Setting the Standard

An Analysis of the Impact of the 2005 Legislative Reforms on the Texas Workers' Compensation System, 2010 Results

Texas Department of Insurance

December 2010

Texas Department of Insurance
Commissioner of Insurance, Mail Code 113-1C
333 Guadalupe • P. O. Box 149104, Austin, Texas 78714-9104
512-463-6464 telephone • 512-475-2005 fax • www.tdi.state.tx.us

December 1, 2010

The Honorable Rick Perry, Governor
The Honorable David Dewhurst, Lieutenant Governor
The Honorable Joe Straus, Speaker

Dear Governors and Speaker:

In accord with Texas Insurance Code Section 2053.012 and Texas Labor Code Section 405.0025, the Texas Department of Insurance and the Division of Workers' Compensation present the biennial reports on the impact of the 2005 House Bill (HB) 7 reforms on the affordability and availability of workers' compensation insurance for Texas employers and the impact of certified workers' compensation health care networks on return-to-work outcomes, medical costs, quality of care issues and medical dispute resolution.

Please contact either of us or Carol Cates, Associate Commissioner of Government Relations, at 463-6123 if you have any questions or to request a briefing on this information.

Sincerely,

Mike Geeslin
Commissioner of Insurance

Rod Bordelon
Commissioner of Workers' Compensation

Table of Contents

Executive Summary

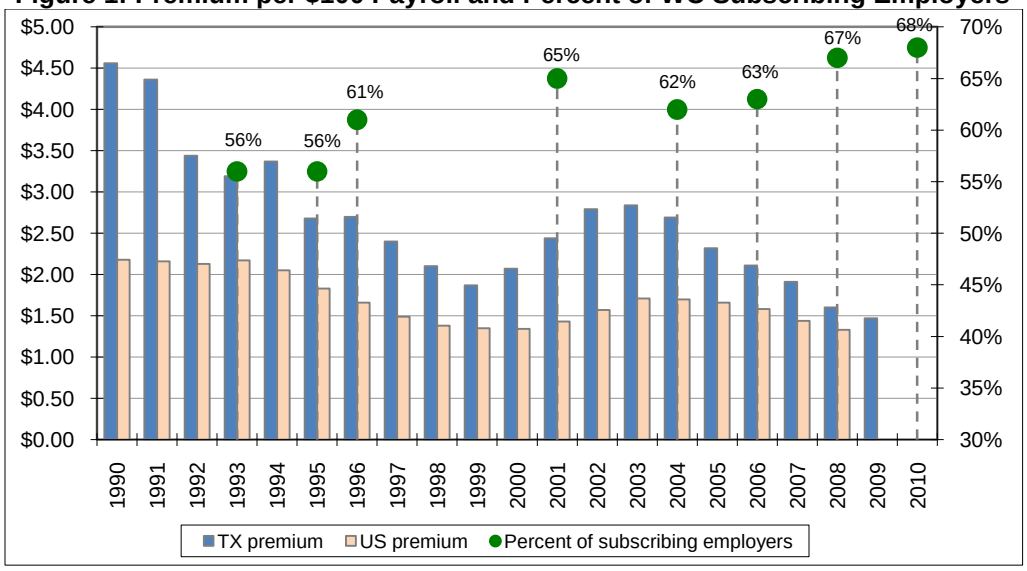
Section 2053.012, Texas Insurance Code and Section 405.0025, Texas Labor Code require the Texas Department of Insurance (Department) to issue biennial reports to the Texas Legislature no later than December 1st every even-numbered year on the impact of the 2005 House Bill (HB) 7 reforms on the affordability and availability of workers' compensation insurance for Texas employers and the impact of certified workers' compensation health care networks on return-to-work outcomes, medical costs, quality of care issues and medical dispute resolution.

The following are key findings from this analysis of the 2005 HB 7 reforms:

Key System Indicators

Premium per $100 payroll, which is the employers' cost of subscribing to the Texas workers' compensation system, has decreased by almost 50 percent from the previous peak in 2003 (see Figure 1). However, Texas premium remains higher than the U.S. average. Along with the decrease in premium rate, a higher percentage of Texas private employers are subscribing to the workers' compensation system. The 68% subscription rate in 2010 is the highest level of participation since the rate was first estimated in 1993.

Figure 1: Premium per $100 Payroll and Percent of WC Subscribing Employers

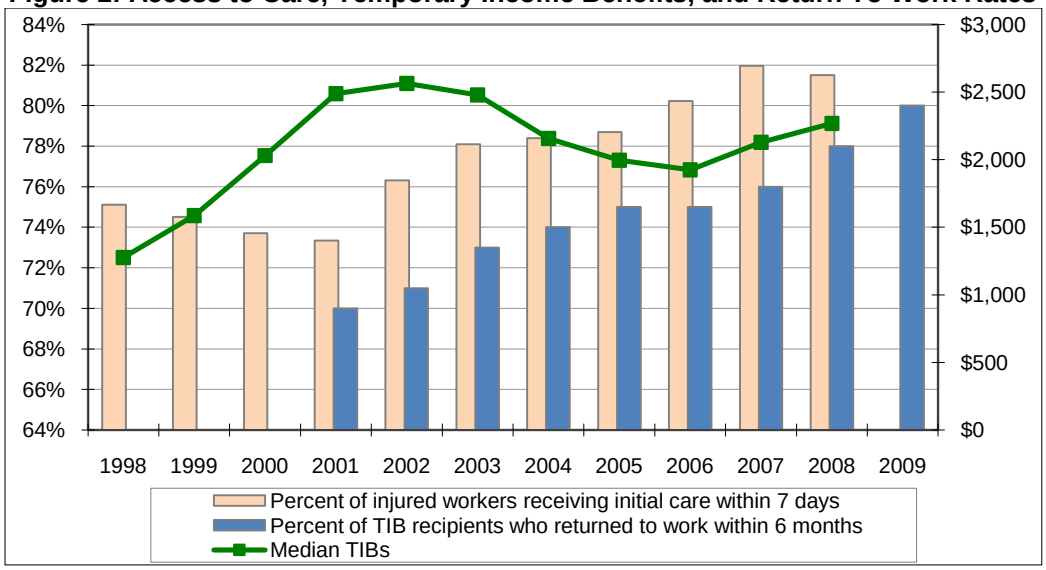


Sources: US data by calendar year, from NASI "Workers' Compensation: Benefits, Coverage, and Costs", 2010 edition. Texas data by policy year, from TDI and NCCI. Subscription data from TDI's Survey of Employers, 2010.

Access to medical care has also improved substantially since 2001. About 82 percent of injured workers in 2008 received initial care within 7 days after the injury, compared to

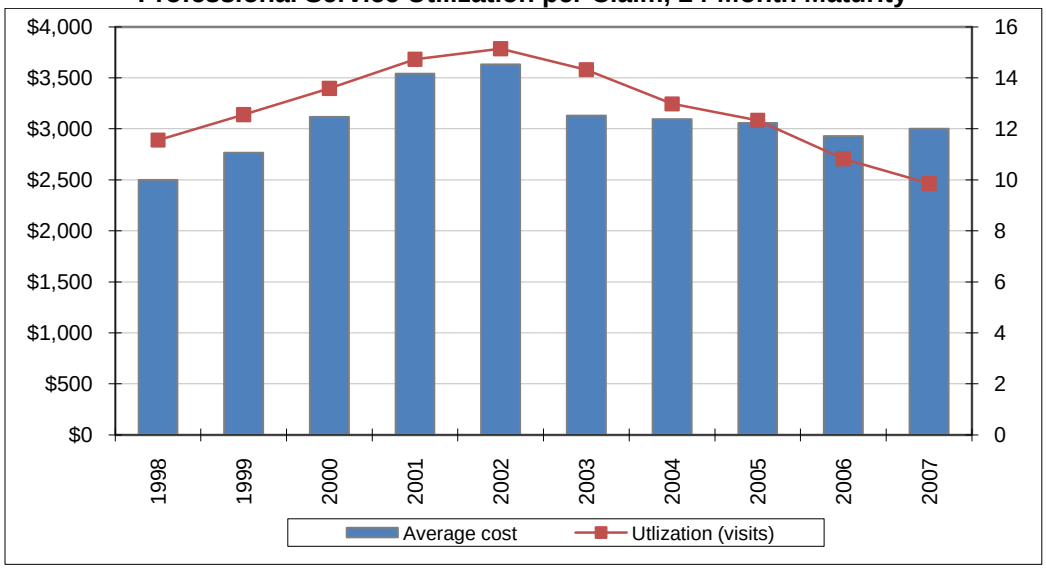
73 percent in 2001 (see Figure 2). Temporary income benefits (TIBs) for injured workers increased until 2002, decreased by 25 percent by 2006, but since then, has been on an increasing trend. Return-to-work outcomes are improving steadily from 2001. In 2009, 80 percent of TIBs recipients returned to work within 6 months after their injury, up from 70 percent in 2001.

Figure 2: Access to Care, Temporary Income Benefits, and Return To Work Rates



Average professional medical cost per claim has been declining since its peak in 2002, but the overall medical cost per claim is in a stable or increasing trend due to an increase in hospital cost since 2003 (see Figure 3). The decrease in professional medical cost is largely due to the decrease in utilization (average number of visits to doctors).

Figure 3: Average Medical Cost (Professional and Hospital) and Professional Service Utilization per Claim, 24-Month Maturity



Rates and Premiums in the Insurance Market

- Insurance companies workers' compensation insurance business has been profitable each year from 2003 to 2009 as measured by the industries combined ratios and return on net worth.
- As of November 2010, workers' compensation insurance rates have decreased approximately 40 percent since 2003.
- Average premiums have also come down from a high of $2.85 per $100 of payroll in 2003 to $1.47 per $100 of payroll in 2009. This is a reduction of nearly 50 percent.
- While rates and premiums have declined over time, additional reductions may be necessary for many insurance companies. The average indication from rate filings requested from insurance companies for the 2010 biennial rate hearing is -7.3 percent. This suggests that the average premium levels for the industry can be further reduced by approximately 7.3 percent.
- Undeveloped loss ratios compiled for the insurance companies show that the loss ratios are lower for claims in a network than for claims outside a network. Furthermore, the loss ratios suggest that the credits for certified healthcare networks, which range up to 20 percent, appear reasonable.

WC Health Care Networks

- The number of employers participating in networks and workers being treated by networks has significantly increased; however, a relatively small percentage of workers' compensation claims are in network.
- Since the Department began accepting applications for workers' compensation health care networks on January 2, 2006, the agency has certified 30 networks covering 249 counties.
- Data calls conducted with 12 of the largest insurance company groups (representing 83 percent of 2009 direct workers' compensation premiums written in Texas) indicate that most large insurance companies have contracted with or established a certified workers' compensation network.
- 39,643 policyholders in 2010 (compared to 34,040 in 2008) have agreed to participate in workers' compensation networks in exchange for premium credits up to 20 percent. However, insurance carriers predict slower growth in the number of policyholders participating in networks over the next biennium.
- The vast majority of policyholders (84 percent) participating in networks are small to mid-sized employers with an annual premium of less than $25,000.
- Results from data calls with workers' compensation networks indicate that as of February 2010, 142,214 injured workers have been treated in 27 networks (an increase from 40,000 in 18 networks in 2008). However, network claims only represent an estimated 21 percent of all new injuries and new lost-time claims.

- The vast majority of policyholders participating in networks (84 percent) and injuries being treated by networks (47 percent) are associated with one certified network (Texas Star) and one workers' compensation carrier in Texas (Texas Mutual Insurance Company).

Access to Care, Satisfaction with Care and Health-Related Outcomes in Health Care Networks

- The results of recent injured worker surveys conducted by the Department show that a higher percentage (57 percent) of workers surveyed in 2010 reported "no problem" in getting the medical care they felt they needed for their work-related injury, compared with 52 percent of injured workers surveyed in 2005. But this rate is lower than the 60 percent reported in 2008.
- Injured workers who received medical care from workers' compensation networks generally had poorer perceptions regarding their access to care and satisfaction with care than non-network workers. These poorer perceptions about access to and satisfaction with care may be related to non-network injured workers' higher satisfaction with the option to choose their own treating doctor.
- Despite poorer perceptions about access to care for network claims, four networks are able to get an injured worker in to see a non-emergency doctor sooner than non-network claims.
- Based on results from the standardized survey instrument known as the Short Form 12 (SF-12), the physical and mental functioning scores for injured workers in Texas improved measurably in 2010. Overall mental functioning results were equal to the general U.S. population.

Medical Costs and Utilization

- Medical costs have stabilized over time, while preliminary data indicates that the impact of workers' compensation networks on medical costs and utilization of care is mixed.
- Total medical payments in the system have continued to decline since 2003 due to a variety of factors, including fewer claims being filed, an increase in medical and claim denial rates by insurance carriers, and reductions in medical reimbursement amounts as well as the reductions in the amount of certain types of treatments for new claims.
- Since the adoption of the 2003 professional services fee guideline (which adopted the Medicare billing rules and payment policies), the percentage of injured workers receiving physical medicine modalities has decreased; however, the percentage of injured workers receiving evaluation and management services, other physical medicine services, MRIs, other diagnostic services, pathology and laboratory services

and other professional services has increased. There has been little change in the percentage of injured workers receiving hospital services.

- Since 2003, there have been significant reductions in the utilization of physical medicine services, CT scans and other types of diagnostic testing billed per worker. However, the amount of nerve conduction studies, surgical services and other types of professional services provided per worker who received these services has increased.
- The adoption of ODG treatment guidelines has not changed treatment patterns noticeably. The decrease in service utilization was wide-ranging, not specific to certain procedures as it would be expected if the changes were due to treatment guidelines. Currently available data indicate only that health care providers are paying some attention to utilization levels in extreme cases but general treatment pathways have not yet changed significantly since the adoption.
- Overall, networks had higher average medical costs than non-network, but while non network's average costs increased 8 percent from the 2009 results, most networks experienced either cost reductions, or lower increases than non-network. Also, networks tend to have higher utilization of professional and pharmacy services than non-network.
- Medical cost differences between network and non-network claims appear to be driven primarily by higher hospital fees, higher pharmacy utilization and higher utilization of certain physical medicine services and diagnostic tests than non-network claims with similar types of injuries.

Access to Medical Care

- Total number of physicians actively practicing in Texas is increasing while the number of WC participating physicians is stable. As a result, workers' compensation participation rate is decreasing among all physicians. But the total number of claims reported is decreasing to the degree that the average number of patients per participating physician is also decreasing. There were 22.1 patients per participating physician in 1999, which decreased to 16.5 patients per physician in 2008 (a 25 percent decrease).
- Primary care physician participation rate decreased from 63.7 percent in 1999 to 45.7 percent in 2008 even though 2003 medical fee schedule increased reimbursement rates for evaluation and management services. In absolute numbers, there were 5,807 and 5,018 doctors, respectively. Decreasing participation by primary care physicians is in part alleviated by increasing participation by emergency medicine specialists who submitted bills for medical services that were normally associated with primary care physicians.
- Overall WC physician retention rate is high and stable. About 80 percent of physicians who participated in workers' compensation also treated WC patients in the following year.
- 'Top 20%' WC physicians in terms of claim volume account for more than 80 percent of total WC MD/DO patients and costs, and have higher retention rates: 98 percent or

more of these physicians continue to treat workers' compensation patients year after year. 'Top 20%' participation rate as a whole appears unaffected by changes in fee schedule and rules. Participation remained relatively stable even during 2002-2005 when a sizable number of physicians exited the market.

- Some non-metro areas and border regions have higher physician participation rates than in metro areas, but also a higher number of WC patients per physician. Any lack of physician access in these areas is primarily due to the low total number of physicians practicing in these areas rather than a low WC participation rate.
- Overall, initial access (timeliness of care) measures show that WC patients are getting non-emergency treatments faster in 2008 than in 1998: 81.5 percent of patients received initial care in 7 days or less in 2008, up from 75.1 percent in 1998.
- Compensability/extent of injury denials and/or initial disputes tend to be associated with delayed initial care: 66.2 percent of disputed cases received initial care in 7 days or less in 2007, up from 55.1 percent in 1998.
- Initial access for network patients is slightly better than non-network patients despite a perception that closed nature of networks may delay medical treatment.
- Denial and/or disputes tend to delay initial care. Despite delays, initial access to care has improved for denied and/or disputed claims. Approximately 66 percent of denied/disputed cases received initial care in 7 days or less in 2007, up from 55 percent in 1998.

Return-to-Work Outcomes

- Return-to-work outcomes continue to improve, but data indicates that the impact of networks on return-to-work outcomes is mixed.
- The percentage of injured workers receiving Temporary Income Benefits (TIBs) (i.e., injured employees with more than seven days of lost time) who have initially returned to work within six months post-injury has increased steadily from 74 percent for workers injured in 2004 to 80 percent in 2009.
- The number of days lost from work due to work-related injuries has fallen from an average of 97 days (a median of 26 days) for workers injured in 2004 to 57 days (a median of 21 days) in 2008.
- Improvements in return-to-work rates have also resulted in lower TIBs costs for Texas employers. The median number of weeks of TIBs paid to injured workers declined from a median of 8.6 weeks in 2002 to 6.0 weeks in 2008. While workers' wages continue to increase annually, this reduction in TIBs duration has resulted in a 12 percent decline in the median TIBs payment per claim in the same period.
- A higher percentage of injured workers surveyed in 2010 reported that they were released to go back to work by their doctor with no or little physical restrictions, compared with workers surveyed in 2005 and 2008. This may be the result of certain HB 7 provisions, including the adoption of return-to-work guidelines and the ability

of designated doctors (i.e., independent doctors assigned by the Division) to review an injured worker's ability to return to work.

- Initial results from the Department's 2010 Workers' Compensation Network Report Card indicate that while there is little difference in the percentage of injured workers who return to work, networks had more favorable return-to-work results than Non-network for injured workers released to work by their treating doctors.

Medical Dispute Resolution and Complaint

- Medical disputes and dispute durations have declined since 2005 and a relatively low number of complaints have been filed about workers' compensation health care networks.
- The percentage of medical disputes over preauthorization denials increased after 2005 but has stabilized in recent years, while the percentage of medical disputes over retrospective medical necessity issues decreased. This is likely due to the new requirement that medical services that fall outside of the Division's treatment guidelines be preauthorized by the insurance carrier.
- The total number of medical disputes filed with the Department decreased from 13,257 disputes in 2005 to approximately 12,200 in 2009. But more than 6,000 of the disputes in 2008 and 2009 were pharmacy disputes filed by one doctor, and they were either upheld or withdrawn during the appeal process.
- There have been significant improvements made in the number of days to resolve medical disputes since 2005. These reductions resulted from a variety of factors, including changes in HB 7 to more closely align the Independent Review Organization processes for workers' compensation and group health, fewer new disputes being filed and efforts from Division staff to more efficiently process new and legacy (pre-HB 7) medical fee disputes.
- Overall, the number of complaints has not changed significantly since the passage of HB 7 in 2005. For networks, the Department has received only 275 complaints since the certification of workers' compensation health care networks began in 2006. These complaints center on issues such as the availability of network health care providers, injured workers' concerns about the delivery of network notices, and providers' concerns about payment issues and their ability to participate in networks.

Employer Participation

- Private-sector employer participation rates increased to 68 percent, the highest since the first employer participation survey was conducted in 1993. Among these subscribing employers, large employers with 500 or more employees also opted into the system at the highest rate (85 percent) in nine years.
- Increased employer participation rates, especially among large employers, have resulted in the second highest coverage rate (83 percent) for Texas employees since 1993.

- An estimated 32 percent of year-round Texas private-sector employers (approximately 106,137 employers) do not have workers' compensation coverage (i.e., are non-subscribers to the Texas workers' compensation system) - the lowest percentage since 1993.
- An estimated 17 percent of Texas employees (representing approximately 1.5 million employees) worked for non-subscribing employers – the second lowest percentage since 1993 - the rate was 16 percent in 2001.
- The most frequently cited reason (32 percent) by non-subscribing employers for not purchasing workers' compensation coverage was that premiums were too high.
- The most frequently cited reason (27 percent) by subscribing employers for participating in the Texas workers' compensation system was because the employer was able to participate in a health care network. This was also the primary reason given by 29 percent of large employers (with 500 or more employees) for participating in the Texas workers' compensation system.

1. Introduction

Medical costs have been a concern in the Texas workers' compensation system since the 76th Legislature passed House Bill (HB) 3697 in 1999 mandating a series of studies comparing the cost, quality and utilization of medical care provided to injured employees in Texas with those in other states and other health care delivery systems. The results from these and other studies showed that Texas had some of the highest average medical costs per claim and that these costs were primarily driven by the amount of medical care provided to injured employees (also known as the utilization of care).[1] Additionally, these studies highlighted that, compared with similarly injured employees in other states, Texas injured employees had poorer return-to-work outcomes and satisfaction with care. Growing concerns from policymakers and system participants about high medical costs and poor outcomes led to the passage of House Bill (HB) 2600 by the 77th Legislature in 2001, which included key components, such as:

- treatment guidelines;
- eliminating the spinal surgery second opinion process and requiring preauthorization for spinal surgeries;
- requiring medical necessity and preauthorization disputes to be reviewed by Independent Review Organizations (IROs) (i.e., panels of independent doctors certified by the Department);
- instituting a registration and training requirement for doctors treating injured employees (i.e., the Approved Doctor's List or ADL);
- increasing training requirements for doctors performing impairment rating examinations; and
- requiring the use of Medicare's reimbursement structure, payment policies, and coding requirements for medical billing.

Since the passage of HB 2600, a significant amount of attention has been placed on the issue of lowering medical costs through a reduction in the overutilization of medical services provided to injured employees. The issue of reducing medical costs and improving the quality of medical care provided to injured employees was also a key component driving the passage of a new health care delivery model in HB 7 – workers' compensation health care delivery networks. In 2005, the 79th Legislature passed House Bill 7 (HB 7), which represents the most comprehensive organizational and policy reforms to the Texas workers' compensation system since 1989. Key aspects of these reforms included:

[1] See Research and Oversight Council on Workers' Compensation, Striking the Balance: An Analysis of the Cost and Quality of Medical Care in the Texas Workers' Compensation System: A Report to the 77th Legislature, 2001; Research and Oversight Council on Workers' Compensation, Returning to Work: An Examination of Existing Disability Duration Guidelines and Their Application to the Texas Workers' Compensation System: A Report to the 77th Legislature, 2001; Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, Medical Cost and Quality of Care Trends in the Texas Workers' Compensation System, 2004; and Workers' Compensation Research Institute, CompScope Benchmarks for Texas, 6th Edition, 2006.

- the abolishment of the former Texas Workers' Compensation Commission and transfer of its administrative duties to the Division of Workers' Compensation (Division) of the Texas Department of Insurance (Department);
- the creation of the Office of Injured Employee Counsel to serve as a voice for injured workers during rulemaking and assist them during dispute resolution;
- the formation of workers' compensation health care networks approved by the Department to improve the quality of medical care received by injured workers at a reasonable cost for Texas employers;
- the adoption of evidence-based medical treatment guidelines designed to provide guidance to health care providers about appropriate treatment protocols for work-related injuries;
- the streamlining of medical and income benefit dispute resolution processes to improve the timeliness of dispute resolution; and
- an increased focus on improving return-to-work outcomes in Texas.

HB 7 contained several provisions requiring the Department to evaluate the impact of these reforms on a biennial basis and to report the results to the Governor, Lieutenant Governor, Speaker of the House of Representatives and the Legislature no later than December 1 of each even-numbered year. Section 2053.012, Texas Insurance Code, and Section 405.0025, Texas Labor Code require the Department and the Workers' Compensation Research and Evaluation Group to issue these biennial reports to the Texas Legislature no later than December 1st every even-numbered year on the impact of these legislative reforms on the affordability and availability of workers' compensation insurance for Texas employers and the impact of certified workers' compensation health care networks on return-to-work outcomes, medical costs and quality of care issues and medical dispute resolution.

Specifically, this report examines the impact of the 2005 reforms on

- the affordability and availability of workers' compensation insurance for Texas employers (per Section 2053.012, Texas Insurance Code), including:
  1) projected workers' compensation premium savings realized by Texas employers;
  2) employer participation in the system;
  3) market competition, including an analysis of how loss ratios, combined ratios and individual risk variations have changed since the implementation of the reforms; and
  4) workers' compensation network participation by small and medium-sized employers; and

- the impact of certified workers' compensation health care networks (per Section 405.0025, Texas Labor Code) on:
  1) medical costs and utilization of care;
  2) access to and satisfaction with medical care;
  3) return-to-work outcomes;
  4) health-related functional outcomes; and

5) the frequency, duration and outcome of medical disputes and complaints.

While this report examines numerous trends in terms of costs and quality of care issues within the Texas workers' compensation system, results on the effects of some aspects of HB 7 (namely workers' compensation health care networks and treatment guidelines) are based only on two years of data. Although the Department began certifying workers' compensation health care networks in 2006, the number of networks treating injured workers and the number of injured workers being treated in networks is still relatively small and highly concentrated in one network associated with the largest workers' compensation insurance carrier in Texas. Additionally, the impact of the May 1, 2007 treatment guideline adoption by the Division cannot be fully quantified since the adoption by health care providers and the actual application in their treatment processes can be analyzed only through medical billing data. More suitable data such as preauthorization requests and denials, or sales and usage of the guidelines are not available. However, this report provides a summary look at the three years of Network Report Cards, and a preliminary analysis of the impact of the treatment guidelines to the extent that data are available. The Department will continue to implement the remaining aspects of the HB 7 reforms in the upcoming year (e.g., the adoption of a closed pharmacy formulary and fee guideline and the adoption of new work-search requirements for Supplemental Income Benefits) and to track the results of these reforms in order to fulfill the legislature's intent to improve both the cost and quality of health care provided to injured workers in Texas.

Following the introduction, Section 2 provides an overview of the status of the Texas workers' compensation insurance market prior to and after the implementation of workers' compensation networks under HB 7, including workers' compensation insurance rates and premiums, market competition, financial solvency, and loss and combined ratios. This section also summarizes recent rate filings submitted by workers' compensation insurance companies.

Section 3 of the report presents the most current information available regarding workers' compensation network participation in the Texas workers' compensation system. This section includes the number of workers' compensation networks certified as well as the geographic distribution by county of network coverage. Additionally, Section 3 summarizes the results of a data call issued to 12 of the largest Texas workers' compensation insurance companies and a data call issued to all certified workers' compensation health care networks regarding their estimates of the number of employers (policyholders) that are participating in workers' compensation networks as well as the number of injured workers being treated in network. Section 3 also provides information about the premium credits certain insurance companies are offering to Texas policyholders in exchange for network participation.

Section 4 of the report provides an analysis of how accesses to care, satisfaction with care and health-related outcomes have changed in the workers' compensation system since 2005. This section also compares the perceptions of injured workers who were treated in certified networks with those of injured workers who received non-network medical care.

Section 5 of the report presents information about medical cost and utilization of care trends pre- and post-HB 7, including information about how these trends vary by type of

medical service. This section also examines how fees for individual medical services have changed over time and how the impact of injury rates, claim frequency and medical denial rates, and the treatment guidelines have affected medical payments in the system. This section also includes preliminary data from the Department's 2010 Workers' Compensation Network Report Card, which compares the medical care and utilization of care results between network and non-network claims.

Section 6 of the report assesses the conditions for access to care in the Texas workers' compensation medical care delivery system. Focusing on non-emergency initial care provided by physicians, this section summarizes physicians' participation rates in the workers' compensation system, their retention rates, and the measurement of the timeliness of initial care. These measurements are also analyzed by physician specialties and by geographical regions within the state. In addition, this section analyzes how health care networks, as well as claim disputes and denials, affect injured workers' access to medical care.

Section 7 of the report examines how return-to-work trends have improved in Texas over time and provides preliminary information about income benefit savings as a result of reductions in lost time as well as differences in return-to-work outcomes for network and non-network claims.

Section 8 of the report looks at the frequency, duration and outcomes for medical disputes in the Texas workers' compensation system and the impact that the HB 7 reforms have had on these disputes. Additionally, this section examines the number and type of complaints that the Department has received since 2005, including complaints regarding workers' compensation health care networks.

Section 9 of the report provides estimates of overall non-subscription rates (i.e., the percentage of Texas employers that have chosen not to carry workers' compensation coverage) and the percentage of the Texas workforce employed by non-subscribers. Section 9 also includes non-subscription rates categorized by industry and employer size and explores the reasons both subscribing and non-subscribing employers gave for their respective workers' compensation coverage decisions. Additionally this section looks at the percentage of Texas employers who are knowledgeable about the HB 7 reforms and how this knowledge is currently impacting their perceptions regarding economic development in Texas.

Appendix provides detailed medical cost and utilization trend information for various categories of professional medical services and specific types of physical medicine services.

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 will look 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 and insurers' rate filings and use of competitive rating tools to better price individual risk variations helps in evaluating the affordability and availability of coverage for Texas employers.

Market Concentration

In 2009, more than 260 insurance companies had positive direct written premium for workers' compensation insurance. The total direct written premium for the workers' compensation insurance market was about $2.18 billion in Texas. While the number of companies writing workers' compensation insurance has not changed much, the direct written premium is down from $2.58 billion in 2008 – a 16 percent drop. This drop is a likely byproduct of the recession as it impacted employer payrolls which are the exposure used to price workers' compensation insurance.

The top 10 groups write a little more than 80 percent of the market and the top writer, Texas Mutual Insurance Company, has 29 percent of the market based on its 2009 direct written premium. Texas Mutual Insurance Company (Texas Mutual), formerly The Texas Workers' Compensation Fund, wrote over $634 million in direct written premium, or 29 percent of the market, in 2009. Texas Mutual was created by the Legislature 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. Less than a quarter of one percent of the workers' compensation insurance market is written in the involuntary market[1], which attests to the wide availability of coverage in the voluntary market.

Table 2.1 shows the historic market shares for the top 25 insurance company groups, based on each group's ranking in 2009. These groups wrote over 90 percent of the direct written premium for workers' compensation insurance in 2009. The market share for these same groups is shown going back to 2005, even though they may not have all been in the top 25 or at the same rank during those years. Additionally, some groups which may have been top writers historically but are no longer active or a top 25 writer in 2009 would not be represented in the table.

[1] The involuntary market is written by Texas Mutual and is placed in their START program.

Table 2.1: 2005 - 2009 Market Share by Insurance Company Group

Group	Rank (2009 Annual Statement)	2005	2006	2007	2008	2009
Texas Mutual Ins Co	1	26.0%	26.6%	27.5%	29.3%	29.1%
Liberty Mutual Group	2	9.0%	10.2%	9.0%	11.3%	10.9%
American Intl Group Inc	3	13.7%	16.6%	12.6%	11.3%	8.1%
Travelers Group	4	5.8%	5.4%	6.3%	6.4%	7.8%
Hartford Fire Group	5	8.2%	6.8%	6.7%	6.9%	*7.4%*
Zurich Ins Co Group	6	7.9%	6.9%	8.6%	7.6%	*7.3%*
Ace Ltd Group	7	4.8%	3.9%	4.8%	3.0%	4.3%
Continental Cas Group	8	3.5%	2.9%	2.9%	2.8%	2.8%
Service Lloyds Group	9	1.8%	1.7%	1.7%	1.9%	2.2%
Amerisure Co	10	1.6%	1.5%	1.6%	1.8%	1.9%
Chubb & Son Inc Group	11	2.0%	1.8%	1.9%	1.9%	1.8%
Old Republic Ins Group	12	2.2%	2.0%	1.7%	1.3%	1.3%
Delek Group	13	0.5%	0.6%	1.0%	1.1%	1.2%
Zenith Nat'l Ins Group	14	0.0%	1.4%	1.3%	1.2%	1.0%
Sentry Ins A Mutual Co Group	15	0.9%	0.7%	0.8%	0.8%	0.8%
Employers Group	16	0.0%	0.0%	0.1%	0.9%	0.7%
SeaBright Ins Co	17	0.2%	0.3%	0.5%	0.7%	0.7%
Arch Ins Group	18	0.1%	0.4%	0.5%	0.5%	0.6%
WR Berkley Corp Group	19	0.4%	0.4%	0.4%	0.5%	0.5%
Amerisafe Group	20	0.5%	0.7%	0.5%	0.5%	0.5%
American Financial Group	21	0.2%	0.2%	0.2%	0.4%	0.5%
Federated Mutual Group	22	0.4%	0.4%	0.4%	0.4%	0.4%
Utica Mutual Ins Co & Affil	23	0.5%	0.4%	0.4%	0.4%	0.4%
State Farm Group	24	0.3%	0.3%	0.3%	0.4%	0.4%
Fairfaix Fin Group	25	0.5%	0.5%	0.5%	0.3%	0.4%

Source: The Department's compilation of the Texas Statutory Page 14 of the NAIC Annual Statement for Calendar Years Ending December 31, 2005 - 2009.

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. An HHI index between 1000 and 1800 is considered moderately concentrated and HHI indices above 1800 are considered concentrated. The HHI based on insurance company group market shares for Texas is 1,242.

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 are tied back to the year in which the accident occurred, regardless of when they are reported or actually paid. For example, accident year 2004 would reflect claims or losses from all accidents that happened in 2004 even if, for example, a loss was initially reported in 2005 and/or paid at an even 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 2004, regardless of when the loss payments are actually made.

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

The combined ratio literally combines the loss ratio with the expense ratio to gauge overall profitability, before consideration of the investment earnings of insurance companies. 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 may be thought of as profit-sharing in the form of a return of a percentage of the premiums to policyholders.

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 that is collected by the insurance company it is projected that $1.10 will be used to pay losses and expenses incurred by the insurance company. The insurance company will need to find other sources to pay the 10 cents that is not covered by the premium. This may be earnings from investments or even a direct charge against the insurance company's surplus. In 2009, the projected accident year combined ratio was 87.0 percent. This means that for every dollar collected by the insurance company, it is estimated that they will pay 87.0 cents to cover losses and

expenses. The insurance company will keep the remaining approximately 13 cents as profit.

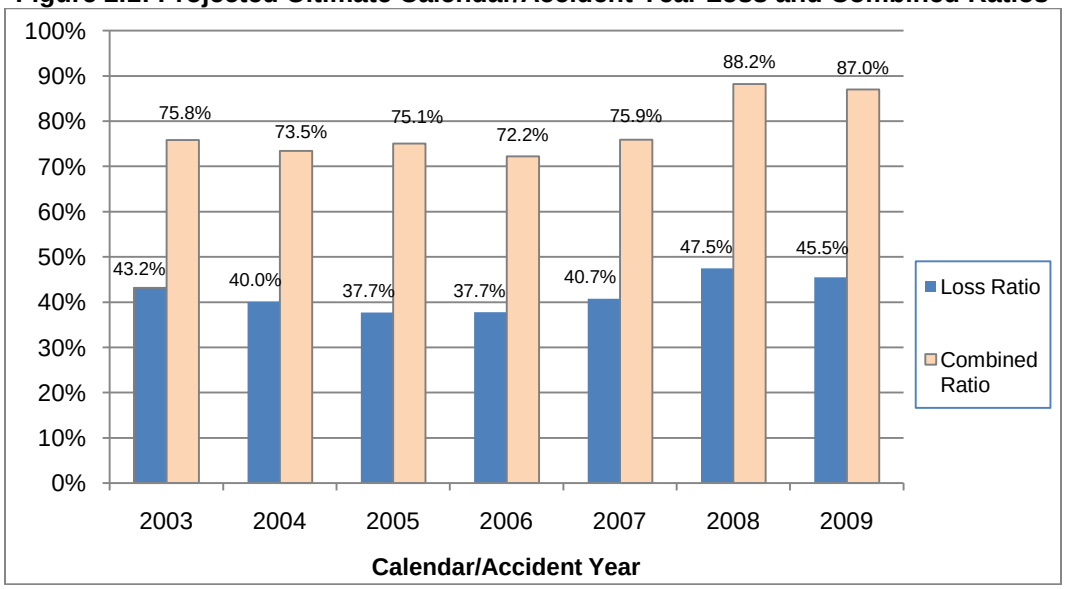
Table 2.2 (and Figure 2.1) shows the loss ratio and the combined ratio, both of which reflect that the last seven years have been very profitable. In 2008 and 2009 the accident year combined ratios deteriorated relative to the prior five years, but still remain very profitable.

Table 2.2: Projected Ultimate Calendar/Accident Year Loss and Combined Ratios

Accident Year	Direct Earned Premium	Ultimate Losses	Loss Ratio	Combined Ratio
2003	2,192,674,882	946,561,376	43.2%	75.8%
2004	2,100,671,029	840,764,437	40.0%	73.5%
2005	2,131,103,682	803,907,603	37.7%	75.1%
2006	2,201,772,594	830,963,004	37.7%	72.2%
2007	2,202,372,772	897,211,083	40.7%	75.9%
2008	2,210,598,533	1,049,206,981	47.5%	88.2%
2009	1,945,212,721	885,065,699	45.5%	87.0%

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 2009.

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 2009.

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, recent rate changes taken by insurers are not yet reflected in the ratios shown in Table 2.2 and Figure 2.1. 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, but the results would still be profitable.

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 2.3 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.

Table 2.3: Return on Net Worth

Year	Workers' Compensation Insurance		All Industries
	Texas	Countrywide	Countrywide
1999	2.5	4.5	15.2
2000	6.2	6.0	14.6
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
10-Year Average	8.3	6.4	12.0

Source: NAIC Report on Profitability by Line by State in 2008

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 equity is on a calendar year basis. Unlike the accident year analysis above, calendar year analysis includes all activity during the calendar year.

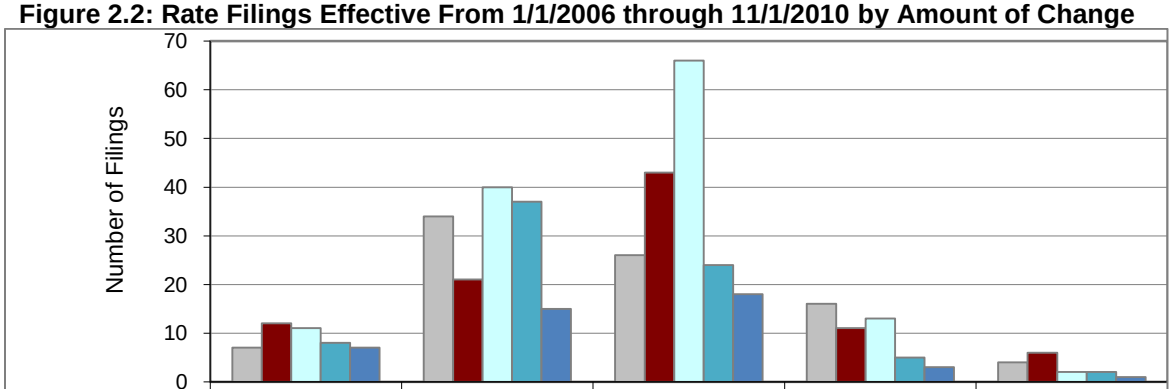
Rate Filings

Figure 2.2 shows the number of workers' compensation rate filings, by range of average rate change, effective from 2006 through November 1, 2010. These rate filings are those where the insurance company revised its filed deviation. Insurers have continued to file more rate decreases than rate increases. Rate activity peaked in 2008 with 117 rate decreases that became effective, and 15 rate increases. In 2009, there were 69 rate

decreases effective and 7 rate increases. Thus far in 2010, there have been 40 rate decreases, and 4 increases.

These numbers do not include the additional couple hundred or more workers' compensation rate filings received by the Department that were revenue neutral, such as those for schedule rating plans or the introduction of a network premium credit, or filings that merely adopted the classification relativities.

Figure 2.2: Rate Filings Effective From 1/1/2006 through 11/1/2010 by Amount of Change

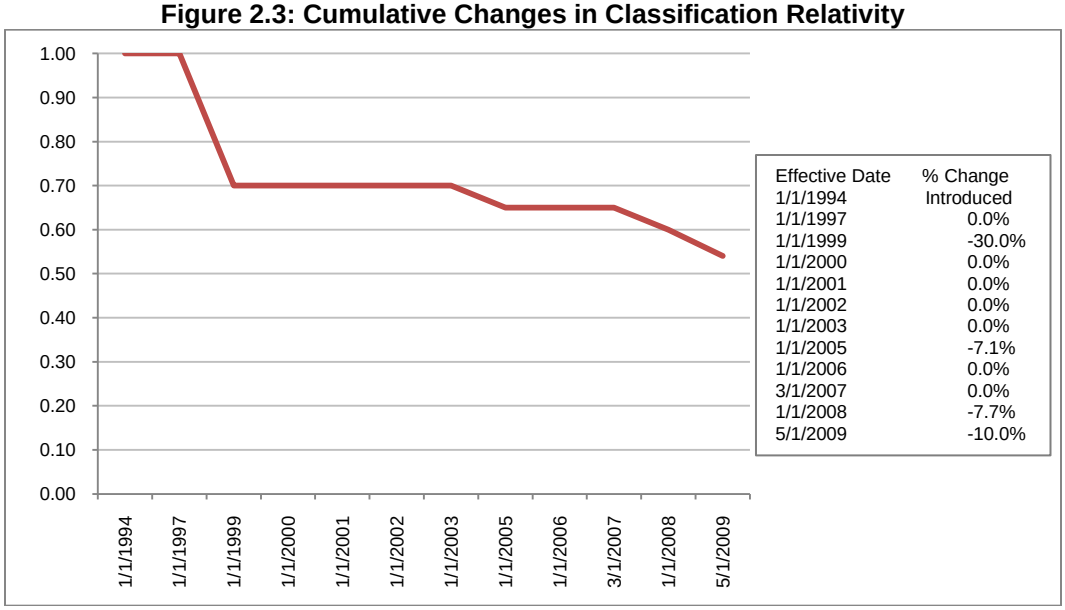


	-50% < to ≤ -20%	-20% < to ≤ -10%	-10% < to < 0%	0% < to < +10%	+10% ≤ to < +20%
2006	7	34	26	16	4
2007	12	21	43	11	6
2008	11	40	66	13	2
2009	8	37	24	5	2
YTD 11/1/2010	7	15	18	3	1

Source: Insurance company rate filings received by the Texas Department of Insurance. The figure does not include filings that were revenue neutral or adopted the classification relativities with no change in the insurance company's filed deviation.

Since 2003, rates have come down about 40 percent. This number includes both changes in companies' deviations as well as overall changes in the classification relativities established by the Department. Usually the Department 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 +/-25 percent. The Department has however, lowered the classification relativities a few times in the last several years. Effective 1/1/2005 the relativities were lowered by 7.1 percent; effective 1/1/2008, they were lowered another 7.7 percent; and effective May 1, 2009, the relativities were lowered by 10 percent. These reductions in the class relativities are included in the cumulative rate decrease of 40 percent which we've seen since 2003. Figure 2.3 shows the historical changes in the classification relativities.

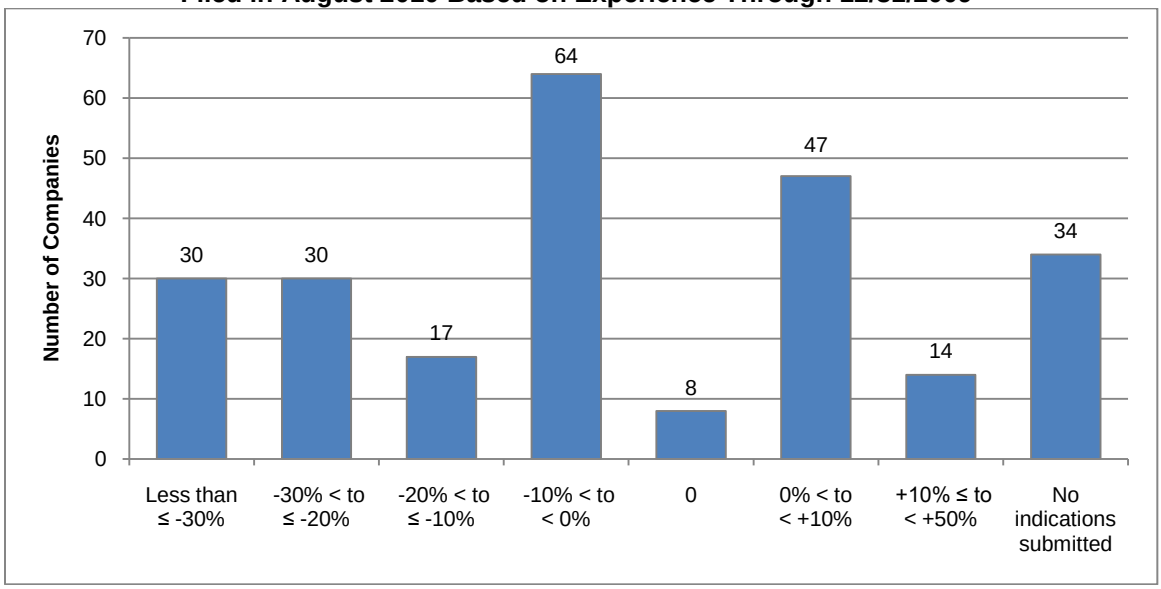
Figure 2.3: Cumulative Changes in Classification Relativity



In preparation for the 2010 biennial rate hearing on workers' compensation insurance, insurance companies were required to provide their "rate indications" in August 2010. A company's indication is the actuarial determination of how its rate or premium level should change going forward. Actuarial 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. While some of the indications in the rate filings received suggested the need to increase rate and/or premium levels, the majority of the insurance companies' indications suggest that premium levels should come down. The range of individual insurance company indications is very broad. For companies with reasonably credible data, the companies' indications generally range from about -40 percent to near +40 percent. These indications are based on the insurance companies' calculations, using their assumptions, and do not reflect any judgments or assumptions made by the Department.

The Department received 210 insurance company rate filings with indications. Figure 2.4 shows how many of these companies had indications within the specified ranges shown. For example, there were 17 companies that filed indications that were between –20 percent and –10 percent. If a group of companies filed an indication based on the group's experience, this group indication is reflected for each individual insurance company within the group. For example, a group with 3 companies may have filed indications of -16 percent. In this histogram, they would contribute 3 counts in the category for rate filings with indications between -20 percent and -10 percent. There were 34 companies that filed information but did not submit indications. These companies were generally small or wrote only large deductible policies.

Figure 2.4: Summary of Insurance Companies Indications Filed in August 2010 Based on Experience Through 12/31/2009



Source: Insurance company rate filings received by the Texas Department of Insurance in response to a request for rate filings for the 2010 biennial rate hearing (Commissioner's Bulletin B-0021-10).

For the 210 companies that filed indications, the average premium-weighted indication is -7.3 percent. This suggests that premium levels, on average, can be lowered by 7.3 percent. As noted earlier, the indications vary significantly by company and reflect the companies' assumptions. Even though the companies' indications suggest some change is warranted on average, few companies proposed a rate change with their filing, and of these, only one filed a rate increase; the others were for rate decreases of varying amounts.

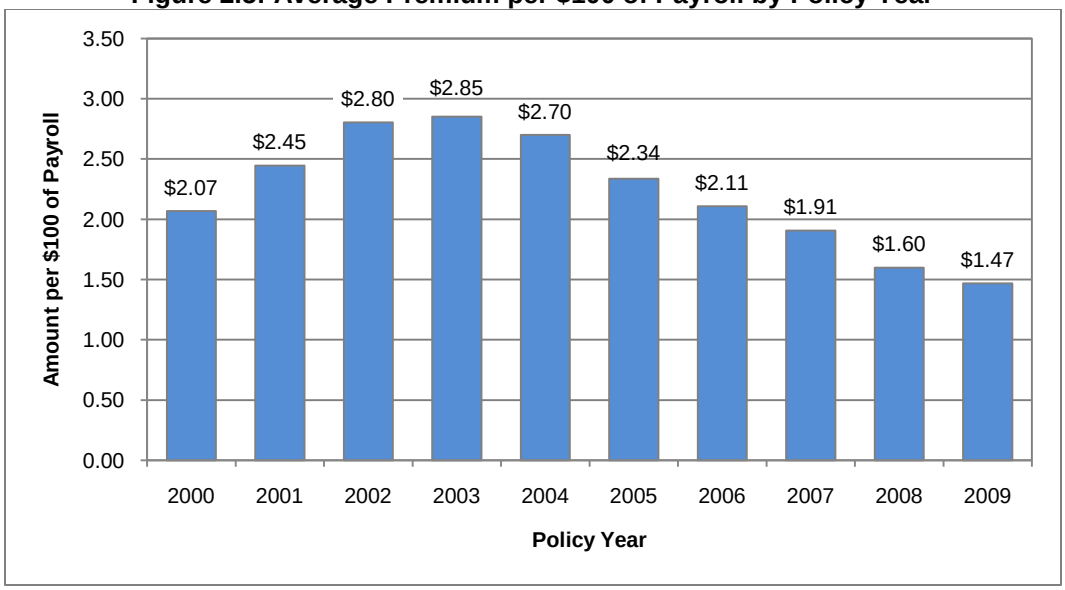
Average Premium

While the rate changes filed by the companies in the last few years and the indications filed in August 2010 show how much rates have come down and could conceivably come down further, 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. These rating tools can be used to modify rate changes, or can be used in lieu of them, to achieve desired premium levels. A review of the average premium per $100 of payroll can be used to determine how the rate changes filed by companies together with rating tools have combined to determine what is paid by employers.

