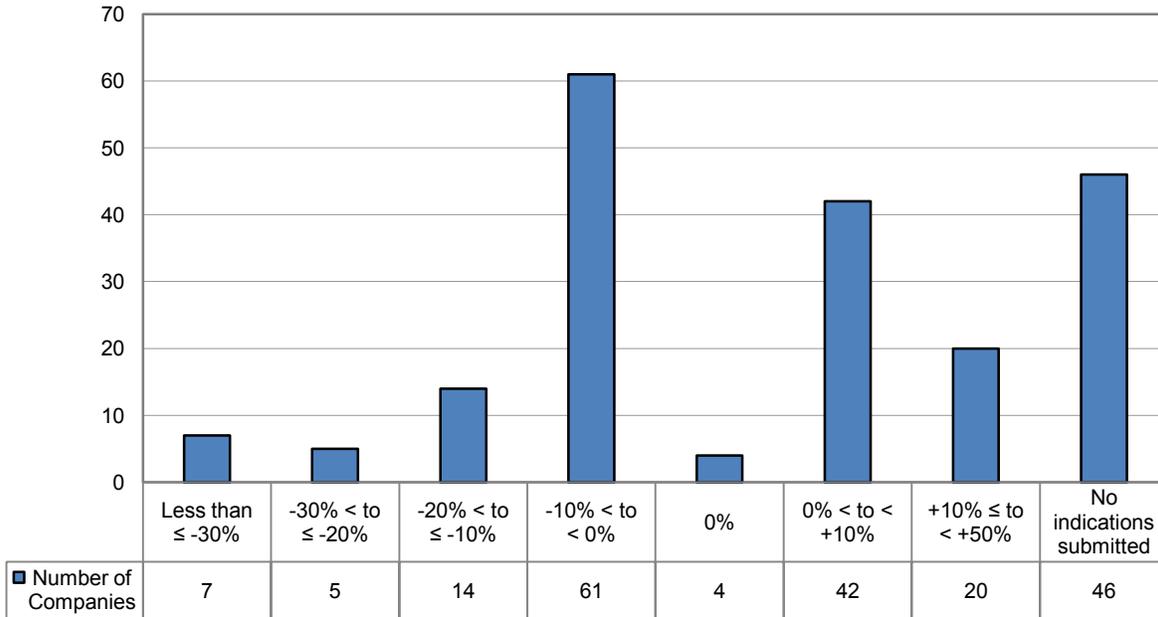
In preparation for the 2012 biennial rate hearing on workers’ compensation insurance, insurance companies were required to submit rate filings in August 2012, which were to include the company’s ”rate indication.” A company’s rate indication is the actuarial determination of how its rate or premium level should change going forward. Rate indications, unlike the loss and combined ratios, but similar to the return on net worth, reflect investment income in determining appropriate premium levels, and will reflect estimates of future income needs. They also reflect current rate and premium levels.

**Figure 2.3: Cumulative Changes in Classification Relativities**

The department received 149 insurance company rate filings with rate indications. These indications are based on the insurance companies' calculations, using their assumptions, and do not reflect any judgments or assumptions made by the department. Figure 2.4 shows how many of these companies had indications within the specified ranges shown. For example, 61 companies filed indications that were between -10 percent and 0 percent. If a group of companies filed an indication based on the group's experience, the figure reflects the group indication for each individual insurance company within the group. For example, a group with three companies may have filed indications of -16 percent. In the histogram, they would contribute three counts in the category for rate filings with indications between -20 percent and -10 percent. Forty-six companies filed information but did not submit rate indications. These companies were generally small or wrote only large deductible policies.

For the companies that filed rate indications, the average premium-weighted indication is 1.3 percent. This suggests that the industry estimates the need for a 1.3 percent increase in current premium levels to cover losses and expenses and produce the targeted profit. As noted earlier, the indications vary significantly by company and reflect the companies' assumptions. Even though the companies' indications suggest a small increase in premium levels on average, few companies proposed a rate change with their filing.

**Figure 2.4: Summary of Insurance Companies Indications Filed in August 2012 Based on Experience Through 12/31/2011**



Source: Insurance company rate filings received by the department in response to a request for rate filings for the 2012 biennial rate hearing (Commissioner’s Bulletin B-0015-12).

