



U.S. Tort Cost Trends

2011 Update

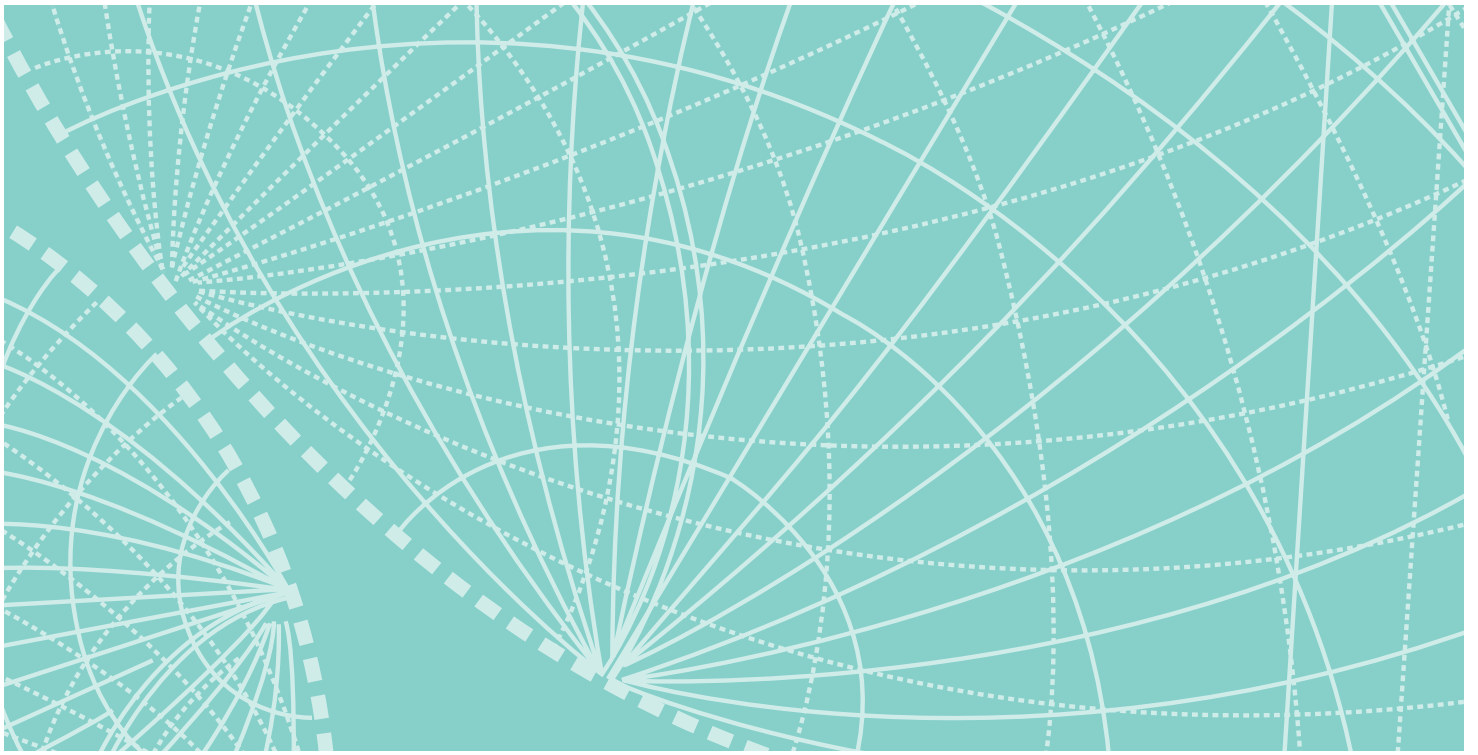
2011

Update on U.S. Tort Cost Trends



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Introduction

The *2011 Update on U.S. Tort Cost Trends* represents the 15th study of U.S. tort costs published by Towers Watson. The first study was completed in 1985. The most recent study, incorporating results through 2009, was published in December 2010. This update, which provides results from 1950 through 2010, and projections through 2013, has neither been funded nor subject to prerelease approval by any outside organization, and was conducted entirely by Towers Watson.

The purpose of this study is to quantify tort costs, not support any particular point of view regarding those costs. Any connotation that an increase in tort costs is undesirable is unintended.

Further, we examine only one side of the U.S. tort system — the costs. No attempt has been made to measure or quantify the benefits of the tort system, or conclude that the costs of the U.S. tort system outweigh the benefits, or vice versa.

Tort costs tabulated in this study reflect all of the various outcomes from an alleged tort. The tort claim dispute resolution process may be thought of as a continuum. An

event causes one party to believe it suffered damages as a result of the negligence of another party. From that point, the parties attempt to come to a resolution. However, the two sides often do not easily agree on either the degree of negligence or the amount of damages.

The dispute may be resolved in a number of ways:

- Before a lawsuit is filed, by mutual agreement or through arbitration
- After a lawsuit is filed, but prior to a trial
- As a result of a verdict in a trial (as well as potential subsequent appeal)

Parties may elect to settle their dispute at any point along this continuum to avoid additional expense or the potential exposure they might face by taking the process to the next stage.