Figure 2.5 shows the average premium per $100 of payroll for policy years 2000 through 2009, reflecting year-to-year changes in premiums charged. This information is on a policy year basis, which is different than the calendar year and accident year data

discussed earlier. In a policy year, the premiums and losses are tied back to the year in which the policy was effective. Average premiums increased, from $2.07 per $100 of payroll in policy year 2000 to $2.85 per $100 of payroll in policy year 2003. It was during most of these years that the industry suffered underwriting losses. With policy year 2004, the average premium per $100 of payroll began to decrease as insurance companies lowered their rates and increased the usage of rating tools, such as schedule rating. The drop in the average premium per $100 of payroll has continued through 2009, where it is down to $1.47 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. The reduction in average premium that is seen at the overall industry level is also generally seen at the insurance company's group level.

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



Source: The Texas Workers' Compensation Financial Data Call and the Department's 2010 Classification Relativity Study.

It is important to note that 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, that is, premiums are based on audited payrolls, the average premiums may change over time, especially for the most recent years.

Rating Tools Recognizing Individual Risk Variations

One of the revisions made to the workers' compensation statutes as a result of the enactment of HB 7 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 evaluation of insurance company's rates and premiums in light of this is based 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 the effects of these rating tools were not filed with insurance companies' rate filings prior to HB 7, the Department issued periodic data calls to gather information on their use. The Texas Workers' Compensation Financial Data Call also provides information which the Department uses in gauging the effect of these tools.

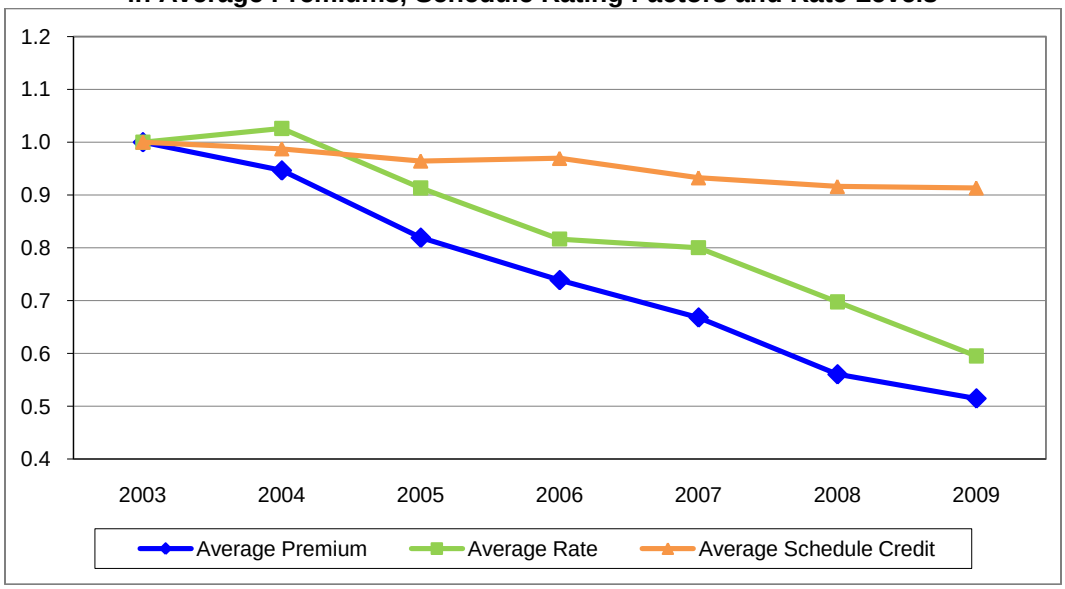
Once an insurance company determines an employer's rate based on its classification (which depends on the type of business such as office, construction, manufacturing, etc.), and the employer's loss experience, the insurance company can further modify the policy's premium through the use of rating tools 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 actual 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 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.[2] Application of schedule rating to an employer 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 2009 was a credit of 13.0 percent**.** Since 2003, the average schedule rating adjustment has been a credit that has increased gradually each year; therefore, lowering premiums each year to a greater extent, all else equal. Market forces often drive schedule rating and the size of credits or debits given may be influenced by conditions in the market, as opposed to being formula-based. 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 of the 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 time frame. To put all this on the same scale, the changes in each of these items through 2009 is shown relative to 2003. Since 2003, the average premium has dropped by almost 50 percent; the average schedule rating factor has decreased almost 10 percent; and the average rate level change has been about -40 percent. This shows us that both rates and premiums have come down significantly since 2003, and even since 2005 when HB 7 was enacted.

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

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.

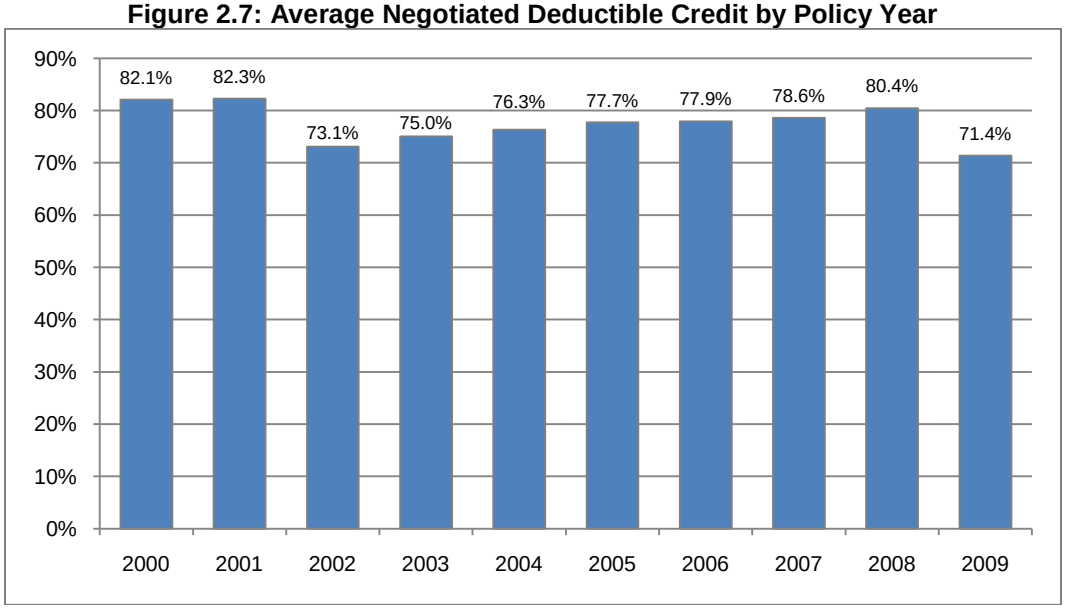
Another rating tool used to reflect individual risk variations in pricing is a negotiated experience modifier. Experience modifiers reflect an employer's past losses. The greater the losses, the higher the employer's experience modifier will be, thus producing a higher charged premium, and vice versa. A negotiated experience modifier is a tool which allows an employer and its insurance company to negotiate a lower experience modification, and thus a lower premium, for the employer. This tool appears to be used sparingly today with only a few relatively small insurance companies reporting that they use it frequently enough to have a noticeable effect on their average experience modifiers. The use of negotiated experience modifiers is not having a significant impact on premiums for the industry.

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 assumes responsibility for all or part of a given loss. There are two types of deductible options for use by Texas employers. There are small promulgated deductible plans and negotiated deductibles[3]. The small promulgated deductible plans are a mix of deductible choices at a per accident or per aggregate level. Negotiated deductible credits are available for employers with larger policies or larger deductibles that effectively allow the employer to self-insure. These negotiated deductibles are popular, with about half the premium prior to the application

[3] Large deductible policies are excluded from the Texas Workers' Compensation Financial Data Call. Losses for all other deductible policies are reported 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 $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.

of the deductible credit. Figure 2.6 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

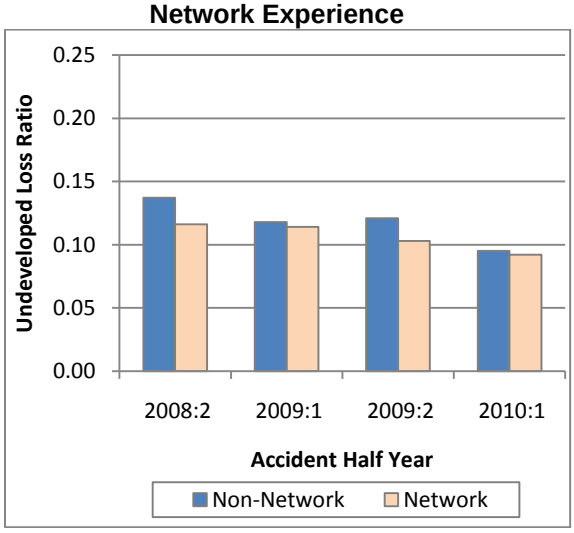
Another way for employers to reduce their premiums is through participation in a TDI-certified health care network, the cornerstone of the HB 7 reforms. These networks are designed to improve the quality of medical care received by injured workers at a reasonable cost for Texas employers and to improve 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%. These credits were initially established based on judgment, rather than being experience-based. Based on a review of aggregated data for all companies, of undeveloped loss ratios, it appears that, on average, the credits are reasonable. The average dollar savings per policy, for those policies receiving a network discount, is about $2,100, 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.

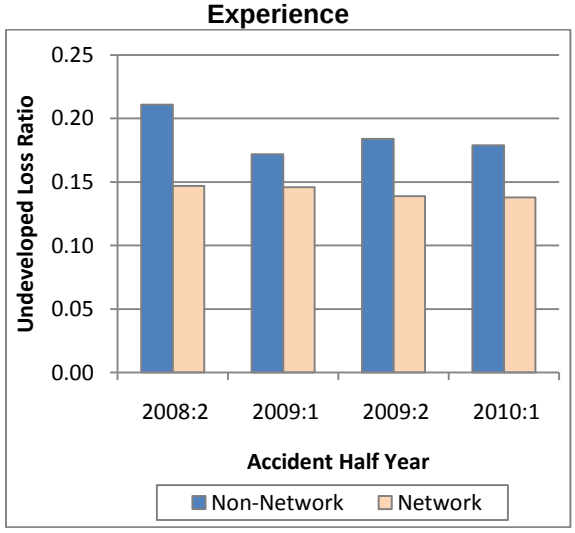
As experience emerges, the loss ratios can be reviewed to determine whether the premium credits are appropriate or if they should be greater or lesser. Figures 2.8 and 2.9 show the undeveloped indemnity and medical loss ratios for the most recent four half-accident years for insurance companies that reported their experience in networks under the 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.

Assessments Regarding 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. Assessments regarding 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 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 end result is that average premiums charged to employers have come down. However, based on the rate indications

filed by insurance companies in August 2010 for the biennial rate hearing, which was held November 10, 2010, rates and premiums could come down even further. Consideration of the information in this report, along with information from the biennial hearing on workers' compensation rates and premiums, will form the basis for possible action plans to be considered by the Department.

3. Workers' Compensation Health Care Networks

An important component of evaluating the impact of the HB 7 reforms on the Texas workers' compensation system is the implementation of the cornerstone of these reforms - workers' compensation health care networks. In the years prior to the adoption of these reforms, rising average medical costs per claim, poor return-to-work outcomes, and high workers' compensation premiums resulted in an increase in the percentage of Texas employers that chose to leave the workers' compensation system (see section 9 of this report for a discussion about employer participation trends in the Texas workers' compensation system).

Research studies published by the former Research and Oversight Council on Workers' Compensation, the Department, and the Workers' Compensation Research Institute (WCRI) highlighted that Texas' high medical costs were being driven primarily by the amount of medical care provided to injured workers (often referred to as "the utilization of medical care"). Despite high medical costs, Texas injured workers were not more satisfied with their medical care compared to workers in other states.[1]

In response to these trends and stakeholders' (e.g., insurance carriers, employers, injured workers, health care providers etc.) concerns, the 79th Legislature introduced a new workers' compensation health care delivery model, which allows insurance carriers to establish or contract with managed care networks that are certified by the Department using a method similar to the certification of health maintenance organizations (HMOs).

Overview of the Network Provisions in HB 7

Under HB 7, workers' compensation insurance carriers (including insurance companies, certified self-insured employers, group self-insured employers, and governmental entities) may elect to contract with or establish workers' compensation health care networks (networks), as long as those networks are certified by the Department. The Department's certification process includes a financial review, validation that the network meets the health care provider credentialing and contracting requirements established in the Department's rules, and a detailed analysis of the adequacy of health care providers available to treat injured workers in each proposed network's service area. If an employer chooses to participate in the insurance carrier's workers' compensation network, the employer's injured workers are required to obtain medical care through the network, provided that the injured worker lives in the network's service area and receives

[1] See Research and Oversight Council on Workers' Compensation, Striking the Balance: An Analysis of the Cost and Quality of Medical Care in the Texas Workers' Compensation System: A Report to the 77th Legislature, 2001; Research and Oversight Council on Workers' Compensation, Returning to Work: An Examination of Existing Disability Duration Guidelines and Their Application to the Texas Workers' Compensation System: A Report to the 77th Legislature, 2001; Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, Medical Cost and Quality of Care Trends in the Texas Workers' Compensation System, 2004; and Workers' Compensation Research Institute, CompScope Benchmarks for Texas, 6th Edition, 2006.

notice of the network's requirements from the employer (including a network provider directory).[2]

Employees receiving network notices are asked to sign an acknowledgment form that indicates which certified network the employer is participating in, and acknowledges that the employee understands how to choose a treating doctor, seek medical care within the network or from a network-approved referral provider (with the exception of emergency care), and file a complaint with the network or with the Department.

Health care providers and workers' compensation networks negotiate fees under this new network model rather than utilize the Division's adopted fee guidelines. Additionally, workers' compensation networks may operate under their own treatment guidelines, return-to-work guidelines and preauthorization requirements, although these treatment and return-to-work guidelines must meet minimum statutory criteria.[3] Under this new model, workers' compensation networks are required to have case management and return-to-work coordination services, as well as provide annual quality assurance and financial reports to the Department to ensure that these networks continue to provide high quality medical care to injured workers. Additionally, HB 7 requires the Department to publish and disseminate an annual workers' compensation network report card that evaluates certified networks on measures including medical costs and utilization, return-to-work outcomes, and injured worker satisfaction with and access to medical care.[4]

Growth in Workers' Compensation Networks

The Department began accepting applications for the certification of workers' compensation health care networks on January 2, 2006. As of February 1, 2010, the number of Department-certified networks is 30, 27 of which have treated 142,214 injured workers since the first network was certified in March 2006.

Currently, certified networks cover 249 Texas counties, up from 234 counties in 2008. Most Texas counties support multiple networks, allowing insurance carriers and their policyholders various options for network coverage. Larger metropolitan areas such as Houston, Dallas-Ft. Worth and Austin-San Antonio support more than 21 networks.

The following Health and Workers' Compensation Network Certification Division (HWCN) link has the certified networks, each with a list and map of their respective coverage areas: http://www.tdi.state.tx.us/wc/wcnet/wcnetworks.html

---

[2] By statute, pharmacy services are exempted from workers' compensation networks. Injured workers will continue to obtain pharmaceuticals from any pharmacist willing to accept workers' compensation patients, regardless of whether or not the worker is participating in a workers' compensation network (see § 1305.101(c), Insurance Code).

[3] Treatment and return-to-work guidelines utilized by certified workers' compensation networks must be "scientifically valid, evidence-based, and outcome-focused" (see §1305.304, Insurance Code).

[4] In accordance with Section 1305.502, Insurance Code, the Department is required to produce annual workers' compensation network report cards on key cost, utilization, and outcome measures. The fourth report card was published in September 2010 (see http://www.tdi.state.tx.us/reports/report9.html to view these report cards).

Public Entities and Political Subdivisions

In addition to TDI-certified health care networks, certain public entities and political subdivisions (such as counties, municipalities, school districts, junior college districts, housing authorities, and community centers for mental health and mental retardation services) have the option to: 1) use a workers' compensation health care network certified by TDI under Chapter 1305, Texas Insurance Code; 2) continue to allow their injured employees to seek heath care as non-network claims; or 3) contract directly with health care providers if the use of a certified network is not "available or practical," essentially forming their own health care network.

This report includes Alliance, a joint contracting partnership of five political subdivisions (authorized under Chapter 504, Texas Labor Code) that chose to directly contract with health care providers. While not required to be certified by the Department under Chapter 1305, Texas Insurance Code, the Alliance network must still meet TDI's workers' compensation reporting requirements.

Network Participation Rates

The Department tracks the participation of both Texas policyholders (employers) and injured employees in workers' compensation health care networks created by HB 7. According to the results of a 2010 data call with twelve of the largest workers' compensation insurance company groups (representing 83 percent of the 2009 direct workers' compensation premium written in Texas), 39,643 policyholders (12 percent of Texas employers) have agreed to participate in workers' compensation networks in exchange for premium credits that range up to 20 percent. The increase in the number of policy holders represents a 16 percent increase over the past two years.

While eleven of the top twelve insurance company groups have contracted with or established a certified network for their policyholders, usage of networks among insurance companies varies widely. As of July, 2010, five of the eleven insurance company groups offering a network option reported that more than 25 percent of their policyholders have agreed to participate in their workers' compensation network (with one insurance company reporting a 68 percent agreement rate among its policy holders). While network participation among Texas policyholders has grown considerably since 2006 (7,551 policyholders in 2006, 34,040 in 2008, and 39,643 in 2010), it remains to be seen how differences in insurance company marketing strategies, the concentration of high deductible policies within a company's book of business, the level of premium credits offered for network participation, employer requirements to provide employee network notices, and the impact of the economy on insurance company profitability and market competition will affect the participation rates for Texas policyholders over the next biennium.

Some insurance companies indicated that some policyholders are interested in the networks, but are concerned about the administrative responsibility associated with providing employees notice of the network requirements and securing a signed

acknowledgment form at the time of hire and separately at the time the worker reports the injury. Some policyholders reported to companies that they are reluctant to direct employees to see certain doctors and are waiting to see whether networks will reduce medical and indemnity claim costs before making the decision to enter into a managed care arrangement.

Insurance companies also reported that some large deductible policyholders (i.e., large employers who have a workers' compensation insurance policy with a large, negotiated deductible on a per accident basis in exchange for a large premium credit) are reluctant to participate in networks because these policyholders often have multi-state operations, with minimal exposure in Texas. Additionally, since these policies already have significant premium credits applied to them in exchange for the large deductible, some insurance companies are not offering additional premium credits for network participation. For these policyholders as well as for certified self-insured employers, premium credits are not the enticement needed to participate in networks. Rather, if networks can reduce medical and/or indemnity costs and improve return-to-work outcomes, these larger policyholders may increase their participation in networks.

All of the insurance companies with a certified workers' compensation network reported that they were offering their workers' compensation network to both new and existing policyholders and the vast majority of these companies reported that they were offering network participation during the middle of the policy period for policies that have not yet expired or been renewed. This is an area that the Department intends to monitor further since workers' compensation policies are typically renewed annually, and any reluctance on behalf of an insurance company to initially offer its network plan to policyholders during the middle of the policy period will delay the implementation of networks.

Additionally, all of the insurance companies with a certified workers' compensation health care network reported that they were offering this option to all workers' compensation policyholders with employees who live in their network's service area, regardless of premium size, employee classifications, and experience modifier.

As Table 3.1 indicates, the number of Texas policyholders participating in networks has increased significantly since 2006 (from 7,551 policyholders in 2006 to 39,643 policyholders in 2010). The current number of policy holders represents approximately 12 percent of all Texas employers. Fifty percent of policyholders participating in networks have an annual premium of less than $5,000 and 84 percent have an annual premium of less than $25,000, indicating that the policyholders participating in networks are mostly small to mid-sized employers.

While the number of policyholders participating in workers' compensation networks has increased 522 percent from 2006 to 2010, the top 12 insurance company groups estimated slower growth in the number of policyholders participating in networks over the next couple of years (6 percent estimated growth in policyholders from 2010 to 2011 and 4 percent growth from in policyholders from 2011 to 2012) (see Table 3.2).

Although insurance companies do not anticipate a significant increase in the number of policyholders that will participate in workers' compensation networks over the next

couple of years, they estimate that the number of workers' compensation claims treated in networks will increase 60 percent from 2010 to 2012 (see Table 3.3).

Table 3.1: Total Number of Policyholders That Are Participating in Workers' Compensation Networks over Time for the Top 13 Insurance Carrier Groups

Network Participation Measures	As of Fall 2006	As of Fall 2007	As of Fall 2008	As of Fall 2009	As of Fall 2010
Total Number of Policyholders Participating	7,551	29,146	34,040	36,806	39,643
By Premium Size (Texas only premium) Less than $5,000 in premium	3,473 (46%)	13,689 (47%)	15,937 (47%)	17,486 (48%)	19,896 (50%)
$5,000-$24,999 in premium	2,522 (33%)	9,869 (35%)	11,659 (34%)	12,795 (35%)	13,389 (34%)
$25,000-$100,000 in premium	1,158 (15%)	4,302 (14%)	4,940 (15%)	5,254 (14%)	5,006 (13%)
More than $100,000 in premium	398 (5%)	1,275 (3%)	1,509 (4%)	1,264 (3%)	1,344 (3%)

Table 3.2: Number of Policyholders to Participate in Workers' Compensation Networks, Estimated by the Largest Insurance Companies

Network Participation Measures	Estimate at End of CY 2011	Estimate at End of CY 2012
Overall Estimate	41,790	43,371

Table 3.3: Number of Claims to Be Treated in Workers' Compensation Networks, Estimated by the Largest Insurance Companies

Network Participation Measures	Estimate at End of CY 2010	Estimate at End of CY 2011	Estimate at End of CY 2012
Overall Estimate	134,883	179,125	215,268

Premium Credits for Policyholders

Before an insurance company begins using a certified network, the Department requires that the insurance company provide notification of the level of premium credits that will be granted for employer network participation. The premium credits on file with the Department currently range up to 20 percent with some insurance companies offering a standard credit to all policyholders who participate in the network, and other companies varying the credit depending on the percentage of the policyholders' employees that live within the network's service area. Table 3.4 summarizes the amount or ranges of premium credits that have been filed with the Department as of October 1, 2010. Section 2 of this report examines some preliminary data regarding the impact of network participation on company loss ratios and estimates the average premium savings per workers' compensation insurance policy for network participation.

Table 3.4: Insurance Companies' Filed Network Premium Credits (as of October 1, 2010)

Group Name	Credit
America First Ins Group	10%
American Compensation Insurance Company	10%
American International Group	0-5%
American Interstate Ins Co	8-12%
Amerisure Co	0-12%
Arch Ins Co	0-12%
Association Cas Ins Co	0-12%
Atlantic American Companies	0-12%
Berkshire Hathaway Homestate Companies	5-15%
Bituminous Insurance Companies	10%
Chubb Group of Ins Co	5%
CNA Ins Group	12%
Combined Safeco Ins Co Group	10%
Employers Compensation Insurance Company	15%
Employers Mutual Co Of Des Moines	12%
Everest National Ins Co	5%
Farmers Ins Group	10%
Fireman's Fund Insurance Company	15%
Florist Mutual Ins Co	10%
Great America Group	0-10%
Guard Insurance Group	10%
Hartford Ins Group	15%
Liberty Mutual Ins Group	0-12%
Lincoln General Insurance Company	10%
Lumbermens Underwriting Alliance	10%
Meadowbrook Ins Group	10%
Meridian Security	10%
Millea Holdings Inc	10%
National Surety Corporation	10%
Old Republic Ins Co	10%
OneBeacon Ins Group	10%
Redwood Fire and Casualty Company	5-15%
Republic Indemnity Companies	10%
SeaBright Ins Co	7.50%
Sentry Ins Group	0-12%
Service Lloyds Group	12%
St Paul Travelers Companies and Affiliates	12%
Star Insurance Company	10%
State Auto Property & Casualty	5%
State Automobile Mutual	5%
Texas Alliance of Energy Producers	5-20%
Texas Mutual Ins Co	10%
Union Standard Ins Group	12%
Unitrin Prop & Cas Ins Group	8.50%
Utica Natl Ins Group	7.50%
Wausau Ins Group	12%
Westmont Associates, Inc	10%
Zenith Ins Group	5%
Zurich Ins Co Group	0-8%

Number of Injured Workers Treated in Networks

In addition to tracking the participation of Texas policyholders in workers' compensation networks, the Department also tracks the number of injured workers who have been treated by networks through separate semi-annual data calls with each certified network. As of February 1, 2010, approximately 142,214 injured workers had been treated by a certified network since the first network was certified (see Table 3.5).

Table 3.5: Total Number of Injured Workers Treated by Workers' Compensation Networks Since the First Network Was Certified

Network Participation Measures	As of February 1, 2008	As of February 1, 2010
Total Number of Workers Treated	39,991	142,214
Total Number of Networks Treating Workers	18	27

While the number of injuries being treated by certified networks and the number of networks treating injured workers continues to grow, the overall percentage of injuries being treated by networks is still relatively low. The Department estimates that as of February 1, 2010, roughly 21 percent of all new injuries (those that occurred between June 1, 2008 and May 31, 2009) were treated by certified networks. The lost-time claims among those represent approximately 24 percent of all lost-time claims for that timeframe. Additionally, the population of injuries being treated by networks still has a high concentration (47 percent) in one certified network associated with Texas Mutual Insurance Company (see Table 3.6). However this concentration is down measurably from the 68 percent in 2008, as smaller networks increase their participation rates.

Summary

HB 7 introduced a new workers' compensation health care delivery model which allows insurance carriers to establish or contract with managed care networks that are certified by the Department using a method similar to the certification of HMOs. Under this new system, injured workers whose employers have contracted with a certified network are required to obtain medical care through the network, provided that the injured worker lives in the network's service area and receives notice of the network's requirements from the employer. The Department began accepting applications for the certification of workers' compensation networks on January 2, 2006, and as of February 1, 2010, 30 certified networks cover a total of 249 counties across Texas.

According to the information gathered in periodic insurance company and network data calls, the number of Texas policyholders and claims participating in workers' compensation networks has increased significantly since networks first became available in 2006. The majority of these participating policyholders are small employers with annual premium averaging less than $5,000. However, the vast majority of network policyholders and claims are highly concentrated into one certified network – Texas Star,

associated with the largest insurance company in Texas – Texas Mutual Insurance Company. Premium credits are being offered to Texas policyholders in exchange for network participation, but it is uncertain, at this point, whether the other large insurance company groups in Texas will increase their policyholder participation in networks significantly over the next couple of years. Insurance companies report that policyholders are somewhat reluctant to participate because of administrative burdens associated with providing network notices to employees and obtaining signed acknowledgment forms, while others report that policyholders are concerned about directing their employees to selected doctors and are waiting to see if networks can reduce claims costs. Another issue that may be affecting both the marketing of networks and the network participation rates among Texas employers is the decreasing losses experienced by the Texas workers' compensation system over the past few years and resulting decreases in premiums, which may be reducing the perceived need to offer and utilize workers' compensation networks. Other sections of this report will examine the trend of decreasing claims costs, which may have resulted in lower loss ratios for insurance companies and lower premiums for Texas employers.

Table 3.6: Distribution of Injured Workers Treated as of February 1, 2010 by Workers' Compensation Networks

TDI-Certified Network	Total	Percent
Aetna Workers' Comp Access (AWCA)	458	<1%
Alliance	23,885	17%
Bunch & Associates	61	<1%
Bunch-Coventry TX	1229	<1%
Bunch-First Health	1,383	<1%
Coventry Workers' Comp Network	6,941	5%
Dallas County Schools	986	<1%
Corvel Health Care Corporation	6,830	5%
First Health TX HCN*	997	<1%
First Health/Travelers HCN	5,617	4%
First Health/AIGCS TX HCN	2114	1%
First Health/CSS	165	<1%
Forte-Trinity	735	<1%
Forte, Inc./Compkey/First Health	57	<1%
Genex Services, Inc./Genex Health Care Network	864	<1%
IMO Med-Select	715	<1%
Hartford Workers' Compensation Health Care Network	1,701	1%
Interplan Health Group, Inc./Zenith Health Care Network	1,276	1%
International Rehabilitation Associates, Inc./Intracorp	268	1%
Intracorp/Lockheed Martin Aero Employee Select Network	582	1%
Lone Star Network/Corvel	289	<1%
Liberty Health Care Network	10,846	8%
Specialty Risk Services Texas Workers' Compensation Health Care Network	1,339	1%
Sedgwick CMS	29	<1%
Texas Star Network	66,483	47%
Zurich Services Corporation Healthcare Network	6,103	4%
Zurich Services Corporation Healthcare Network/Corvel	260	<1%

Note: Totals may not add up to 100 percent due to rounding.

4. Access to Care, Satisfaction with Care and Health-Related Outcomes

Ensuring high quality medical care for injured workers at reasonable costs for Texas employers continues to be a challenge for the Texas workers' compensation system. As the number of claims decrease and costs begin to stabilize in the system, additional pressure is placed on ensuring that every dollar spent on claims is "value-added," meaning that the benefits being provided to injured workers enhance their ability to return to work as quickly and safely as possible. Section 3 highlighted how medical costs and medical utilization has changed over time. This section examines quality of care issues and whether the system has seen improvements in these issues over the past few years. While many elements of HB 7, including health care networks, are still too new to be fully evaluated, this section also provides some early indications of the impact of health care networks on access to care, satisfaction with care and health-related outcomes.

Survey Design and Data Collection

The Department conducted two injured worker surveys to compare injured worker experiences with their medical care (access to care, satisfaction with care, health-related outcomes), as well as to collect information regarding their experiences returning to work after their work-related injuries post-HB 7 implementation. The first survey was conducted in the spring of 2010 and the second survey was conducted in the summer of 2010. For both surveys, the Department drew a random probability sample of workers who received at least one Temporary Income Benefit (TIBs) payment (i.e., those workers with more than 7 days of lost time). The sample was further stratified by injury type and workers were surveyed at approximately 6 months post-injury.[1] The survey instrument used for both of these surveys utilized standardized questions from the Consumer Assessment of Health Plans Study, Version 3.0, the Short Form 12, Version 2, the URAC Survey of Worker Experiences and previous surveys conducted by the Texas Department of Insurance, Workers' Compensation Research and Evaluation Group.

Selection of Treating Doctors Recommended by Employers

Prior to the passage of HB 7 in 2005, injured workers had the ability to select a treating doctor from the list of doctors who registered and received approval from the Division to participate on the Division's Approved Doctor List (ADL). The ADL contained approximately 14,000 medical doctors (MDs), osteopaths (DOs), chiropractors (DCs), and other doctors (i.e., dentists, podiatrists, etc.) who agreed to participate at some level in the Texas workers' compensation system. In an effort to improve access to care for non-network claims and to reduce administrative burdens for doctors treating injured

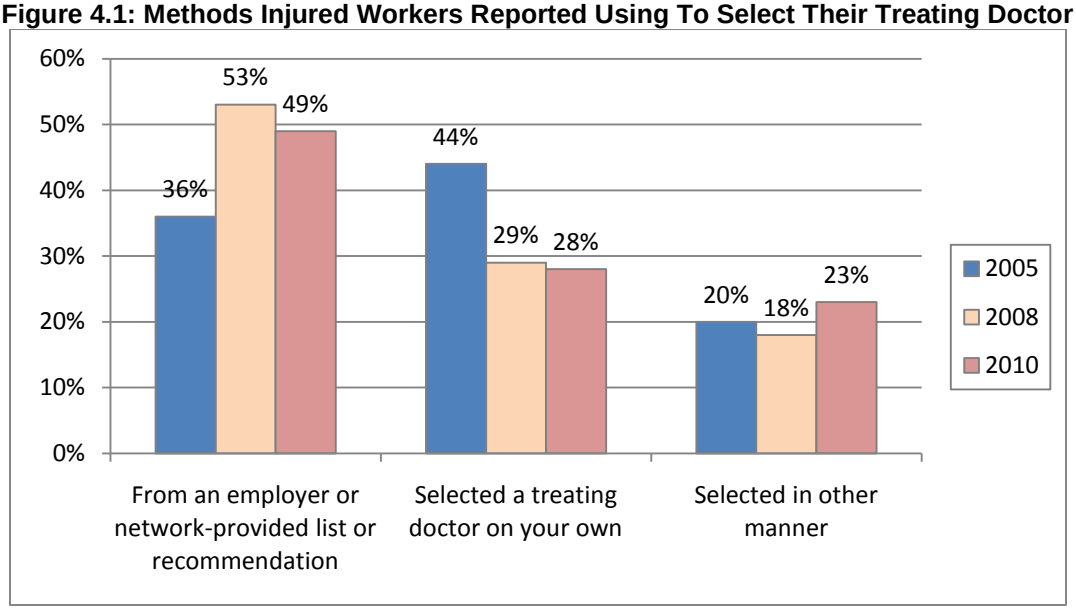
[1] A total of 3,167 workers were surveyed in 2010 by the Texas A&M University, Public Policy Research Institute and 600 workers were surveyed in 2010 by the University of North Texas, Survey Research Center.

workers, HB 7 eliminated the ADL.[2] At the same time, HB 7 paved the way for certified health care networks to treat injured workers.

Injured workers, whose employers had agreed to participate in these networks and who lived in the networks' service area and received notice of the networks' requirements, were required to select a treating doctor from the networks' list of contracted doctors.

Interestingly, while injured workers were allowed to select their own treating doctors prior to the passage of HB 7, a significant percentage of workers reported (in this and in previous studies in Texas) that they selected a doctor recommended to them by their employer or insurance carrier. As Figure 4.1 shows, a higher percentage of injured workers surveyed in 2010 (49 percent) reported that they selected a treating doctor that was recommended to them by their employer or part of their network's list of treating doctors, compared to workers surveyed in 2005 (36 percent). This finding is not surprising given the rising usage of workers' compensation health care networks in Texas during this time.

Figure 4.1: Methods Injured Workers Reported Using To Select Their Treating Doctor



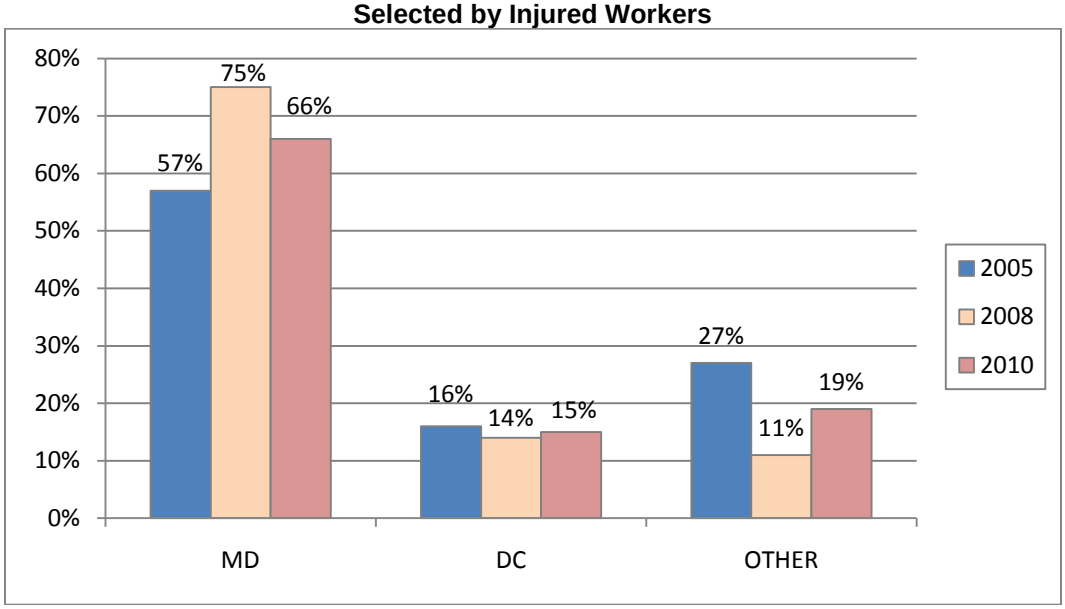
Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, Survey of Injured Workers 2005, 2008 and 2010.

Note: "Selected in other manner" includes recommendations from family or friends or other coworkers, among others.

[2] Even though the Approved Doctors List (ADL) expired on August 31, 2007, TDI continues to regulate health care providers treating injured workers in the system. Doctors must continue to disclose financial interest in other providers, practitioners and facilities, etc. to TDI, as well as obtain training and testing for the assignment of impairment ratings and maintain a medical license in good standing in the jurisdiction where care is being provided.

The Workers' Compensation Act and Rules allows a variety of medical specialties, including MDs, DOs, DCs, dentists, podiatrists and optometrists to serve as treating doctors for non-network claims. However, HB 7 allowed certified health care networks to select or designate certain medical specialties to serve as treating doctors for network claims. In 2010, a significantly higher percentage of injured workers surveyed reported that they selected an MD as their first treating doctor (66 percent), compared with 2005 (57 percent). Interestingly, even with the increased usage of networks, the percentage reporting that they selected a DC as their treating doctor has changed very little between 2005 and 2010, but a significantly smaller percentage of surveyed injured workers continue to report that they selected a DO or other type of doctor as their treating doctor when compared to 2005 (see Figure 4.2)[3]

Figure 4.2: Type of First Non-Emergency Treating Doctor Selected by Injured Workers

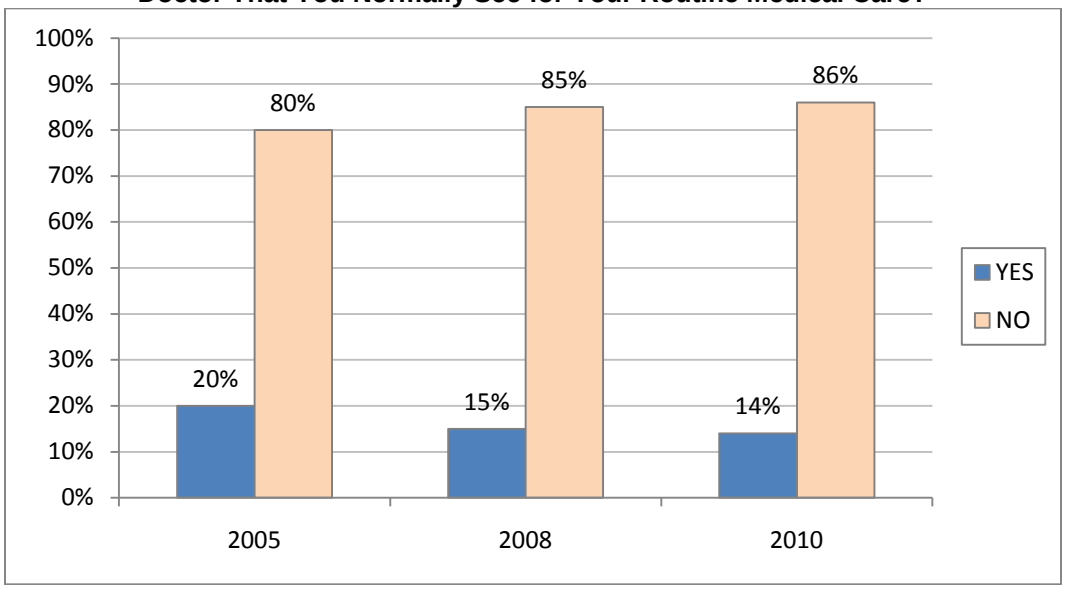


Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, Survey of Injured Workers 2005, 2008 and 2010.

A higher percentage of workers surveyed in 2010 (86 percent) indicated that the doctor they saw for their workers' compensation medical care was not the doctor they normally saw for their routine medical care compared with 2005 (80 percent). This change may be the result of more workers seeking medical care through workers' compensation health care networks, which to date, are not generally associated with group health plans that provide routine medical care (see Figure 4.3).

[3] As of November 1, 2010, none of the workers' compensation health care networks certified by TDI utilize chiropractors as treating doctors.

Figure 4.3: Was the Doctor Who Saw You for Your Work-Related Injury or Illness the Doctor That You Normally See for Your Routine Medical Care?



Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, Survey of Injured Workers 2005, 2008 and 2010.

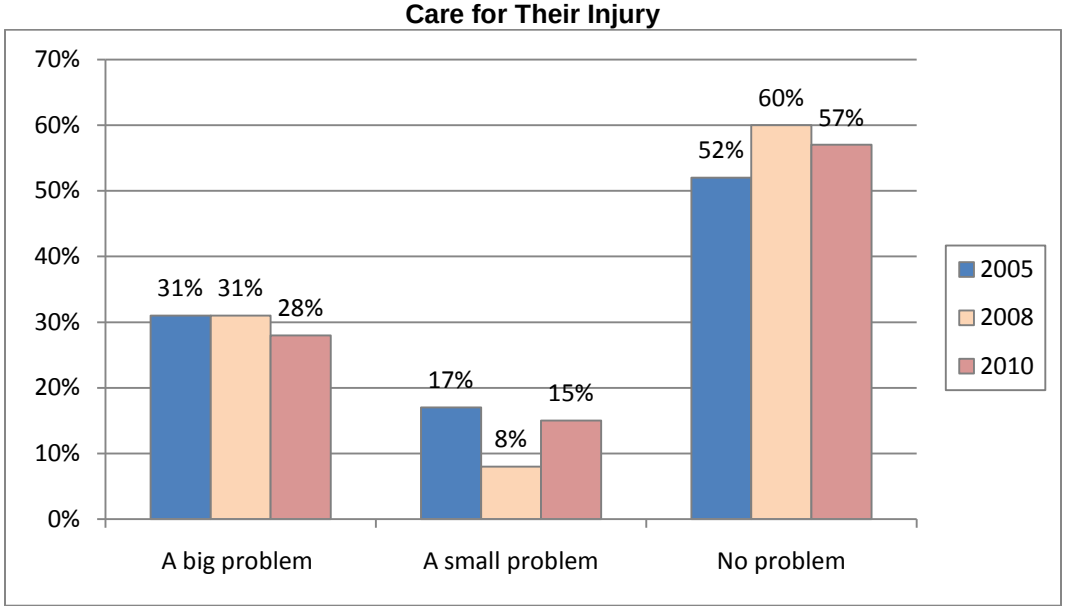
Improvements and Perceptions in Access to Care in Networks

Before the 2005 legislative session, concerns were rising about injured workers' access to care within the Texas workers' compensation system. Doctors, particularly surgical specialists such as neurosurgeons and orthopedic surgeons, were refusing to take new workers' compensation patients because of administrative burdens related to treating workers' compensation cases and inadequate reimbursement levels resulting from the Texas Workers' Compensation Commission's adoption of the 2003 Medicare-based professional services fee guideline.[4] In an attempt to increase health care provider participation in the Texas workers' compensation system, the Division adopted a new professional services fee guideline (effective March 1, 2008), which raised reimbursement levels for doctors and added an annual inflation adjustment based on the annual Medicare Economic Index, the weighted average of price changes for goods and services used to deliver physician services. Additionally, changes made by HB 7, including the adoption of evidence-based treatment guidelines (effective May 1, 2007) and the elimination of ADL registration requirements (effective September 1, 2007) were made to increase certainty regarding the medical necessity of treatments that would be reimbursed in the system and to reduce administrative burdens.

[4] On August 1, 2003, the system's first Medicare-based professional service fee guideline took effect. While this fee guideline increased reimbursement for some categories of services, including primary care, reimbursements for specialty surgery services were significantly reduced. On the whole, the reimbursement rates for professional medical services in the Texas workers' compensation system went from approximately 140 percent of Medicare to approximately 125 percent of Medicare.

Based on the results of recent injured worker surveys, a higher percentage (57 percent) of workers surveyed in 2010 reported "no problem" in getting the medical care they felt they needed for their work-related injury compared to 52 percent of workers surveyed in 2005. But this was down from 60 percent in 2008 (see Figure 4.4). The availability of doctors who are accepting workers' compensation patients is an issue that the Department has and will continue to closely monitoring (see Section 6).

Figure 4.4: Percentage of Injured Workers Who Reported Having Problems Getting Medical Care for Their Injury



Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, Survey of Injured Workers 2005, 2008 and 2010.

However, as Tables 4.1 and 4.2 illustrate, injured workers who received medical care from workers' compensation networks, generally had poorer perceptions regarding their access to care, including the ability to see specialists. These poorer perceptions about access to care may be related to injured workers' concepts about the importance of being able to choose their own treating doctor; however, it is clear that the availability of doctors who are accepting workers' compensation patients is an issue that the Department will be closely monitoring.

A slightly higher percentage of injured workers surveyed in 2010 (17 percent) reported that their ability to schedule a doctor's appointment was worse than their normal health care, compared to 12 percent of workers surveyed in 2005 (see Figure 4.5). This is likely the result of differences in injured workers' perceptions about difficulties scheduling doctor's appointments for network and non-network claims. As Table 4.3 shows, with the exception of the Alliance, Travelers Star and Zurich networks, a higher percentage of workers receiving medical care in networks reported that their ability to schedule a doctor's appointment was worse than workers receiving medical care outside of networks.

Table 4.1: Since You Were Injured, How Often Did You Get Care as Soon as You Wanted When You Needed Care Right Away?

How often did you get care?	Non-network	Texas Star	Alliance	Other networks	Liberty	Travelers	Coventry	Corvel	Zurich
Always	56%	52%*	57%	56%	47%*	59%	56%	44%*	49%
Usually	18%	17%	18%	15%*	16%	15%*	9%*	21%	21%
Sometimes/Never	26%	31%*	25%	29%	37%*	26%	35%*	35%*	30%

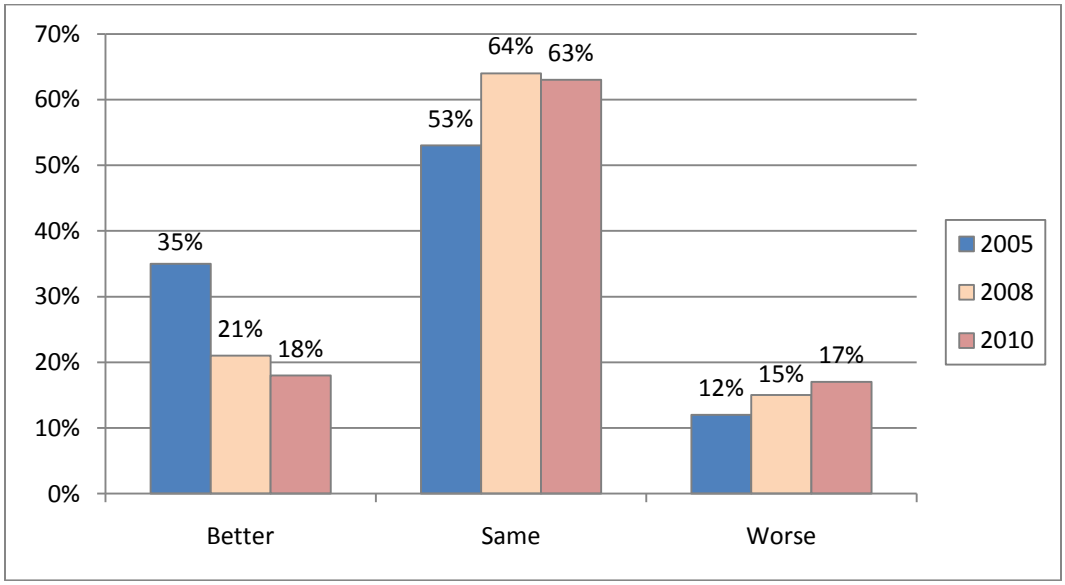
Notes: Asterisks (*) indicate that the differences between the network and non-network are statistically significant. The figures presented above are adjusted for risk factors such as injury type, type of claim, and age differences that may exist between the groups. Percentage for each network may not add up to 100% because of rounding.