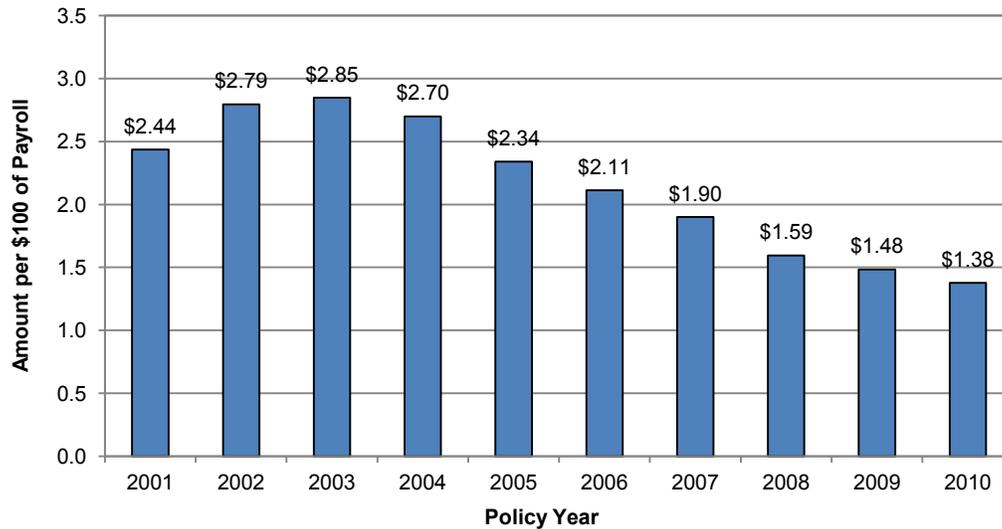
### Average Premium

While the rate changes filed by the companies in the last few years show how much rates have come down, the rates are just the start of the workers’ compensation pricing process. What employers actually pay, the premium, reflects not only rates but also mandated rating programs such as experience rating and premium discounts, but also optional rating tools, such as schedule rating plans and negotiated experience modifiers, to recognize individual risk variations. Insurance companies use these rating tools to modify rate changes to achieve desired premium levels. The average premium per \$100 of payroll shows how the rate changes filed by companies with their use of rating tools determine the premium paid by employers.

Figure 2.5 shows the average premium per \$100 of payroll for policy years 2001 through 2010, reflecting year-to-year changes in premiums charged. This information is on a policy year basis, which is different from the calendar year and accident year data discussed earlier. In a policy year, the premiums and losses tie back to the year in which the policy was effective. By 2003, the average premium increased to a high of \$2.85 per \$100 of payroll. Prior to this time, the industry suffered underwriting losses and premiums increased. With policy year 2004, the average premium per \$100 of payroll began to decrease as insurance companies lowered their rates and increased the use of rating tools, such as schedule rating. The drop in the average premium per \$100 of

payroll has continued through 2010, where it is down to \$1.38 per \$100 of payroll. This drop coincides with the average rate reductions that have taken place, resulting in employers seeing the benefits of the insurance companies' filed rate decreases

**Figure 2.5: Average Premium per \$100 of Payroll by Policy Year**



Source: The Texas Workers' Compensation Financial Data Call and the department's 2011 Classification Relativity Study.

The average premiums reflect insurance companies' manual rate deviations, experience rating, schedule rating, expense constants, the effect of retrospective rating and premium discounts. They do not reflect network premium credits, the effect of discounts due to deductible policies, or policyholder dividends. Additionally, since workers' compensation is an audit line, which means that audited payrolls determine final premiums, the average premiums may change over time, especially for the most recent years.

## Rating Tools Recognizing Individual Risk Variations

One of the revisions that HB 7 made to the workers' compensation statutes was that insurance companies shall consider the effect on premiums of individual risk variations based on loss or expense considerations when setting rates. Additionally, the revisions to the statutes state that neither rates, nor premiums, may be excessive, inadequate, or unfairly discriminatory. The department evaluates insurance company's rates and premiums in light of this, in part, on the rate filings made by the insurance companies, and, equally important, on the use of available rating tools used to reflect individual risk variations. Since insurance companies did not file the effects of these rating tools in their

rate filings prior to HB 7, the department issued periodic data calls to gather this information. The Texas Workers' Compensation Financial Data Call also provides information, which the department uses in gauging the effect of these tools.