Table 4.2: Overall for Your Work-related Injury or Illness, How Much of a Problem, If any, Was It to Get a Specialist You Needed to See? Was It…

How much of a problem?	Non-network	Texas Star	Alliance	Other networks	Liberty	Travelers	Coventry	Corvel	Zurich
Not a problem	56%	55%	58%	62%*	58%	62%*	51%	47%*	52%
A small problem	10%	10%	11%	10%	11%	9%	13%	13%	17%*
A big problem	15%	20%*	16%	19%*	27%*	14%	18%	28%*	16%

Notes: Asterisks (*) indicate that the differences between the network and non-network are statistically significant. The figures presented above are adjusted for risk factors such as injury type, type of claim, and age differences that may exist between the groups. Percentage for each network may not add up to 100% because of rounding.

Figure 4.5: Compared to the Medical Care You Usually Receive When You Are Injured or Sick, Your Ability to Schedule a Doctor's Appointment for Your Work-Related Injury or Illness Was:



Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, Survey of Injured Workers 2005, 2008 and 2010.

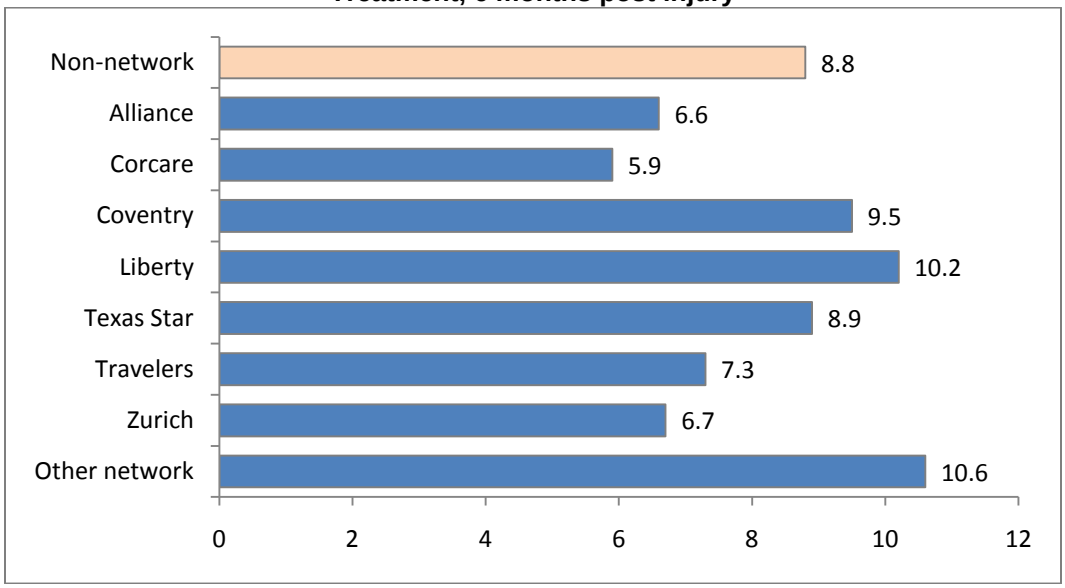
Table 4.3: Injured Workers' Perceptions Regarding Their Ability to Schedule a Doctor's Appointment for Their Work-Related Injuries Compared to the Medical Care They Normally Receive When Injured or Sick

Ability to schedule appointment	Non-network	Texas Star	Alliance	Other networks	Liberty	Travelers	Coventry	Corvel	Zurich
Better	21%	24%	22%*	20%	19%	19%	20%	13%*	22%
About the same	65%	60%*	65%	58%*	58%*	67%*	61%	63%	65%
Worse	14%	15%*	13%*	21%*	23%*	11%	17%*	23%*	11%

Notes: Asterisks (*) indicate that the differences between the network and non-network are statistically significant. The figures presented above are adjusted for risk factors such as injury type, type of claim, and age differences that may exist between the groups. Percentage for each network may not add up to 100% because of rounding.

Despite poorer perceptions about the ability for workers receiving medical care from networks to schedule a doctor's appointment or get specialist care, four networks are able to get an injured worker in to see a non-emergency doctor sooner than non-network claims (see Figure 4.6 and Section 6).

Figure 4.6: Average Number of Days from Date of Injury to Date of First Non-Emergency Treatment, 6 months post injury



Treating Doctor Choice and Satisfaction

Previous studies conducted by the Department show that injured workers' perceptions regarding the quality of their medical care are closely associated with their ability to choose their own treating doctor.[5] Not surprisingly then, as workers' compensation health care networks expand their coverage in Texas and workers are increasingly required to choose their treating doctor from a designated list of doctors, satisfaction levels will be impacted. As Figure 4.7 shows, for workers who reported that they selected their own treating doctor, satisfaction levels increased from 2005 to 2010 (89 percent surveyed in 2010 reported that the doctor they saw most often provided them good medical care compared to 87 percent surveyed in 2005). However, satisfaction levels were equal in 2010 compared to 2005 for workers who indicated that they selected a doctor recommended by their employer or network, satisfaction levels for workers who selected a doctor some other way decreased from 84% in 2005 to 82% in 2010(which includes recommendations from family, friends and coworkers). In general, though, satisfaction levels remain high for a majority of injured workers.

Additionally, a slightly higher percentage (23 percent) of workers surveyed in 2010 reported that the medical care they received for their work-related injury was worse than their routine medical care when compared to workers surveyed in 2005 (19 percent) (see Figure 4.8).

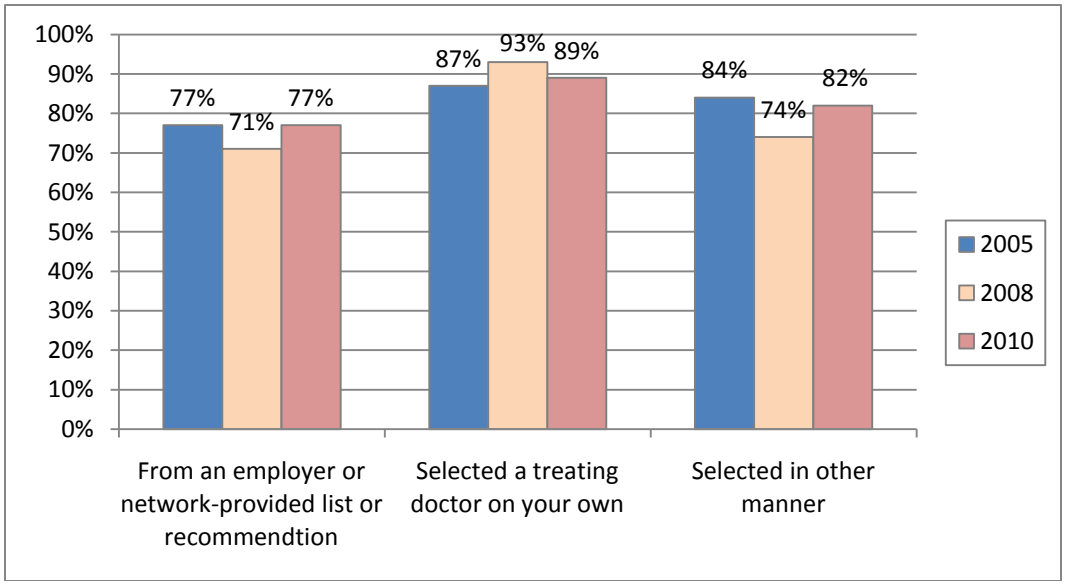
It is important to note that while injured workers who received medical care from networks were generally less satisfied with the quality of the care than non-network claims, there are differences in satisfaction levels among individual networks profiled in the 2010 Workers' Compensation Network Report Card (see Tables 4.4 and 4.5). HB 7 included mechanisms to promote quality of care monitoring, including the requirement that every network produce and annually submit to the Department a Quality Improvement Plan. The plan must include the network's goals and plans for measuring health care provider and employee satisfaction, as well as the requirement that the network respond to complaints timely and maintain a complaint log that allows the network to track complaint trends and address those issues in real-time.[6]

Typically, the Department requests each network that had treated injured workers to address the deficiencies highlighted in the Network Report Card and submit an updated Quality Improvement Plan. The Department works to ensure that networks adequately address complaints as well as implement their improvement plans.

[5] See Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, Medical Costs and Quality of Care Trends in the Texas Workers' Compensation System, 2004 and 2005

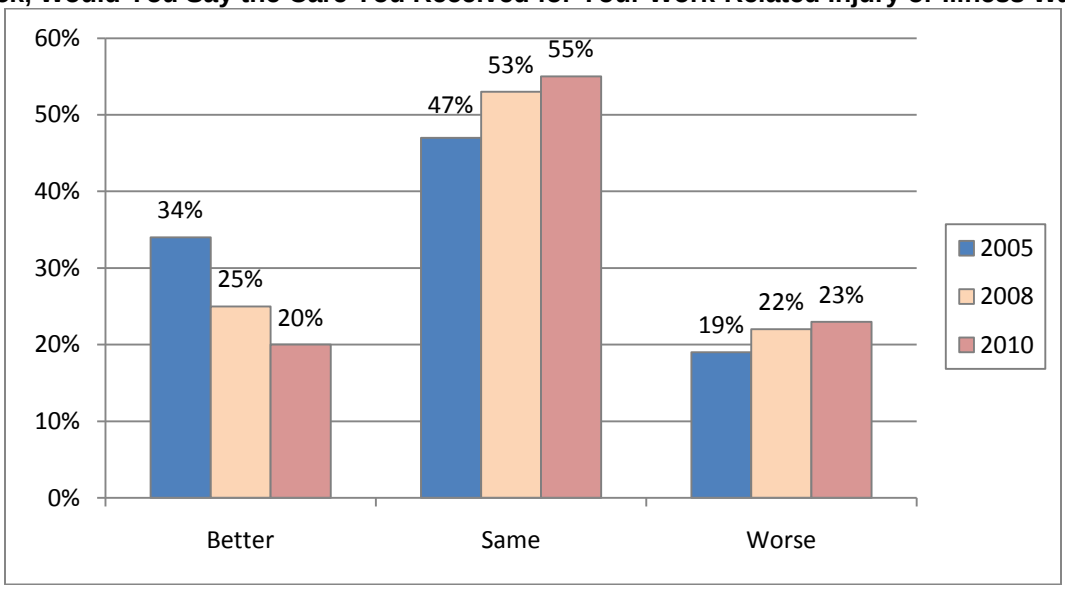
[6] See Texas Administrative Code, Section 10.81.

Figure 4.7: Percentage of Injured Workers Indicating Agreement That the Doctor They Saw Most Often Provided Them With Good Medical Care By Doctor Selection Method for First Non-Emergency Doctor



Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, Survey of Injured Workers 2005, 2008 and 2010.

Figure 4.8: Compared to the Medical Care You Usually Receive When You Are Injured or Sick, Would You Say the Care You Received for Your Work-Related Injury or Illness Was:



Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, Survey of Injured Workers 2005, 2008 and 2010.

Table 4.4: The Treating Doctor for Your Work-Related Injury or Illness Overall Provided You with Very Good Medical Care That Met Your Needs…

Treating doctor provided you with very good medical care	Non-network	Texas Star	Alliance	Other networks	Liberty	Travelers	Coventry	Corvel	Zurich
Strongly agree or agree	82%	78%*	81%	78%*	73%*	78%*	77%*	69%*	80%
Not sure	2%	1%*	1%*	2%	2%	2%	2%	2%	2%
Strongly disagree or disagree	15%	21%*	18%*	19%*	25%*	20%*	21%*	29%*	18%

Notes: Asterisks (*) indicate that the differences between the network and non-network are statistically significant. The figures presented above are adjusted for risk factors such as injury type, type of claim, and age differences that may exist between the groups. Percentage for each network may not add up to 100% because of rounding.

Table 4.5: Injured Workers' Perceptions Regarding Medical Care for Their Work-Related Injuries Compared to the Medical Care They Normally Receive When Injured or Sick

Satisfaction med care	Non-network	Texas Star	Alliance	Other networks	Liberty	Travelers	Coventry	Corvel	Zurich
Better	24%	26%	23%	23%	17%*	24%	20%*	15%*	18%*
Same	56%	51%	56%	48%*	54%	54%	55%	53%	61%*
Worse	19%	21%*	21%	28%*	28%*	19%	24%*	32%*	20%

Note: Asterisks (*) indicate that the differences between the individual network and non-network are statistically significant. The figures presented above are adjusted for risk factors such as injury type, type of claim, and age differences that may exist between the groups. Percentage for each network may not add up to 100% because of rounding.

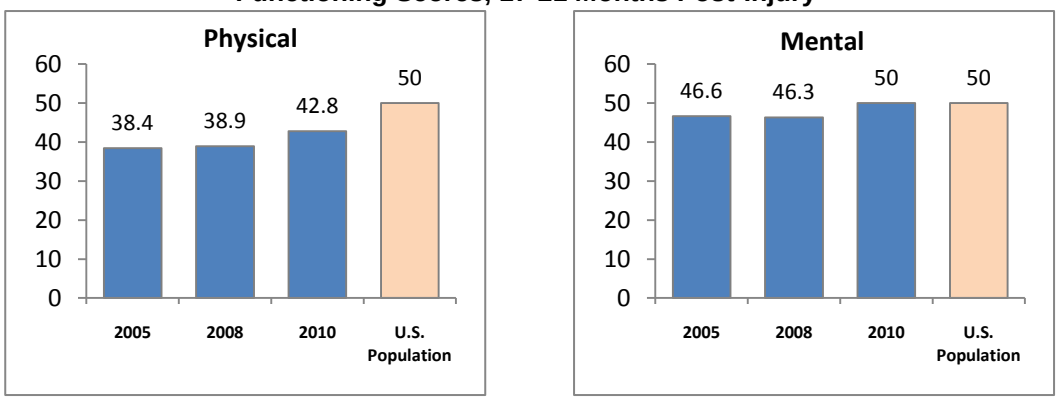
Health Outcomes Improve in 2010

While there have been significant changes in the Texas workers' compensation system over the past few years in terms of the amount of medical care provided to injured workers as well as the introduction of new health care networks, there has been little change in injured workers' perceptions regarding their physical and mental functioning since the passage of HB 7. Physical functioning is used to measure whether an injured worker gets better or physically recovers from the injury, while mental functioning is used to measure whether an injured worker is likely to experience issues such as depression after the injury.

To measure the physical and mental functioning of injured workers, the Department utilized a standardized set of questions, referred to as the Short Form 12 (SF-12) survey instrument, which asks workers to rate their current mental health as well as their current abilities to perform certain daily life activities. The results are calculated into two overall scores: the physical component summary and the mental component summary, which have a range of scores from 0 to 100 and a mean score of 50 in a sample of the U.S. general population. Scores greater than 50 represent above average health status, and scores at 40 or lower represent people who function at a level lower than 84 percent of the population (one standard deviation). As Figure 4.9 indicates, injured workers in Texas

have improved their physical or mental functioning status significantly since 2005. The mental functioning score of 50 for injured workers are higher than physical functioning scores (42.8), but equal to the mental functioning scores of the general U.S. population. Overall, there are no significant differences in the physical and mental functioning scores for network and non-network claims.[7]

Figure 4.9: Comparison of Injured Worker Self-Reported Physical and Mental Functioning Scores, 17-21 Months Post-Injury



[7] For more detailed information about the physical and mental functioning scores for individual health care networks and non-network claims, see the Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2010 Workers' Compensation Network Report Card Results, 2010, which can be viewed at http://www.tdi.state.tx.us/reports/report9.html.

[This page left blank.]

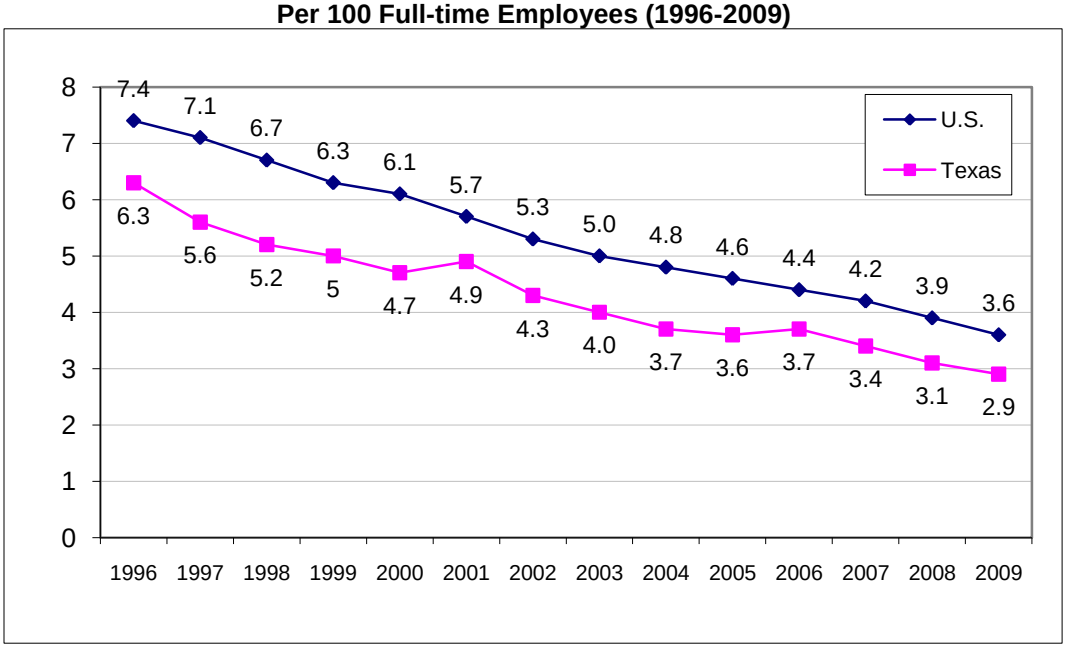
5. Medical Costs and Utilization of Care

The system has just begun to fully realize the effects of the various legislative and regulatory reforms enacted by HB 2600, and some of the 2005 HB 7 provisions are beginning to take effect, especially the implementation of treatment guidelines and certified health care networks. This section of the report will focus on how medical costs and utilization of care trends have changed in the system over time, as well as some of the factors influencing these cost trends.

Medical Cost Trend

Occupational injury rates have declined steadily during the last two decades, both nationally and for Texas (see Figure 5.1).[1] On the other hand, medical costs of treating worksite injuries have fluctuated significantly.

Figure 5.1: Texas and U.S. Nonfatal Occupational Injury and Illness Rates Per 100 Full-time Employees (1996-2009)



Source: Texas Department of Insurance, Division of Workers' Compensation and U.S. Department of Labor, Bureau of Labor Statistics, Annual Survey of Occupational Injuries and Illnesses, 2010.

[1] Changes to the OSHA recordkeeping logs in 2002 and the transition from the Standard Industrial Classification (SIC) system to the North American Industry Classification System (NAICS) in 2003 may limit comparability of pre-2003 data series.

Figure 5.2 shows the average cost of professional and hospital services by injury year evaluated at 6, 12, 18, and 24 months after the injury. Since the majority of claims last less than 6 months, medical costs for longer maturities consist of far fewer numbers of claims. But these claims with a more severe injury account for the majority of total medical costs.[2] Until have continued to decline since 2003 due to a variety of factors, including fewer claims being filed and reductions in medical reimbursement amounts as well as the amount of care being rendered for new claims.[3] Figure 5.2 shows that the average costs were increasing rapidly peaking in 2002. Since then, costs were decreasing until 2006. This decline coincides with the passage of HB 2600 in 2001. However, more recent data indicates that the average medical costs are once again increasing, albeit at a slower rate than the double-digit increases that the system was experiencing in the late 1990's.

Comparing various maturities, Figure 5.2 also indicates that costs for more mature claims (i.e., 18 and 24 months post-injury) showed the biggest impact from the adoption of the 2003 Medicare-based professional services fee guideline. When medical costs are examined separately for professional services (i.e., those services performed by individual health care providers) and hospital services (i.e., those services provided by facilities, including inpatient and outpatient hospital services and ambulatory surgical centers), professional service costs show significant impacts from reform measures in 2003, 2006, and 2007 (see Figures 5.3 and 5.4 and Tables 5.2 and 5.3). Since 2007, however, professional service costs are increasing at an annual rate of 5 percent to 10 percent.

Hospital costs also decreased in 2002 and 2003, but they increased steadily since 2005. For the whole analysis period, the average hospital payments evaluated at 6 months maturity increased by 77 percent from 1998 to 2008. For longer maturities with more severe injuries (evaluated at 18 months and 24 months), average costs peaked in 2002, decreased substantially in 2003, and then continued to increase. The increase in hospital costs is likely due to the fact that prior to March 1, 2008, the system did not have an outpatient hospital services fee guideline and the inpatient hospital fee guideline in place was significantly outdated (adopted in 1997), causing an increasing number of inpatient hospital services to be paid at "fair and reasonable" levels, which resulted in a significant number of medical fee disputes between insurance carriers and hospitals in recent years. However, 2008 and 2009 cost data in Figure 5.4 indicate that the new hospital fee guideline may be taking effect in moderating the growth in hospital service costs.

[2] In Figure 2 and all subsequent graphs, the data comes from the statewide database of medical charges, payments and treatment protocols collected by the Division of Workers' Compensation according to the Texas Labor Code §413.007. The 2004 figures show an average of 2003 and 2005 due to incomplete data unless it is noted otherwise. Also, 2009 data should be considered preliminary due to data reporting lags.

[3] On August 1, 2003, the system's first Medicare-based professional service fee guideline took effect. While this fee guideline increased reimbursement for some categories of services, including primary care, reimbursements for specialty surgery services were significantly reduced. On the whole, the reimbursement rates for professional medical services in the Texas workers' compensation system went from approximately 140 percent of Medicare to approximately 125 percent of Medicare.

Figure 5.2: Average Medical Costs per Claim (Professional and Hospital), Injury Years 1998-2009[4]

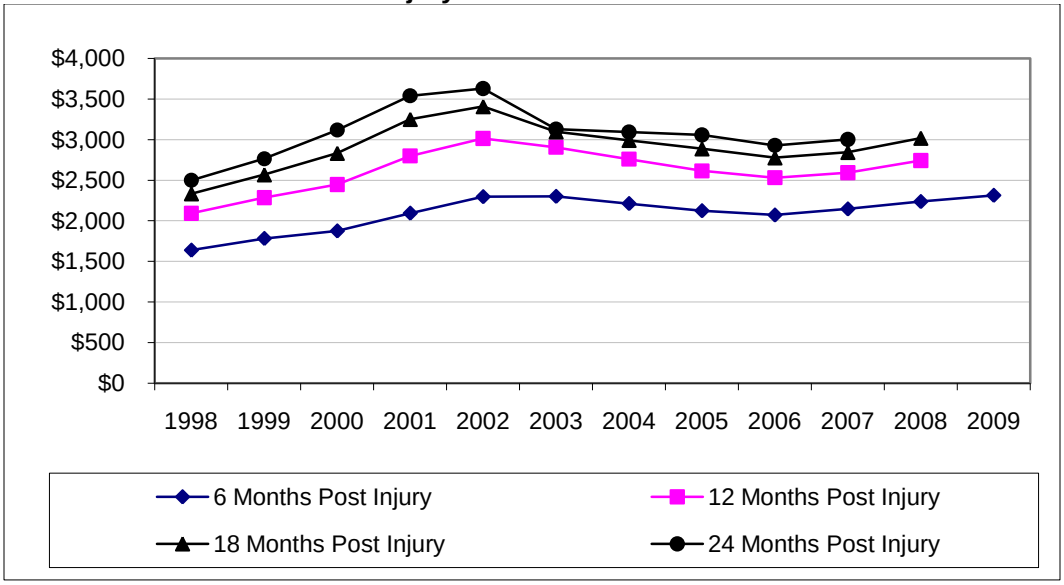


Table 5.1: Average Medical Cost per Claim (Professional and Hospital), Injury Years 1998-2009

Injury Year	6 Months Post Injury	12 Months Post Injury	18 Months Post Injury	24 Months Post Injury
1998	$1,638	$2,092	$2,334	$2,500
1999	$1,782	$2,285	$2,568	$2,765
2000	$1,875	$2,447	$2,833	$3,119
2001	$2,094	$2,800	$3,251	$3,541
2002	$2,297	$3,015	$3,408	$3,631
2003	$2,301	$2,906	$3,097	$3,130
2004	$2,213	$2,761	$2,993	$3,094
2005	$2,124	$2,615	$2,888	$3,058
2006	$2,071	$2,532	$2,777	$2,930
2007	$2,146	$2,592	$2,844	$3,002
2008	$2,237	$2,742	$3,019	
2009	$2,314			

[4] An injury year refers to the calendar year in which a work-related injury occurred. Treatments for injured workers may continue for several years after the injury year, but payments for these services are included in the injury year. Medical costs are evaluated at different intervals (maturity) following an injury. For example, the 2007 injury year data with 24 months maturity include all injuries occurred between January 1, 2007 and December 31, 2007, showing all associated treatments and payments up to December 31, 2009 for these injuries.

Figure 5.3: Average Professional Medical Costs per Claim, Injury Years 1998-2009

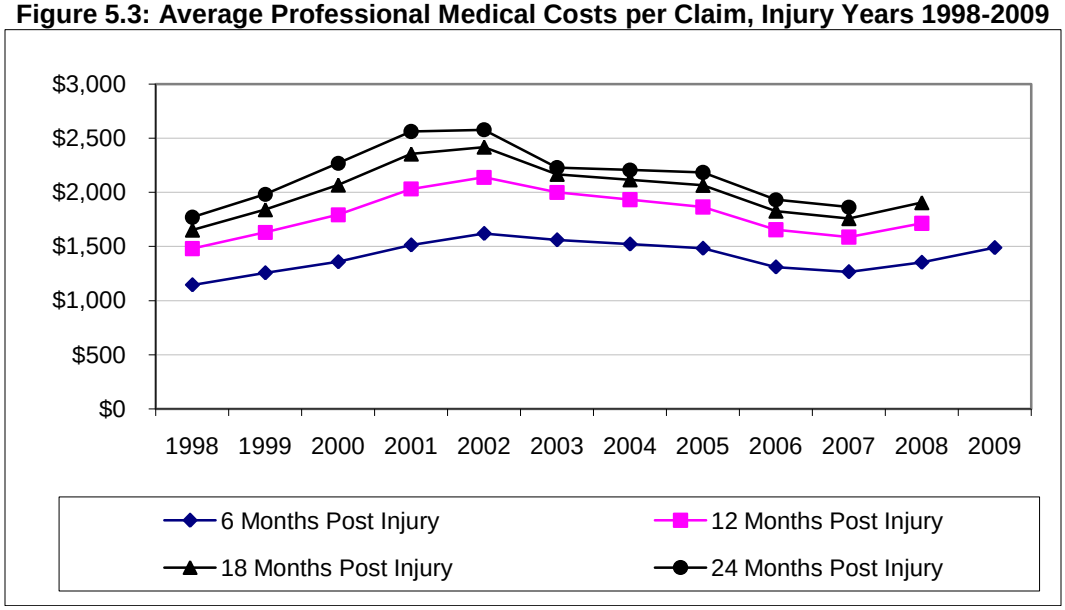


Table 5.2: Average Professional Medical Cost per Claim, Injury Years 1998-2009

Injury Year	6 Months Post Injury	12 Months Post Injury	18 Months Post Injury	24 Months Post Injury
1998	$1,145	$1,480	$1,653	$1,770
1999	$1,256	$1,630	$1,841	$1,982
2000	$1,358	$1,793	$2,069	$2,269
2001	$1,514	$2,032	$2,355	$2,562
2002	$1,620	$2,139	$2,419	$2,579
2003	$1,561	$2,000	$2,168	$2,229
2004	$1,522	$1,933	$2,117	$2,207
2005	$1,483	$1,866	$2,066	$2,185
2006	$1,310	$1,655	$1,828	$1,932
2007	$1,266	$1,588	$1,759	$1,864
2008	$1,353	$1,714	$1,906	
2009	$1,489			

Figure 5.4: Average Hospital Costs per Claim, Injury Years 1998-2009

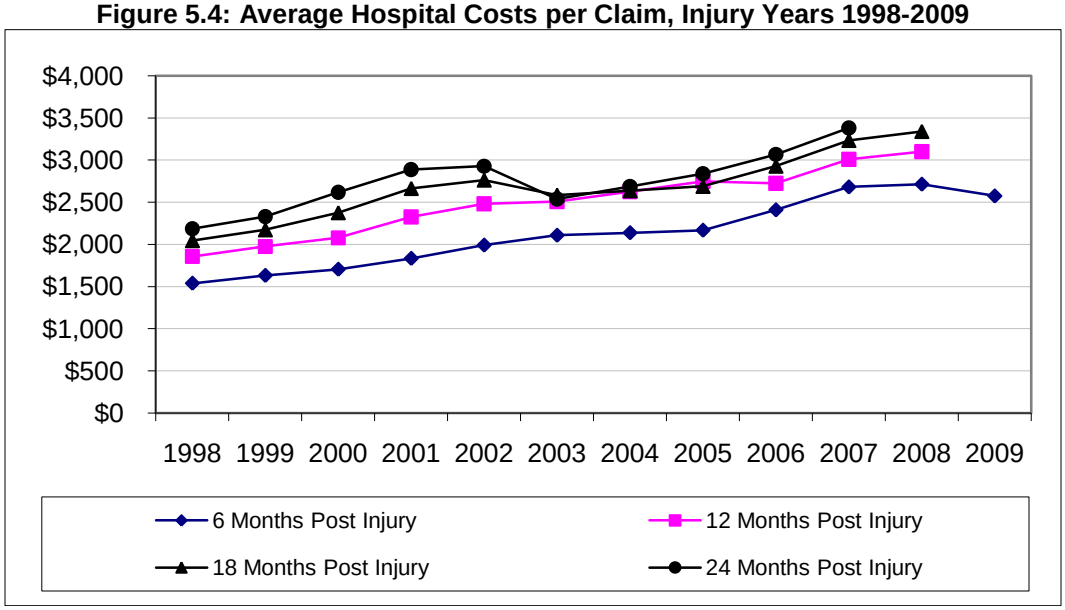


Table 5.3: Average Hospital Cost per Claim, Adjusted, Injury Years 1998-2009

Injury Year	6 Months Post Injury	12 Months Post Injury	18 Months Post Injury	24 Months Post Injury
1998	$1,538	$1,857	$2,046	$2,185
1999	$1,631	$1,975	$2,174	$2,331
2000	$1,704	$2,078	$2,377	$2,618
2001	$1,833	$2,325	$2,664	$2,889
2002	$1,991	$2,481	$2,763	$2,928
2003	$2,108	$2,508	$2,585	$2,538
2004	$2,138	$2,627	$2,637	$2,688
2005	$2,168	$2,746	$2,689	$2,838
2006	$2,410	$2,725	$2,928	$3,068
2007	$2,682	$3,010	$3,233	$3,382
2008	$2,715	$3,100	$3,339	
2009	$2,575			

Average Cost per Claim by Service Group

The adoption of the 2003 professional services fee guideline not only changed the reimbursement amounts for individual categories of services, but also adopted by reference Medicare's billing rules and payment policies, which affected how insurance carriers reviewed the medical necessity of certain types of treatments. As a result, the cost impact of the 2003 fee guideline varied considerably for individual categories of services. Figures 5.5 through 5.15 examine the average costs per claim for specific categories of professional services (see Appendix B for the data in table format).

For certain categories of professional services, such as evaluation and management services (e.g., doctor's visits), nerve conduction studies, other surgical services, pathology and laboratory services and other professional services, increased costs appear to be the result of two factors: 1) an increase in fees for these services (the case for evaluation and management services) as a result of the 2003 fee guideline adoption; or 2) an increase in the amount of services provided to injured workers (the case for nerve conduction studies) or both (the case for other surgical services, pathology and laboratory services and other professional services). For other types of services, such as physical medicine services (e.g., physical therapy and chiropractic treatment), CT and MRI scans, other diagnostic testing services, and spinal surgery services, lower costs per claim were the result of lower fees for these services under the fee guideline. Additionally, lower costs per claim for certain physical medicine services and diagnostic tests were also the result of a combination of fee decreases as well as a decrease in the amount of services provided to injured workers which is discussed in a later section.

More recent data indicates a trend toward increasing average costs. From 2007, nine out of 11 service groups showed an increase in costs. Pathology and laboratory services in particular showed a high overall rate of increase and a rapid increase in more mature claims.

Figure 5.5: Average Cost per Claim for Evaluation and Management Services, Injury Years 1998-2009

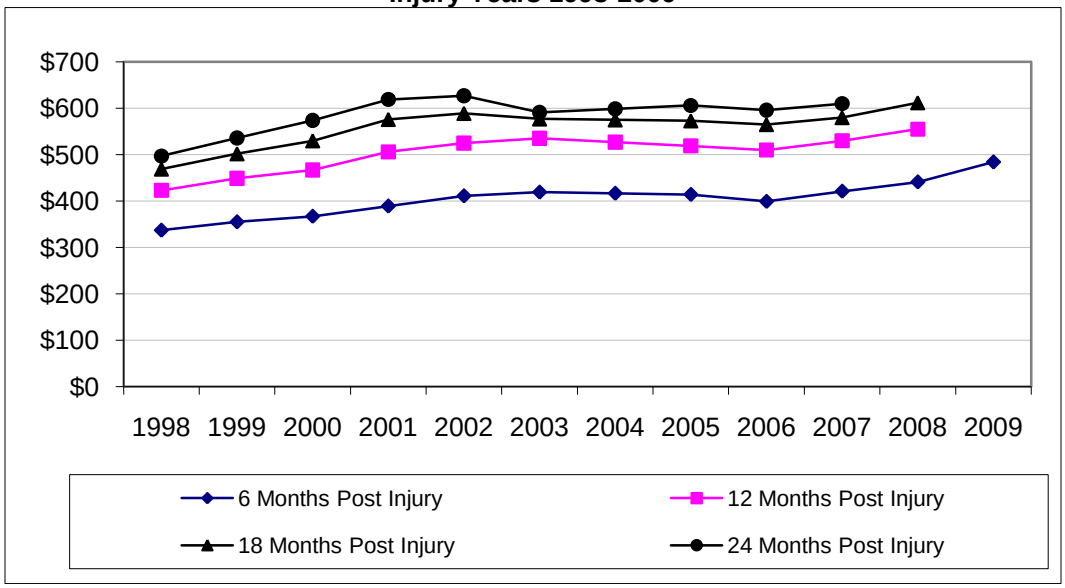


Figure 5.6: Average Cost per Claim for Physical Medicine Modalities, Injury Years 1998-2009

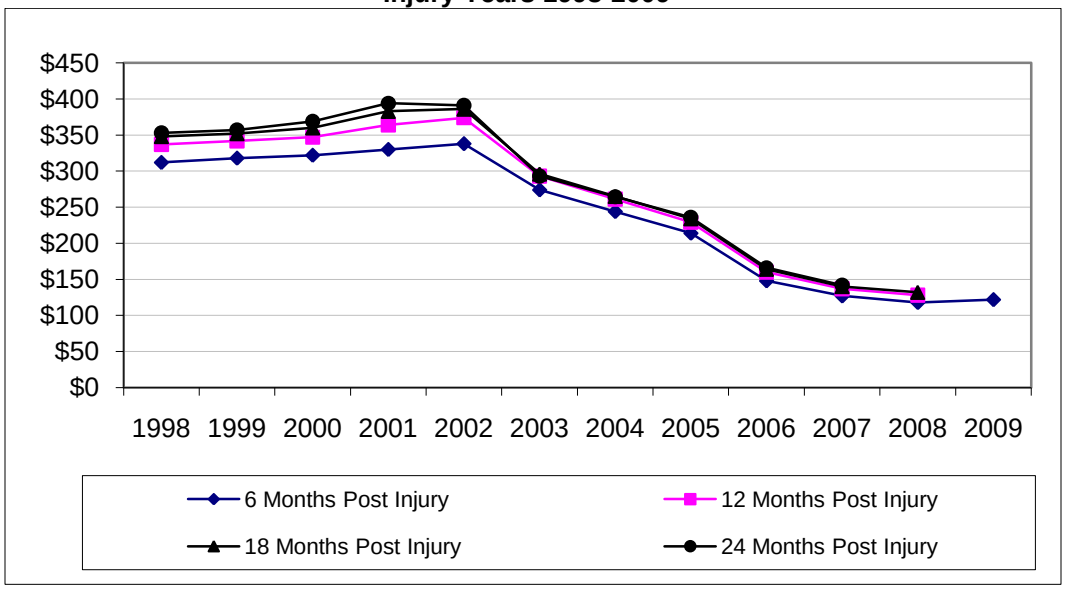


Figure 5.7: Average Cost per Claim for Other Physical Medicine Services, Injury Years 1998-2009

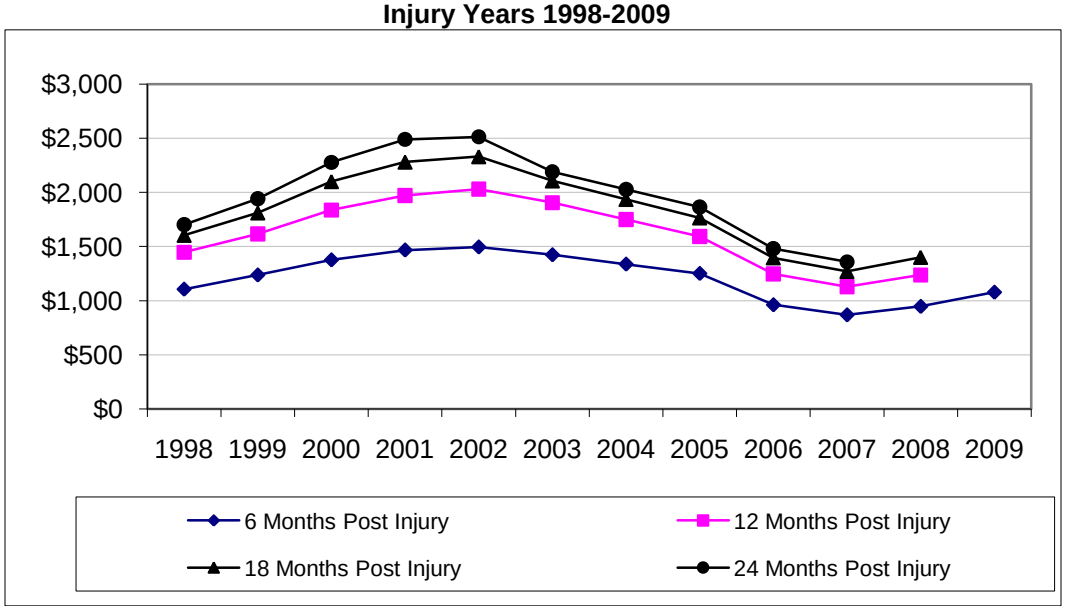


Figure 5.8: Average Cost per Claim for CT Scans, Injury Years 1998-2009

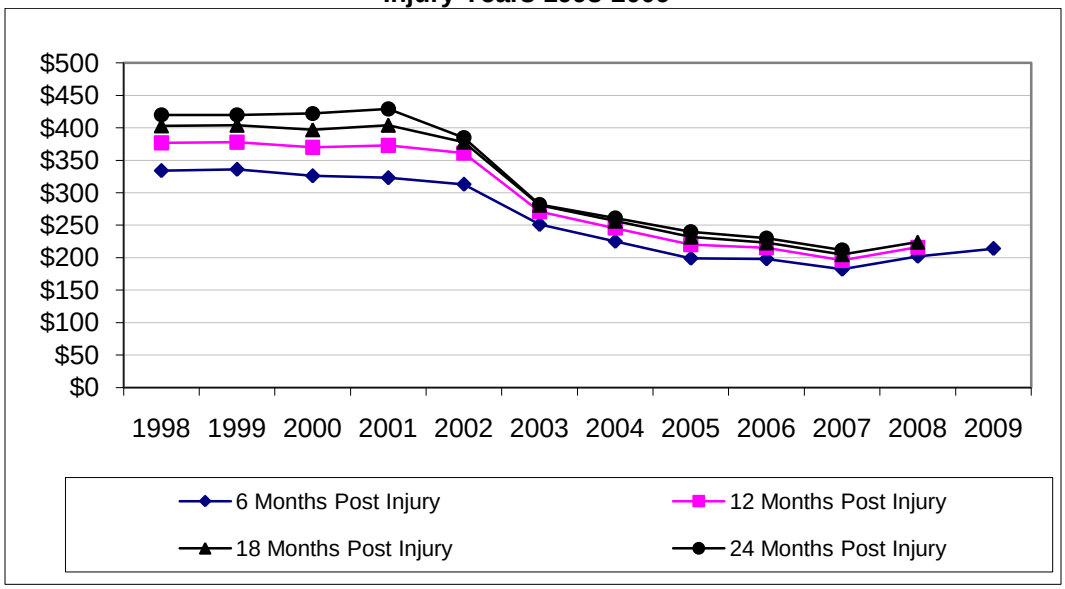


Figure 5.9: Average Cost per Claim for MRIs, Injury Years 1998-2009

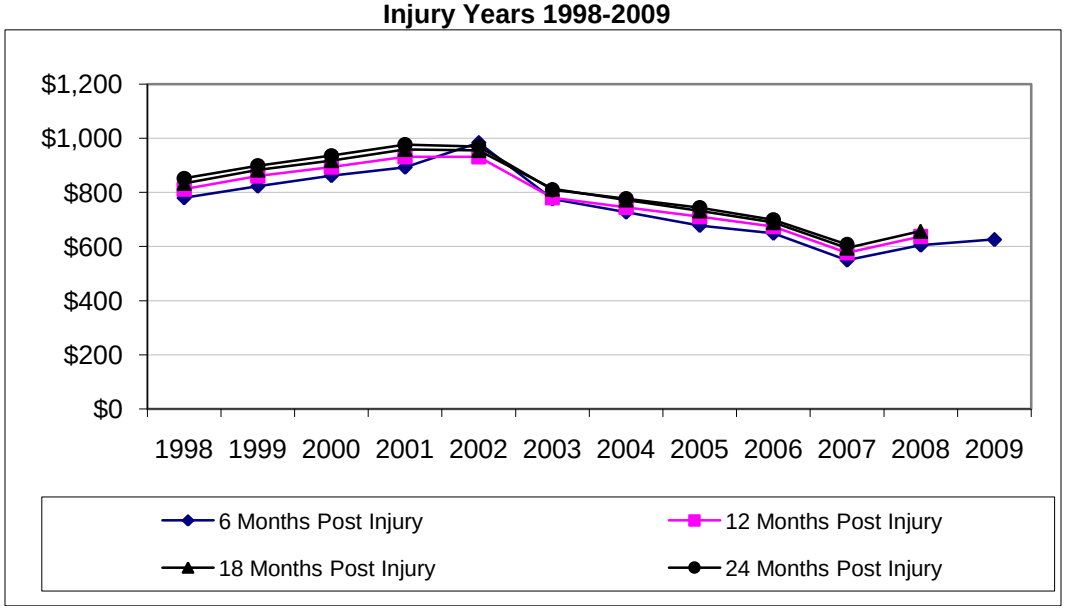


Figure 5.10: Average Cost per Claim for Nerve Conduction Studies, Injury Years 1998-2009

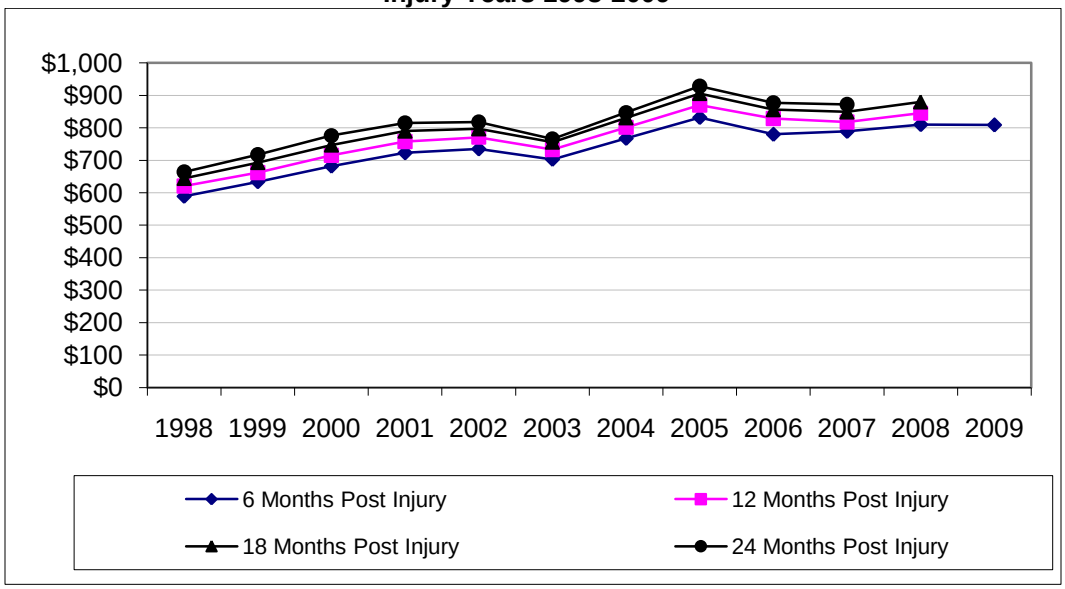


Figure 5.11: Average Cost per Claim for Other Diagnostic Testing, Injury Years 1998-2009

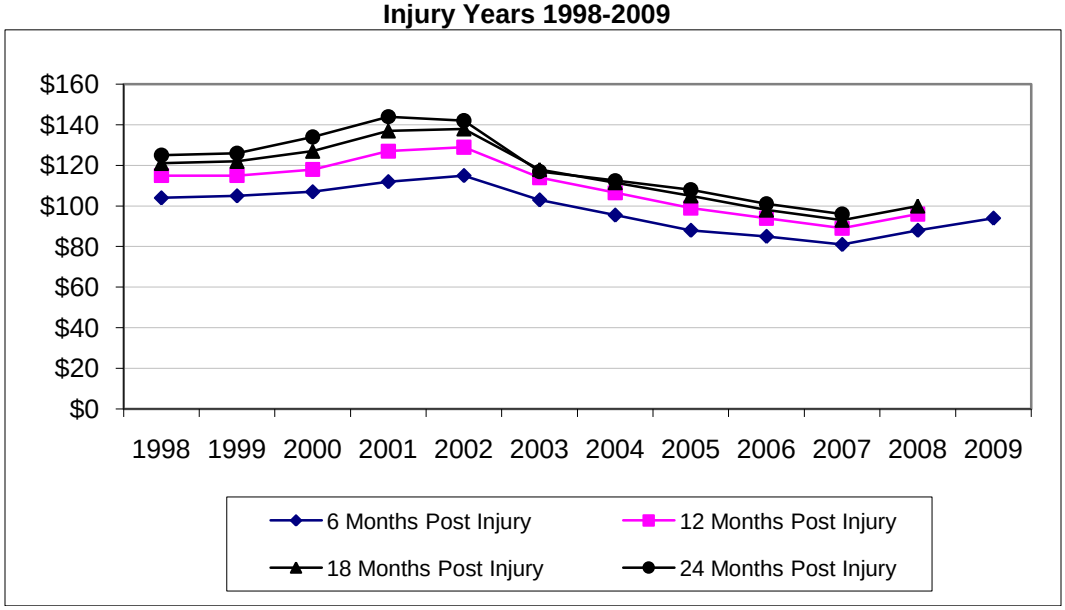


Figure 5.12: Average Cost per Claim for Spinal Surgery Services, Injury Years 1998-2009

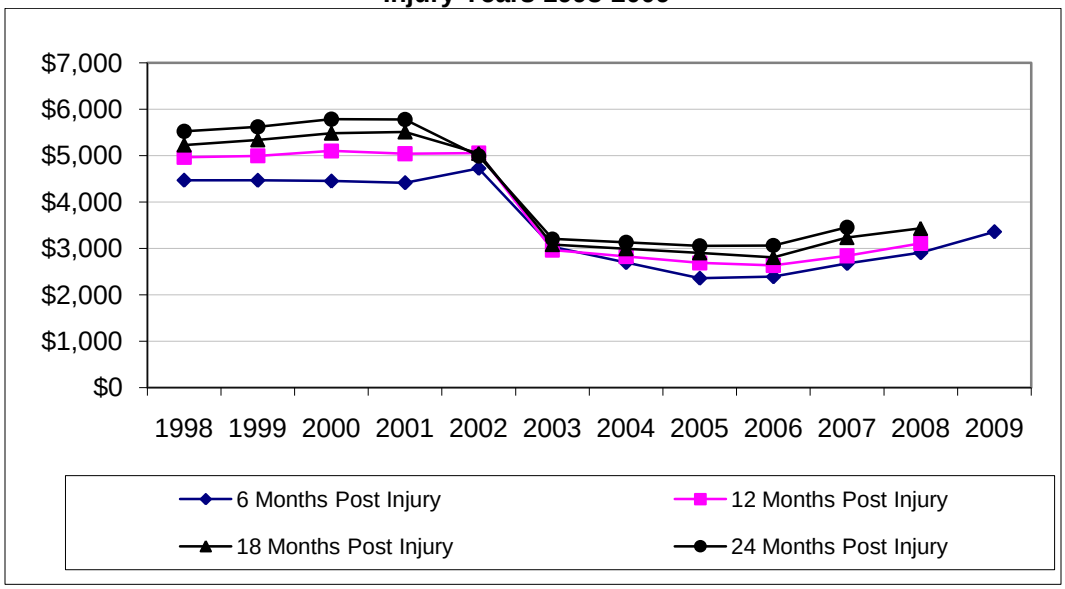


Figure 5.13: Average Cost per Claim for Other Surgery Services, Injury Years 1998-2009

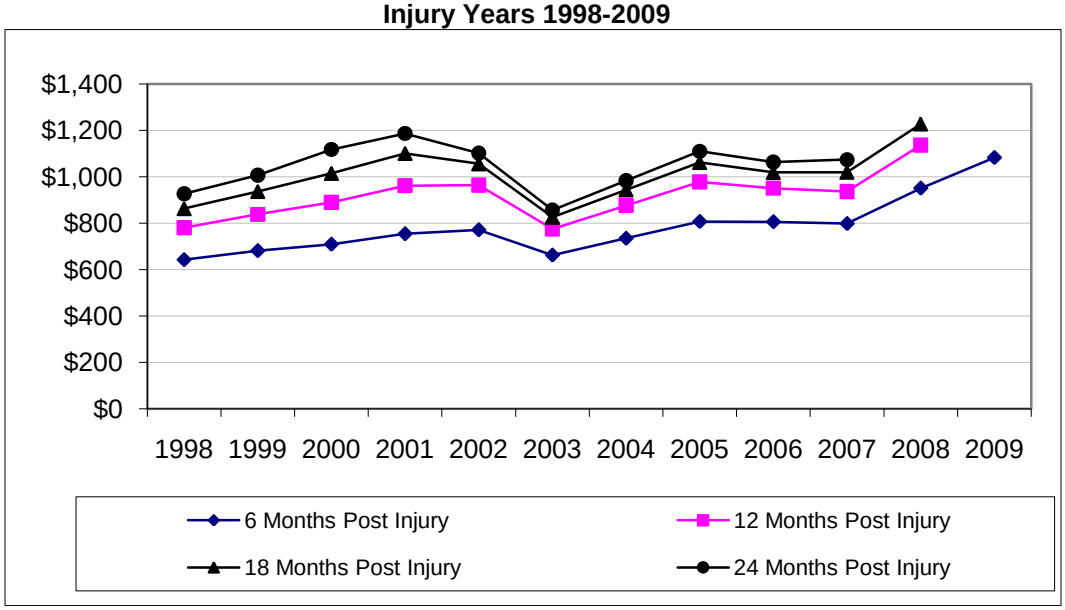


Figure 5.14: Average Cost per Claim for Pathology and Laboratory Services, Injury Years 1998-2009

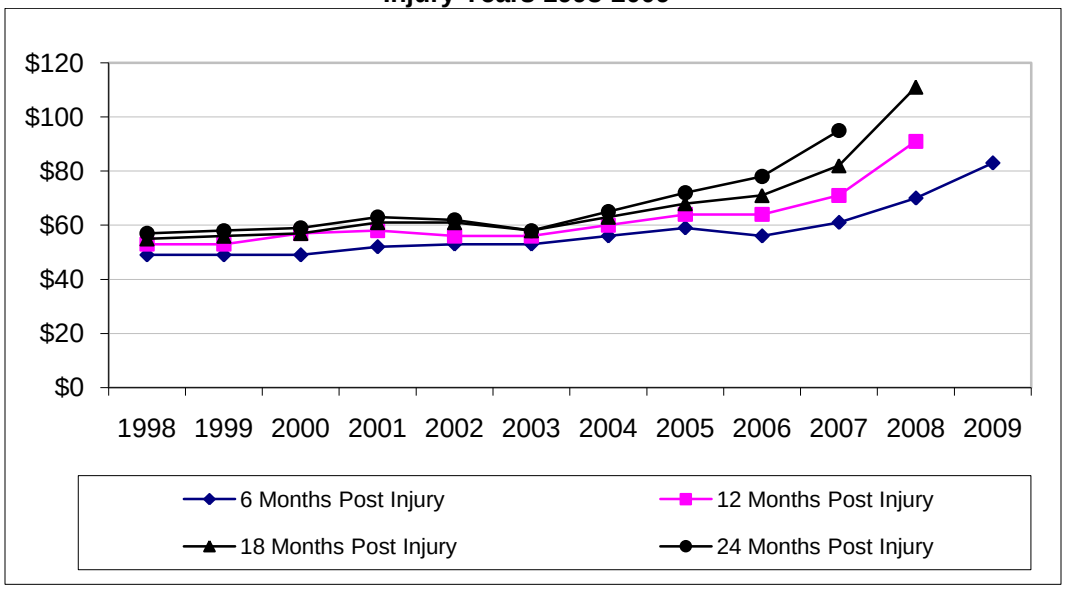
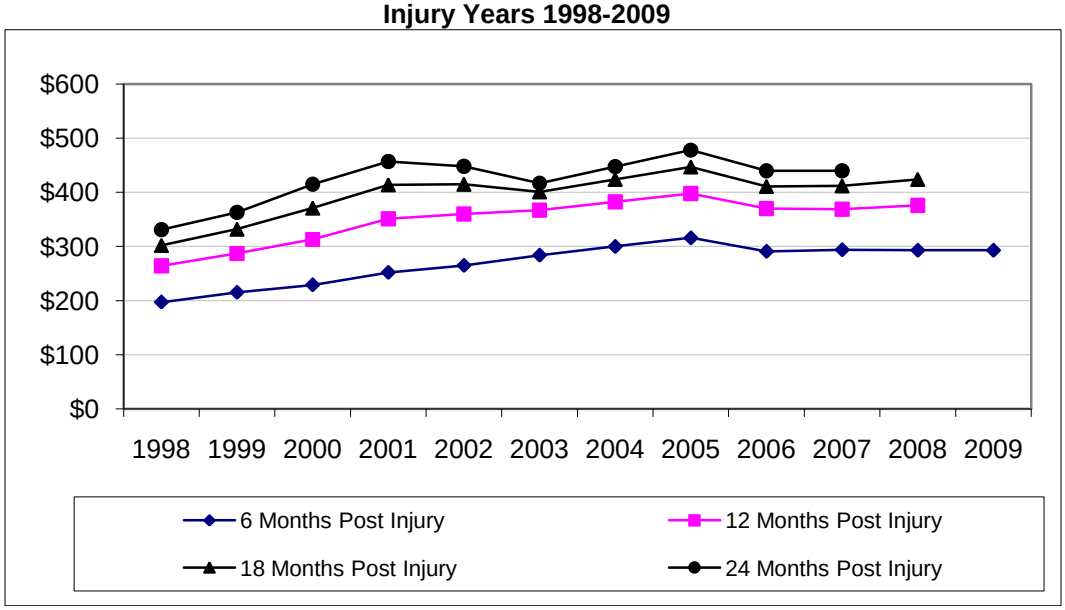


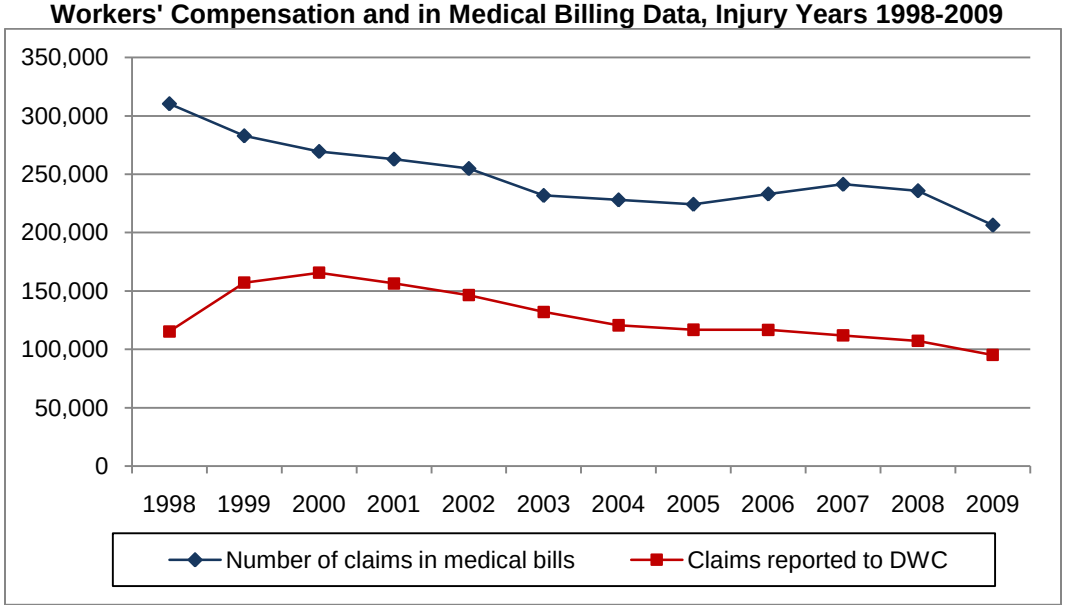
Figure 5.15: Average Cost per Claim for Other Professional Services, Injury Years 1998-2009



Injury Rates and Claim Frequency

When examining the total medical costs in the Texas workers' compensation system, it is important to note that these cost trends are significantly affected by fluctuations in injury rates and claim frequency. More claims being filed in the system will generally raise the total system costs, and vice versa. The number of claims filed with the Division climbed rapidly in the late 1990s and peaked in 2000, but it continued to decrease since then. These numbers are shown in Figure 5.16 along with the numbers of claims in the medical billing data that are used for this report. Numbers reported to the Division include fatalities, occupational diseases, and injuries with at least one day of lost time. Claims in the medical billing data include any claim with at least one payment for medical service, thus they contain medical-only claims that are not required to be reported to the Division.

Figure 5.16: Number of Workers' Compensation Claims Reported to the Division of Workers' Compensation and in Medical Billing Data, Injury Years 1998-2009



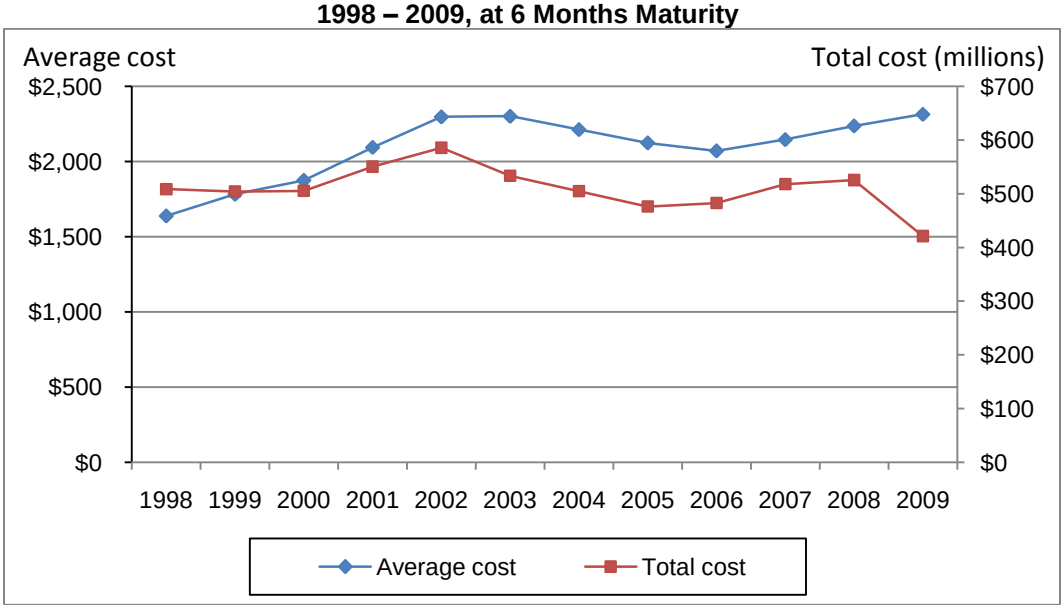
This decline since 2000 in the overall number of reportable claims filed with the Division mirrors the trend in the non-fatal occupational injury and illness rates collected and reported to the Bureau of Labor Statistics for the Survey of Occupational Injuries and Illnesses (SOII), as shown in Figure 5.1. Between 2000 and 2008, the nonfatal occupational injury and illness rate in Texas decreased by 34 percent from 4.7 to 3.1 injuries per 100 full-time employees. Compared with the rest of the nation, the injury rate in Texas has been consistently below the national average (see Figure 5.1).

Similarly, the number of workers' compensation claims actually reported to the Division has declined by 35 percent in the same period. The number of claims reported to the Division and that of SOII are not exactly comparable since they have different reporting requirements. For example, SOII figures include all workplace injuries and illnesses regardless of compensability. Claims including medical-only cases declined also from 1998 to 2009, but they were relatively stable and even increased slightly between 2003

and 2008. The share of medical-only claims decreased from 63 percent of total claims in 1998 to 39 percent in 2000 when more injuries were reported for lost time and income benefits, and then steadily increased to 54 percent in 2009. Since medical-only claims have lower average costs per claim than those with income benefits or lost time, more medical-only claims tend to lower the overall average cost. The effects of changing injury and claim types on medical costs are discussed in more detail below.

The reasons for these declines in the number of claims, both nationally and in Texas, consist of a variety of factors, including increased safety awareness among employers and employees, enhanced health and safety outreach and monitoring efforts at the federal and state level, improvements in technology, globalization, increased use of independent contractors, and the possibility of under-reporting of workplace injuries and illnesses. The net effect of a decreasing number of injuries and claims is a lower total medical cost if the average cost per claim remains stable. Figure 5.17 shows the trend in total and average costs for the last 12 years.[5] Total costs for new injuries in injury year at 6 months maturity decreased since 2002 but at a much lower rate than the number of claims (18 percent compared to 35%). While the number of claims decreased rapidly, the average medical cost per claim was in an increasing trend, which resulted in a less drastic reduction in total costs.

Figure 5.17: Total and Average Medical Costs for New Injuries, 1998 – 2009, at 6 Months Maturity



[5] 2009 injury year with 6 months maturity is evaluated with all medical treatments up to June 30, 2010. Although medical bills are updated by this date, some bills and payments may have not been settled and reported. The low total cost for 2009 should be considered preliminary subject to future updates. Average cost is similarly affected by the data limit, but the effect of missing bills will be relatively minimal.

Total and average medical costs can fluctuate up or down depending on a variety of factors, including frequency and intensity in service utilization, expenses associated with disputes and denials, medical fees, use of managed care arrangements and changes in injury and claim types. The remainder of this section examines these factors influencing medical costs in the Texas workers' compensation system. But it is worth to note some limitations of cost analysis. Medical costs represent a substantial portion of the total costs of the Texas workers' compensation system but they make up only a third of the total system cost measured by the premiums paid by employers. In 2001, insurance carriers paid out to injured workers 76 cents out of every $1 premium for indemnity and medical benefits. From 2002 to 2007, the share of benefit costs in the overall system cost fell to between 40 cents and 55 cents of a dollar's premium. This metric – benefits paid to injured workers divided by premiums paid by employers – is called a loss ratio in the insurance industry and discussed in Section 2 earlier. Direct benefits to injured workers consist of medical benefits that account for about 50 percent to 60 percent of the total and indemnity (or income) benefits that account for the rest. As a result, medical costs alone accounted for about 20 percent to 33 percent of the total premiums paid by employers during the six year period.[6] Medical cost analysis needs to be viewed within the context of the overall cost that includes other non-medical cost data.

Utilization of Care

Medical costs are affected not only by the fees for individual units of service, but also by the amount of medical care provided to injured workers (also known as the utilization of medical care). Previous studies indicated that higher medical costs in Texas were primarily the result of an overutilization of certain types of medical services provided to injured workers in Texas compared with other states. Specifically, Texas injured workers received more physical medicine services, surgical services and diagnostic testing than similarly injured workers in other states. Since the adoption of the 2003 professional services fee guideline (which adopted by reference the Medicare billing rules and payment policies), there have been significant changes in the amount of certain types of medical services provided to injured workers in Texas.

The amount of medical care provided to injured workers can be measured by examining both the percentage of injured workers receiving certain types of medical services, as well as the amount of those services received per injured worker. Table 5.4 shows that overall, there has been little change over time in terms of the percentage of injured workers receiving professional or hospital services for their work-related injuries.

[6] Indemnity benefits, defense and cost containment expenses, commissions and brokerage expenses, taxes and license fees account for the rest of the premiums. The difference between these costs and the premiums plus investment interests and expenses constitute the industry's profits.

Table 5.4: Percentage of Injured Workers Receiving Professional and Hospital Services, Adjusted, One Year Post-Injury, Injury Years 1998-2006

Injury Year	Professional Services	Hospital Services
1998	95.7%	36.4%
1999	95.1%	37.2%
2000	95.5%	35.4%
2001	95.2%	37.3%
2002	96.0%	38.7%
2003	96.9%	38.6%
2004	97.1%	35.5%
2005	97.3%	32.3%
2006	96.6%	34.2%
2007	96.6%	35.2%
2008	96.8%	34.9%

Looking at the various categories of professional services in more detail, it appears that the percentage of injured workers receiving services such as evaluation and management services, pathology and laboratory services, other physical medicine services, and other surgery services has not significantly changed over time. However, a significantly lower percentage of workers injured in 2008 received physical medicine modalities (i.e., physical agents that are applied to the body to produce therapeutic changes) (12.1 percent), compared to workers injured in 1998 (26 percent). This reduction is likely due to the adoption of the Medicare payment policies in 2003 since the Medicare system generally limits the amount and type of these services that are reimbursable. Similarly decreasing shares of patients in 2008 received spinal surgery, other diagnostic tests, and nerve conduction studies than in 1998, but the reduction for these services was more moderate. In comparison, the percentage of injured workers receiving CT scans and MRIs has increased since 1998 by over 50 percent (see Tables 5.5).

In terms of the actual amount of per patient services provided to injured workers in Texas, Figures 5.18 through 5.28 and Appendix B present more detailed information about the utilization of care per claim for injury years 1998-2007. Appendix B also contains detailed utilization information for specific physical medicine services. These figures show that there have been significant reductions in the utilization of physical medicine services, CT scans and other types of diagnostic testing services since the adoption of the 2003 professional services fee guidelines. Physical medicine services have declined in per-patient utilization as well as in the overall share of patient receiving such services (as discussed earlier). On the other hand, CT scans are provided at a lower intensity per claim but they are provided to more patients (see Table 5.5 and Figure 5.20).

However, since 2003, the amount of nerve conduction studies, surgical services (including spinal surgery and other types of surgery) and other professional services (i.e., all other professional services that do not fall into the specific categories of professional services listed in this report) provided per injured worker who received these services has continued to increase. While the more recent data show a decreasing trend in these

services, pathology and laboratory services show a particularly strong trend toward increasing utilization. Utilization in spinal surgery services decreased in 2008, but its 6-month maturity data indicates that the utilization of these services may be increasing (see Figure 5.24).

Table 5.5: Percentage of Injured Workers Receiving Certain Professional Services, One Year Post-Injury, Injury Years 1998-2008

Injury Year	Evaluation and Management Services	Physical Medicine Modalities	Other Physical Medicine Services	CT Scans	MRI Scans
1998	88.9%	26.0%	27.1%	1.9%	10.6%
1999	89.1%	27.5%	28.9%	1.9%	11.7%
2000	91.0%	28.2%	30.0%	2.1%	12.8%
2001	91.9%	29.8%	32.2%	2.2%	14.5%
2002	93.4%	30.5%	32.7%	2.4%	15.8%
2003	93.6%	27.5%	33.4%	2.4%	16.3%
2004	93.9%	23.4%	32.6%	2.5%	16.1%
2005	94.3%	19.2%	31.7%	2.5%	15.9%
2006	94.3%	16.1%	29.6%	2.5%	15.6%
2007	94.7%	14.2%	28.6%	2.6%	15.8%
2008	95.1%	12.1%	27.8%	2.9%	15.9%

Injury Year	Nerve Conduction Studies	Other Diagnostic Tests	Spinal Surgery	Other Surgery	Pathology and Laboratory Services	Other Professional Services
1998	5.1%	17.5%	0.9%	24.9%	10.0%	73.9%
1999	5.4%	15.8%	0.9%	24.6%	10.0%	73.0%
2000	5.9%	14.4%	0.9%	24.8%	10.3%	71.2%
2001	6.9%	14.3%	1.0%	26.0%	10.5%	73.2%
2002	7.0%	14.3%	1.0%	26.9%	10.8%	75.5%
2003	6.5%	13.8%	0.9%	27.9%	10.9%	77.4%
2004	5.8%	14.0%	0.8%	28.0%	10.8%	77.5%
2005	5.1%	14.2%	0.7%	28.1%	10.7%	77.7%
2006	4.4%	13.7%	0.6%	27.9%	10.4%	78.9%
2007	3.7%	13.4%	0.5%	26.8%	10.6%	79.3%
2008	3.6%	13.6%	0.5%	27.1%	11.1%	79.7%

Figure 5.18: Average Number of Evaluation and Management Services Billed per Claim, Injury Years 1998-2009

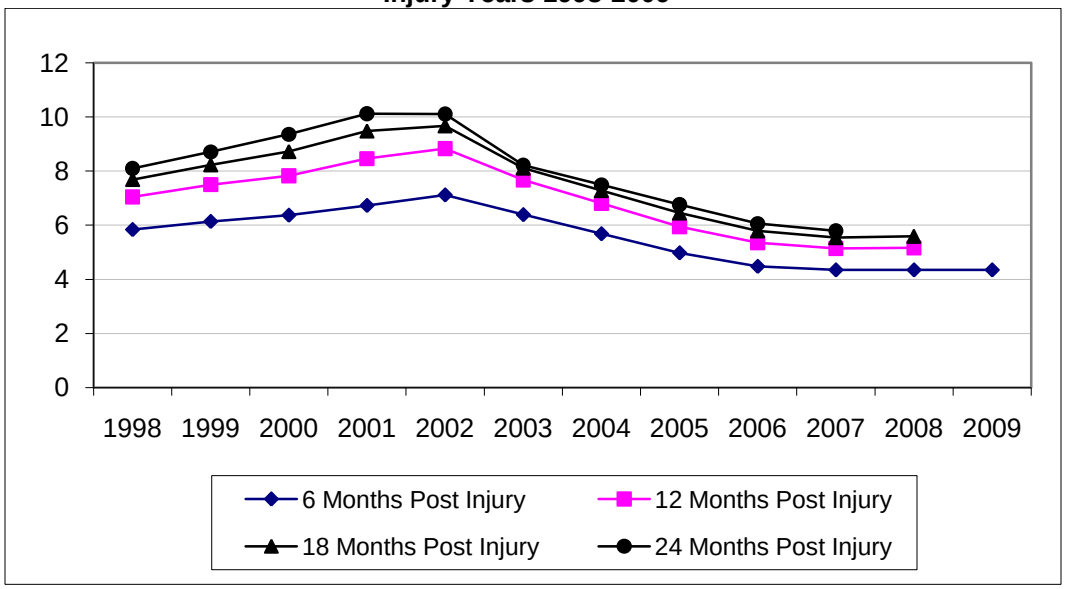


Figure 5.19: Average Number of Physical Medicine Modality Services Billed per Claim, Injury Years 1998-2009

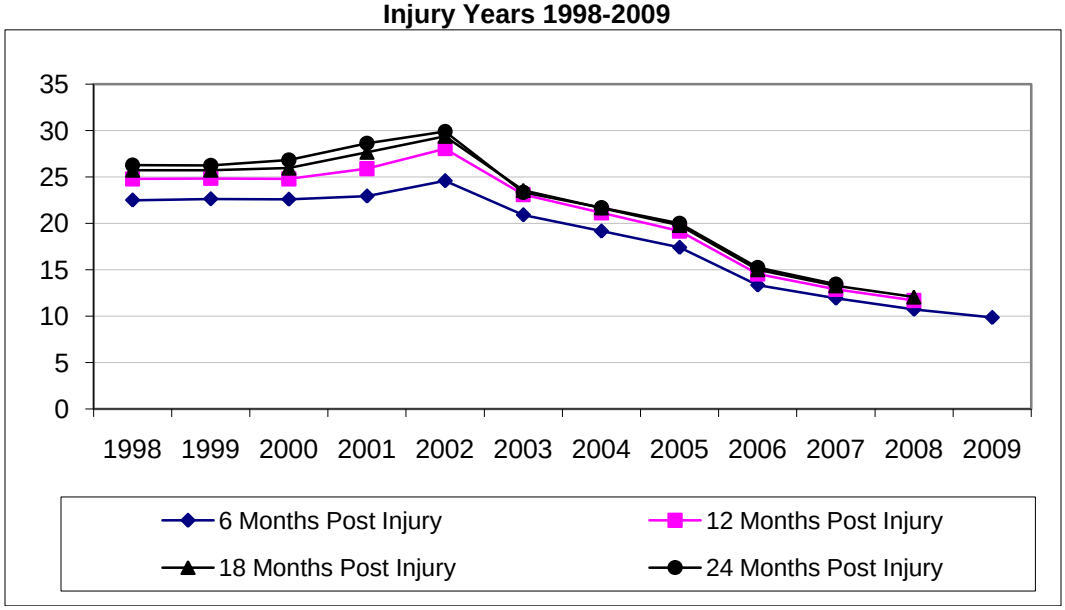


Figure 5.20: Average Number of Other Physical Medicine Services Billed per Claim, Injury Years 1998-2009

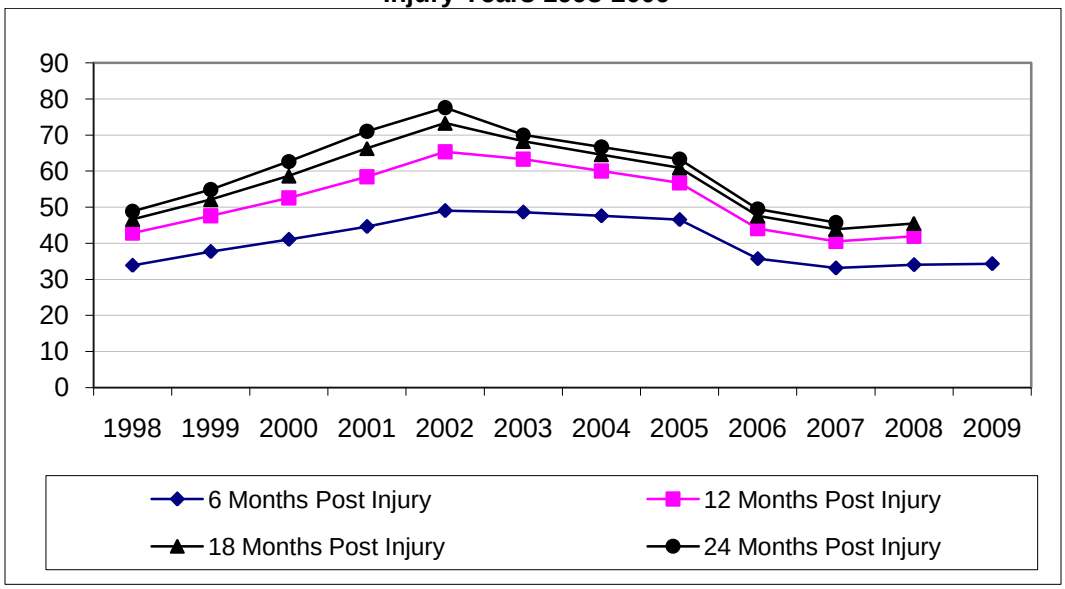


Figure 5.21: Average Number of CT Scan Services Billed per Claim, Injury Years 1998-2009

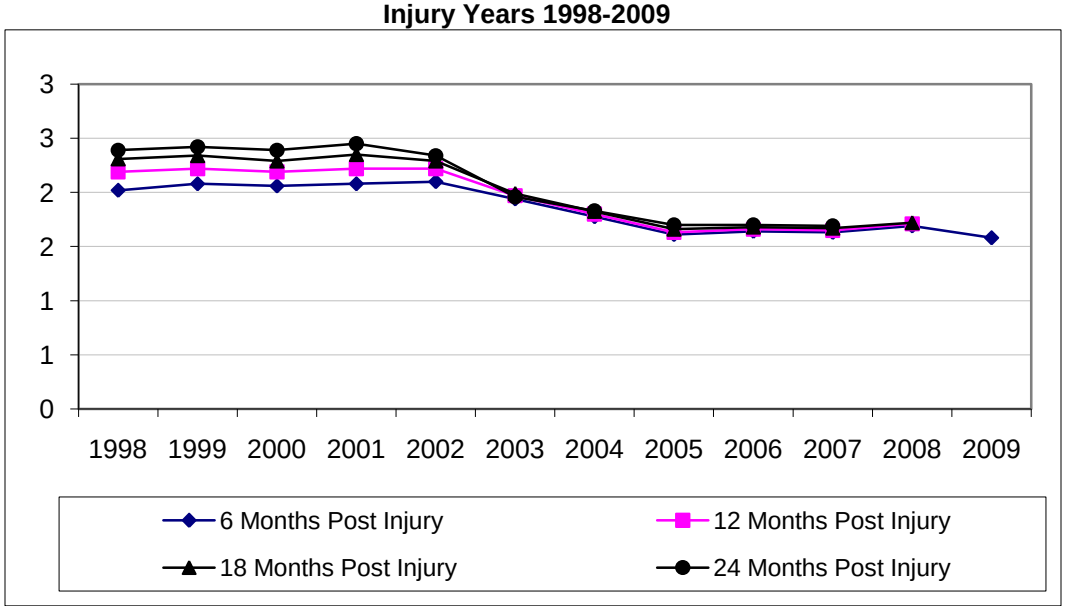


Figure 5.22: Average Number of MRI Services Billed per Claim, Injury Years 1998-2009

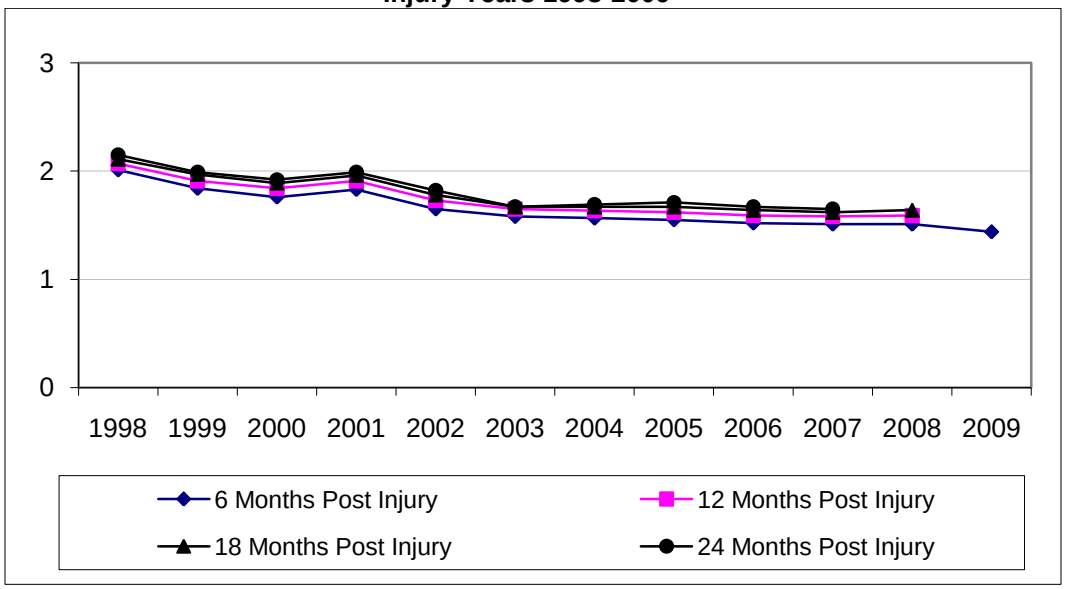


Figure 5.23: Average Number of Nerve Conduction Services Billed per Claim, Injury Years 1998-2009

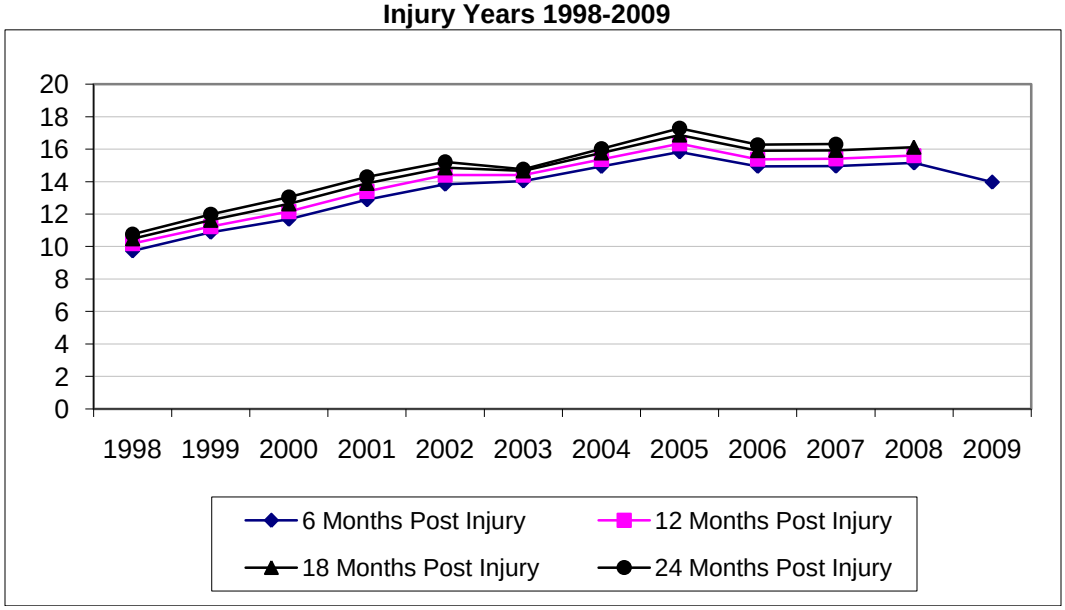


Figure 5.24: Average Number of Other Diagnostic Services Billed per Claim, Injury Years 1998-2009

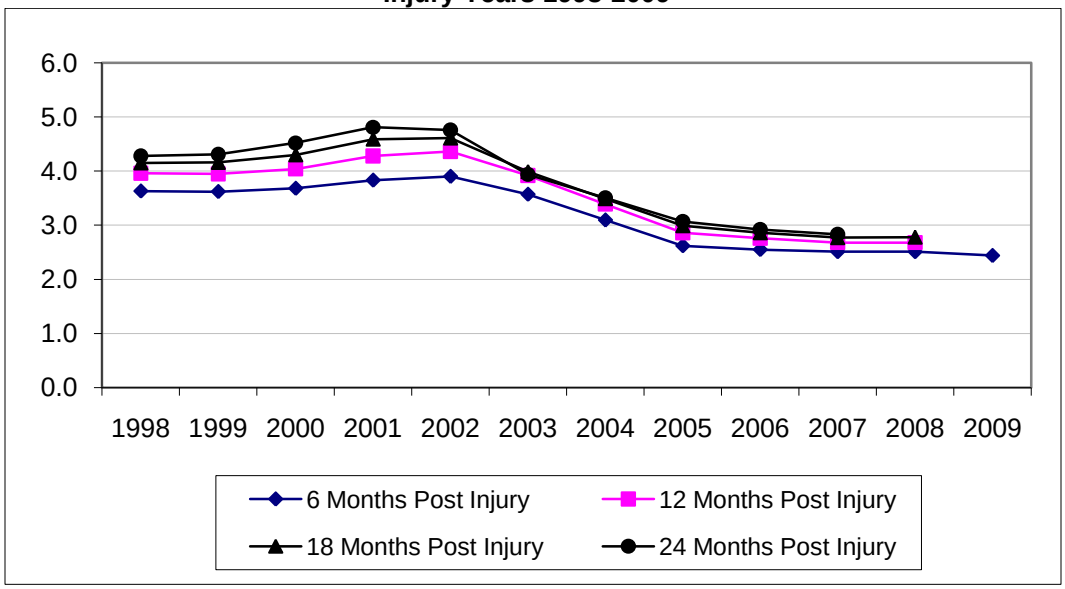


Figure 5.25: Average Number of Spinal Surgery Services Billed per Claim, Injury Years 1998-2009

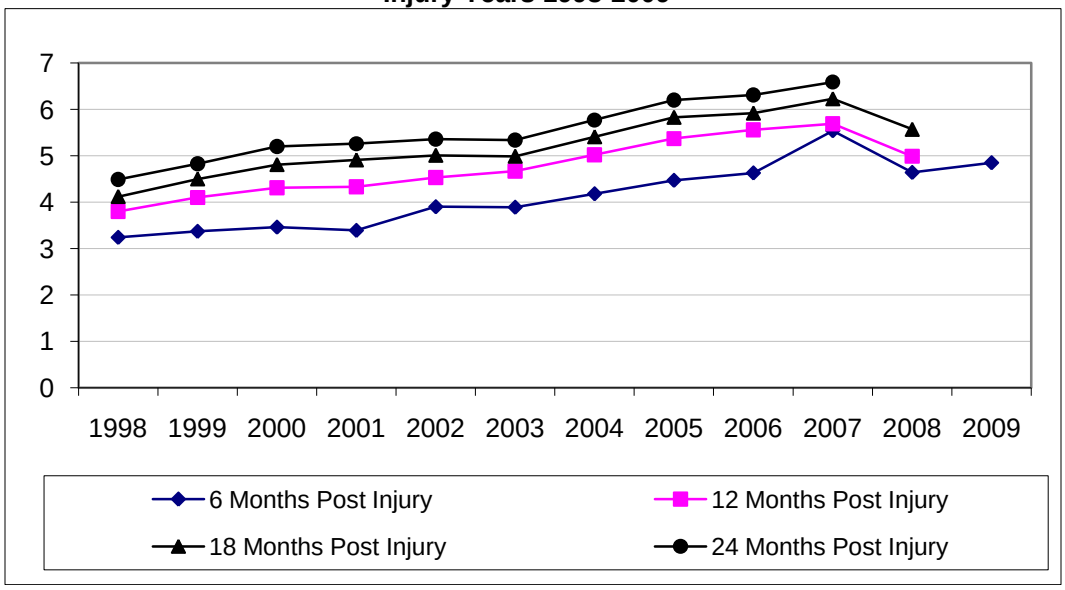


Figure 5.26: Average Number of Other Surgery Services Billed per Claim, Injury Years 1998-2009

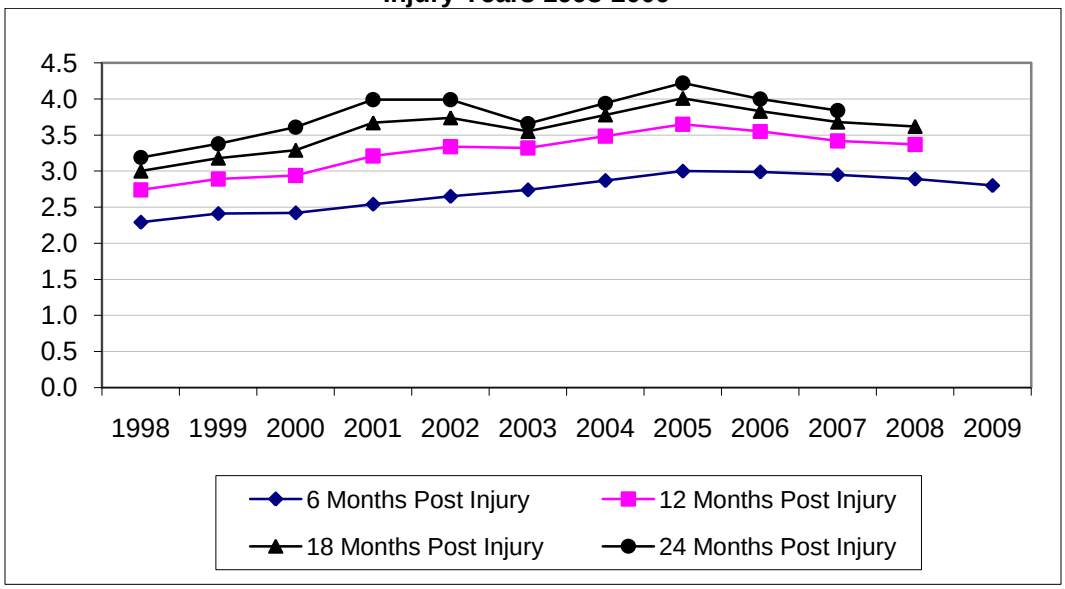


Figure 5.27: Average Number of Pathology and Lab Services Billed per Claim, Injury Years 1998-2009

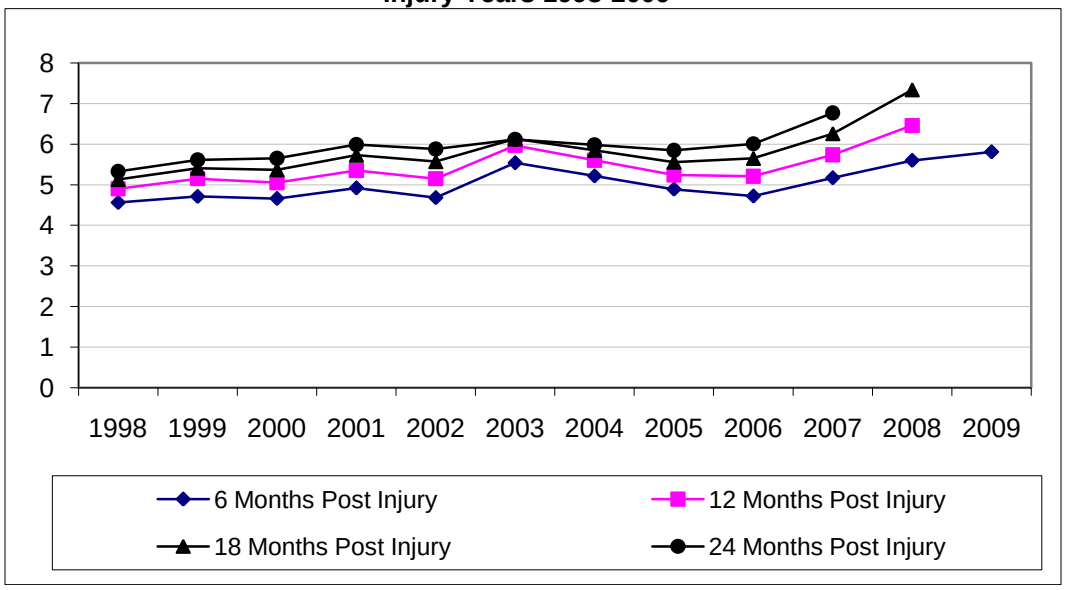
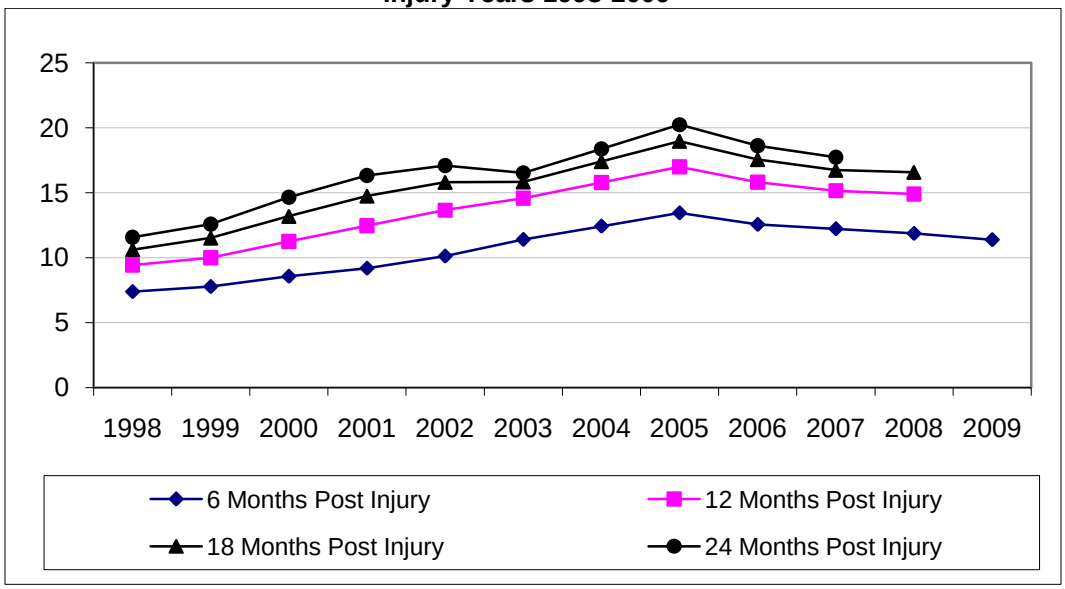


Figure 5.28: Average Number of Other Professional Services Billed per Claim, Injury Years 1998-2009



Costs and Utilization in WC Networks

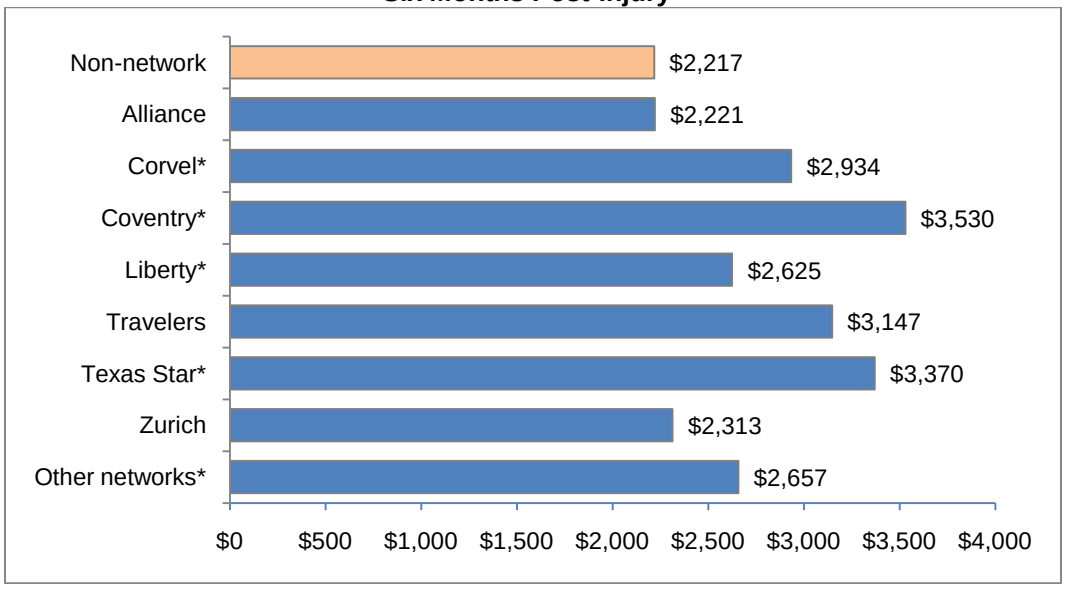
Information from the annual workers' compensation network report card produced by the Department in September, 2010 provides some insight into the early implementation of networks.[7] Nine certified networks (Alliance, Corvel, Coventry, Liberty, Texas Star, Travelers and Zurich) had sufficient claim volume to be compared with each other and with non-network claims. The remaining 20 certified networks that had reported treating injured employees according to the Department's February 2010 certified network data call were combined into an "other networks" category for comparison purposes. All of the cost and utilization findings presented in this report have been statistically adjusted to account for differences in injury types or claim types (i.e., medical only and lost-time claims) that may have occurred in these claim populations over time. As a result, changes in costs and utilization over time cannot be attributed to changes in the types of injuries sustained by injured workers or the relative severity of those injuries. Cost and utilization differences between network and non-network outcomes as well as between the networks can be the result of a wide range of factors such as differing methods of medical care delivery and fees and utilization review.

In general, differences have begun to emerge among individual networks. As Figure 5.29 shows, at six-months post-injury, the average medical cost per claim for the certified networks was higher than non-network claims.

[7] For more information about how individual networks compare with each other and with non-network claims on a variety of cost, utilization, access to care, satisfaction with care, return-to-work, and health outcomes measurements, see "2010 Workers' Compensation Network Report Card Results" by Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, available online at (http://www.tdi.state.tx.us/reports/report9.html).