Once an insurance company determines an employer's rate based on its classification (which depends on the type of business such as office, construction, or manufacturing), and the employer's loss experience, the insurance company can further modify the policy's premium through the use of rating tools such as schedule rating and negotiated experience modifiers.

Schedule rating reflects characteristics of the employer, which may not be fully reflected in the employer's past experience. The general categories that are often used in schedule rating include the care and condition of the premises; classification peculiarities; medical facilities; safety devices; selection, training, and supervision of employees; and management's cooperation with the insurance company and safety organization. A credit or debit can be applied to the premium based on the underwriter's evaluation of the insured employer relative to each of these categories (or other categories in the insurance company's schedule rating plan which is filed with the department) up to an aggregate maximum modification, generally plus or minus 40 percent.<sup>2</sup> Application of schedule rating to a policy can result in significant changes in the premiums charged even though there has been no change in the insurance company's filed rate. Based on the filings received for the biennial rate hearing, the average schedule rating adjustment in 2011 was a credit of 14.4 percent. Since 2003, the average schedule rating adjustment has been a credit that has increased gradually each year; therefore, lowering premiums each year, all else equal. Market forces and conditions often influence the use of schedule rating and the size of credits or debits given. Current rules are that the insurance company must be able to support, with documentation maintained by the insurance company, the schedule ratings it uses in calculating premiums for employers.

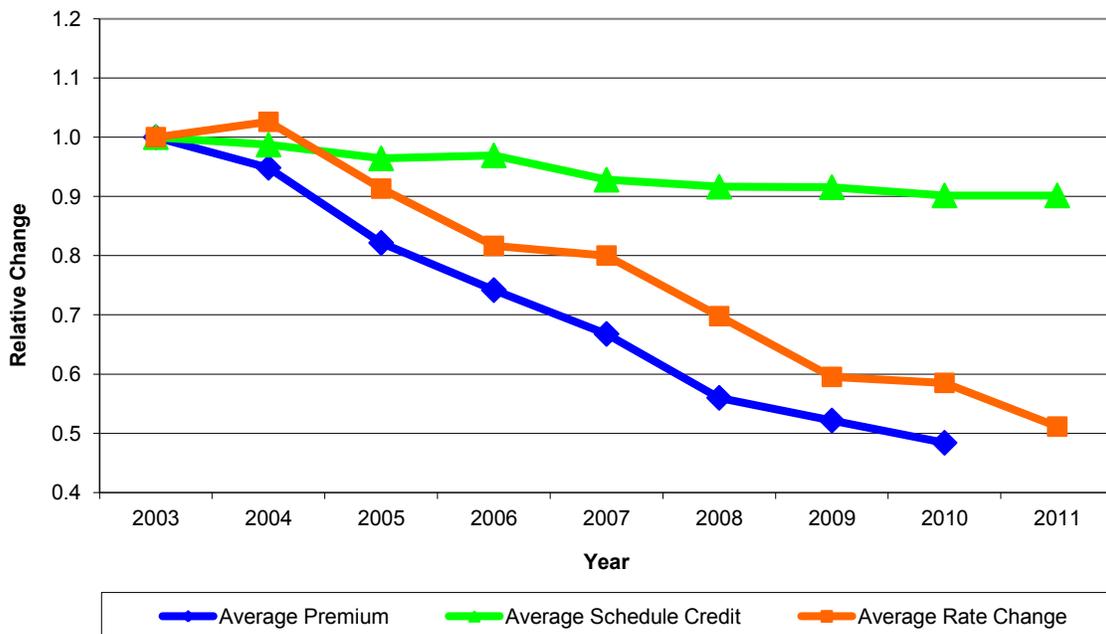
Figure 2.6 shows two principle drivers of premium levels, which are filed rate changes and schedule rating, and how their relative level compares to the average premium over the same period. To put all this on the same scale, the figure shows the changes in each of these items through 2010 relative to 2003. Since 2003, the average premium has dropped a little more than 50 percent. The average schedule rating factor has decreased 10 percent and the average rate level change has decreased 49 percent. This shows that both rates and premiums have come down significantly since 2003, and continued doing so after 2005 when the legislature enacted HB 7.