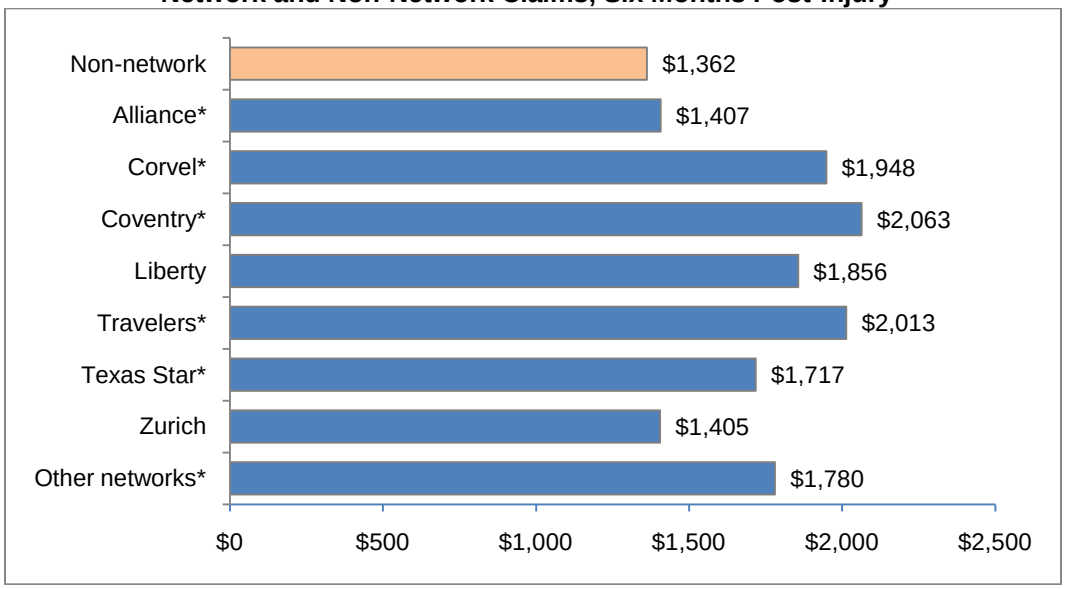
When medical costs are further broken down into professional, hospital and pharmacy services, it becomes clear that the average medical cost per claim for professional and hospital services was higher for network claims than non-network claims at six months post-injury (see Figures 5.30 and 5.31). In addition to higher professional and hospital costs per claim, networks also had higher pharmacy costs per claim, with the exception of Alliance, Texas Star, and Travelers network (see Figure 5.32). It is important to note that higher hospital costs for network claims appear to be primarily driven by higher fees paid in network for hospital services, rather than higher utilization of hospital services. In order to be certified by the Department, a network must offer hospital as well as professional services. HB 7 excluded the delivery of pharmacy services from networks (meaning that networks are not allowed to direct injured workers to an "in-network" pharmacy, but rather injured workers are able to get their prescriptions filled at any pharmacy participating in the Texas workers' compensation system). During the initial formation of many of the networks certified by the Department, networks and hospitals engaged in fierce fee negotiations, which resulted in many hospital fee contracts being reimbursed at levels that are higher than what hospitals are paid for similar services under the Division's hospital fee guidelines.

Figure 5.29: Average Medical Cost per Claim, Network and Non-Network Claims, Six Months Post-Injury



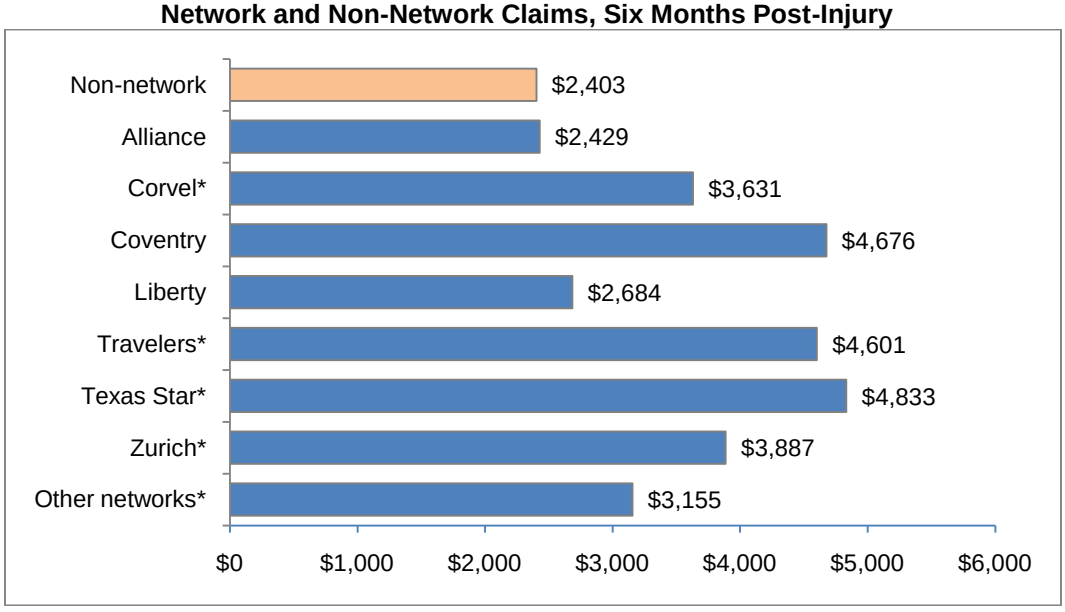
*Note: * denotes where differences between the network and non-network are statistically significant.*

Figure 5.30: Average Medical Cost per Claim for Professional Medical Services, Network and Non-Network Claims, Six Months Post-Injury



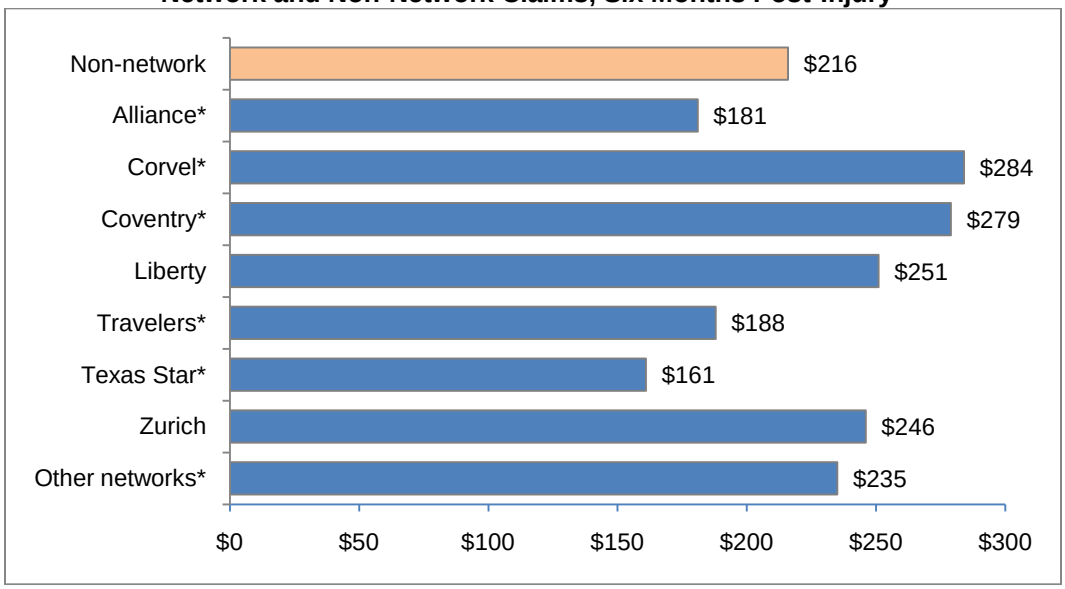
*Note: * denotes where differences between the network and non-network are statistically significant.*

Figure 5.31: Average Medical Cost per Claim for Hospital Medical Services, Network and Non-Network Claims, Six Months Post-Injury



*Note: * denotes where differences between the network and non-network are statistically significant.*

Figure 5.32: Average Medical Cost per Claim for Pharmacy Medical Services, Network and Non-Network Claims, Six Months Post-Injury



*Note: * denotes where differences between the network and non-network are statistically significant.*

Medical cost differences between network and non-network claims at this early stage in network implementation appear to be driven primarily by higher hospital fees, higher pharmacy utilization (both in the percentage of injured workers receiving pharmacy services and the number of prescriptions per worker) and higher utilization of certain physical medicine services and diagnostic tests than non-network claims with similar types of injuries. Table 5.6 shows the percentage of injured workers receiving professional, hospital and pharmacy services in the three certified networks as well as non-network as highlighted in the 2010 Workers' Compensation Network Report Card. Generally, a higher percentage of injured workers receiving medical treatment in networks received professional and pharmacy services compared with non-network claims, while a lower percentage of network claims are receiving hospital services (e.g., inpatient or outpatient hospital settings and ambulatory surgical centers).

Table 5.6: Percentage of Injured Workers Receiving Professional, Hospital and Pharmacy Services, 6 Months Post Injury

Type of Service	Non-network	Alliance	Corvel	Coventry	Liberty	Travelers	Texas Star	Zurich	Other networks
Professional	93.2%	99.8%	98.7%	98.3%	98.2%	98.6%	98.7%	97.4%	96.1%
Hospital	35%	30%	23%	29%	25%	23%	33%	22%	26%
Pharmacy	42%	48%	56%	54%	53%	59%	57%	37%	51%

When the percentage of injured workers receiving professional medical services is examined more closely, it appears that with some exceptions, a higher percentage of network workers receive evaluation and management services, physical medicine services, MRIs, other diagnostic tests, nerve conduction studies, other surgical services

and other professional services than non-network claims (see Table 5.7).

Networks generally provided more pharmacy services (in terms of writing more prescriptions to a higher percentage of similarly injured workers) than non-network claims (see Table 5.8). This is likely due to the statutory provision in HB 7, which allows certified networks to designate the specialties of doctors who serve as treating doctors (i.e., primary care providers). As of this report, certified networks have only designated medical doctors (MDs) or Osteopaths (DOs) as network treating doctors. Chiropractors do not generally serve as network treating doctors, but rather referral providers. This differs from non-network medical care since the Workers' Compensation Act and Rules allow non-network workers to select chiropractors as well as MDs, DOs, podiatrists, dentists, and optometrists as treating doctors. As a result, the doctors who serve as treating doctors in networks are providers who have the authorization to write prescriptions and utilize pharmacy services as part of their treatment protocols.

In addition to a higher percentage of network workers receiving certain types of professional medical services, networks generally provided higher amounts of evaluation and management, other surgical services and other professional services per claim than non-network claims (see Table 5.9). With the exception of spinal surgical services, networks provide comparable amounts of other types of professional services, such as CT scans, MRIs, nerve conduction studies, other diagnostic testing, and pathology and laboratory services with non-network claims.

Table 5.7: Percentage of Injured Workers Receiving Professional Medical Services, by Type of Professional Service, 6 Months Post Injury

	Non-network	Alliance	Corvel	Coventry	Liberty	Travelers	Texas Star	Zurich	Other networks
Evaluation & Management	95%	99%*	98%*	97%*	96%*	98%*	97%*	97%*	96%*
PM-Modalities	11%	12%*	14%*	14%*	10%	14%*	11%	11%	13%*
PM-Other	26%	29%*	38%*	39%*	34%*	38%*	32%*	32%*	35%*
DT-CT SCAN	3%	2%*	3%	4%*	3%	2%*	4%*	3%	3%
DT-MRI	15%	19%*	18%*	17%*	19%*	16%	18%*	12%*	18%*
DT-Nerve Conduction	3%	2%*	3%	4%*	4%*	4%*	3%	2%	4%*
DT-Other	58%	60%*	63%*	63%*	64%*	62%*	62%*	58%	62%*
Spinal Surgery	0.2%	0.2%	0.3%	0.4%	0.5%*	0.4%	0.3%	0.2%	0.4%*
Other Surgery	25%	22%*	28%*	33%*	30%*	30%*	32%*	24%	28%*
Path. & Lab	10%	8%*	8%*	15%*	8%*	20%*	12%*	15%*	12%*
All Others	78%	89%*	93%*	91%*	90%*	93%*	87%	88%	88%*

*Note: * denotes where differences between the network and non-network are statistically significant.*

Table 5.8: Percentage of Injured Workers Receiving Pharmacy Services, by Pharmaceutical Classification Group, 6 Months Post Injury

	Non-network	Alliance	Corvel	Coventry	Liberty	Travelers	Texas Star	Zurich	Other networks
Analgesics-Opioid	54%	47%*	58%*	58%*	53%	46%*	59%*	54%	56%*
Analgesics-Anti-inflammatory	59%	63%*	65%*	65%*	69%*	53%*	60%*	64%*	65%*
Musculoskeletal therapy	32%	33%*	39%*	35%*	38%*	25%*	31%	33%	35%*
Mood stabilizers	7%	5%*	9%*	8%*	8%	6%	8%*	6%	7%
Other Therapeutic Groups	41%	37%*	43%	43%	42%	38%*	43%*	44%	38%*

*Note: * denotes where differences between the network and non-network are statistically significant.*

Table 5.9: Average Number of Professional Services Billed per Claim by Type of Professional Service, 6 Months Post Injury

	Non-network	Alliance	Corvel	Coventry	Liberty	Travelers	Texas Star	Zurich	Other networks
Evaluation & Management	4.2	4.4*	5.6*	5.4*	5.1*	5.4*	5.1*	4.2	4.8*
PM-Modalities	10.8	9.3*	11.6	9.8	7.2*	10.3	9.8*	6.2*	9.2*
PM-Other	34.6	29.9*	41.5*	34.4	39.0*	39.6*	35.3	25.0*	32.9
DT-CT SCAN	1.6	1.6	1.6	1.8	1.7	1.9	1.9*	1.6	1.5
DT-MRI	1.5	1.4*	1.6*	1.6	1.4	1.6	1.5	1.4*	1.5
DT-Nerve Conduction	14.8	14.3	15.6	13.9	15.7	14.2	15.0	17.3	13.5
DT-Other	2.5	2.4	2.6	2.7*	2.3*	2.6	2.9*	2.2*	2.5
Spinal Surgery	5.1	3.2*	5.3	3.3	2.8*	4.3	4.2	4.0	5.7
Other Surgery	2.8	3.0*	3.5*	3.5*	3.3*	3.6*	3.2*	2.8	3.2*
Path. & Lab	5.9	6.0	7.4	6.1	5.1	6.0	6.0	4.6*	4.3*
All Others	11.5	9.5*	15.8*	16.1*	15.4*	14.9*	12.9*	12.6	13.2*

*Note: * denotes where differences between the network and non-network are statistically significant.*

Fee Guidelines and Cost of Service

The adoption of the 2003 professional services fee guideline aligned the reimbursement structure for medical services provided in the Texas workers' compensation system with the Medicare system. From August 1, 2003 to March 1, 2008, professional medical services were paid at 125 percent of Medicare's reimbursement rates (conversion factor). From March 1, 2008, the new Medical Fee Guideline began to use a conversion factor fixed at $52.83 with the exception of surgery services which use a separate $66.32 as a conversion factor. These factors are to be adjusted annually using Medicare Economic Index.

While the same reimbursement rate was used across the board for all professional medical services under the 2003 fee guideline (i.e., 125 percent of Medicare), the difference between the reimbursement rates under the 1996 Medical Fee Guideline and the 2003 Medical Fee Guideline, both of which were adopted by the former Texas Workers' Compensation Commission, varied considerably depending on the category of professional service. Figures 5.33 through 5.39 provide examples of how the average payment for specific types of professional services has changed over time.

Generally, the reimbursement amounts for evaluation and management services (see Figure 5.33 for an example of one of these services) increased under the 2003 Medical Fee Guideline; however, the reimbursement amounts for certain spinal surgeries varied under the 2003 Medical Fee Guideline. For example, the reimbursement levels for laminectomies decreased (see Figure 5.38), while the reimbursement levels for other specific types of spinal fusion procedures actually increased (see Figure 5.39).

One note is that the reimbursement levels for unlisted physical medicine procedures (see Figure 5.35) have increased significantly over the past few years. An increasing number of physical medicine services are billed under unlisted codes in the Texas workers' compensation system, meaning that these services cannot be specifically identified without looking at the actual medical documentation. Unlisted medical services do not have specific fee amounts assigned to them under the Division's fee guidelines since the complexity of these services may vary considerably. These services, by rule, are required to be paid at "fair and reasonable" rates by insurance carriers after reviewing the "usual and customary" charges for these services submitted by health care providers. Interestingly, the utilization of these services dropped for workers injured in 2007, which corresponds to the adoption of the Division's new treatment guidelines (see Table 3 in the appendix).

Figure 5.33: Average Cost per Unit of Service - Established Outpatient Doctor Visit, Six Months Post-Injury, Injury Years 1998-2009

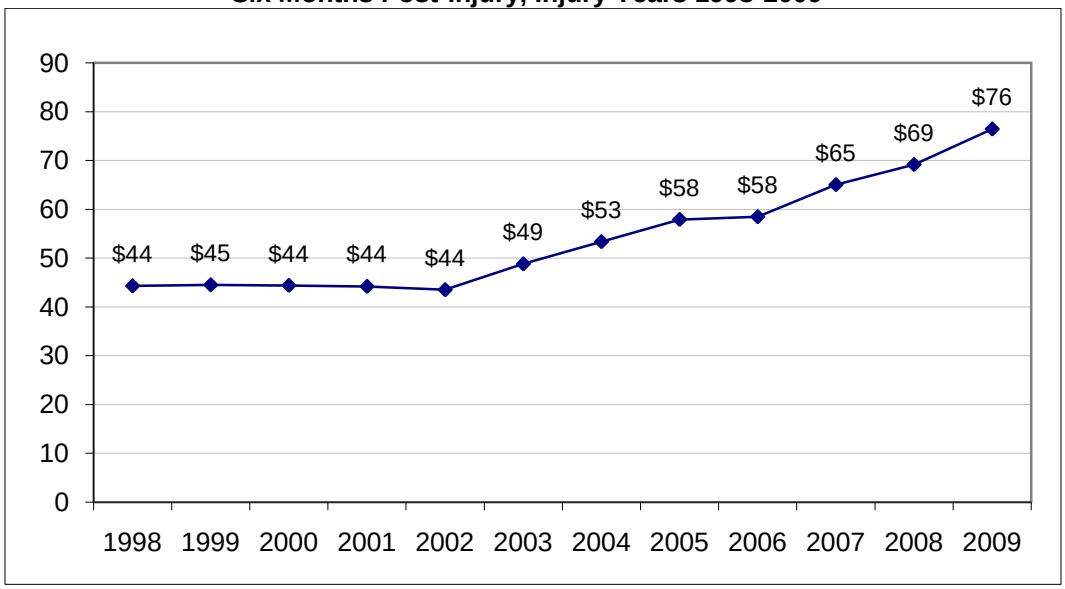


Figure 5.34: Average Cost per Unit of Service - Therapeutic Exercises, Six Months Post-Injury, Injury Years 1998-2009

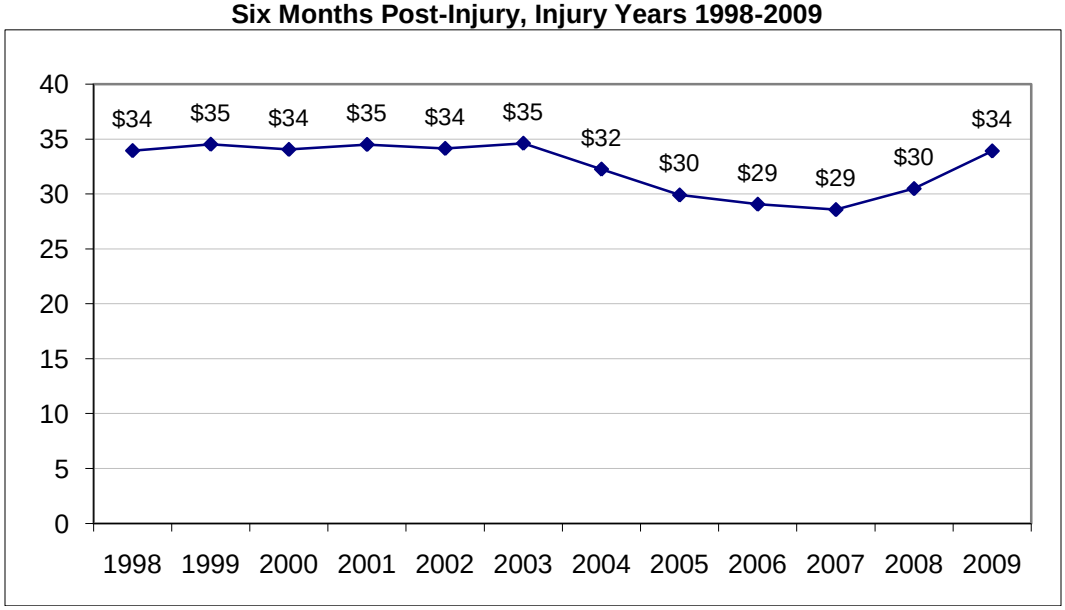
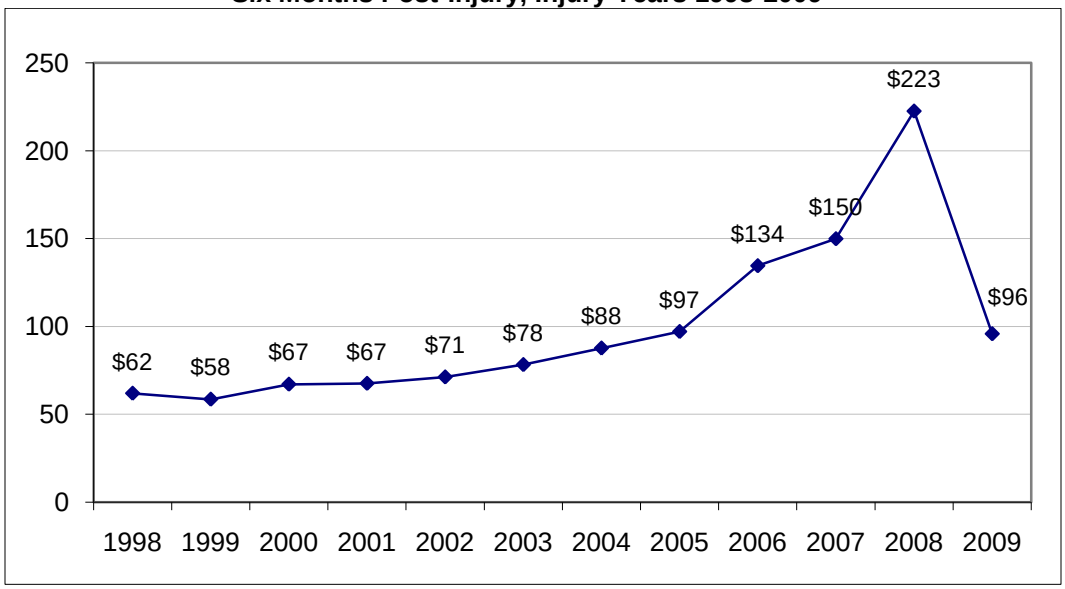


Figure 5.35: Average Cost per Unit of Service - Unlisted Physical Medicine Service, Six Months Post-Injury, Injury Years 1998-2009



Note: The noteworthy decrease in billings for unlisted physical medicine service (HCPCS 97799) followed a memorandum in March 2008 that reaffirmed payment denials for lack of documentation for the service.

Figure 5.36: Average Cost per Unit of Service - Sense Nerve Conduction Test, Six Months Post-Injury, Injury Years 1998-2009

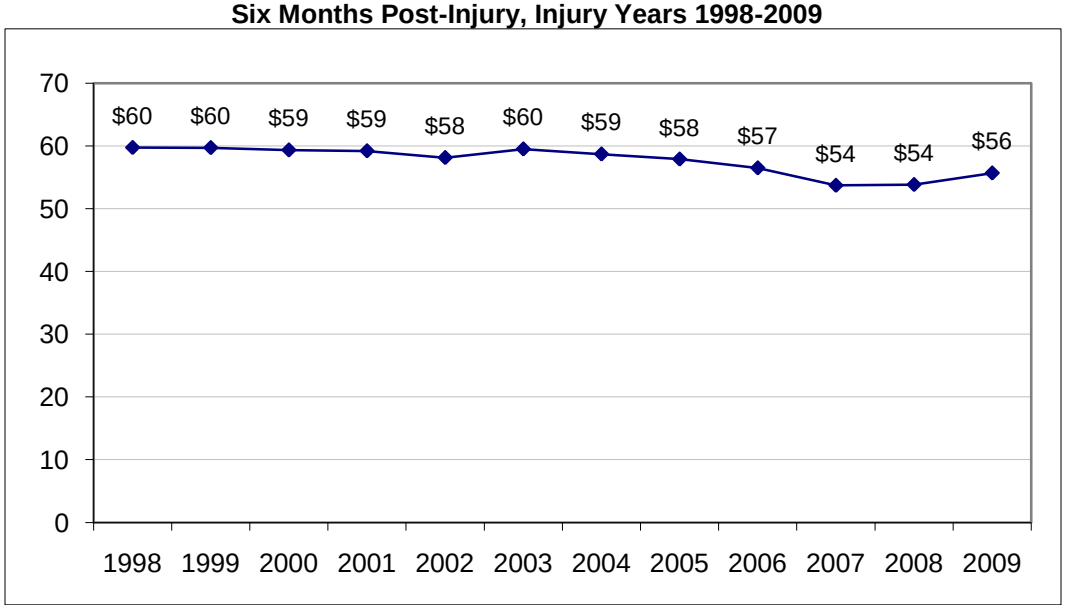


Figure 5.37: Average Cost per Unit of Service - MRI Joint of Lower Extremity Without Dye, Six Months Post-Injury, Injury Years 1998-2009

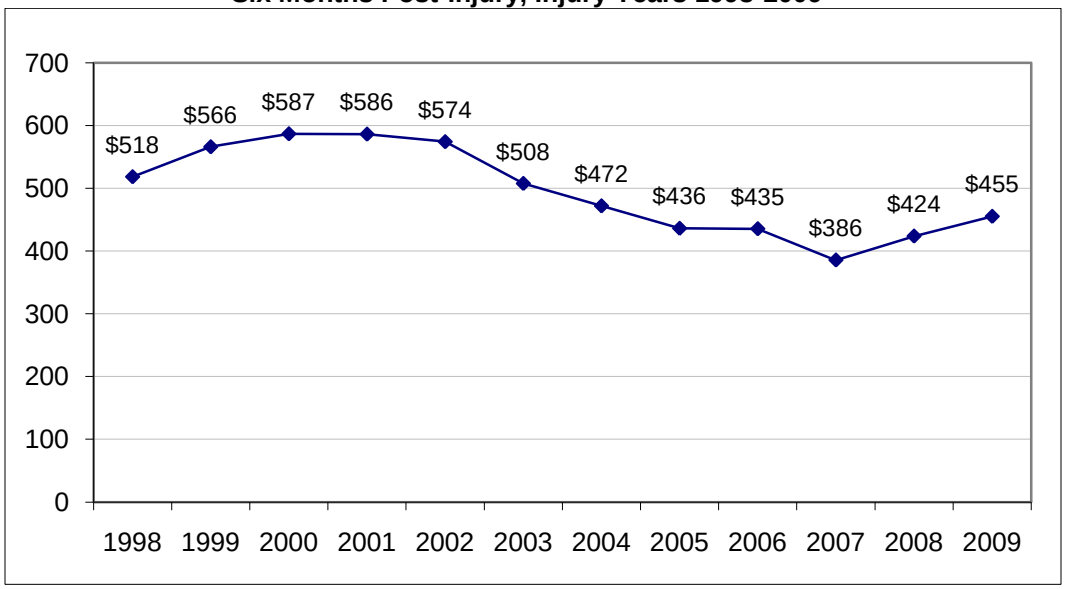


Figure 5.38: Average Cost per Unit of Service - Low Back Disc Surgery, Six Months Post-Injury, Injury Years 1998-2009

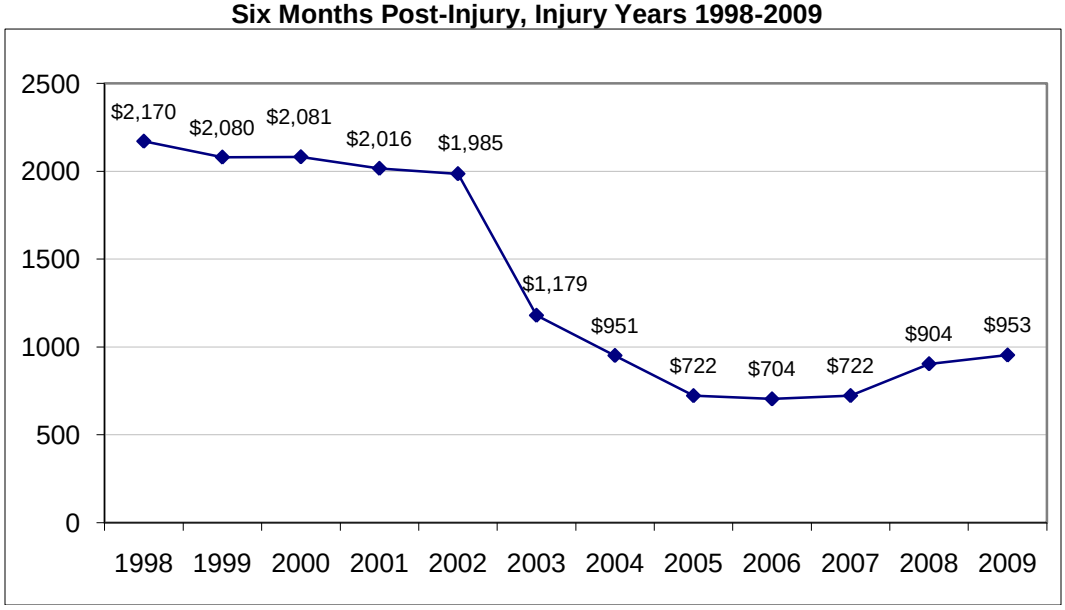
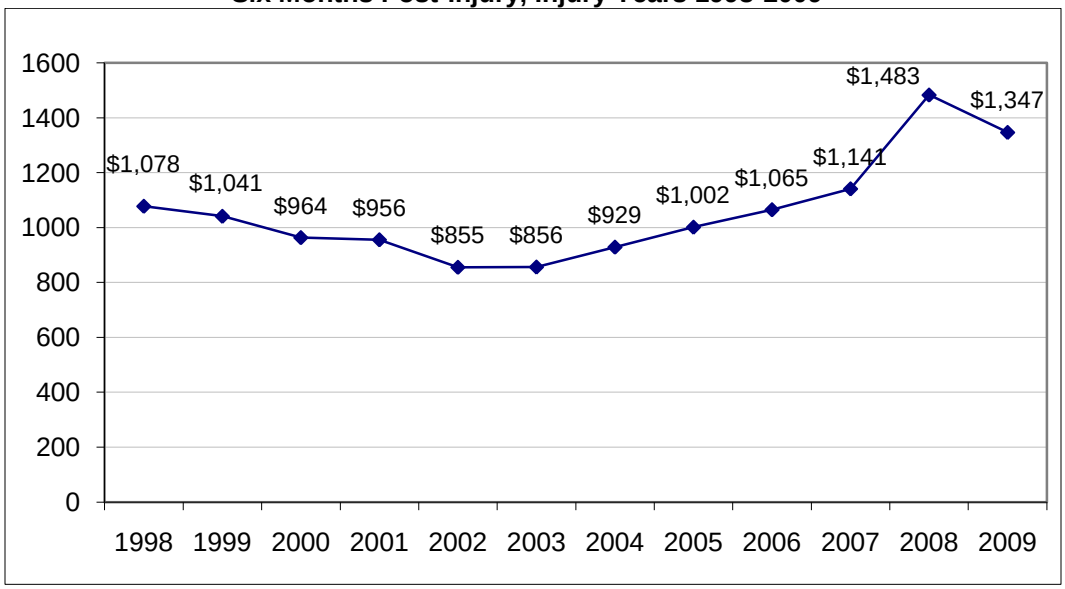


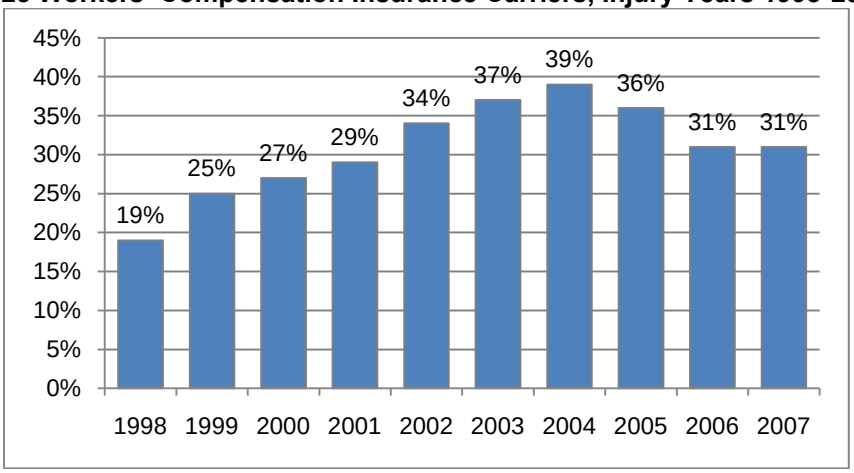
Figure 5.39: Average Cost per Unit of Service - Lumbar Spinal Fusion, Six Months Post-Injury, Injury Years 1998-2009



Effects of Denial and Disputes on Medical Cost

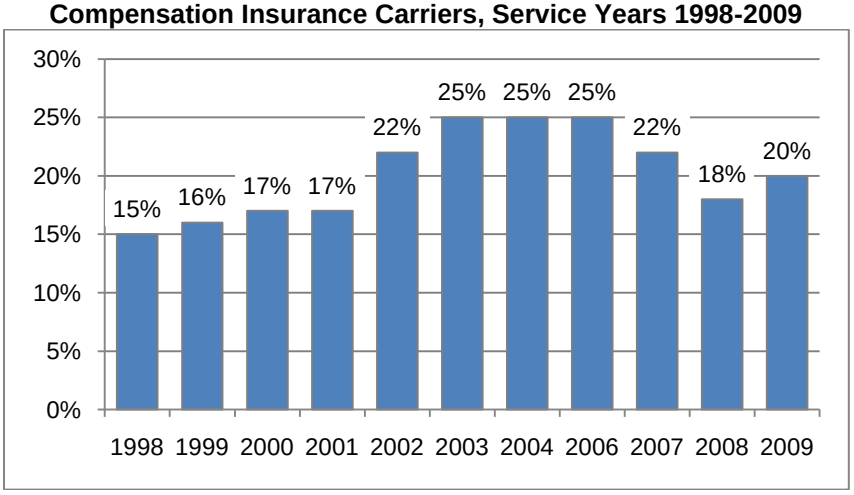
One possible reason why medical costs have begun to stabilize in Texas can be found by examining insurance carrier denials of both workers' compensation claims and medical services over time. Since 2001, both the percentage of reportable claims and the percentage of professional medical services initially denied/disputed have increased (see Figures 5.40 and 5.41). In particular, denials of professional medical services increased significantly after the adoption of a new Medicare-based medical fee guideline in August 2003, which included the adoption, by reference, of the Medicare billing rules and payment policies into the Texas workers' compensation system. The effects of denials and disputes on medical costs may be larger than the billing data show since these professional medical denials represent only the denials for medical treatments and services that have already been rendered. Preauthorization denials are not included in these numbers since denied services at the preauthorization stage will not have bills submitted, and their effects would have further reduced medical costs. Both claim and medical service denials have decreased in recent years.

Figure 5.40: Percentage of Reportable Claims That Are Initially Denied/Disputed for the Top 25 Workers' Compensation Insurance Carriers, Injury Years 1998-2007 [8]



Note 1: The 2006 figures should be interpreted with caution since the data are incomplete.
Note 2: HB 2600, a reform bill aimed at reducing medical costs, was passed in 2001.

Figure 5.41: Percentage of Professional Medical Services Denied for the Top 25 Workers' Compensation Insurance Carriers, Service Years 1998-2009



Note 1: 2007 number is preliminary. Denial rates for 2005 were excluded due to missing data.
Note 2: HB 2600, a reform bill aimed at reducing medical costs, was passed in 2001.

Effects of the ODG Treatment Guidelines

Evidence-based treatment guidelines, *The Official Disability Guideline – Treatment in Workers' Comp* published by the Work Loss Data Institute, were adopted and became effective in May, 2007. The adoption of official treatment guidelines can potentially affect treatment patterns, health and return-to-work outcomes, preauthorization and bill

[8] The top 25 insurance carriers represented over 90 percent of the workers' compensation premiums in 2006 and accounted for 60-70 percent of the total amount of medical payments made during 1998-2004. For the purpose of this analysis, the same 25 insurance carriers were used in each year to calculate both the claim and medical billing denial rates.

review processes, and the procedure, cost and efficiency of medical necessity disputes. Main legislative intents are to control medical costs and improve health care results for injured workers by reducing excessive and/or inappropriate medical services. In this section, we evaluate the guidelines' impact on the health care utilization pattern and costs. Since the guidelines have been in effect for less than three years, any analysis of their effects remains preliminary.

Treatment guidelines suggest treatment plans or paths based on broad diagnostic features of injuries, and make recommendations on what procedures should or should not be used for those diagnoses. All procedures that conflict with those recommendations or that are not discussed in the guidelines are subject to preauthorization requirements. Their primary target users are health care providers and utilization review agents. Available data suggest that only a small percentage of health care providers are aware of, or subscribing to, the ODG-TWC guidelines. However, the provider market for workers' compensation medical care appears to be highly concentrated as only 4,000 or so providers account for 80 percent of all services and payments. If the above small number of providers included these top providers, the guidelines would have a sufficient rate of penetration.

Pre-Billing Effects: Overall Reduction in Excessive Utilization

If health care providers are utilizing the treatment guidelines in their provision of services, there will be identifiable changes in the way injured workers are treated. If excessive or inappropriate services are avoided, this will result in the 'absence' of bills for such services. We term this effect as 'pre-billing effects.' Pre-billing effects refer to excessive and inappropriate services that were voluntarily avoided by health care providers or rejected in the preauthorization process.

Our analyses are based on the Texas medical EDI data that contain information about health care procedures billed by providers, and utilization review/payment actions made by carriers, covering service years from 2005 to 2008. During this period, the number of claims receiving medical treatments increased slightly in 2006 but decreased in 2007 and 2008. Total costs for professional services declined by 27 percent in the four year period while hospital costs increased by 18%. Combining professional, hospital and pharmacy costs, the average total cost per claim decreased by 4%. The decrease was attributable mainly to the 19 percent decrease in the average cost for professional services.

This sizable decrease in services by physicians and other professionals was not universal to all types of providers. Although there was an overall consistent trend since 2003 toward a lower utilization, partly due to new Medicare-based fee schedules and to the expanding requirements for preauthorization, the decrease was most prominent in 2006. The greater part of this decline in service utilization occurred in physical medicine services that became subject to preauthorization requirements in 2005. Most notably, cost shares of chiropractors decreased significantly. The data show that chiropractors lowered the frequency by 38 percent and the intensity by 17 percent in 2006. The frequency of visits per claim underwent continuous decline in the four years while the intensity decreased mostly in 2006.

This decline in utilization due to preauthorization requirements is assumed to continue after 2006, albeit at a much lower rate. Therefore, the decline in utilization in 2007 and 2008 could be a result of both preauthorization requirements and the adoption of treatment guidelines. Our analyses indicate that services provided by MD/DO group began to decrease in 2007. These services provided by MD/DO group account for the majority of services and payments in workers' compensation, and they were increasing in 2006 as no significant cost control measures were effective for these services. But they began to decrease in 2007, and again in 2008. The decreasing utilization and costs in MD/DO services are the best indication that the adoption of treatment guidelines is having effects on reducing excessive services. However, preauthorization requirements and the decreasing number of claims are also responsible for this decline.

For all professional services, the average cost per claim declined by 12 percent in 2006, mainly due to the decline in chiropractic service utilization. The average cost declined by 5 percent in 2007 with a minor decrease in 2008, which may have been affected by new higher fees that went into effect in March, 2008. Thus, it can be reasonably argued that the average cost per claim declined at an annual rate of 5 percent in 2007 and 2008 as a result of 15 percent decrease in service utilization. The majority of these decreases can be attributed to factors other than preauthorization requirements.

But the analyses also indicate that the decrease in utilization was wide-ranging, not specific to certain procedures as it would be expected if the changes were due to treatment guidelines. Also, the decrease in utilization occurred more noticeably in frequency than in intensity. In other words, the number and pattern of services billed for one visit has remained stable while the number of service visits decreased steadily. This type of decrease occurred in all services with little indication that these changes are related to the treatment guidelines' recommendations.

Post-Billing Effects: Less Medical Necessity Denials

Post-billing effects of the guideline adoption refer to actions by carriers and their agents for utilization reviews. If providers ignored treatment guidelines and/or preauthorization requirements, carriers could still deny payments for some services. These actions are contained in the medical 837 data as claim adjustment reason codes, and data show that denial rates are declining while bill reviewers are more focused on fee adjustments and disputes related to preauthorization. In other words, carriers are accepting more bills on the basis of medical necessity, which is certainly one of the intended results of adopting treatment guidelines. The bills, if they are denied, are more likely to be those of MD/DO providers than those of chiropractors, unlike in 2006 when most denied bills were of chiropractors.

But this increased confidence in the part of carriers and utilization reviewers about the appropriateness of the bills is not a direct evidence of health care providers' utilizing treatment guidelines. Carriers may be accepting these bills after examining their appropriateness in the context of treatment guidelines, or they may do so simply because the decreasing cost trend has made scrutinizing bills' medical necessity unnecessary. Evidences point to the latter reason.

Treatment Pattern Analysis: No Significant Change

Comparative studies of utilization patterns before and after the adoption indicate that service utilization has decreased overall but with a minimal change in treatment patterns. To evaluate changes in specific treatment procedures, we compared utilization patterns of two groups selected from pre- and post-adoption periods. All claims in the samples had soft tissue low-back injuries. We selected four services (office visits, X-Ray services, MRI services, and surgeries) and compared actual service patterns with those recommended by the ODG-TWC to be consistent with the diagnosis. Given the complexity of evaluating service patterns, we used a similarity analysis of two cumulative distribution functions. Distribution functions are constructed for a utilization measure (the number of services provided) and a timing measure (the number of days between the date of injury and the first date of service) for each of the four services chosen for analysis (see Tables 5.10 and 5.11).

Comparing 24,607 pre-adoption claims with 22,921 post-adoption claims, about 90 percent of the post-adoption cases received the same number of evaluation and management services as that for pre-adoption cases. The median number of days since injury did not change in 70 percent of the cases. However, statistical tests indicate that their distribution patterns are statistically different. The difference is mainly in the service patterns for top 5 percent or 1 percent of the population.

According to the ODG-TWC, X-Rays for soft-tissue injuries are not recommended except for rare and special cases. But the data show that over 47.4 percent of these cases received at least one X-Ray service prior to the guideline adoption. If service providers consulted treatment guidelines in any way, there would have been some changes. But 45.8 percent of the post-adoption claims received X-Ray services and half of them on the first day they visited a physician. In other words, in half of the cases, X-Ray was conducted as a routine procedure on the first day. And this pattern has not changed after the guideline's adoption.

MRI and surgery services are not much different from the above services. Service delivery patterns remain similar while significant changes occurred for the top 5 percent of the claims. Service reductions in the top 1 percent or 5 percent of the cases may be attributed to a general awareness among health care providers about the need to lower overall utilization, but not to any specific treatment guideline being followed. This may very well change as more health care providers are aware of the adopted treatment guidelines and reflect them in their treatment planning process in the future, or if carriers begin to scrutinize submitted bills for inappropriate services. Currently available data indicate only that health care providers are paying some attention to utilization levels in extreme cases but general treatment pathways have not yet changed significantly in the post-adoption period.

Table 5.10: Distribution Functions and Similarity Test Results for Utilization Measure

	Median number of services by percentile							
	E&M		X-Ray		MRI		Surgery	
	2005	2007/8	2005	2007/8	2005	2007/8	2005	2007/8
Number of claims with treatment	23833	21972	11667	10499	4918	4734	186	165
% of total claims	96.85%	95.86%	47.41%	45.81%	19.99%	20.65%	0.76%	0.72%
0% Min	1	1	1	1	1	1	1	1
10%	1	1	1	1	1	1	1	1
20%	2	2	1	1	1	1	2	2
30%	2	2	1	1	1	1	2	2
40%	2	2	1	1	1	1	2	2
50% Median	3	3	1	1	1	1	2	3
60%	4	4	1	1	1	1	3	4
70%	5	5	2	2	2	2	4	4
80%	8	7	2	2	2	2	6	6
90%	15	14	3	3	2	2	9	9
95%	24	21	4	4	3	3	12	12
99%	56	42	9	7	5	5	21	16
100% Max	203	147	25	22	13	22	32	23
Kolmogorov-Smirnov test*	**0.0027**		0.6268		0.2418		0.7992	
Mann-Whitney-Wilcoxon test*	**0.0051**		0.9725		**0.0455**		0.4098	

**: Bold numbers indicate that the difference between the two groups is statistically significant.*

Table 5.11: Distribution Functions and Similarity Test Results for Timing Measure

	Median number of days between injury and first service							
	E&M		X-Ray		MRI		Surgery	
	2005	2007/8	2005	2007/8	2005	2007/8	2005	2007/8
0% Min	1	1	1	1	1	1	1	1
10%	1	1	1	1	10	12	62	101
20%	1	1	1	1	17	18	102	150
30%	2	2	2	2	23	24	135	181
40%	3	3	3	3	30	31	159	227
50% Median	4	4	4	4	37	38	196	248
60%	5	6	6	6	45	48	224	288
70%	7	7	10	10	56	60	250	334
80%	11	12	18	19	74	82	294	381
90%	23	27	45	50	117	130	371	444
95%	50	61	105	119	173	195	414	493
99%	202	202	278	318	315	335	569	544
100% Max	506	531	658	581	671	561	604	619
Kolmogorov-Smirnov test*	**0.0018**		0.6149		**0.0028**		**0.0005**	
Mann-Whitney-Wilcoxon test*	**0.0013**		0.1704		**0.0020**		**<0.0001**	

**: Bold numbers indicate that the difference between the two groups is statistically significant.*

Changes in Injury and Claim Characteristics

Multiple factors affect the average medical cost. While factors such as fee schedules, utilization, billing practices and efficiencies in medical care delivery are main variables that determine cost levels, other factors external to the workers' compensation system also contribute to the cost increase. One factor that is often considered to be external to the system is the change in case mix. For example, the average cost in one year may be higher due to an uncharacteristic increase in the number of expensive injury or claim type. To the extent this change in case mix is due to external factors, a part of the cost increase that is attributable to case mix changes may overstate or understate actual cost increases due to systemic variables.

However, one needs to determine whether these external factors are truly external to the workers' compensation system. For example, medical price inflation may be internal in situations where providers increase per service charges in response to a restricted number of services allowed. Removing this effect of price inflation may result in underreporting cost increases. Case mix distribution may also be responsive to changes in system measures. In such a case, case mix adjusted costs may understate or overstate true costs. Case mix adjustment is often preferred when average costs are compared across different states since differences in case mix among states may be influenced by non-systemic factors and the purpose of a multistate comparison is often to highlight the differences in medical care delivery and other internal factors only.

Nevertheless, there is much to gain in isolating the effects of case mix changes on average cost. Table 5.12 shows relative shares of different injury and claim types in the Texas workers' compensation system for selected years. Claims are distinguished into three types: a group that received medical and income benefits, another group that received medical care only but reported some lost time, and a third group that received medical care only without any lost time or income benefits. Injury types are also separated into three groups: nerve compression, soft tissue, and other type of injuries. Nerve compression injuries often require more costly treatment than soft tissue injuries (e.g. sprains and strains) and other type of injuries. The average cost for 1998 is shown in the third column.

The most common claim types are either relatively low cost (medical only claims with soft tissue or other type of injury) or relatively high cost (income benefit recipients with soft tissue or other type of injury). Noticeable in the relative distribution of these cases is the upward tick in 2002 for income benefit claims with soft tissue injuries. There is a corresponding downward tick in the medical only claims with other injury types for that same year. It is expected that some of the high cost in 2002 would be attributable to this peculiarity in injury and claim types.

2002's case mix of more high-cost and less low-cost claims contributes to its higher average costs. But how much of 2002 cost is attributable to its case mix? To answer that question, we have adjusted average costs by calculated weights using each year's relative distribution of case types in relation to 1998. Figure 5.42 shows both unadjusted and

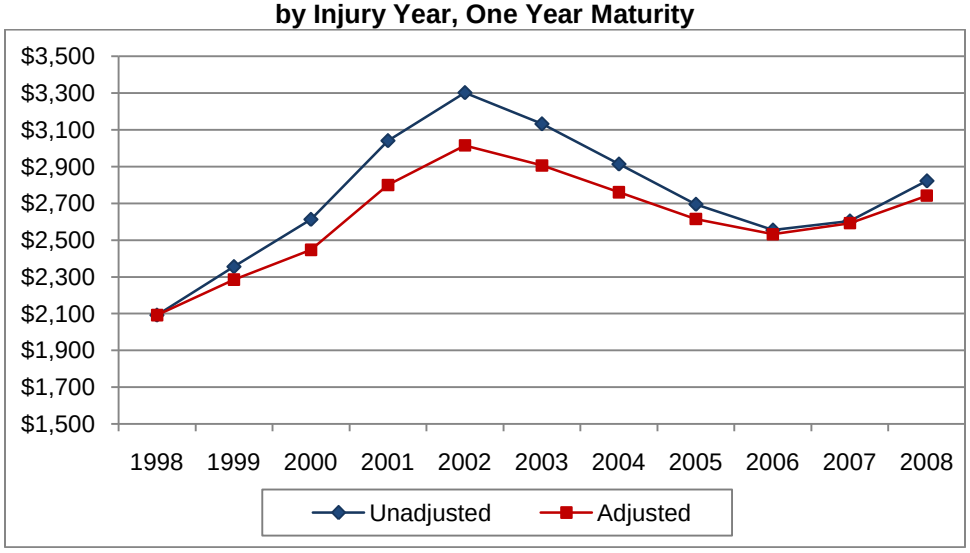
weight adjusted average costs. The difference between unadjusted and adjusted numbers represents cost increases solely due to differences in the case mix.

Table 5.12: Relative Shares of Claims by Injury Type and Claim Type in Selected Years, One Year Maturity

Claim type	Injury type	1998 average cost	1998	2002	2005	2008
Income benefit recipient	Nerve compression	$9,200	2.0%	2.0%	1.5%	1.0%
	Other	$6,136	13.0%	14.3%	14.2%	14.6%
	Soft tissue	$5,754	9.8%	11.5%	9.9%	9.2%
Lost time without income benefit	Nerve compression	$3,835	0.2%	0.3%	0.2%	0.2%
	Other	$1,111	6.4%	7.5%	7.4%	6.7%
	Soft tissue	$1,141	4.2%	5.0%	4.7%	4.0%
Medical only	Nerve compression	$2,194	1.1%	0.7%	0.6%	0.6%
	Other	$566	44.4%	40.1%	43.0%	45.2%
	Soft tissue	$790	19.1%	18.6%	18.5%	18.6%
Total claims		$2,092	315,555	257,879	226,320	237,695

Figure 5.42 shows that cost increases attributable to changes in injury and claim types are significant, but they are not dominant enough to obscure the overall trend in cost increases and decreases. The average cost increased by 57 percent from 1998 to 2002. The increase is by 44 percent after controlling for injury and claim type effects, which accounted for about 23 percent of the total cost increase. Secondly, the effects of changing case mix were highest in 2002 and disappeared almost completely by 2005. In other words, when other cost factors are driving the cost upward, the case mix factor is also working in the same manner. This is an indication that the effects are not external to other factors that determine costs. Rather, the case mix effects are very much linked to other internal cost factors, and thus they should be treated as internal factors.

Figure 5.42: Unadjusted and Case Mix Adjusted Average Costs by Injury Year, One Year Maturity



Changes in injury type may be internal and systemic to the extent that they respond to internal factors such as changes in fee schedule and reimbursement policies. Claim types are also potentially affected by changes in income benefit policies, changes in employer policies in response to changes in premium and other costs, and by changes in coverage and treatment practices. In such cases, removing these effects may result in presenting a partial analysis of cost increases. A more detailed study may help in determining the endogeneity of case mix variables and the extent of their effects on medical costs. At the same time, other cost factors, to the extent that data is available, may also be identified and evaluated through regression and other analyses of cost data, which will enable policy makers to isolate and better estimate the effect of a particular reform.

Summary

In general, average medical costs per claim decreased significantly from the peak in 2002 until 2006, but they are in an increasing trend since 2006. Stabilized costs and the substantial reduction in utilization of care since 2001 are directly related to various reform measures of HB 2600 and HB 7, especially the passage of the 2003 professional services fee guidelines and the expanded preauthorization requirement for physical medicine services. Over this same time period, much of the reduction in total medical payments occurred due to reductions in injury rates and the total number of reportable claims filed with the Division accounts. However, increased scrutiny by insurance carriers in terms of compensability and medical necessity issues as well as changes in reimbursement amounts, the adoption of the Medicare payment policies in 2003, and the added preauthorization requirements for physical medicine services have also helped reduce overutilization and medical cost inflation in Texas.

During the 2005 legislative session as well as during the adoption of network rules and certification processes at the Department, there was a lot of concern from various system participants about whether the implementation of new "managed care" health care delivery model in the Texas workers' compensation system would result in workers receiving significantly less medical care and/or poor quality medical care. After reviewing preliminary data from the initial stages of network implementation, it appears that injured workers are receiving as much medical care, and in some cases more medical care, than non-network claims with similar types of injuries. While it is too early to fully evaluate the impact of networks on medical costs and utilization of care in Texas, it is clear that with the exception of hospital services, networks' attempts to lower medical costs through the negotiation of lower fees with health care providers have not produced lower medical costs, but rather increases in the amount of certain types of medical care being billed by network providers. Increased hospital costs for networks appear to be driven by higher fees for these services compared to the Division's fee guidelines.

The Department will continue to monitor the implementation of networks as well as the implementation of new medical fee guidelines (effective March 1, 2008) and the impact of the Division's treatment guidelines (effective May 1, 2007) on medical costs and utilization of care outcomes for Texas injured workers. The Department will also monitor what differences, if any, in the utilization of medical care between network and non-network claims affect income benefit costs and return-to-work rates.

6. Access to Medical Care

One of the primary goals of an effective workers' compensation program is to ensure that workers with job-related injuries receive prompt and appropriate medical treatment. Delayed medical care may have a negative effect on health outcomes resulting in increased costs and delayed return to work. However, obtaining timely medical care in workers' compensation can be a complex process as it involves reporting the injury, compensability and extent of injury determination, utilization reviews, preauthorization and other rules. However, once the workers' compensation claim is found to be compensable, timely and appropriate access to medical care depends on the availability of providers who will accept workers' compensation patients.

Policymakers and system participants continue to express widespread concern that fewer health care providers are participating in the Texas workers' compensation (WC) system. Anecdotal evidence suggests that some injured workers have difficulties finding appropriate health care providers. To assess the condition for access to care, WC Research and Evaluation Group (REG) has conducted an extensive study of the availability and participation of treating doctors in the workers' compensation system and evaluated the timeliness of receipt of medical care. Covering the period from 1998 to 2008 injury years, the study's results in two principal access measures—providers' participation and the timeliness of initial care—indicate that access to care conditions for workers' compensation patients in Texas have been stable or even improving during the ten year period.

Access to Care Measurements and Data

REG's access to care study focused on injured workers' primary and initial access to physicians—i.e. first medical treatment since injury—for non-emergency care. Emergency and hospital care are often given in a situation that does not reflect patient's preference for provider and provider's decision to participate in WC. For non-emergency professional services, access to care is measured by how timely an initial treatment was received after an injury.

Timeliness of care is defined by the number of days from the date of injury to the first non-emergency treatment. All claims with medical bills are evaluated with 6 months of maturity, i.e. within the period of 6 months from the injury date. Any claim with the first treatment dated more than 6 months from the injury is considered an outlier and has been removed from the study. This timeliness measure is influenced by the number of claims (the demand factor) and the number of treating physicians (the supply factor). Therefore, the timeliness measure is also reflected in the claims-to-physician ratio, which is the total number of WC claims divided by the total number of participating physicians for each year. When there are fewer doctors treating the same number of WC patients, the above ratio, the number of injured workers treated per physician will increase. But the number of injured workers in Texas has been declining steadily as reported by the Survey of Occupational Injuries and Illnesses (SOII) and the Division of Workers' Compensation

(DWC). Whether the claims-to-physician ratio is improving or worsening will depend on the trend in the number of participating or treating doctors. Preliminary studies have indicated that the average caseload for most health care provider types did not increase significantly between 1999 and 2004[1]. The 2010 REG access to care study also confirms those findings.

The task of surveying physician supply conditions during the last ten years required a series of annual physician lists to determine the number of active participants for each year. The Texas Medical Board (TMB) maintains a list of licensed MD/DO doctors that also contains information about practice location, medical specialty and active status. Annually archived TMB lists from 1999 to 2008 were obtained from Texas Department of State Health Services. Then, active physicians in the TMB lists were cross-referenced and identified by provider license numbers in the Division of Workers' Compensation's medical data. Similar annual lists of active providers are not available for non-physician providers such as chiropractors and physical/occupational therapists. For the latter, provider identifiers in the medical data are also not as reliable and complete as those for MD/DO physicians. In addition, non-physician providers tend not to be the first provider of choice for non-emergency services. For these reasons, REG's study is limited to MD/DO physicians.

TMB lists of doctors and DWC's medical data are used to calculate two measures of physician participation in workers' compensation: participation rate and retention rate. Participation rate is the number of WC participating physicians divided by the total number of active physicians in Texas. 'Active' physicians are those licensed by TMB, whose registration status is active and who are not in military practice (e.g. military and VA hospital personnel), who are in direct patient care (i.e. teaching, administration and research positions are removed), and whose practice location is in Texas. 'Participating' physicians are those who submitted medical bills for one or more WC patients for particular year. Retention rate is the percentage of a prior year's WC participants who participate in the following year. These two measures are based on service year framework that considers all medical bills in a given year regardless of when the injury might have occurred. These measures are also detailed by physician specialty and geographical region to help identify more specific trends.

Physician Participation in Workers' Compensation

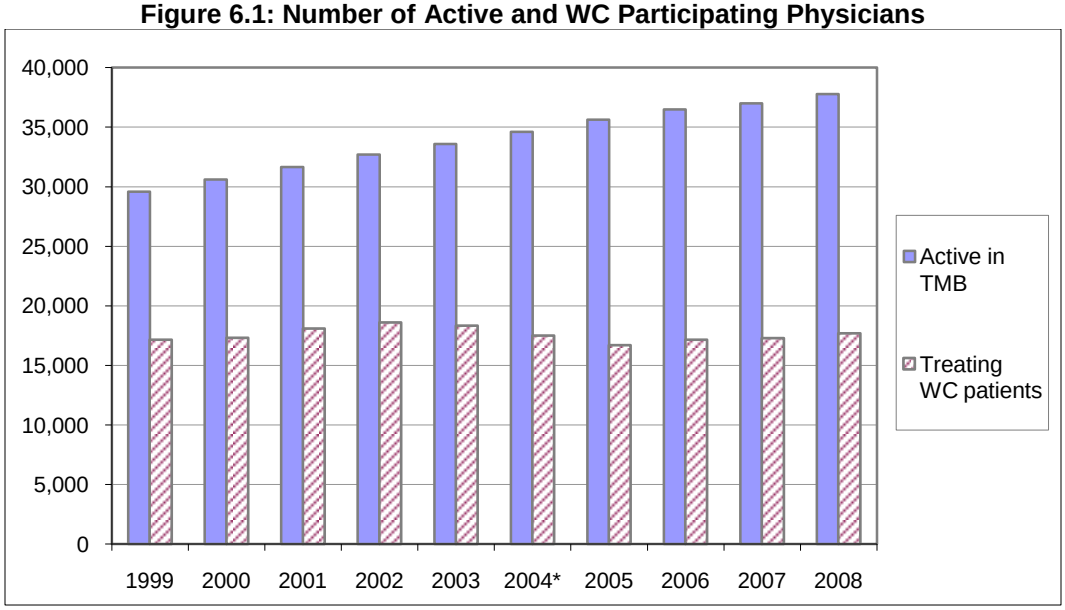
The total number of active physicians in Texas has been increasing steadily during the last ten years, from 29,579 in 1999 to 37,773 in 2008 at an average *annual* growth rate of 3 percent (see Figure 6.1). At the same time, the number of WC participating physicians grew from 17,150 in 1999 to 17,697 in 2008 at a *total* growth rate of 3 percent. Because the total number of active physicians grew faster than the number of participating physicians, the physicians' WC participation rate has decreased from 58 percent in 1999

[1] TDI, *Setting the Standard: An Analysis of the Impact of the 2005 Legislative Reforms on the Texas Workers' Compensation System, 2008 Results*, p. 11, 2008.

to 47 percent in 2008 (see Figure 6.2)[2]. Figure 6.2 shows the participation rate for physicians in a service year treating all patients (both old and new injuries) and the rate based on new patients only. The latter group may also treat old as well as new patients but exclude physicians who treat only established patients whose injury occurred in prior years.

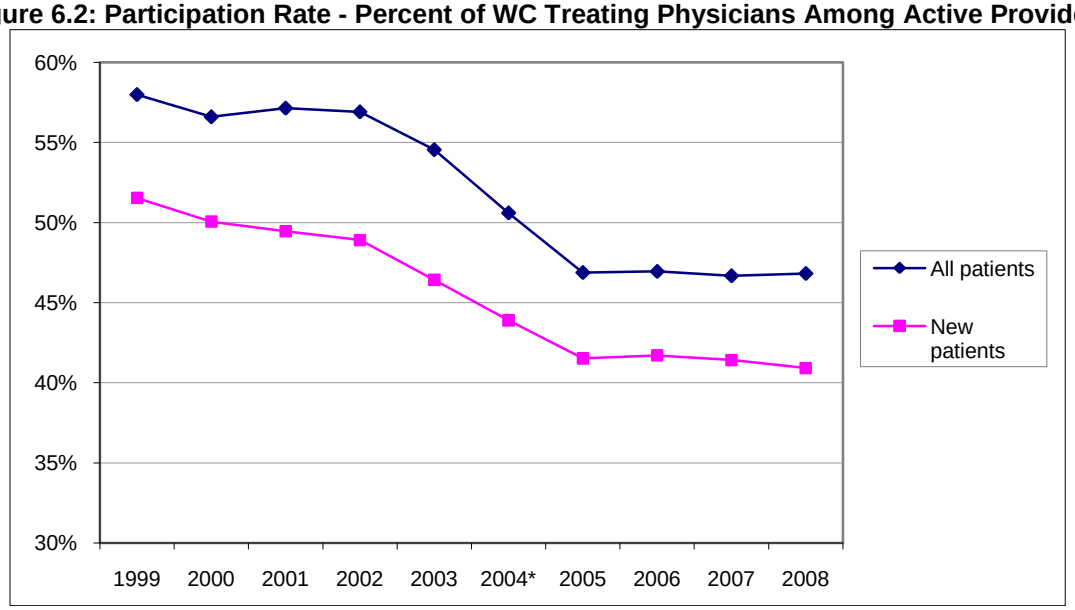
The decrease in the participation rate since 2003 may have been impacted by the implementation of Approved Doctors List (ADL) in September 2003 as well as the professional service fee guideline in 2003. But the participation rate has been stable since 2005. Participation rates for those who accept new patients are about 5 percent lower than the overall, but the trend indicates that new patient acceptance is not a particular and separate issue from the overall physician participation. Figures 6.1 and 6.2 combined indicate that a decreasing percentage of all physicians are participating in the Texas workers' compensation but this reduction in participation is more a result of a relatively rapid increase in the overall physician supply than an indication of deteriorating access conditions.

Figure 6.1: Number of Active and WC Participating Physicians



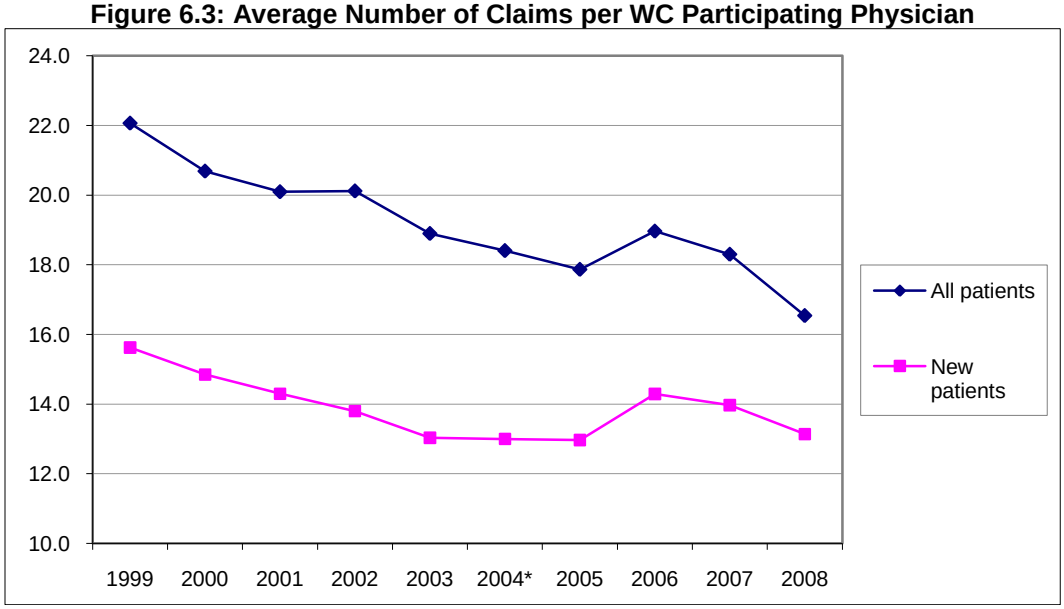
[2] Medical billing data reported to the Division of Workers' Compensation began to use EDI procedures in 2005. Reported data in 2004 were incomplete. Therefore, all figures for 2004 in the following graphs show an average of 2003 and 2005. This is indicated by the asterisk for the year 2004.

Figure 6.2: Participation Rate - Percent of WC Treating Physicians Among Active Providers



While the number of WC participating physicians was stable, the number of WC claims reported has been decreasing steadily. In 1998, there were 238,000 new claims (378,000 unique claims including all those that received at least one service regardless of injury year), which decreased to 203,000 (293,000 including all injury years) in 2008. As a result, the average number of WC patients per participating physician has decreased from 22.1 patients per participating physician in 1999 to 16.5 patients per physician in 2008, a 25 percent decrease (see Figure 6.3). For new patients, most of the decrease occurred between 1999 and 2003. An increase in 2006 was mainly due to an increase in the overall number of WC claims as physician participation rate has been flat (see Figure 6.2).

Figure 6.3: Average Number of Claims per WC Participating Physician

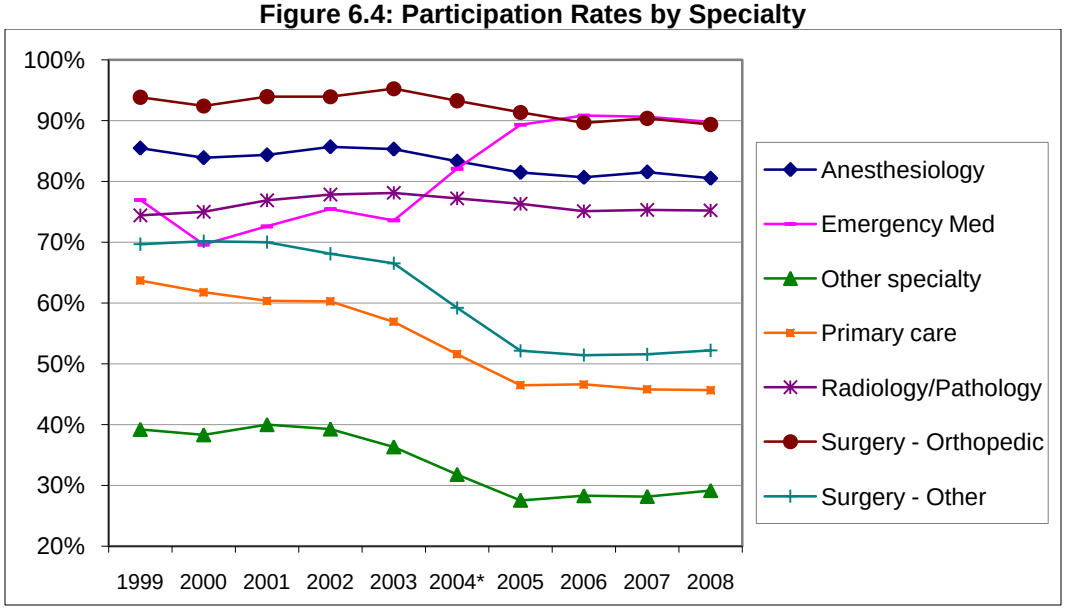


Physician Participation by Specialty

Participation rates are not identical across physicians with different specialties. When physicians are grouped by their specialty, the most notable trend is seen in the primary care physicians' participation rate, which decreased from 64 percent in 1999 to 46 percent in 2008 (see Figure 6.4). Although the new medical fee schedule implemented in 2003 raised fees for Evaluation & Management services (from 8 percent below Medicare to 25 percent premium over Medicare payment)[3], primary care physicians' participation rate continued to decline, indicating that there may be other factors affecting their participation in WC besides fees.

The decrease in primary care physicians' participation is somewhat compensated by emergency medicine specialists whose participation rate increased from 70 percent in 2000 to 90 percent in 2008. Percentage of claims treated by emergency medicine specialists almost doubled from 4.5 percent in 1999 to 8.7 percent in 2008. Physicians whose specialty is emergency medicine are a small group relative to others but are the fastest growing participant group. Also increasing in participation are radiology/pathology, anesthesiology, and orthopedic surgeons. 90 percent of active orthopedic and emergency medicine physicians were WC participants in 2008 while only 30 percent of other specialty physicians participate in WC. This is to some extent expected since 'others' include specialties that are less relevant for workers' compensation, for example pediatrics and OB/GYN.

Figure 6.4: Participation Rates by Specialty



Retaining Physicians as WC Participants

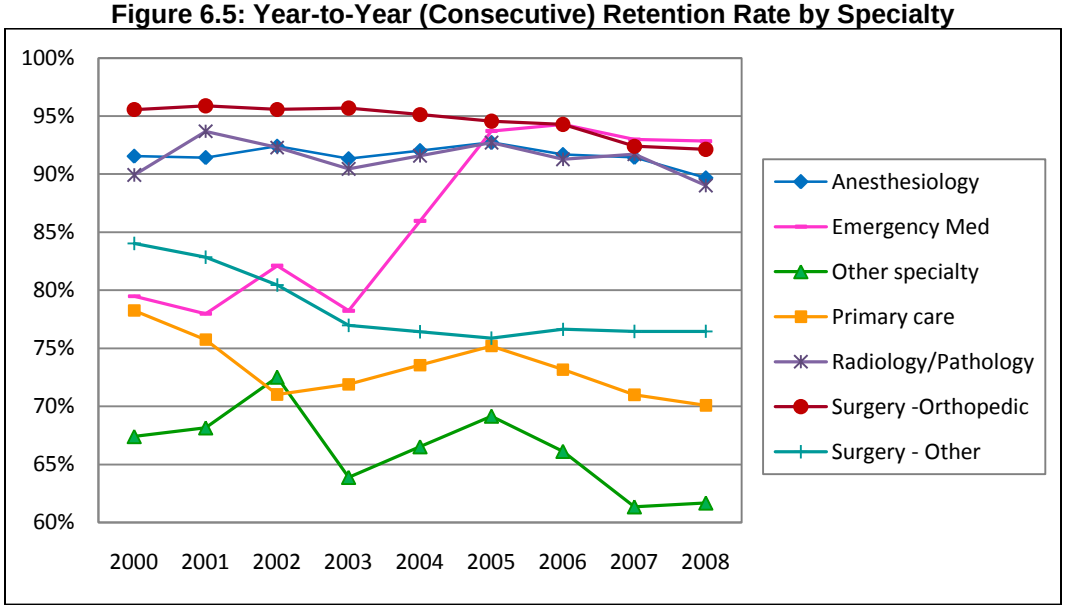
One of the major goals of the workers' compensation system is to maintain a sufficient and effective number of WC participating physicians. But the group of physicians

[3] Workers' Compensation Research Institute, *CompScope Medical Benchmarks, 9th edition* (2009), p. 19.

treating injured workers does not remain static from year to year. In a given year, some physicians decide to exit out of the workers' compensation provider market while others enter as new providers. Exit and entry reasons may be exogenous to workers' compensation system—e.g. changes in practice patterns, relocation and retirement—or highly correlated with practice incentives due to changes in WC rules and procedures. While it is difficult to identify exact reasons for exit and entry decisions, a general trend for exit and entry can be summarized by retention rates.

Retention rate is measured as the percentage of a prior year's participants who also participate in the following year. From 1998 to 2008, the overall retention rate remained stable around 80 percent. In other words, about 80 percent of all WC treating physicians in one year continued to treat injured workers in the following year. That number is a relatively high percentage of retention, considering that there are factors resulting in exit, such as normal changes in practice patterns (licensing, retirement, death, and relocation). In addition, although this implies that 20 percent of the current year participants did not treat any WC patients in the following year, there were new physicians entering the WC system, which is not reflected in the retention measure. Lastly, retention rates differ across medical specialties. Retention rates for physicians with specialties in anesthesiology, orthopedic surgery, and radiology/pathology are above 90 percent (see Figure 6.5). Other surgery specialties show a noticeable decline in the retention rate while it increased significantly for emergency medicine specialists. The retention rate for primary care physicians fluctuated, decreasing from 78 percent to 70 percent overall. After 2005, retention rates are generally decreasing, albeit at a slower pace.

Figure 6.5: Year-to-Year (Consecutive) Retention Rate by Specialty



Participation by Top 20% Physicians

Retention rates presented above are calculated on the basis of all physicians who treated at least one injured worker in a year. How we define the level of participation may influence the number of participating physicians and the retention rate since workers' compensation medical expenses as well as physician participation are highly skewed by a small number of claims and doctors. We have defined 'top 20%' physicians in terms of the number of WC patients treated in a given year. On average, a top 20% of physicians treat at least 32 to 41 different injured workers in a year. There are approximately 3,500 physicians in the top 20% group, and they account for more than 80% of the total medical payments to physicians in each year.

Top 20% physicians have higher participation and retention rates than the bottom 80% that include those treating injured workers only occasionally. The annual exit rate of top 20% group is only 2 percent, resulting in a 98 percent annual retention rate. Also, about 85 percent of them continue to be in top 20% in the following year, indicating that a small number of active participants who account for more than 85 percent of total medical payments continue to participate in workers' compensation year in and year out. The annual 2 percent exit rate is well below the probable natural rate of attrition in any profession (due to retirement, relocation, change of profession and death). This reflects the fact that the WC health care market is highly specialized due to the nature of occupational injuries, reimbursement and review process, regulatory rules, and the initial investment costs for the providers (training for exams and reports, adapting to rules and procedures, special devices, etc.). The concentrated nature of workers' compensation health care market is similar across all states.[4]

The static nature of actively participating physicians is shown in Figure 6.6. Beginning with those physicians participating in 1999, the graph shows how many of the same physicians continued to treat injured workers year after year. For top 20% physicians, 78 percent of those participants in 1999 were still treating injured workers in 2008. This 22 percent attrition rate in a 10-year period is well below an expected rate that can be attributed to retirement only: between 25 percent and 33 percent of physicians are expected to retire from practice every ten years when an average length of medical practice is between 30 and 40 years. The comparable cumulative retention rate for all participating physicians is 53 percent after 9 years—more than half of 1999 WC participating physicians were still treating injured workers in 2008. Also noticeable in Figure 6.6 is that the attrition rate for top 20% physicians is gradual and does not indicate any particular time period of extraordinary changes. In case of all participating physicians, the decrease in the attrition rate has been considerably lower since 2005, indicating that physicians tend to remain in the workers' compensation at higher rates in recent years.

Top 20% Physician Participation by Specialty

The composition of top 20% participating physicians by specialty also indicates that they have market incentives different from those of bottom 80% physicians. Figure 6.7 shows

[4] Bernacki et al. reports that 3.8% of physicians accounted for 78% of medical costs in Louisiana in 1998-2002. See Bernacki, Tao, and Yuspeh, "The impact of cost-intensive physicians on workers' compensation", *Journal of Occupational and Environmental Medicine*, 52(1): 22-29, January 2010.

the absolute numbers of top 20% participating physicians by specialty. Primary care, radiology/pathology, emergency medicine, and other specialty physicians actually increased while orthopedic surgery, other surgery, and anesthesiology physicians decreased. Orthopedic surgeons, who were the most numerous group in 1999, decreased to 30 percent of the total in 2008. Significant changes occurred in 2004 and 2005 when major reforms were implemented. Noteworthy is the fact that primary care physicians represent a larger share of the top 20% since 2006. Although primary care physicians are participating at a lower degree overall, their share in the most active and vital group of providers has increased.

Physician participation and retention analyses show that there are a number of doctors entering and exiting from the WC health care market. Some of these exits and entries will be associated with changes in rules and policies implemented by the legislature. But others may be results of changes in the broader market conditions for physician supply and normal changes in practice. Figure 6.8 shows relative shares of WC participating physicians by year of license. Physicians licensed prior to 1978 constituted 30 percent of the total in 1999. Their share in 2008 decreased to 14 percent. At the same time, those licensed in 2000 or later account for 27 percent of total in 2008. This graph shows a generational change taking effect gradually as expected in any professional group. There may be some factors that facilitate exits of older physicians from workers' compensation and entries by young doctors. These factors may interact with conditions specific to workers' compensation reforms but they seem to work within the overall physician supply conditions such as specialty election and practice preferences in the general medical profession.

Figure 6.6: Cumulative Retention Rates for 1999 Participating Physicians

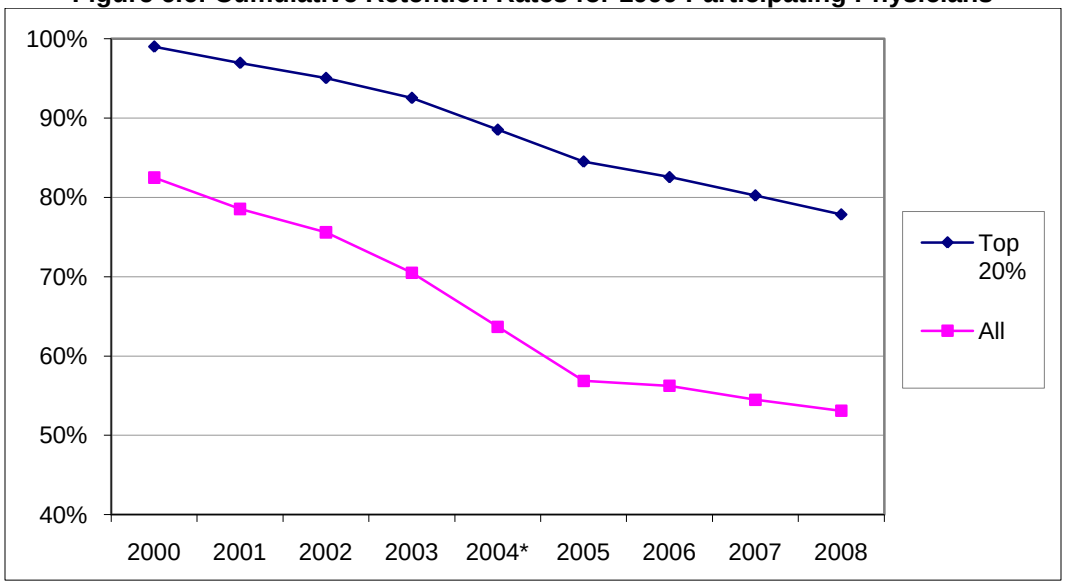


Figure 6.7: Number of Participating Physicians by Specialty – Top 20%

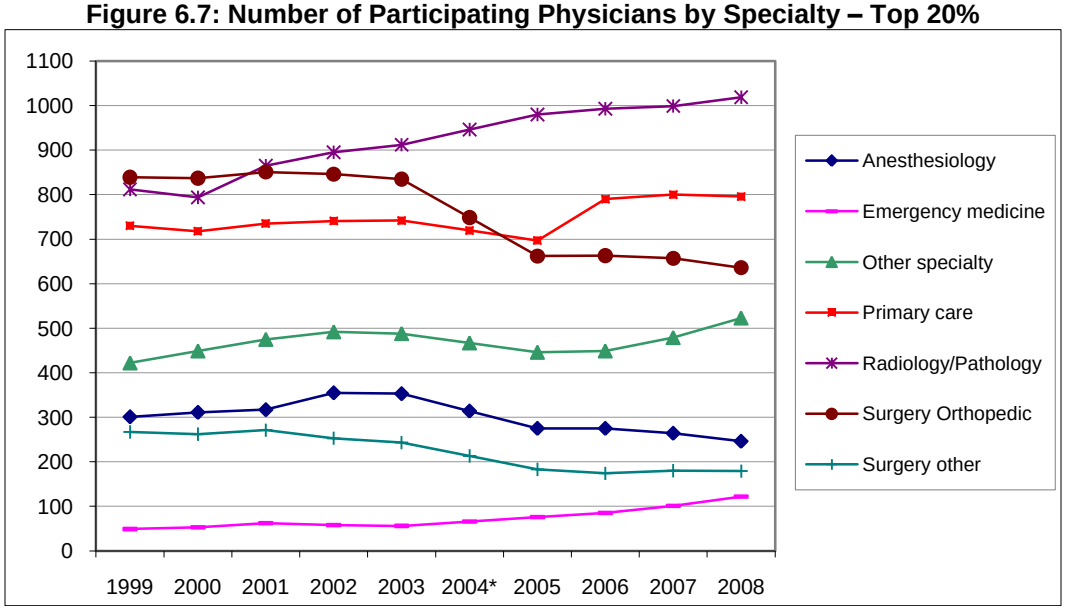
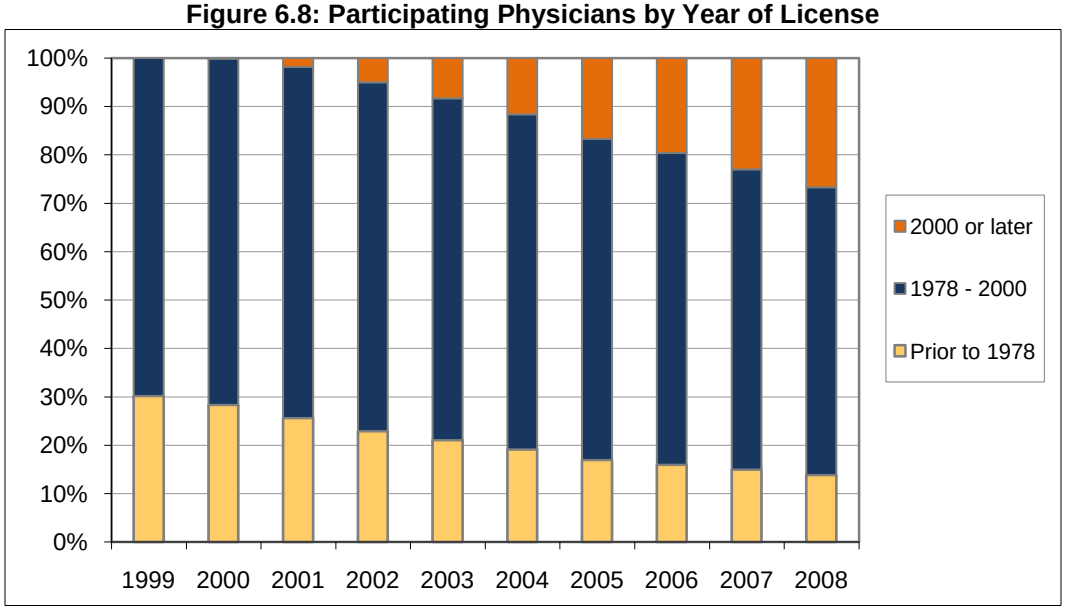


Figure 6.8: Participating Physicians by Year of License



Access to Care by Geographical Region

Problems related to access to care are often regional as practicing physicians are not distributed evenly in relation to population. With favorable amenities, urban centers attract more doctors than rural areas. To assess geographical differences in access to care, the distribution of participating physicians is compared with the distribution of claims. For geographical boundaries, we use Hospital Referral Regions (HRRs) created by The Dartmouth Atlas of Health Care. HRRs are constructed using Medicare hospitalization records and patient referral patterns, closely resembling the pattern of medical care and access. There are 24 HRRs in Texas that roughly correspond to major metro areas; two HRRs whose primary medical centers are in Arkansas and Louisiana are removed from analysis.

Overall, 47 percent of Texas physicians participated in workers' compensation in 2008. Seventy two percent of WC participating physicians were located in five largest metro areas: Houston, Dallas, San Antonio, Fort Worth, and Austin (see Figure 6.9). Those areas also accounted for 74.6 percent of all active physicians in Texas, a slightly higher concentration than for WC doctors. As a result, WC participation rates in large metro areas are lower than the overall 47 percent, at around 40 percent. However, about 71 percent of all WC claims were filed in these areas. Therefore, for large metro areas, the share of participating physicians is only slightly higher than the share of claims (72 percent physician share vs. 71 percent claim share in Texas).

However, some non-metro areas and border regions have a higher number of WC patients per physician despite the fact that they have higher WC participation rates than metro areas. Lack of access to physicians in those areas is due primarily to the low overall number of practicing physicians rather than a low WC participation rate. Consequently, smaller urban centers generally have higher WC participation rates (see Figure 6.10).

The number of claims per participating physician, reported in Table 6.1, shows a great deal of difference across regions. Bryan HRR has the lowest ratio of claims to physician while El Paso and Harlingen have the highest. A physician in El Paso treats two and a half times more WC claims than one in Bryan. Fort Worth has the lowest access among metro areas but made significant improvements in 2008. Conditions in three areas (Harlingen, El Paso, and Temple) worsened since 2005 while Austin, Bryan, San Angelo, and Victoria saw improvements. Condition in all areas improved since 2006 except Harlingen HRR. The access condition worsened in 2006 mainly due to a temporary increase in the number of claims filed.

Figure 6.9: Number of Physicians and Participation Status by HRR, 2008

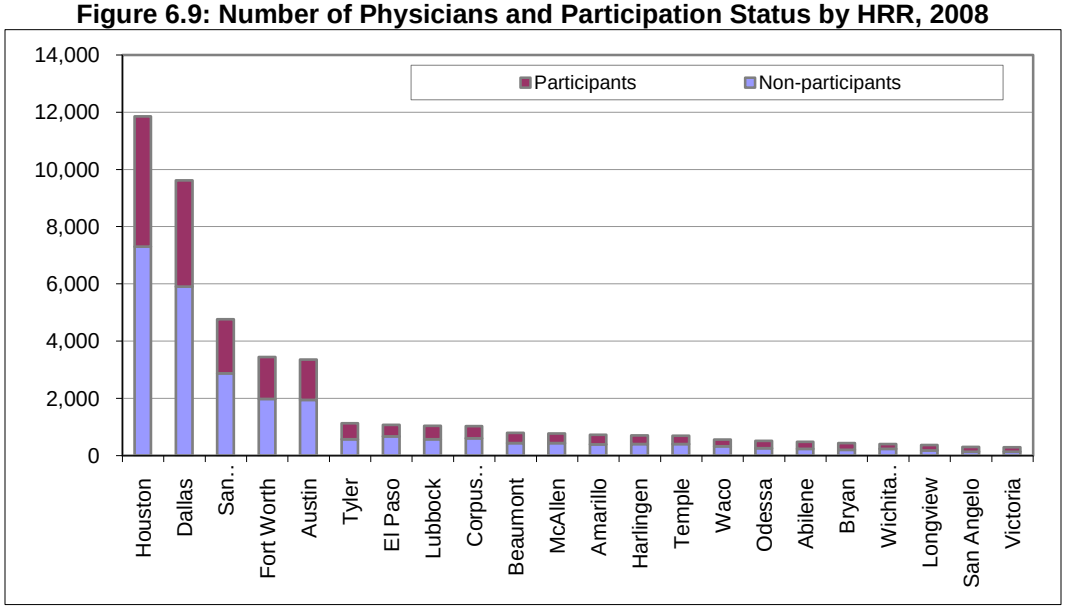
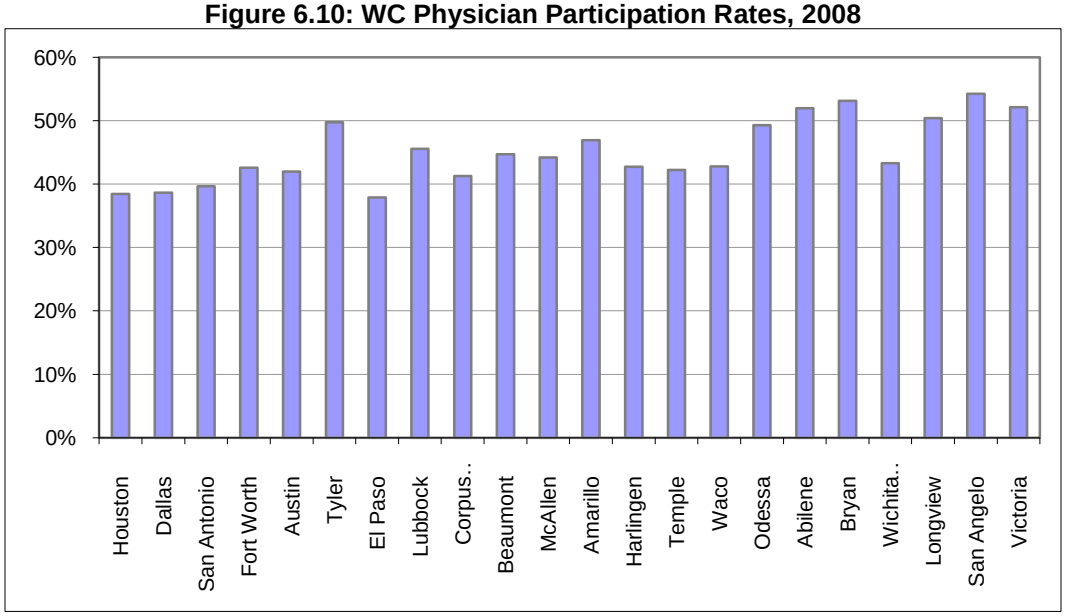


Figure 6.10: WC Physician Participation Rates, 2008



Timeliness of Care

Participation and retention rates of treating physicians show a general supply condition in the workers' compensation health care market but other factors are involved in determining how promptly an injured worker gets medical treatment. Factors affecting timeliness of care include promptness in workers' seeking treatment, procedures—and barriers—established by employers in reporting worksite injuries and referring to physicians, and appointment and scheduling conflicts with doctors. Timeliness of care is

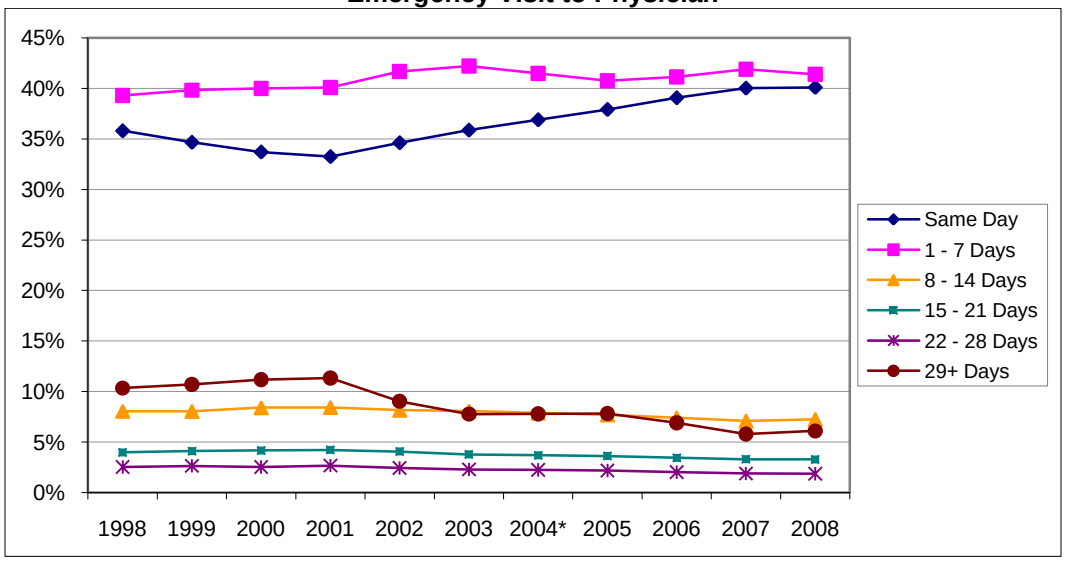
defined as the number of days between the reported injury date and the first non-emergency medical treatment, and estimates a broad condition for initial access to care that exists under the confluence of all these factors.

Claims are broken down into six groups by the number of days between injury and treatment, and the shares of these groups are shown in Figure 6.11. Approximately 82 percent of patients received initial care either on the same day of injury or within 7 days in 2008, up from 75.1 percent in 1998. The percentage of 'same day' treatment group declined in 1998-2001 but increased steadily reaching 40 percent in 2008. The largest decrease was seen in the share of extreme delays (29 days or more)—decreasing from 10.3 percent to 6.1 percent. This delayed group consists largely of disputed and/or denied claims, which nevertheless showed a significant improvement in access to care (discussed in the last section below). However, disputed cases account for a fraction of all claims and thus have a minimal effect on the overall timeliness of care measures.

Table 6.1: Number of Claims per Participating Physician, 2005-2008

	2005	2006	2007	2008
Abilene	14.58	17.69	16.41	14.00
Amarillo	14.64	15.59	17.04	14.88
Austin	14.64	15.46	14.05	11.45
Beaumont	15.58	16.42	15.17	14.61
Bryan	13.25	13.41	14.07	10.83
Corpus Christi	18.63	18.81	17.52	16.29
Dallas	17.45	17.28	15.90	14.69
El Paso	25.52	27.75	29.25	27.26
Fort Worth	23.12	25.59	25.58	21.63
Harlingen	22.26	23.79	24.03	23.88
Houston	14.88	16.11	15.40	14.11
Longview	18.08	19.40	18.64	15.54
Lubbock	14.22	15.10	15.24	14.11
McAllen	20.38	19.76	21.92	18.66
Odessa	23.79	24.57	23.76	21.54
San Angelo	14.48	13.86	13.01	11.85
San Antonio	19.13	21.04	20.16	18.71
Temple	15.89	17.98	17.71	16.63
Tyler	13.57	14.35	14.37	11.88
Victoria	15.62	16.11	14.79	12.87
Waco	18.81	22.51	19.85	18.59
Wichita Falls	14.12	14.74	14.56	12.00

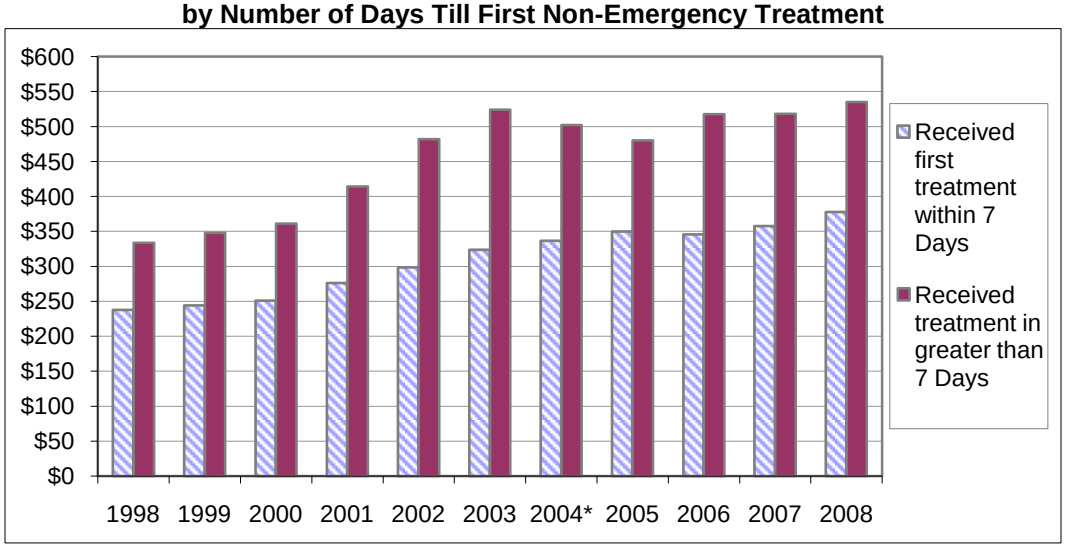
Figure 6.11: Percentage of Claims by Number of Days Between Injury and First Non-Emergency Visit to Physician



Timeliness of Care and Medical Cost

Delayed medical care tends to increase medical costs in the long run. Figure 6.12 compares median total costs at 6 months maturity between groups with early and delayed initial treatment. In 2008, the median total cost for delayed group was 41 percent higher than that of those who received initial treatment within 7 days. In addition, median costs fluctuate more for the delayed group. Reasons for treatment delay may be procedural with no relationship to costs, or systemically related to injury severity and costs, an area that needs to be investigated in a future study. In any case, the comparison indicates that a prompt medical care is essential not only in limiting the effects of the injury, but also in reducing overall medical costs.