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<sup>2</sup> In the case of Texas Mutual Insurance Company's START program, the aggregate maximum modification is plus or minus 75 percent.

Another rating tool used to reflect individual risk variations in pricing is a negotiated experience modifier. Experience modifiers reflect an employer's past losses. The greater the losses compared to the losses expected for that type of business, the higher the employer's experience modifier will be, which produces a higher charged premium, and vice versa. An employer and its insurance company can negotiate a lower experience modification, and thus a lower premium, for the employer. Insurance companies use this tool sparingly today with only a few companies reporting that they use it frequently enough to have a noticeable effect on their average experience modifiers. Over the last several years, insurance companies increased the use of negotiated modifiers slightly, but the average effect on the experience modifiers was less than a 1 percent reduction in 2011.

**Figure 2.6: Comparison of Relative Change in Average Premiums, Schedule Rating Factors, and Rate Levels**



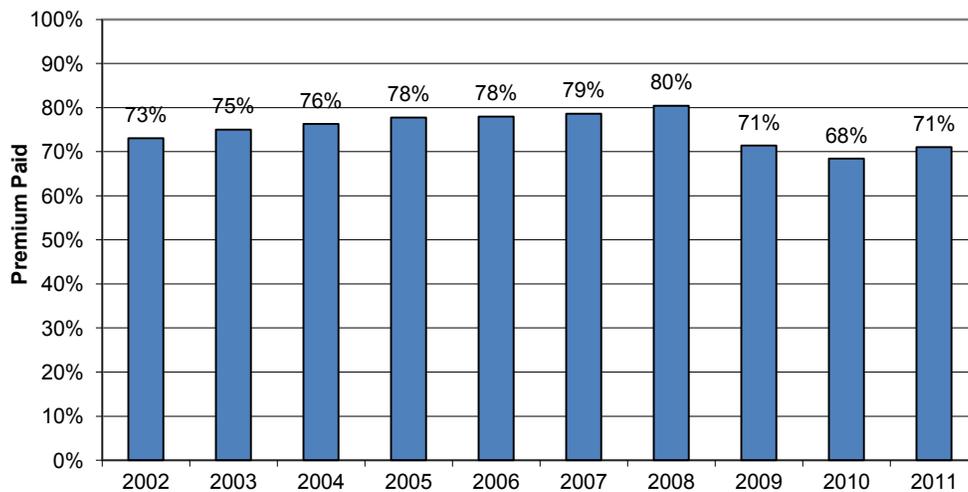
Source: NCCI Financial Data Call and insurance company rate filings.

Another cost saving tool, which is not reflected in the earlier analyses of loss ratios, combined ratios, and average premiums, but which is worth mentioning for completeness, is a deductible, wherein the employer reimburses the insurance company for all or part of a given loss. Promulgated deductible plans and negotiated deductibles are two types of deductible options available for use by Texas employers<sup>3</sup>. The

<sup>3</sup> The Texas Workers' Compensation Financial Data Call excludes large deductible policies. Insurance companies report losses for all other deductible policies on a gross basis. That is, if the total loss is \$20,000 and the employer has a deductible of \$5,000, the amount reported in the department's Financial Data Call is

promulgated deductible plans are a mix of deductible choices of a per accident, aggregate, or per accident/aggregate level. Negotiated deductible credits are available for employers with larger premiums or larger deductible amounts that effectively allow the employer to self-insure. These negotiated deductibles are popular, consisting of about half the premium prior to the application of the deductible credit. Figure 2.7 shows the average premium credit for employers with a negotiated deductible.

**Figure 2.7: Average Negotiated Deductible Credit by Policy Year**



Source: Texas Department of Insurance, Quarterly Legislative Report on Market Conditions.

## Certified Healthcare Networks

Another way for employers to reduce their premiums is through participation in a department-certified health care network, the focus of the HB 7 reforms. The objective of these networks is to improve the quality of medical care received by injured workers at a reasonable cost for Texas employers and to improve outcomes from injuries.