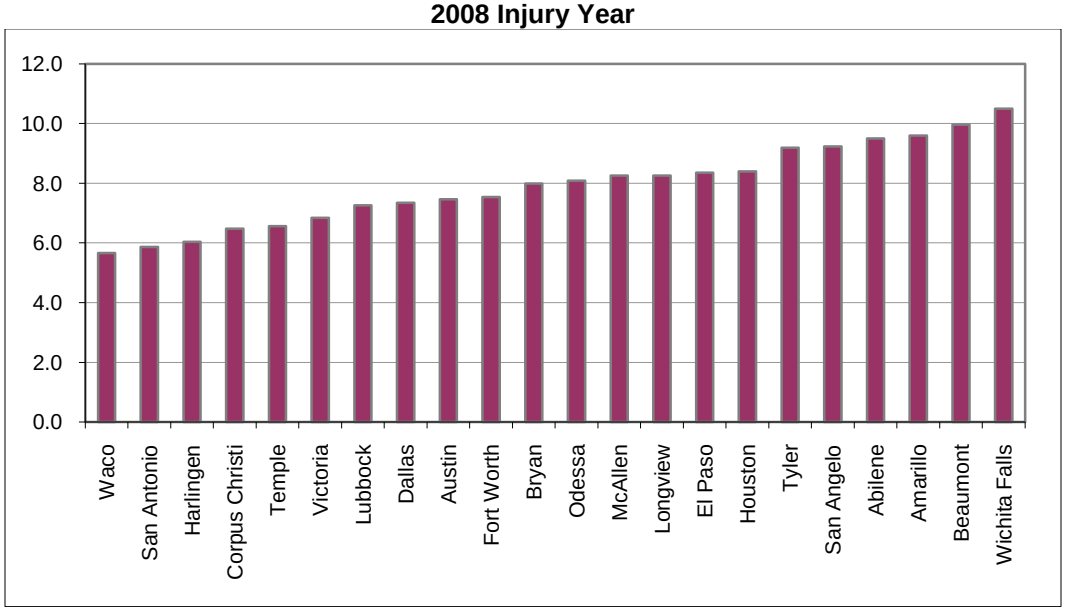
Figure 6.12: Median Total Cost per Claim at 6-Months Post-Injury, by Number of Days Till First Non-Emergency Treatment



Timeliness of Care by Geographical Region

Timeliness of care varies greatly by geographical region. Figure 6.13 shows the average number of days between injury and first treatment by HRRs. The difference between the worst region in terms of timeliness of care (Wichita Falls) and the best (Waco) is significant: average initial treatment in Wichita Falls (10.5 days) is 85 percent later than in Waco (5.7 days). Although this difference signals for an area of needed improvement, the median number of days for initial treatment is one day for most HRRS. This indicates that the averages are driven by a small number of cases with extreme delays. Proper measures for improvement have to be focused on the specific nature of these extreme cases.

Figure 6.13: Average Number of Days Between Injury and First Non-Emergency Treatment, 2008 Injury Year



Access to Care in WC Health Care Networks

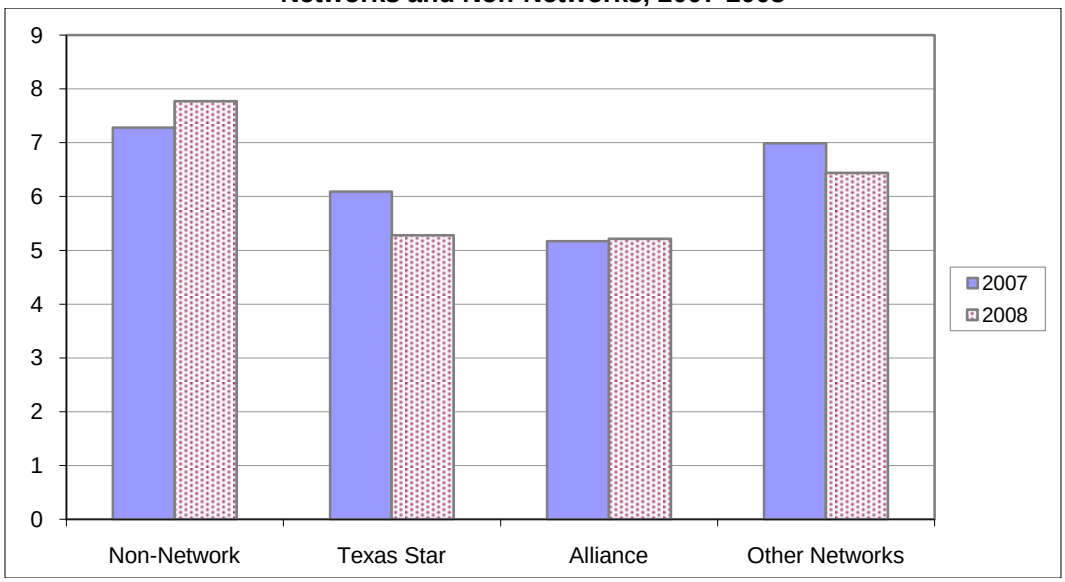
Under the HB 7 reforms, workers' compensation insurance carriers may contract with health care networks certified by the Department of Insurance. If an employer elects to participate in the health care network, the employer's injured workers are required to obtain medical care through the network under most conditions. Since a health care network normally contracts with a group of health care providers, network usage implies a limited choice of physicians for injured employees. This has raised some concern that the increased use of health care networks may limit access to care.

Figure 6.14 compares the timeliness measure between non-network and network claims. As it indicates, the initial access for WC network patients is slightly better than for non-network patients. Furthermore, networks are improving in providing timely care: while access worsened in 2008 for the non-network group, all networks improved this measure with the exception of Alliance. Overall, Alliance—and to a lesser degree Texas Star, which is the largest network—shows much improvement over non-networks. Although

improving in 2008, other networks do not show a significant improvement over non-networks.

A network potentially limits the number of doctors an injured worker may see as a treating doctor. However, other provisions in the health care networks—for example, case management practices, return-to-work coordination with employers, and quality assurance reporting—may give networks more incentives to provide prompt medical care, thereby improving access to care. This undoubtedly appears to be accurate for Alliance and Texas Star.

Figure 6.14: Average Number of Days Between Injury and First Non-Emergency Treatment, Networks and Non-Networks, 2007-2008



Impact of Claim Denials and Disputes on Access to Care

Denials and/or disputes regarding compensability and extent of injury tend to delay initial care. Initial access to care for claims disputed for compensability is delayed 3 times longer than all claims (see Figure 6.15). Extent of injury disputes and denials means a delay that is twice longer. However, despite the longer delay, initial access to care has improved for denied and/or disputed claims from 1998 to 2007, as is the case with non-denial cases. Approximately 66 percent of denied/disputed cases received initial care in 7 days or less in 2007, up from 55 percent in 1998. Nevertheless, because disputed claims are fewer, delays in these claims have a minimal effect on overall access to care.

Among disputed/denied cases, most improvements had been through an increasing share of 'same day' groups and a decreasing share of '29+ days' groups (see Figure 6.16). The share of 'same day' access group was only 18.4 percent of total in 1998, but this increased to almost 30 percent by 2007. At the same time, the share of the extreme delay group (29 days or longer delay) decreased substantially by about 10 percent. Since 2001, initial treatments occurred more rapidly for an increasing percentage of denied and/or

disputed claims. Clearly, disputes and denials adversely affect timeliness of care. However, even for this relatively small number of claims, initial access to care has been improving steadily from 1998 to 2007.

Figure 6.15: Average Days Between Injury and First Visit to Physician by Dispute Type

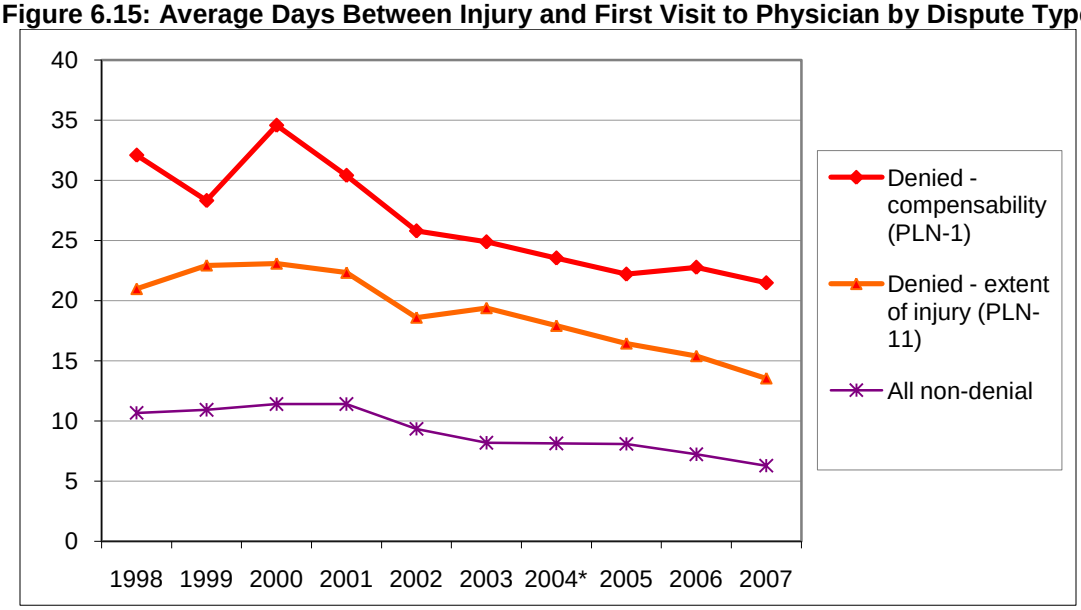
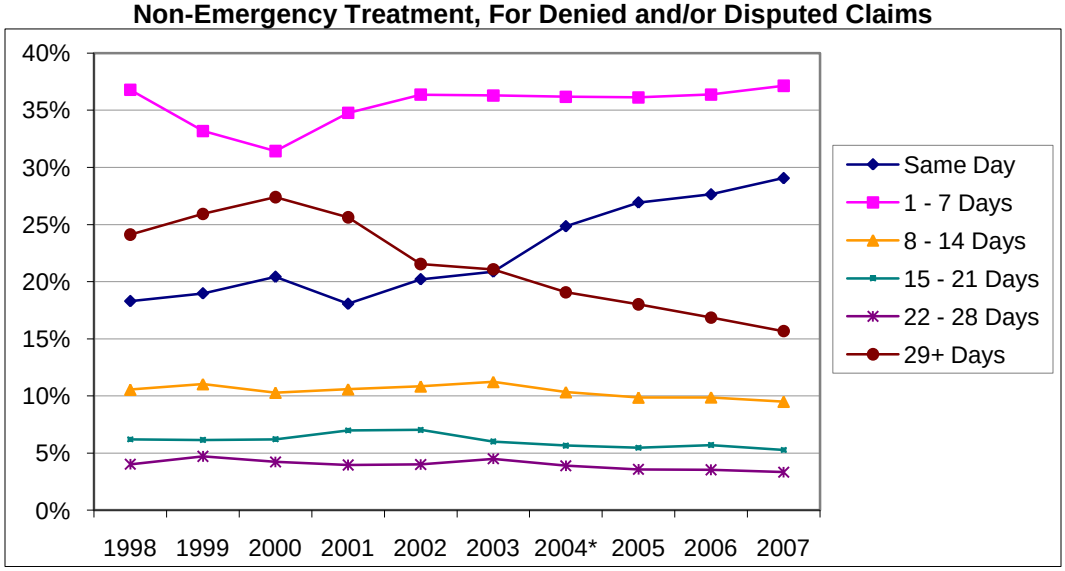


Figure 6.16: Percentage of Injured Workers by Number of Days Between Injury and First Non-Emergency Treatment, For Denied and/or Disputed Claims



7. Return-to-Work Outcomes in the Texas Workers' Compensation System

An important goal of the Texas workers' compensation system is to return injured employees to safe and productive employment. Effective return-to-work programs can help to alleviate the economic and psychological impact of a work-related injury on an injured employee, and reduce income benefit payments and increase worker productivity for Texas employers.

Studies conducted by the Research and Oversight Council on Workers' Compensation (ROC) and the Workers' Compensation Research Institute (WCRI) indicated that in comparison to similarly injured employees in other states, Texas injured employees were generally off work for longer periods of time and were more likely to report that their take-home pay was less than their pre-injury pay.[1] Policymakers acknowledged the importance of return-to-work in HB 7 by including the following requirements:

- The adoption of return-to-work guidelines;
- The institution of a return-to-work pilot program geared toward businesses with less than 50 employees;
- Better coordination of referrals between the Division and the Department of Assistive and Rehabilitation Services (DARS);
- Referring injured workers to the Texas Workforce Commission (TWC) and local workforce development centers for employment opportunities;
- Improving return-to-work outreach efforts; and
- Adopting rules to implement changes in the work-search requirements for injured employees who qualify for Supplemental Income Benefits (SIBs), as well as disability management rules that include the coordination of treatment plans and return-to-work planning.

Return-to-Work Rates Continue to Improve

Return-to-work rates for injured employees receiving Temporary Income Benefits (TIBs)[2] continue to increase across all timeframes. Of those employees injured in 2004, 74 percent returned to work within six months post-injury, compared to 80 percent of employees injured in 2009 (see Table 7.1). The rates show similar increases beyond six months post-injury. For example, 94 percent of the employees injured in 2006 returned to

[1] See Research and Oversight Council on Workers' Compensation, Returning to Work: An Examination of Existing Disability Duration Guidelines and Their Application to the Texas Workers' Compensation System: A Report to the 77th Legislature, 2001; and Workers' Compensation Research Institute, CompScope Benchmarks for Texas, 6th Edition, 2006.

[2] To qualify for TIBs, injured employees must have must have more than seven days of lost time as a result of their injury.

work within three years after the injury. However, just one year later, 94 percent of employees injured in 2008 returned to work within 18 months after their injuries.

Table 7.1: Initial Return-to-Work Rates – Percentage of Injured Employees Receiving TIBs Who Have Initially Returned to Work (6 months to 3 years post-injury)

Injury Year	Within 6 Months Post Injury	Within 1 Year Post Injury	Within 1.5 Years Post Injury	Within 2 Years Post Injury	Within 3 years Post Injury
2004	74%	83%	86%	88%	93%
2005	75%	84%	87%	88%	93%
2006	75%	86%	90%	92%	94%
2007	76%	87%	91%	93%	
2008	78%	88%	94%		
2009	80%				

Note 1: The study population includes 290,486 workers injured in 2004-2009 who also received temporary income benefits (TIBs).

Note 2: The third year of 2007, the second and third years of 2008, and all 2009 milestones beyond six months are excluded due to insufficient data.

Note 3: Results for Injury Year 2009 are based on the first quarter of 2009, and are subject to change as more complete wage data become available.

Initial employment, as shown in Table 7.1, is only a partial measure of injured employees' return-to-work experience. Initial return-to-work, followed by sustained employment, is a more complete measure of the system's ability to promote "successful" return to work. The sustained return-to-work rate is defined as the percentage of injured employees receiving TIBs who have remained employed for at least three successive quarters (or nine months). As Table 7.2 indicates, the sustained return-to-work rate six months post-injury has improved since 2004, but that percentage has stabilized at 71 percent for injury years 2007 and 2008. Within two years after their injuries, 84 percent of employees injured in 2007 had returned to sustained employment.

Table 7.2: Sustained Return-to-Work Rates – Percentage of Injured Employees Receiving TIBs Who Have Initially Returned to Work and Remained Employed for Three Successive Quarters (6 months to 3 years post-injury)

Injury Year	Within 6 Months Post Injury	Within 1 Year Post Injury	Within 1.5 Years Post Injury	Within 2 Years Post Injury	Within 3 years Post Injury
2004	66%	73%	78%	80%	84%
2005	68%	76%	80%	83%	85%
2006	70%	77%	81%	83%	86%
2007	71%	77%	81%	84%	
2008	71%	77%			

Note 1: The study population is a subset of 290,486 workers injured in 2004-2009 who also received temporary income benefits (TIBs).

Note 2: The third year of 2007, the one and one-half, second, and third years of 2008, and Injury year 2009 are excluded due to insufficient data.

The number of lost work days among TIBs recipients has decreased substantially since 2004 (see Table 7.3). The decrease in the mean number of days off work from 97 days in 2004 to 57 in 2008 represents a 41 percent drop in injury-caused lost time. These improvements could be the result of system participants coordinating efforts to reduce indemnity costs and to return injured employees to timely and safe employment. Health care providers, for example, increasingly view early but appropriate return-to-work as an effective approach to enhancing psychological recovery and physical rehabilitation after a work-place injury.

Table 7.3: Mean and Median Days off Work for Injured Employees Who Returned to Work at Some Point Post-Injury, Injury Years 2004-2008

Injury Year	Mean days off work	Median days off work
2004	97	26
2005	90	24
2006	86	22
2007	75	22
2008	57	21

Note 1: The study population is a subset of 290,486 workers injured in 2004-2009 who also received temporary income benefits (TIBs).

Note 2: Results from Injury Year 2008 are subject to revision as more complete wage data is made available.

Note 3: Sustained return-to-work and the number of days off work for 2008 are subject to change as more wage data is made available for injuries occurring in the latter quarters of 2008.

Comparison of Injured Worker Survey Results Pre- and Post- HB 7 Implementation

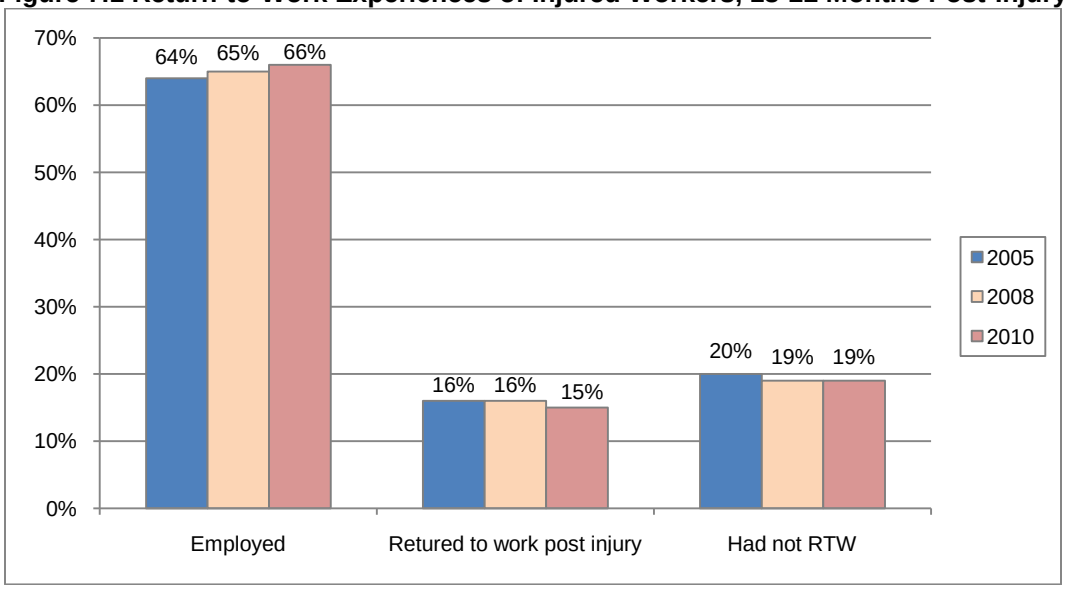
While it is too early to determine the impact of certain elements of HB 7, such as the Division's adoption of return-to-work guidelines (effective May 1, 2007) and health care networks on return-to-work outcomes, it is clear from both the return-to-work rates shown in Tables 7.1 and 7.2 and recent injured worker survey findings that improvements in return-to-work rates have continued since the 2005 passage of HB 7.

As Figure 7.1 shows, a slightly higher percentage of workers surveyed in 2010 reported that they were currently employed at the time of the survey (compared with 64 percent in 2005) and a slightly lower percentage of workers surveyed in 2010 (19 percent in 2010 compared with 20 percent in 2005) reported that they had not yet returned to work 17-21 months after their injuries. In addition, the percentage of injured employees who had some initial employment after their injuries, but not currently employed decreased slightly (15 percent in 2010 as compared to 16 percent in the two previous surveys).

Although the percentage of injured workers who reported going back to work after their injuries did not change significantly from 2005 to 2010, Figure 7.2 shows that a significantly higher percentage (58 percent) of injured workers surveyed in 2010 were released to go back to work with no or some physical restrictions than workers surveyed in 2005 (44 percent) or in 2008 (52 percent). This may be an early indication that certain HB 7 provisions, including the adoption of return-to-work guidelines coupled with the

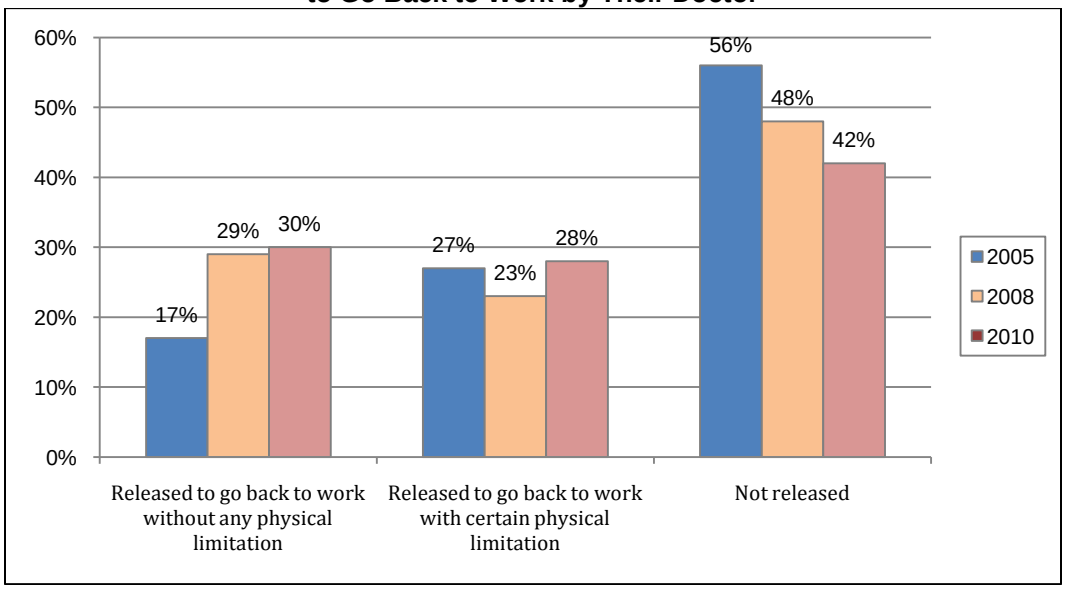
ability for a Division selected designated doctor to review an injured worker's ability to return to work, may have increased health care provider communications with injured workers and employers about the importance of getting the worker back to work as quickly and safely as possible.

Figure 7.1 Return-to-Work Experiences of Injured Workers, 18-22 Months Post-Injury



Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, Survey of Injured Workers, 2005, 2008, and 2010.

Figure 7.2: Percentage of Injured Workers Surveyed Who Reported Being Released to Go Back to Work by Their Doctor



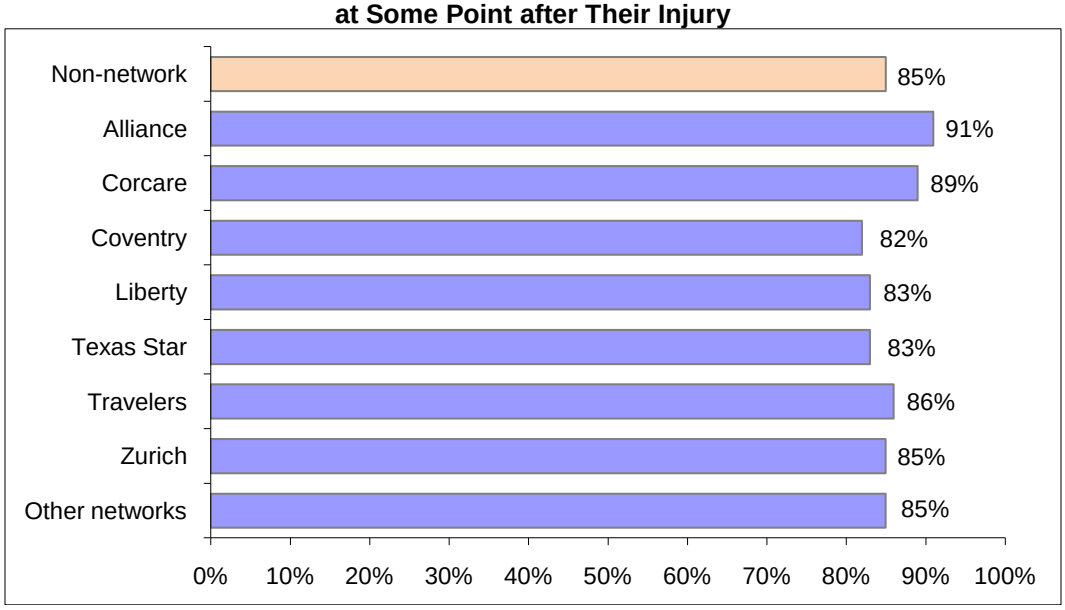
Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, Survey of Injured Workers, 2005, 2008, and 2010.

Comparisons between Network and Non-Network Claims

Return-to-work rates have been improving in the Texas workers' compensation system since 2001 and this trend has continued since the passage of HB 7. One important aspect of HB 7 – the formation of certified health care networks – has seen mixed results in terms of improvements in return-to-work outcomes during the initial stage of network implementation. Legislators increased the focus on disability management in this new health care delivery model by requiring certified networks to adopt return-to-work guidelines and increase the use of case management. Additionally, legislators envisioned that networks would be better positioned to facilitate communication between treating doctors and employers about workers' physical abilities to return to work and employers' job requirements or the availability of alternative duty assignments.

Results from the 2010 Workers' Compensation Network Report Card produced by the Department indicate that injured employees from three networks had higher initial return-to-work rates than Non-network, while two networks had rates equal to Non-network (see Figure 7.3). Three networks had lower rates than Non-networks.

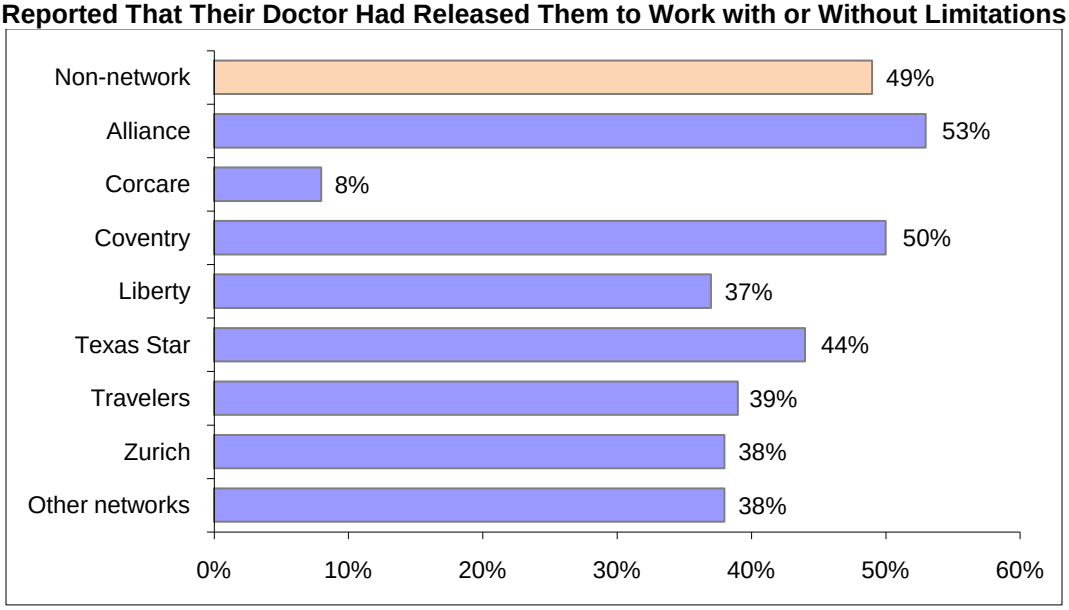
Figure 7.3: Percentage of Injured Workers Who Indicated That They Went Back to Work at Some Point after Their Injury



The Network Report Card also reported on injured employees' experience after being released to work by their treating doctors, with or without limitations (see Figure 7.4). Six network entities (including the Other Networks group of 20 smaller networks) had more favorable return-to-works results than Non-network for injured workers released to work by their treating doctors. Injured employees from two other networks had a greater percentage of their injured employees than Non-network injured employees not yet back to work.

It should be noted, however, that these return-to-work outcomes are heavily affected by whether the employers of these workers have effective return-to-work programs and are able to bring workers back to safe and appropriate employment. The improved performance of most networks over Non-network may be the result of coordination between system participants, including employers to return injured workers to work.

Figure 7.4: Percentage of Injured Workers Who Had Not Returned to Work and Who Reported That Their Doctor Had Released Them to Work with or Without Limitations



In addition to an increased percentage of injured workers being released to return to work by their doctors, report card results indicate that one network may be more effective, and another equally effective, at returning workers back to work when compared to non-network (see Figure 7.5).

Improvements in Return-to-Work Rates and Lower Income Benefit Costs

Improved return-to-work rates in the Texas workers' compensation system have also resulted in a reduction in the number of weeks that Temporary Income Benefits (TIBs) are paid to injured workers in Texas. TIBs are paid to injured workers while they are off work for a maximum of 104 weeks from the date that these benefits begin to accrue (on the 8th day of disability). As Table 7.4 shows, the median number of weeks of TIBs paid to injured workers has declined from a high of 8.6 weeks in 2002 to 6.0 weeks in 2006. Even as workers' wages (the base for calculating TIBs) continue to increase annually, the overall reduction in TIBs duration from 2002-2006 has resulted in a 25 percent decline in the median TIBs payment per claim.

Figure 7.5: Average Number of Weeks Injured Workers Reported Being off of Work Because of Their Work-Related Injury

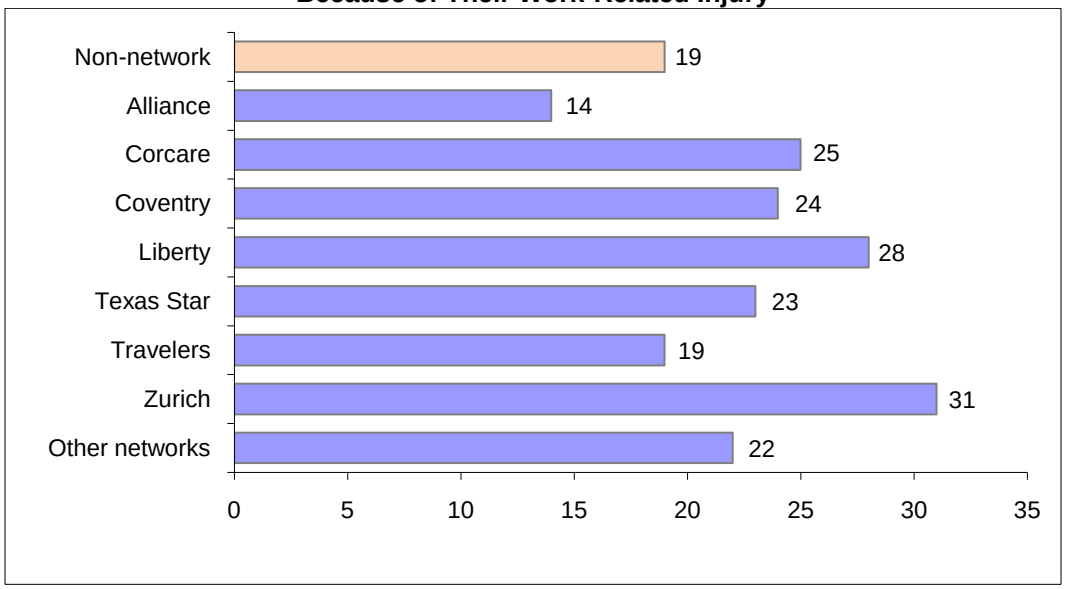


Table 7.4: Median Temporary Income Benefit (TIBs) Payment and Duration, Injury Years 2000-2008

Injury Year	Median TIBs Payment per Claim	Median Number of Weeks of TIBs Paid
2000	$2,030	7.0
2001	$2,488	8.0
2002	$2,564	8.6
2003	$2,478	8.0
2004	$2,156	7.3
2005	$1,995	7.0
2006	$1,924	6.0
2007	$2,128	8.4
2008	$2,268	6.0

It will be important to monitor these return-to-work measures on a continuous basis to track the impact of the implementation of treatment and return-to-work guidelines as well as the impact of workers' compensation health care delivery networks on return-to-work outcomes in Texas. Early return-to-work that accounts for the injured employee's abilities and safety can be conducive to physical recovery. Further, it reduces cost pressures on the system. While system-wide return-to-work rates continue to improve, the increased focus on disability management under the HB 7 reforms seems to have resulted in modest return-to-work improvements in some networks over non-network claims. The Department will continue to monitor and report on annual return-to-work trends.

[This page left blank.]

8. Medical Dispute Resolution and Complaint Trends

One of the key goals of the workers' compensation system reforms laid out in HB 7 is that each injured worker "shall have access to a fair and accessible dispute resolution process."[1] The Sunset Advisory Commission, in its analysis of the former Texas Workers' Compensation Commission, noted that the medical dispute process prior to HB 7 was lengthy and lacked appropriate oversight and transparency in the regulation of Independent Review Organizations (IRO). IROs are panels of doctors who are certified by the Department to review preauthorization and retrospective medical necessity disputes. The Sunset Advisory Commission also recommended that the regulatory model for group health insurance should serve as a model for the workers' compensation system. As a result, HB 7 mandated a few changes: requiring that all IRO decisions meet certain statutory standards;[2] clarifying that the Department is not a party in the medical dispute; making the decision of the IRO binding pending appeal; and requiring that appeals of medical dispute decisions go directly to district court (removing the appeal of medical dispute decisions to the State Office of Administrative Hearings or SOAH).

On November 1, 2006, a Travis County District Court determined in HCA Healthcare Corp. v. Texas Department of Insurance and Division of Workers' Compensation, Cause No. D-1-GN-06-000176, that the medical dispute resolution process as revised by HB 7 did not provide due process to parties and determined that the removal of SOAH was facially unconstitutional. As a result, the 80th Legislature passed HB 724 in 2007, which requires appeals of non-network medical fee disputes (with disputed amounts not more than $2,000), all non-network preauthorization (medical necessity) disputes, and non-network retrospective medical disputes (with disputed amounts not more than $3,000) to be heard in a Contested Case Hearing (CCH) in the Division's local field offices. Appeals of non-network medical disputes that do not meet these requirements may be appealed directly to SOAH. If the parties to the dispute, which are generally the health care provider and the insurance carrier, are not satisfied with the result of the CCH or SOAH appeal, either party may request judicial review.

It should be noted, however, that the medical dispute process is somewhat different for medical services provided in workers' compensation health care networks. Under HB 7, fee disputes that arise between health care providers and workers' compensation health care networks are resolved internally through the network's complaint process rather than by the Division. Also, while network preauthorization and retrospective medical necessity disputes are still reviewed by IROs, appeals of the IRO decision go directly to district court under a de novo appeal standard.[3]

---

[1] See §402.021, Labor Code.

[2] Under HB 7, IRO decisions must contain all of the following elements: the qualifications of the doctor reviewer, a description of the clinical criteria used in making the decision, a list of the medical evidence reviewed, and an analysis and explanation of the decision. See §413.032, Labor Code.

[3] See §1305.355, Insurance Code.

This section of the report examines how the frequency, duration and outcomes of medical disputes have changed since the adoption of HB 7 in 2005. This section also examines the number of complaints received by the Department during this time, including complaints regarding the focal point of HB 7 – namely workers' compensation health care networks.

Number and Timeframe to Resolve Medical Disputes

Generally, there are three types of medical disputes raised in the workers' compensation system:

- fee disputes (which may include a dispute over the application of the Division's fee guidelines or a dispute over the fee for a service that is not covered in the Division's fee guidelines);
- preauthorization disputes[4] (i.e., disputes regarding the medical necessity of certain medical treatments and services that were denied prospectively by the insurance carrier); and
- retrospective medical necessity disputes (i.e., disputes regarding the medical necessity of medical treatments and services that have already been rendered and billed by the health care provider).

Declining claim frequency, the creation of workers' compensation health care networks in 2006 and the adoption of the Division's medical treatment guidelines in 2007 have resulted in fewer medical disputes being filed with the Department. As Table 8.1 indicates, approximately 13,257 medical disputes were received by the Department in 2005, compared with 12,244 in 2008 and 12,293 in 2009. However, during those two most recent years, approximately 6,000 pharmacy fee disputes were filed by one doctor against one insurance carrier. All those disputes were subsequently upheld in favor of the insurance carrier and ultimately withdrawn during the appeal process. Without those pharmacy fee disputes, the decline in the total number of disputes from the pre HB7 levels would have decreased even more significantly.

Additionally, the percentage of medical disputes associated with preauthorization denials has increased from 13 percent of all medical disputes in 2005 to 24 percent in 2009, while the percentage of retrospective medical necessity disputes has declined steeply from 19 percent in 2005 to 2 percent in 2009, which is most likely the result of the adoption of the Division's medical treatment guideline rule in May 2007. This rule requires preauthorization for all medical services that are outside of the guideline's recommendations in addition to the existing preauthorization requirements laid out in the Division's preauthorization rule – 28 TAC §134.600.

[4] Section 413.014, Labor Code and 28 TAC §134.600 include a list of medical treatments and services that require preauthorization by the insurance carrier before they can be provided to an injured worker. Workers' compensation health care networks are not subject to these preauthorization requirements and may establish their own lists of medical treatments and services that require preauthorization. See §1305.351, Insurance Code.

In an effort to more closely align the process for resolving workers' compensation medical necessity disputes with the process for resolving these same types of disputes in the group health system, the Division adopted a rule in January 2007 to streamline the intake of medical disputes, including preauthorization and retrospective medical necessity disputes. Part of that process streamlining included requiring the insurance carrier's utilization review agent to send all of the medical evidence used to make the medical necessity decision to the IRO assigned by the Department directly instead of sending multiple copies to the Department to compile for the IRO's review. Another part of this process was to align internal Department processes for assigning IROs so that IROs for workers' compensation disputes are now assigned by the Department instead of the Division and are assigned within 24 hours of the receipt of an IRO request. Additionally, fewer incoming fee disputes, combined with the Division's efforts to improve the efficiency of fee dispute resolution have resulted in more timely resolution of fee disputes.

Table 8.1: Number and Distribution of Medical Disputes Submitted to the Division, by Type of Medical Dispute, 2002-2009 (as of October, 2010)

Year Dispute Received	Pre-authorization	Fee Disputes	Retrospective Medical Necessity Disputes	Total
2002	15%	58%	27%	8,906
2003	11%	70%	19%	17,433
2004	13%	60%	27%	14,291
2005	13%	68%	19%	13,257
2006	16%	70%	14%	9,706
2007	27%	72%	1%	8,810
2008	22%	75%	3%	12,244
2009	24%	74%	2%	12,293

Note 1: The number of fee disputes submitted to the Texas Workers' Compensation Commission increased significantly from 2002 to 2003 due to the adoption of a new professional medical fee guideline, which incorporated Medicare's payment policies in August 2003. Additionally, a significant number of pharmacy disputes were submitted in 2003 (approximately 4,000) by a handful of health care providers. Most of these disputes were later withdrawn.

Note 2: From August 2008 to August 2009, one doctor filed approximately 6,000 pharmacy fee disputes against one insurance carrier. DWC upheld a great majority of these disputes in favor of the insurance carrier (approximately 60 percent of all fee disputes decisions made during those years), and the requestor eventually withdrew all the disputes during the appeal process.

As a result of DWC's process improvement efforts, the mean and median timeframes to resolve a medical dispute have declined significantly since 2005 for all dispute types (see Table 8.2). The average preauthorization dispute duration fell from 59 days in 2005 to 20 days in 2009 (a 66 percent decrease); the average fee dispute duration fell from 335 days in 2005 to 120 days in 2009 (a 64 percent decrease); and the average retrospective medical necessity dispute duration decreased from 123 days in 2005 to 36 days in 2009 (a 70 percent decrease). The reductions in fee dispute durations are especially remarkable given the backlog of 16,562 fee disputes that existed at the Texas Workers' Compensation Commission as of September 1, 2005, the effective date of HB 7.

Table 8.2: Mean and Median Number of Days to Resolve Medical Disputes (Aggregate Duration, as of October, 2010)

Year Dispute Received	Pre-authorization Disputes		Fee Disputes		Retrospective Medical Necessity Disputes	
	Mean	Median	Mean	Median	Mean	Median
2002	107	84	265	220	252	223
2003	58	48	582	592	205	168
2004	53	43	478	413	172	128
2005	59	53	335	184	123	79
2006	55	51	309	219	132	95
2007	22	21	205	193	32	26
2008	19	20	197	113	36	34
2009	20	20	120	87	36	37

Since then, 11,910 (72 percent) of these fee disputes have been resolved by the Division's medical dispute resolution staff, dismissed or withdrawn. As of October, 2010, approximately 12,104 fee disputes remain pending at the Division (7,452 of these disputes were submitted after September 1, 2005). The majority of these pending disputes stem from disputes over the fees for medical services in which there was no Division fee guideline amount applicable (i.e., fair and reasonable disputes), hospital fee disputes regarding the application of the 1997 Texas Workers' Compensation Commission Acute Inpatient Hospital Fee Guideline (i.e., hospital stop loss disputes), disputes over pharmacy fees, and other types of fee disputes. The Division staff continues to review pending disputes, particularly pre-HB 7 disputes, in order to eliminate this dispute backlog over the next biennium; however, pending litigation regarding the application of the 1997 Acute Care Hospital Fee Guideline may continue to prolong the resolution of some of these older fee disputes.

Over the past few years, the proportion of medical disputes decided in favor of the insurance carrier or the health care provider has changed depending on the type of dispute (see Table 8.3). For fee disputes, decisions in favor of the health care provider increased from 72 percent in 2005 to 81 percent in 2007. However, in the past two years, a single requestor (health care provider) filed approximately 6,000 pharmacy fee disputes against one respondent (insurance carrier). DWC upheld a great majority of the decisions for these disputes in favor of the insurance carrier, and the health care provider eventually withdrew all the disputes during the appeal process. This resulted in the reduced rate of favorable decisions for providers in fee disputes. For retrospective medical necessity disputes, the percentage of decisions in favor of the insurance carrier increased sharply from 17 percent in 2006 to 72 percent in 2007 and remains high (65 percent in 2009).

However, it should be noted that the number of retrospective medical necessity disputes filed with the Department declined significantly during the same time period (see Table 8.1). While these dispute outcomes may suggest that insurance carriers are utilizing the Division's evidence-based treatment guidelines when making medical necessity decisions, and that IROs are also basing their medical necessity determinations on these treatment guidelines (as required by §413.031(e-1), Labor Code), they may also indicate

that the Department needs to examine whether IROs are receiving all of the medical documentation relevant to the dispute from the insurance carrier.

Table 8.3: Percentage of Medical Disputes Decided in Favor of Insurance Carrier or Health Care Provider (Concluded Disputes, as of October, 2010)

Year Dispute Received	Pre-authorization Disputes		Fee Disputes		Retrospective Medical Necessity Disputes	
	Carrier	Provider	Carrier	Provider	Carrier	Provider
2002	69%	31%	41%	59%	43%	57%
2003	77%	23%	32%	68%	33%	67%
2004	76%	24%	31%	69%	31%	69%
2005	71%	29%	28%	72%	17%	83%
2006	65%	35%	28%	72%	17%	83%
2007	77%	23%	19%	81%	72%	28%
2008	75%	25%	79%	21%	57%	43%
2009	76%	24%	92%	8%	65%	35%

Note 1: These dispute resolution outcomes were only calculated for disputes that had been concluded as of October 2010 – disputes that were withdrawn or dismissed were excluded from the analysis. Hospital disputes, disputes submitted without the DWC-60 form and disputes with incorrect jurisdiction were also excluded.

Note 2: From August 2008 to August 2009, one doctor filed approximately 6,000 pharmacy fee disputes against one insurance carrier. DWC upheld a great majority of these disputes in favor of the insurance carrier (approximately 60 percent of all fee disputes decisions made during those years), and the requestor eventually withdrew all the disputes during the appeal process.

Trends in Complaints Filed

While the number of workers' compensation claims decreased measurably since the passage of HB 7 in 2005, the number of complaints received by DWC has not followed the same trend. As Table 8.4 shows, the number of complaints has fluctuated during the past few years. While DWC received a total of 7,433 complaints in 2004, that number fell to 3,850 in 2006, but increased to 8,613 in 2008. DWC received 6,516 complaints in 2009, 3,178 (almost 50 percent) of which were "record only," meaning that the Department did not investigate the complaint for a violation of the Act or Rules but did send a letter to the party that was the subject of the complaint (generally the insurance carrier) asking them to resolve the complaint and provide documentation to the Department that the issue is resolved; 1,742 (27 percent) were "unjustified," meaning that there was not a violation of the Act or Rules or a violation could not be substantiated; and the remaining 23 percent were either "justified" complaints that were violations of the Act or Rules and warranted further investigation or inquiries from system participants wanting specific information about statutory or regulatory requirements.[5]

The most frequent types of complaints received by the Division in 2009 include complaints about communication (2,392), complaints from health care providers about

[5] Complete results from the Division's System Monitoring and Oversight section are available at http://www.tdi.state.tx.us/wc/pbo/index.html

medical bill reimbursement (1,010) and medical bill processing (861). Other complaints came from injured workers about timeliness issues such as late payment of income benefits, untimely filings of and incompleteness of the DWC-69 impairment rating or maximum medical improvement (MMI) form and other required forms.

Table 8.4: Total Number of Complaints Received by the Texas Department of Insurance, Division of Workers' Compensation, January, 2004 – December, 2009

Complaint Year	2004	2005	2006	2007	2008	2009
Number of Complaints	7,433	5,883	3,820	6,715	8,621	6,516

Note: Complaint counts for 2005 and 2006 should be viewed with caution since these numbers are incomplete due to the transition of the functions of the former Texas Workers' Compensation Commission to the newly created Division of Workers' Compensation. During the transition, the Division's complaints were placed into TDI's existing complaint tracking system, which initially did not track complaints received through referrals from Division field office staff. Complaints received through internal referrals are now tracked as part of the system.

Overall, the Department[6] has received relatively few complaints about certified workers' compensation networks since 2005 (275 total complaints – of which 89, or 29 percent, were deemed justified) given that almost 142,214 injured workers have been treated in networks as of February 1, 2010. The most frequent types of complaints raised by health care providers were complaints about rejections of provider applications to participate in networks, complaints about network fees or payment of medical bills and complaints from providers who said they were improperly listed as being network providers.

The most frequent types of complaints raised by injured workers included complaints about the employer's failure to provide a copy of the network's requirements, complaints about the availability and/or types of network doctors who were willing to accept new patients, and concerns about not receiving an up-to-date and complete directory of network providers. Chapter 1305, Insurance Code, as well as the Department's network rules (Chapter 10 of the Texas Administrative Code) require certified networks to resolve complaints, including disputes over network fees, internally and to maintain a detailed complaint log that is subject to the Department examination.

The administration of workers' compensation disputes and complaints is a critical component of the Department's mission. Since the adoption of HB 7 the number of complaints continues to fluctuate while the number of disputes has decreased and effective streamlining has led to steep reductions in the average durations to resolve disputes timeframes. The Department will continue to monitor disputes and complaints, and to improve processes where feasible.

[6] The Health and Workers' Compensation Network Certification and Quality Assurance program within the Department certifies workers' compensation health care networks and resolves complaints filed about networks.

9. Employer Participation in the Texas Workers' Compensation System

Introduction

Since the Texas workers' compensation law was first enacted in 1913, private sector employers have been allowed to either obtain workers' compensation coverage or opt out of the Texas workers' compensation system.[1] Prior to the 1970's, many states had elective workers' compensation laws. Since the 1972 publication of the National Commission on State Workmen's Compensation Laws' essential recommendations, 22 states have made workers' compensation coverage mandatory for most private-sector employers. Several states with mandatory workers' compensation laws provide statutory exemptions to allow small employers or employers from select industries to opt out of their workers' compensation systems.[2]

Texas is the only state that permits private-sector employers (regardless of employer size or industry) the option of not obtaining workers' compensation coverage and thus, becoming "nonsubscribers" to the workers' compensation system.[3] Employers who do not choose to obtain workers' compensation coverage (either through purchasing an insurance policy or becoming a certified self-insured employer or a member of a certified self-insurance group of employers) lose the protection of statutory limits on liability and may be sued for negligence by their injured workers.

Since 1993, the state has periodically monitored the percentage of employers that are nonsubscribers and the percentage of employees employed by nonsubscribers, as well as the types of alternative occupational benefit programs utilized by nonsubscribers and the reasons employers choose or do not choose to participate in the Texas workers' compensation system. Nonsubscription rates remain an important indicator of the relative "health" of the workers' compensation system since these roughly measure employers' perspectives regarding whether the benefits of participating in the workers' compensation system are greater than the costs of obtaining coverage. For this reason, the 79th Legislature required the Department to monitor and report the effect of HB 7 on employer participation in the Texas workers' compensation system as part of this biennial report.

---

[1] Texas governmental entities, including the state and its political subdivisions are currently required to provide workers' compensation insurance coverage to their employees.

[2] Florida, for example, exempts non-construction employers with less than four employees. New Mexico exempts non-construction employers with less than three employees, but allows some service and ranch employers the option to purchase coverage.

[3] In New Jersey all employers are required to have coverage or be self-insured. Non-compliant employers are fined and their injured employees receive income and medical benefits through the Uninsured Employers' Fund.

The first study of employer participation in the Texas workers' compensation system was published in 1993 by Texas A&M University for the Texas Workers' Compensation Research Center. In 1996, the Research Center's successor agency, the Research and Oversight Council on Workers' Compensation (ROC) assumed the responsibility of calculating nonsubscription rates using the same methods. In 2004, the Department acquired this responsibility and currently manages the survey.

Survey Design and Data Collection

A random probability sample, stratified by industry and employment size, was drawn from all year-round private-sector employers in the state using the Texas Workforce Commission's Unemployment Insurance database.[4] To address changing issues in the workers' compensation system, the original survey instrument designed by the Research Center has been modified slightly over the years. Specifically, the Department's Workers' Compensation Research and Evaluation Group (REG) included questions in the 2010 survey to measure employer perceptions of the HB 7 legislative reforms and the impacts of these reforms on business decisions affecting economic development as well as questions to collect information about the use of arbitration agreements by nonsubscribing employers.

During the months of July through August 2010, the Public Policy Research Institute (PPRI) at Texas A&M University, on behalf of the Department, surveyed more than 2,500 Texas employers. The results of the survey serve as the basis for the estimates provided in this report.[5] This report presents highlights of the findings from this survey, including:[6]

- Overall employer nonsubscription rates and the percentage of Texas employees employed by nonsubscribers;
- The reasons employers gave for purchasing workers' compensation coverage or becoming nonsubscribers to the workers' compensation system;
- Texas employers' recent experiences with workers' compensation premium costs;
- Employer satisfaction levels for subscribers and nonsubscribers; and
- Employers' knowledge of the HB 7 legislative workers' compensation reforms, including employer perceptions regarding the impact of these reforms on economic development.

[4] For the purposes of this study, "year-round" employers are employers with reported wages for four consecutive quarters. Employers with only seasonal employees were excluded from this analysis.

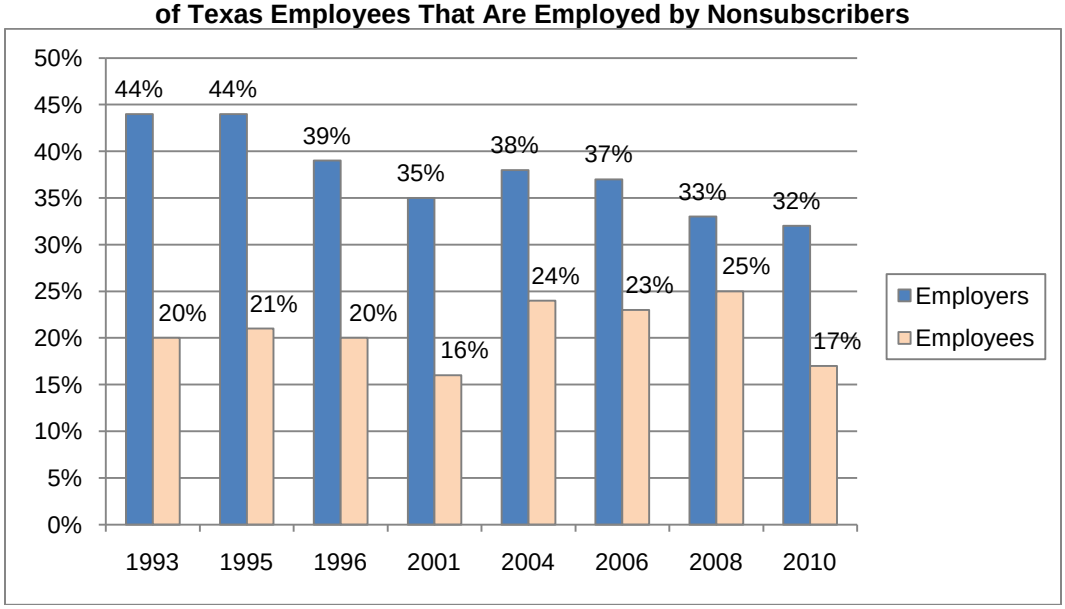
[5] The response rate for this survey was 41 percent.

[6] Additional findings from this survey, including information regarding the types of alternative occupational benefit programs offered by nonsubscribers, can be viewed on the Department's website at http://www.tdi.state.tx.us/reports/report9.html.

Employer Participation and Employee Coverage

The percentage of Texas employers that are nonsubscribers to the workers' compensation system decreased from 37 percent in 2006 to 32 percent in 2010– the lowest percentage since 1993 (an estimated 106,137 employers in 2010). However, in terms of employees covered, an estimated 17 percent of Texas employees (representing approximately 1.7 million non-public employees in 2010) worked for nonsubscribing employers – the lowest percentage since 2001 when it was 16% (see Figure 9.1).

Figure 9.1: Percentage of Texas Employers That Are Nonsubscribers and the Percentage of Texas Employees That Are Employed by Nonsubscribers



Source: Survey of Employer Participation in the Texas Workers' Compensation System, 1993 and 1995 estimates from the Texas Workers' Compensation Research Center and the Public Policy Research Institute (PPRI) at Texas A&M University; 1996 and 2001 estimates from the Research and Oversight Council on Workers' Compensation and PPRI; and 2004- 2010 estimates from the Texas Department of Insurance, Workers' Compensation Research and Evaluation Group and PPRI.

Results from the 2004 through 2008 employer surveys highlighted the trend of larger employers choosing to opt out of the Texas workers' compensation system for reasons that centered primarily on high workers' compensation premium costs and the ability to adequately control medical costs for their injured workers.

However this trend for large employers reversed after 2008. An increased percentage of large employers, especially those with more than 500 employees, chose to purchase workers' compensation coverage in 2010. This led to a reduction in their non-subscription rates from 26 percent in 2008 to 15 percent in 2010 (see Table 9.1). Medium-sized employers increased their coverage rates moderately, while small employers stabilized at the 2008 levels. The decline in nonsubscription rates for large employers in 2010 coincides with a significant economic downturn, and is also at the lowest level since the 2001 recession when the nonsubscription rate was 14 percent. It is

possible that tight economic conditions play an influential role in large employers' decisions to purchase coverage in the Texas workers' compensation system.

Table 9.1: Percentage of Texas Employers that Are Nonsubscribers by Employment Size, 1995-2010

Employment Size	1995	1996	2001	2004	2006	2008	2010
1-4 Employees	55%	44%	47%	46%	43%	40%	41%
5-9 Employees	37%	39%	29%	37%	36%	31%	30%
10-49 Employees	28%	28%	19%	25%	26%	23%	20%
50-99 Employees	24%	23%	16%	20%	19%	18%	16%
100-499 Employees	20%	17%	13%	16%	17%	16%	13%
500 + Employees	18%	14%	14%	20%	21%	26%	15%

Source: Survey of Employer Participation in the Texas Workers' Compensation System, 1995 estimates from the Texas Workers' Compensation Research Center and the Public Policy Research Institute (PPRI) at Texas A&M University; 1996 and 2001 estimates from the Research and Oversight Council on Workers' Compensation and PPRI; and 2004-2010 estimates from the Texas Department of Insurance, Workers' Compensation Research and Evaluation Group and PPRI.

Nonsubscription Rates by Industry

Four of the eight primary industry sectors experienced reductions in their nonsubscription rates in 2010. The Mining/Utilities/Construction industry sector had the steepest drop from 28 percent of employers reporting that they were nonsubscribers in 2008 to 19 percent in 2010, the lowest nonsubscription rate of all the sectors (see Table 9.2). They were followed by the Health Care/Educational Services sector, with a decrease from 39 percent nonsubscription rate in 2008 to 32 percent in 2010. Other Services (excluding Public Administration) increased their nonsubscription rate from 36% in 2008 to 42 percent in 2010, the highest nonsubscription rate among the industry sectors.

Table 9.2: Percentage of Texas Employers that Are Nonsubscribers by Industry, 2004 – 2010 Estimates

	Non-subscription Rate			
Industry Type	2004	2006	2008	2010
Agriculture/Forestry/Fishing/Hunting	39%	25%	27%	25%
Mining/Utilities/Construction	32%	21%	28%	19%
Manufacturing	42%	37%	31%	31%
Wholesale Trade/ Retail Trade/Transportation	40%	37%	29%	32%
Finance/Real Estate/Professional Services	32%	33%	33%	33%
Health Care/Educational Services	41%	44%	39%	32%
Arts/Entertainment/Accommodation/Food Services	54%	52%	46%	40%
Other Services Except Public Administration	39%	42%	36%	42%

Source: Survey of Employer Participation in the Texas Workers' Compensation System, Public Policy Research Institute at Texas A&M University and the Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2010.

Note: Industry classifications were based on the 2002 North American Industry Classification System (NAICS) developed by the governments of the U.S., Canada and Mexico, which replaced the Standard Industrial Classification (SIC) system previously used in the U.S. As a result of this change in industry classifications, industry nonsubscription rates for 2004-2010 cannot be compared to previous years.

Reasons Employers Opt Out of the Workers' Compensation System

The most frequent reason (32 percent) nonsubscribing employers gave in 2010 for not purchasing workers' compensation coverage was their perception that the cost of workers' compensation premiums was too high. This was lower than in 2006 (35 percent), but higher than in 2008 (26 percent). Other primary reasons given by nonsubscribers, included their perception that they had too few employees (25 percent), that they were not required to have workers' compensation insurance by law (13 percent), and that they had few-on-the-job injuries (12 percent)(see Table 9.3).

When these reasons were examined by employer size, the importance of individual reasons varied. For example, 50 percent of large employers with more than 500 employees reported that the primary reason for opting out of the system was because they felt that premiums were too high. Given the fact that many large employers within the workers' compensation system have large deductible policies or are certified self-insurers, these employers' concerns regarding high premiums can most likely be associated with their overall concerns about the general cost of participating in the Texas

workers' compensation system. Another reason given by 28 percent of these large employers included their perception that they could do a better job than the Texas workers' compensation system at ensuring that injured employees receive appropriate benefits.

Table 9.3: Most Frequent Reasons Non-subscribing Employers Said They Did Not Purchase Workers' Compensation Coverage

Primary Reasons Given by Surveyed Employers	Percentage of Non-subscribing Employers		
	2006	2008	2010
Workers' compensation insurance premiums were too high	35%	26%	32%
Employer had too few employees	21%	26%	25%
Employers not required to have workers' compensation insurance by law	9%	11%	13%
Medical costs in the workers' compensation system were too high	4%	4%	5%
Employer had few on-the-job injuries	9%	9%	12%

Source: Survey of Employer Participation in the Texas Workers' Compensation System, Public Policy Research Institute at Texas A&M University and the Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2010.

Reasons Employers Gave for Purchasing Workers' Compensation Coverage

The most frequent reason cited (27 percent) by Texas employers for participating in the Texas workers' compensation system was because the employer was able to participate in a health care network (see Table 9.4 and Section 3 of this report for more information about network participation in the Texas workers' compensation system). For large employers (i.e., those with 500 or more employees), the ability to participate in a workers' compensation health care network was the primary reason given in 2008 and in 2010 for participating in the Texas workers' compensation system. This finding indicates a level of employer interest in workers' compensation health care networks, which may impact employers' decisions to remain a subscriber, enter, or re-enter the Texas workers' compensation system. Other key reasons subscribers gave for purchasing workers' compensation coverage included concern about lawsuits (18 percent), workers' compensation coverage was required for government contracts (6 percent), and lower workers' compensation insurance rates (2 percent).

Table 9.4: Most Frequent Reasons Subscribing Employers Said They Purchased Workers' Compensation Coverage

Primary Reasons Given by Surveyed Employers	Percentage of Subscribing Employers		
	2006	2008	2010
Employer thought having workers' compensation was required by law	22%	25%	22%
Employer provided workers' compensation coverage through health care network	20%	24%	27%
Employer was concerned about lawsuits	20%	14%	18%
Employer needed workers' compensation coverage in order to obtain government contracts	6%	3%	6%
Workers' compensation insurance rates were lower	NA	2%	2%

Source: Survey of Employer Participation in the Texas Workers' Compensation System, Public Policy Research Institute at Texas A&M University and the Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2010.

Other Types of Insurance Coverage Carried by Texas Employers

Although employer participation in the Texas workers' compensation system is the focus of this section of the report, it is important to note that there may be a general difference in the propensity of certain employers to carry various types of insurance coverage than other types of employers. As Table 9.5 indicates, in 2010 a higher percentage of large subscribers than large nonsubscribers (i.e., employers with 500 or more employees) reported offering disability and commercial auto insurance benefits to their employees. However, this is in sharp contrast to 2008 when a higher percentage of large subscribers than large nonsubscribers offered each of the insurance coverage to their employees.

Industry differences (such as the high nonsubscription rate in the Arts/entertainment/ accommodation/food services and Other services sectors) affect the likelihood of an employer offering certain insurance benefits to employees or purchasing various types of insurance coverage, but it is important to note that employers' decisions to be nonsubscribers are likely part of broader decisions these employers make regarding their insurance needs in a variety of areas.

Modest Premium Pressure in 2010

There are indications that in 2010 Texas employers faced modest premium pressures when compared to the declines between 2004 and 2008. While higher percentages of subscribing employers of all sizes experienced decreases or no changes in their premiums than those with increases (see Figure 9.2), the percentage of those with increases grew after 2008. As Figure 9.3 shows, 26 percent of subscribing employers of all sizes

experienced premium increases in 2010, compared to moderately lower percentages for those employers in 2008.

Overall, more than 74 percent of all subscribers experienced either decreases or no changes in their premium, higher than they reported in 2004 and 2006.

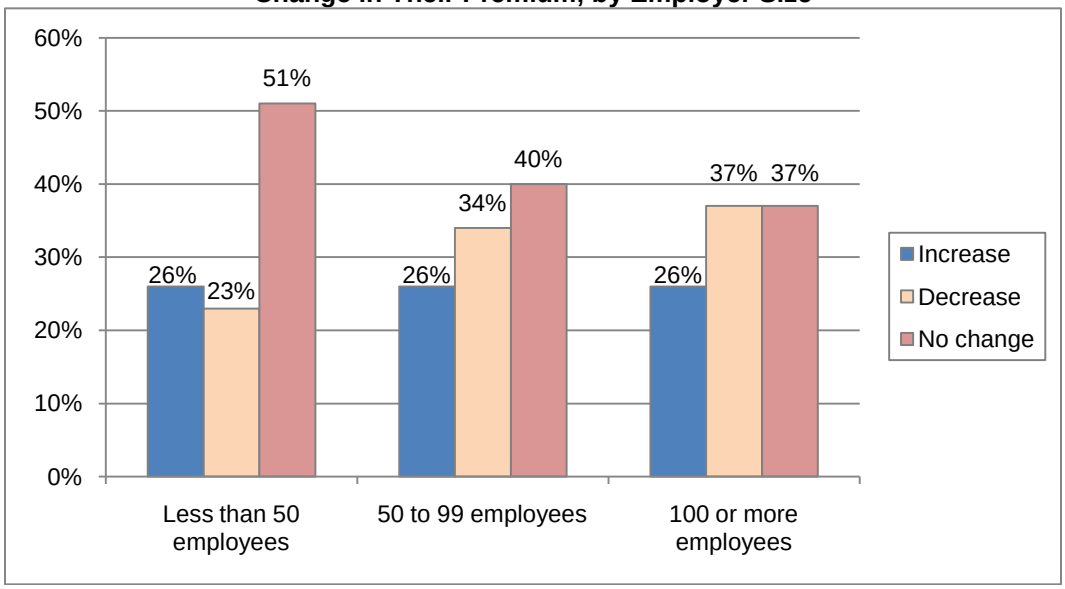
It's not clear from the survey what factors led to the premium changes; however, since mid-2006, some insurance companies started offering premium credits for participating in their workers' compensation health care network. See Section 2 of this report for information regarding the range of premium credits filed by numerous insurance companies, and whether premium credits are on the decline.

Table 9.5: Other Types of Insurance Coverage Carried by Large Texas Employers (i.e., 500 or More Employees)

Type of Insurance Coverage	2008		2010	
	Subscriber	Non-Subscriber	Subscriber	Non-Subscriber
General health insurance for employees (excluding dental or vision insurance coverage)	86%	68%	88%	100%
Life insurance for employees	83%	56%	84%	91%
Disability insurance for employees (short-term or long-term or both)	77%	57%	82%	77%
Voluntary accidental death and dismemberment insurance (A, D &D coverage)	73%	62%	72%	74%
General liability insurance (to protect your company against liability for bodily injuries that might occur on your premises)	92%	76%	88%	92%
Property insurance	83%	75%	85%	94%
Commercial auto insurance	79%	60%	82%	79%

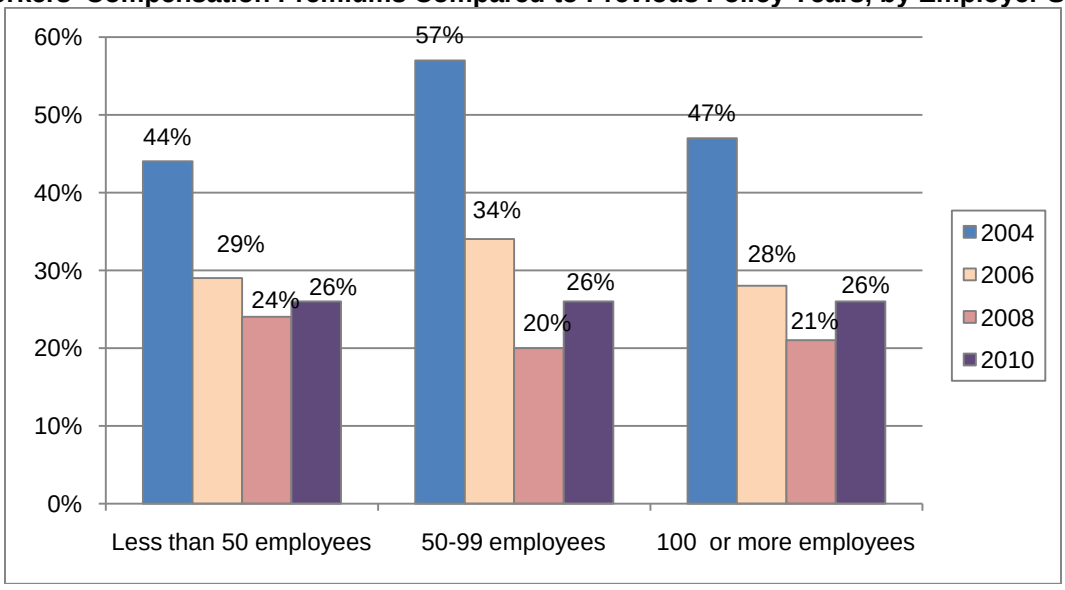
Source: Survey of Employer Participation in the Texas Workers' Compensation System, Public Policy Research Institute at Texas A&M University and the Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2010.

Figure 9.2: Percentage of Subscribers That Experienced an Increase, Decrease, or No Change in Their Premium, by Employer Size



Source: Survey of Employer Participation in the Texas Workers' Compensation System, 1995 estimates from the Texas Workers' Compensation Research Center and the Public Policy Research Institute (PPRI) at Texas A&M University; 1996 and 2001 estimates from the Research and Oversight Council on Workers' Compensation and PPRI; and 2004-2010 estimates from the Texas Department of Insurance, Workers' Compensation Research and Evaluation Group and PPRI.

Figure 9.3: Percentage of Subscribing Employers That Experienced an Increase in Their Workers' Compensation Premiums Compared to Previous Policy Years, by Employer Size



Source: Survey of Employer Participation in the Texas Workers' Compensation System, 1995 estimates from the Texas Workers' Compensation Research Center and the Public Policy Research Institute (PPRI) at Texas A&M University; 1996 and 2001 estimates from the Research and Oversight Council on Workers' Compensation and PPRI; and 2004-2010 estimates from the Texas Department of Insurance, Workers' Compensation Research and Evaluation Group and PPRI.

Employers' Knowledge about the HB 7 Reforms

Employer knowledge of HB 7 reforms has flattened since 2008, with a significant majority of Texas employers still reporting that they have no knowledge of these reforms. Generally, the percentage reporting that they were very knowledgeable about most of the reforms have not changed since 2008, but those reporting no knowledge about any of the main reforms actually increased (see Table 9.6). When asked about their degree of knowledge regarding the option of employers to participate in networks, or the requirement for an injured worker to see a network treating doctor, the percentage of employers who were very knowledgeable increased by one percentage point. The percentages for those who were very knowledgeable of the other aspects of the reforms remain unchanged from 2008. However the range of percentages of those who reported that they had no knowledge of the reforms increased from a range of 53-68 percent in 2008 to 56-72 percent in 2010.

Knowledge of HB 7 Reforms and Employers' Perceptions on Economic Development in Texas

A required element of the Department's evaluation of the impact of the HB 7 reforms on the affordability and availability of workers' compensation insurance is an analysis of the reforms' effect on economic development.

However, given the low level of employer knowledge about these reforms, it is not surprising that an overwhelming majority (between 87 and 92 percent) of Texas employers in 2010 said the reforms had no impact on their business decisions (see Table 9.7). While the Department will continue to monitor the impact of the HB 7 reforms on employers' business decisions in future reports, recent survey results indicate that expanded employer education efforts about key aspects of the HB 7 reforms are needed.

Despite the low level of employer knowledge of the HB 7 reforms, twice the percentage of employers report that the reforms had a positive impact on their decisions to hire more employees, expand their operations in Texas, or purchase workers' compensation coverage than those who reported negative impacts on those decisions.

The economic development impact of the HB 7 reforms appears to be primarily dependent on employer knowledge about the key component of these reforms – workers' compensation health care networks. Employers who reported that they were extremely knowledgeable about the availability of workers' compensation health care networks under HB 7 were much more likely to report that they would be more willing to hire more employees, expand business operations in Texas, and purchase or maintain workers' compensation coverage than employers who were somewhat or not knowledgeable at all about the workers' compensation health care network provisions in HB 7.

Table 9.6: Employer Knowledge about the HB 7 Workers' Compensation Reforms

Main aspects of the 2005 reforms	Employer knowledge about the 2005 Reforms								
	Not at all Knowledgeable			Somewhat Knowledgeable			Extremely Knowledgeable		
	2006	2008	2010	2006	2008	2010	2006	2008	2010
House Bill 7 abolished the Texas Workers' Compensation Commission and transferred its functions to the Texas Department of Insurance	63%	61%	66%	26%	32%	27%	11%	7%	7%
House Bill 7 created a new state agency, the Office of Injured Employee Counsel, to assist injured employees with complaints and disputes and advocate for them during rulemaking	68%	63%	66%	25%	31%	28%	7%	6%	6%
Under House Bill 7, employers who purchase workers' compensation insurance now have the option to participate in a health care network through their insurance carrier	64%	57%	60%	26%	33%	29%	10%	10%	11%
Under House Bill 7, an injured employee who lives in their carrier's network service area and receives a copy of the network requirements must choose a treating doctor from the network	62%	53%	56%	26%	34%	30%	12%	13%	14%
Under House Bill 7, small employers who purchase WC insurance and pay for worksite modifications in order to bring their employees back to work may be eligible for a reimbursement from the Texas Department of Insurance, up to $2,500 annually.	75%	68%	72%	19%	27%	23%	6%	5%	5%

Source: Survey of Employer Participation in the Texas Workers' Compensation System, Public Policy Research Institute at Texas A&M University and the Texas Department of Insurance Workers' Compensation Research and Evaluation Group, 2010.

Table 9.7: Impact of the 2005 Workers' Compensation Reforms on Texas Employers' Business Decisions

Employers' Decisions	Percentage of all Employers Surveyed								
	Positive			Negative			No Change		
	2006	2008	2010	2006	2008	2010	2006	2008	2010
Employer's plan to hire more employees	5%	6%	5%	3%	2%	3%	92%	92%	92%
Employer's plan to expand business operations in Texas	2%	9%	6%	7%	2%	3%	91%	89%	91%
Employer's decision to purchase or maintain its workers' compensation coverage	2%	14%	10%	10%	2%	3%	88%	84%	87%

Source: Survey of Employer Participation in the Texas Workers' Compensation System, Public Policy Research Institute at Texas A&M University and the Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2010.

Since a significant percentage of Texas employers (60 percent) are not knowledgeable about the availability of workers' compensation health care networks, it is possible that, with increased employer education and increased insurance carrier marketing of networks, the HB 7 reforms may improve employers' perceptions about the Texas workers' compensation system.

Nonsubscribers' and Subscribers' Satisfaction with Their Programs

Overall, nonsubscribing employers continue to report higher satisfaction levels with their alternative occupational benefit programs than employers with workers' compensation coverage. However, the gap in overall satisfaction levels between nonsubscribers and subscribers seems to have closed slightly since 2006 (see Table 9.8). Specific areas with measurable narrowing of the satisfaction gaps between subscribers and nonsubscribers are with employer perceptions that their occupational benefits plan is a good value for their company and with the adequacy of those plans to their injured workers. Yet, even for those areas of improvement for subscribers, nonsubscribers continue to hold a 6-17 percentage satisfaction advantage.[7]

[7] Complete results from the *Employer Participation in the Texas Workers' Compensation System: 2010 Estimates* are available at http://www.tdi.state.tx.us/reports/report9.html.

Table 9.8: Percentage of Employers That Indicated That They Were Extremely or Somewhat Satisfied

Areas of Satisfaction	2006		2008		2010	
	Subscriber	Non Subscriber	Subscriber	Non Subscriber	Subscriber	Non Subscriber
Overall Satisfaction	56%	70%	61%	69%	59%	68%
Adequacy of occupational benefits paid to injured workers	53%	66%	53%	62%	54%	60%
Whether workers' compensation or occupational benefits plan is a good value for company	54%	73%	56%	69%	58%	68%
Ability to manage medical and wage replacement costs	50%	63%%	50%	68%	48%	65%

Source: Survey of Employer Participation in the Texas Workers' Compensation System, Public Policy Research Institute at Texas A&M University and the Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2010.

Overall, employer satisfaction levels vary by employer size. Gaps in satisfaction between nonsubscribers and subscribers become more pronounced as the size of the employer increases. Eighty-two percent of large nonsubscribers with 100 or more employees indicated that they were extremely or somewhat satisfied with their experience as nonsubscribing employers, compared to only 57 percent of large subscribers (see Figure 9.4). Despite this satisfaction gap between large nonsubscribers and large subscribers, a significant percentage of large previously nonsubscribing employers seemed to have opted into the workers' compensation system since 2008 (see Table 9.1). Satisfaction alone may not be the overriding factor in employers' decisions to be subscribers or nonsubscribers in the workers' compensation system.

Summary

The 2010 employer survey indicates major subscription rate changes in the Texas workers' compensation system since 2008, possibly due to the availability of health care networks under HB 7, low premium changes, and tightening economic conditions in recent years. A higher percentage (83 percent) of Texas' private sector employees are covered by workers' compensation now than for any of the study years except 2001. One reason is that a higher percentage (68 percent) of employers participated in the workers' compensation system in 2010 than in any other year, but the key reason is that a higher percentage of large employers (85 percent) are subscribers to the system than in any of the past nine years. These employers cite the option to participate in workers' compensation networks as their primary reason for opting into the system. While 50

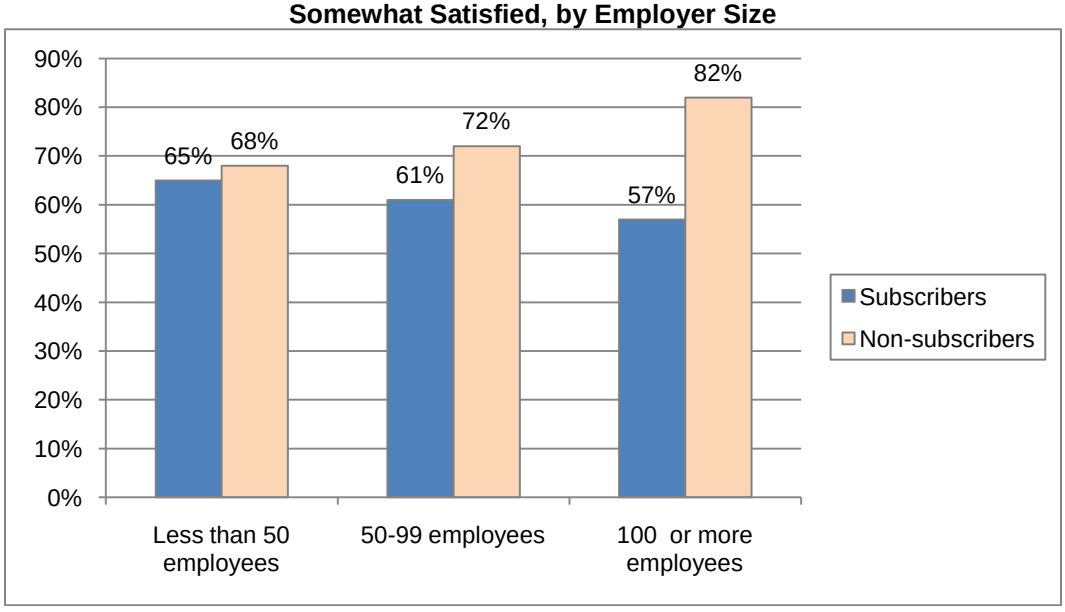
percent of nonsubscribers cite high premiums as their primary reason for opting out, a significant majority (74 percent) of subscribing employers continue to experience either premium decreases or no premium changes from previous years.

While subscribers report that the network option under HB 7 was their primary reason for subscribing, less than ten percent of Texas employers are knowledgeable about the 2005 legislative reforms, including the availability of workers' compensation health care networks. There is some evidence that employers knowledgeable about the reforms view them as having a positive impact on their decisions to hire more employees, expand business operations in Texas, and purchase or obtain workers' compensation coverage.

Given the uncertain economic climate and federal health care reforms that employers face, it is difficult to isolate fully the impact of the recent HB 7 reforms on employer decisions to obtain workers' compensation coverage or opt out of the system. Yet, subscribing employers report favorably on the network option and their satisfaction levels with key areas has improved since 2006. However, it is also important to note that nonsubscriber employers' satisfaction levels (particularly on their ability to manage medical and wage replacement costs) remain high compared to subscribers.

Overall, until Texas employers acquire a functional knowledge base on HB 7, conclusions about their impact on their business decisions would be limited to the experience of the less than ten percent of Texas employers who are very knowledgeable about the reforms.

Figure 9.4: Percentage of Employers That Indicated That They Were Extremely or Somewhat Satisfied, by Employer Size



Source: Survey of Employer Participation in the Texas Workers' Compensation System, Public Policy Research Institute at Texas A&M University and the Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2010.

Appendix

Table 1a: Average Cost Per Claim by Professional Service by Injury Year, 6 Months Post-Injury

Injury Year	Evaluation & Management	Physical Medicine Modalities	Other Physical Medicine Services	CT Scans	MRIs	Nerve Conduction Studies	Other Diagnostic Testing	Spinal Surgery	Other Surgery	Pathology & Laboratory	Other Services
1998	$337	$312	$1,106	$334	$780	$589	$104	$4,471	$642	$49	$197
1999	$355	$318	$1,237	$336	$823	$634	$105	$4,469	$681	$49	$215
2000	$367	$322	$1,376	$326	$862	$682	$107	$4,452	$709	$49	$229
2001	$389	$330	$1,467	$323	$893	$723	$112	$4,417	$754	$52	$252
2002	$411	$338	$1,495	$313	$984	$735	$115	$4,727	$771	$53	$265
2003	$419	$274	$1,423	$251	$776	$703	$103	$3,031	$662	$53	$284
2004	$417	$244	$1,337	$225	$727	$768	$96	$2,695	$735	$56	$300
2005	$414	$214	$1,251	$199	$678	$832	$88	$2,358	$807	$59	$316
2006	$399	$148	$962	$198	$649	$780	$85	$2,389	$806	$56	$291
2007	$421	$127	$869	$182	$550	$789	$81	$2,675	$798	$61	$294
2008	$441	$118	$947	$202	$605	$810	$88	$2,907	$951	$70	$293
2009	$484	$122	$1,078	$214	$626	$809	$94	$3,360	$1,083	$83	$293

Note 1: 2004 shows an average of 2003 and 2005 due to incomplete data.
Note 2: Analyses include medical data collected up to June 30, 2010. Due to data reporting lags, 2010 data should be considered preliminary.

Table 1b: Average Cost Per Claim by Professional Service by Injury Year, 12 Months Post-Injury

Injury Year	Evaluation & Management	Physical Medicine Modalities	Other Physical Medicine Services	CT Scans	MRIs	Nerve Conduction Studies	Other Diagnostic Testing	Spinal Surgery	Other Surgery	Pathology & Laboratory	Other Services
1998	$423	$337	$1,447	$377	$812	$621	$115	$4,963	$781	$53	$264
1999	$449	$342	$1,616	$378	$861	$662	$115	$4,996	$838	$53	$287
2000	$467	$347	$1,837	$370	$894	$715	$118	$5,101	$890	$57	$313
2001	$506	$364	$1,971	$373	$932	$758	$127	$5,044	$962	$58	$351
2002	$525	$374	$2,030	$361	$932	$771	$129	$5,059	$964	$56	$360
2003	$535	$293	$1,905	$271	$780	$733	$114	$2,963	$775	$56	$367
2004	$527	$261	$1,749	$246	$745	$802	$107	$2,825	$877	$60	$383
2005	$519	$229	$1,593	$220	$710	$870	$99	$2,686	$978	$64	$398
2006	$510	$160	$1,247	$215	$674	$829	$94	$2,635	$951	$64	$370
2007	$530	$137	$1,129	$196	$577	$818	$89	$2,842	$937	$71	$369
2008	$555	$128	$1,237	$216	$637	$845	$96	$3,108	$1,137	$91	$376

Note: 2004 shows an average of 2003 and 2005 due to incomplete data.

Table 1c: Average Cost Per Claim by Professional Service by Injury Year, 18 Months Post-Injury

Injury Year	Evaluation & Management	Physical Medicine Modalities	Other Physical Medicine Services	CT Scans	MRIs	Nerve Conduction Studies	Other Diagnostic Testing	Spinal Surgery	Other Surgery	Pathology & Laboratory	Other Services
1998	$469	$348	$1,604	$403	$834	$644	$121	$5,228	$863	$55	$302
1999	$502	$352	$1,811	$404	$883	$693	$122	$5,339	$937	$56	$332
2000	$530	$360	$2,101	$397	$918	$747	$127	$5,483	$1,015	$57	$371
2001	$576	$383	$2,281	$404	$959	$790	$137	$5,509	$1,101	$61	$414
2002	$589	$386	$2,331	$378	$955	$797	$138	$5,046	$1,056	$61	$415
2003	$577	$296	$2,107	$281	$813	$756	$118	$3,084	$826	$58	$401
2004	$575	$265	$1,936	$257	$773	$831	$112	$2,995	$944	$63	$424
2005	$573	$234	$1,765	$232	$732	$906	$105	$2,906	$1,062	$68	$447
2006	$565	$164	$1,396	$223	$689	$856	$98	$2,806	$1,019	$71	$411
2007	$580	$140	$1,270	$205	$595	$849	$93	$3,235	$1,020	$82	$412
2008	$612	$132	$1,400	$224	$657	$880	$100	$3,431	$1,228	$111	$424

Note 1: 2004 shows an average of 2003 and 2005 due to incomplete data.
Note 2: Analyses include medical data collected up to June 30, 2010. Due to data reporting lags, 2010 data should be considered preliminary.

Table 1d: Average Cost Per Claim by Professional Service by Injury Year, 24 Months Post-Injury

Injury Year	Evaluation & Management	Physical Medicine Modalities	Other Physical Medicine Services	CT Scans	MRIs	Nerve Conduction Studies	Other Diagnostic Testing	Spinal Surgery	Other Surgery	Pathology & Laboratory	Other Services
1998	$497	$353	$1,702	$420	$852	$664	$125	$5,525	$927	$57	$331
1999	$536	$357	$1,941	$420	$899	$717	$126	$5,623	$1,007	$58	$363
2000	$574	$369	$2,278	$422	$936	$776	$134	$5,787	$1,118	$59	$415
2001	$619	$394	$2,490	$429	$977	$815	$144	$5,781	$1,187	$63	$457
2002	$627	$391	$2,514	$385	$970	$818	$142	$4,993	$1,102	$62	$448
2003	$591	$293	$2,190	$282	$810	$766	$117	$3,204	$857	$58	$417
2004	$599	$265	$2,028	$261	$777	$847	$113	$3,129	$984	$65	$448
2005	$606	$236	$1,865	$240	$744	$928	$108	$3,053	$1,110	$72	$478
2006	$596	$166	$1,480	$230	$699	$877	$101	$3,065	$1,064	$78	$440
2007	$610	$142	$1,358	$212	$608	$872	$96	$3,453	$1,074	$95	$440

Note: 2004 shows an average of 2003 and 2005 due to incomplete data.

Table 2a: Average Number of Professional Services Billed Per Claim by Injury Year, 6 Months Post-Injury

Injury Year	Evaluation & Management	Physical Medicine Modalities	Other Physical Medicine Services	CT Scans	MRIs	Nerve Conduction Studies	Other Diagnostic Testing	Spinal Surgery	Other Surgery	Pathology & Laboratory	Other Services
1998	5.8	22.5	33.9	2.0	2.0	9.7	3.6	3.2	2.3	4.6	7.4
1999	6.1	22.6	37.7	2.1	1.8	10.9	3.6	3.4	2.4	4.7	7.8
2000	6.4	22.6	41.1	2.1	1.8	11.7	3.7	3.5	2.4	4.7	8.6
2001	6.7	22.9	44.6	2.1	1.8	12.9	3.8	3.4	2.5	4.9	9.2
2002	7.1	24.6	49.0	2.1	1.7	13.8	3.9	3.9	2.7	4.7	10.1
2003	6.4	20.9	48.6	1.9	1.6	14.0	3.6	3.9	2.7	5.5	11.4
2004	5.7	19.2	47.6	1.8	1.6	14.9	3.1	4.2	2.9	5.2	12.4
2005	5.0	17.4	46.6	1.6	1.6	15.8	2.6	4.5	3.0	4.9	13.4
2006	4.5	13.3	35.7	1.6	1.5	14.9	2.6	4.6	3.0	4.7	12.6
2007	4.4	11.9	33.1	1.6	1.5	15.0	2.5	5.5	3.0	5.2	12.2
2008	4.4	10.7	34.0	1.7	1.5	15.2	2.5	4.6	2.9	5.6	11.9
2009	4.4	9.9	34.3	1.6	1.4	14.0	2.4	4.9	2.8	5.8	11.4

Note 1: 2004 shows an average of 2003 and 2005 due to incomplete data.
Note 2: Analyses include medical data collected up to June 30, 2010. Due to data reporting lags, 2010 data should be considered preliminary.

Table 2b: Average Number of Professional Services Billed Per Claim by Injury Year, 12 Months Post-Injury

Injury Year	Evaluation & Management	Physical Medicine Modalities	Other Physical Medicine Services	CT Scans	MRIs	Nerve Conduction Studies	Other Diagnostic Testing	Spinal Surgery	Other Surgery	Pathology & Laboratory	Other Services
1998	7.1	24.8	42.8	2.2	2.1	10.2	4.0	3.8	2.7	4.9	9.4
1999	7.5	24.8	47.6	2.2	1.9	11.2	4.0	4.1	2.9	5.2	10.0
2000	7.8	24.8	52.6	2.2	1.8	12.2	4.0	4.3	2.9	5.1	11.3
2001	8.5	25.9	58.4	2.2	1.9	13.4	4.3	4.3	3.2	5.4	12.5
2002	8.8	28.1	65.4	2.2	1.7	14.4	4.4	4.5	3.3	5.2	13.7
2003	7.7	23.1	63.3	2.0	1.7	14.4	3.9	4.7	3.3	6.0	14.6
2004	6.8	21.1	60.0	1.8	1.6	15.4	3.4	5.0	3.5	5.6	15.8
2005	6.0	19.2	56.7	1.6	1.6	16.3	2.9	5.4	3.7	5.2	17.0
2006	5.4	14.6	44.0	1.7	1.6	15.4	2.8	5.6	3.6	5.2	15.8
2007	5.1	12.9	40.5	1.7	1.6	15.4	2.7	5.7	3.4	5.7	15.2
2008	5.2	11.7	41.9	1.7	1.6	15.6	2.7	5.0	3.4	6.5	14.9

Note: 2004 shows an average of 2003 and 2005 due to incomplete data.

Table 2c: Average Number of Professional Services Billed Per Claim by Injury Year, 18 Months Post-Injury

Injury Year	Evaluation & Management	Physical Medicine Modalities	Other Physical Medicine Services	CT Scans	MRIs	Nerve Conduction Studies	Other Diagnostic Testing	Spinal Surgery	Other Surgery	Pathology & Laboratory	Other Services
1998	7.7	25.7	46.7	2.3	2.1	10.5	4.2	4.1	3.0	5.1	10.6
1999	8.2	25.7	52.1	2.3	2.0	11.6	4.2	4.5	3.2	5.4	11.5
2000	8.7	26.0	58.7	2.3	1.9	12.6	4.3	4.8	3.3	5.4	13.2
2001	9.5	27.7	66.3	2.4	2.0	13.9	4.6	4.9	3.7	5.7	14.8
2002	9.7	29.4	73.3	2.3	1.8	14.9	4.6	5.0	3.7	5.6	15.8
2003	8.1	23.6	68.3	2.0	1.7	14.7	4.0	5.0	3.6	6.1	15.8
2004	7.3	21.7	64.6	1.8	1.7	15.8	3.5	5.4	3.8	5.8	17.4
2005	6.5	19.8	60.9	1.7	1.7	16.9	3.0	5.8	4.0	5.6	19.0
2006	5.8	15.0	47.6	1.7	1.6	15.9	2.9	5.9	3.8	5.7	17.6
2007	5.5	13.3	43.9	1.7	1.6	15.9	2.8	6.2	3.7	6.3	16.7
2008	5.6	12.1	45.5	1.7	1.6	16.1	2.8	5.6	3.6	7.3	16.6

Note 1: 2004 shows an average of 2003 and 2005 due to incomplete data.
Note 2: Analyses include medical data collected up to June 30, 2010. Due to data reporting lags, 2010 data should be considered preliminary.

Table 2d: Average Number of Professional Services Billed Per Claim by Injury Year, 24 Months Post-Injury

Injury Year	Evaluation & Management	Physical Medicine Modalities	Other Physical Medicine Services	CT Scans	MRIs	Nerve Conduction Studies	Other Diagnostic Testing	Spinal Surgery	Other Surgery	Pathology & Laboratory	Other Services
1998	8.1	26.3	48.8	2.4	2.2	10.8	4.3	4.5	3.2	5.3	11.6
1999	8.7	26.3	54.9	2.4	2.0	12.0	4.3	4.8	3.4	5.6	12.6
2000	9.4	26.8	62.7	2.4	1.9	13.1	4.5	5.2	3.6	5.7	14.7
2001	10.1	28.6	71.0	2.5	2.0	14.3	4.8	5.3	4.0	6.0	16.3
2002	10.1	29.9	77.6	2.3	1.8	15.2	4.8	5.4	4.0	5.9	17.1
2003	8.2	23.4	70.0	2.0	1.7	14.8	3.9	5.3	3.7	6.1	16.5
2004	7.5	21.7	66.7	1.8	1.7	16.0	3.5	5.8	3.9	6.0	18.4
2005	6.8	20.0	63.3	1.7	1.7	17.3	3.1	6.2	4.2	5.9	20.2
2006	6.1	15.2	49.5	1.7	1.7	16.3	2.9	6.3	4.0	6.0	18.6
2007	5.8	13.5	45.8	1.7	1.7	16.3	2.8	6.6	3.8	6.8	17.7

Note: 2004 shows an average of 2003 and 2005 due to incomplete data.

Table 3: Average Number of Physical Medicine Services Billed Per Claim by Injury Year, 6 Months Post-Injury

Injury Year	Hot and Cold Packs	Mechanical Traction	Electrical Stimulation Procedures - Manual	Lontophoresis	Diathermy	Whirlpool Therapy	Unlisted Physical Medicine Modalities	Therapeutic Exercises	Re-education	Neuromuscular Aquatic Therapy	Massage Therapy	Chiropractic Manipulative Treatment	Therapeutic Procedure - Group Therapy	Therapeutic Activities - One on One	Unlisted Physical Medicine Procedures
HCPCS	97010	97012	97014	97033	97024	97022	97039	97110	97112	97113	97124	98940	97150	97530	97799
1998	9.3	10.3	9.7	4.4	11.0	7.6	8.0	15.4	11.0	16.5	10.3	5.5	9.2	9.2	7.6
1999	8.9	10.5	9.6	4.4	11.2	7.3	10.5	17.3	10.7	19.7	10.2	3.5	8.6	9.3	8.8
2000	8.8	10.2	9.7	4.7	11.8	7.8	10.1	19.6	11.2	24.3	10.6	3.4	14.0	9.7	9.9
2001	8.6	10.4	9.9	4.6	10.5	7.3	8.2	22.3	12.8	28.6	10.6	7.9	13.6	10.5	7.3
2002	9.3	10.9	10.7	4.6	10.6	7.6	9.3	26.1	14.1	34.2	10.9	2.6	15.5	12.3	7.4
2003	8.6	11.5	8.4	4.8	10.8	8.2	8.3	25.7	14.6	28.2	11.0	12.7	8.9	12.7	9.3
2004	8.9	11.6	7.5	4.7	10.0	8.2	8.0	26.8	14.4	29.8	11.7	13.5	8.2	12.3	12.1
2005	9.1	11.8	6.6	4.7	9.2	8.2	7.8	27.9	14.2	31.4	12.3	14.4	7.6	11.9	14.8
2006	7.8	9.5	5.7	3.8	8.2	7.7	6.8	22.1	11.9	23.9	9.4	11.7	5.4	9.5	14.1
2007	7.5	8.4	6.0	3.4	8.7	7.9	5.5	21.1	10.8	25.2	8.1	10.9	5.2	9.5	10.2
2008	7.2	7.7	5.8	3.4	8.7	7.8	5.1	21.8	11.3	24.1	8.5	10.1	4.8	10.2	11.8
2009	7.3	7.1	6.3	3.1	5.9	7.2	5.0	21.8	11.3	23.0	7.5	9.2	5.2	10.2	30.5*

**: The high number in 2009 is due to the fact that HCPCS 97799 code is billed for a small number of claims at a high intensity.*

Note 1: 2004 shows an average of 2003 and 2005 due to incomplete data.
Note 2: Analyses include medical data collected up to June 30, 2010. Due to data reporting lags, 2010 data should be considered preliminary.