For those employers that elect to participate in one of these networks, they receive a credit or discount on their premium. Credits filed with the department range up to 20 percent but the majority of actual credits used are between 5 and 15 percent. Insurance companies initially established the credits based on judgment, rather than on experience, since there was no experience. Based on a review of undeveloped loss ratios for companies that have more than 20 percent of their policies in networks, it appears that, on

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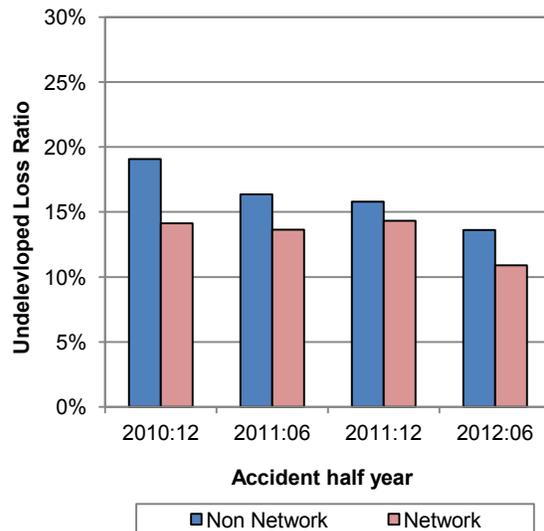
\$20,000, even though the insurance company ultimately pays only \$15,000 of the loss. The direct earned premium is the amount of premium actually earned prior to the payment of policyholder dividends and the application of credits for deductible policies.

average, the credits are reasonable. The average dollar savings per policy, for those policies receiving a network discount, is about \$2,200, but ranges significantly by company.

As the use of the network system expands and more loss experience emerges, the filed premium credits can be evaluated to determine whether the savings due to networks are being passed through to employers. At present, insufficient experience or actuarial data exists to develop experience-based credits to an ultimate level so these premium credits represent the best initial estimates, as determined by insurance companies, of the likely impact of networks on costs. Section 3 of this report provides information about the premium credits filed by insurance companies with the department.

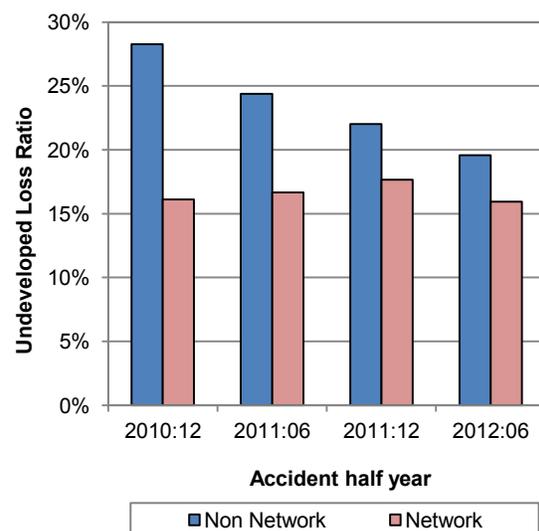
As experience emerges, the department can review the loss ratios to determine whether the premium credits are appropriate or if they should be greater or lesser. Figures 2.8 and 2.9 show the undeveloped indemnity and medical loss ratios for the most recent four half-accident years for insurance companies that reported their experience in networks under a semi-annual network data call. The loss ratios are determined using premium before application of the network credit. The accident half-year loss ratios for claims in a network have better results than for claims outside a network. This is generally the case for both medical and indemnity, however as expected the impact on medical is greater than the impact on indemnity. Even though the data is not fully developed yet, the network premium credits seem reasonable at this time.

**Figure 2.8: Indemnity Undeveloped Incurred Loss Ratios for Network and Non-Network Experience**



Source: The department's semi-annual network data call.

**Figure 2.9: Medical Undeveloped Incurred Loss Ratios for Network and Non-Network Experience**



Source: The department's semi-annual network data call.

## **Reviews of Insurance Company Solvency**

The workers' compensation market looks stable and financially healthy. Loss ratios and combined ratios suggest that insurance companies are writing profitably in the market. Reviews of insurance company solvency are favorable, and there are no adverse trends, which indicate that HB 7 or the economy in general, are having an adverse effect on the workers' compensation market.

## **Summary**

The last seven years since the enactment of HB 7 have been profitable for the workers' compensation insurance industry, which has responded by lowering rates, increasing schedule-rating credits, and providing discounts for participation in certified networks. The result is that average premiums charged to employers have come down. However, based on the rate indications filed by insurance companies in August 2012 for the biennial rate hearing, the industry may not continue to lower rates and premiums as they have in the past.