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Executive Summary

Key Findings

U.S. tort costs increased by 5.1% in 2010, as shown in *Figure 1*. The increase is attributable to the April 2010 Deepwater Horizon drilling rig explosion and resulting oil spill in the Gulf of Mexico. Absent the costs from this event, tort costs would have shown an overall decrease of 2.4% in 2010.

The U.S. tort system cost \$264.6 billion in 2010, which translates to \$857 per person, versus \$820 per person in 2009.

Overall economic growth in 2010 was +4.2%. As such, the ratio of tort costs to gross domestic product (GDP) rose in 2010 for the second consecutive year after five years of a decline in the ratio. Since 1950, growth in tort costs has exceeded growth in GDP by an average of approximately two percentage points.

Comments on 2010

The April 2010 Deepwater Horizon oil spill was the single most important event affecting 2010 tort costs. In June 2010, BP established a \$20 billion fund to compensate victims of the oil spill. As of November 1, 2011, BP had paid or approved for payment over

\$7.5 billion in claims related to the spill. New claims continue to be received. While the ultimate tort costs related to this event remain uncertain, our 2010 tort cost estimate includes \$19 billion of costs from the spill. Absent the costs associated with the Deepwater Horizon spill, tort costs in 2010 would have shown a 2.4% decline from 2009.

The weak U.S. economy continued to have an influence on tort costs in 2010. While nominal GDP rose in 2010 after a drop in 2009, real GDP in 2010 was below the comparable level from 2007. Due to a lower level of economic activity, opportunities for tort actions also have decreased over the last few years. This decline is notable in the commercial auto line of business, perhaps the most economically sensitive coverage with a tort component. The insured commercial auto tort costs in 2010 were the lowest since 2000, and 19% lower than in 2004.

Personal auto tort costs showed a 1.1% increase in 2010. This increase is in line with the average personal auto increase from the prior five years of 1.4%. Personal auto remains, by far, the single largest line of business contributing to U.S. tort costs.

Figure 1. Growth of U.S. tort costs and GDP

Years	Average annual increase in tort costs	Average annual increase in GDP
1951 – 1960	11.6%	6.0%
1961 – 1970	9.8	7.0
1971 – 1980	11.9	10.4
1981 – 1990	11.8	7.6
1991 – 2000	3.2	5.5
2001	14.7	3.4
2002	13.4	3.5
2003	5.5	4.7
2004	6.0	6.5
2005	0.4	6.5
2006	-5.6	6.0
2007	2.1	4.9
2008	1.1	1.9
2009	-1.2	-2.5
2010	5.1	4.2
60 Years (1951 – 2010)	8.7	6.7

Medical malpractice costs continued to be stable in 2010. Total direct premiums written by U.S. insurers for this coverage have decreased every year since 2006. The weakened state of the U.S. economy also may be contributing some downward pressure on these costs, as patients may be forgoing some elective procedures as a result.

The year 2010 marks the end of another decade in our monitoring of tort costs. When viewed as a decade, the 2001 – 2010 period is generally more similar to the 1991 – 2000 period than the comparable decades ending in 1970, 1980 and 1990. The decades ending in 2000 and 2010 both showed much lower increases in tort costs, 3.2% and 4.0%, respectively, than prior decades. However, the 2001 – 2010 period also shows the lowest annual increase in nominal GDP, only 3.9%, of all six decades tracked in this study. Real GDP growth in the decade averaged only 1.5% per year, well below the 60-year average of 2.9%.

Future Implications

Just as the Deepwater Horizon oil spill caused an increase in costs in 2010 versus 2009, we expect tort costs to decline in 2011 due to the lack of such an event. Specifically, we expect tort costs in 2011 to show an overall decline of 4.4%.

Excluding the impact of the Deepwater Horizon oil spill, we expect tort costs in 2011 to show a modest increase relative to 2010, perhaps a 3% growth. Personal automobile-related tort costs showed a 1.1% increase in 2010. We expect a slightly higher increase in 2011. We are also seeing higher asbestos costs being recognized by U.S. insurers. While still well below the peak years of 2002 and 2003, asbestos costs were up in 2010, and insurer activity in 2011 that has already been announced suggests a potential further increase in 2011. As noted previously, medical

malpractice trends continue to be mild, despite recent challenges and overturns of reforms that were implemented earlier. We do not see this changing in 2011. The increasing employment of physicians by hospitals may also exert some downward pressure on medical malpractice tort costs through more coordinated patient care and claim defense.

In the employee practices liability arena, there was a landmark case decided in 2011. In June 2011, the U.S. Supreme Court ruled in favor of the defendant, Wal-Mart, in the class action case *Wal-Mart Stores Inc. v. Betty Dukes et al.* This case, with roots back to the year 2000, was a major sexual discrimination lawsuit and the largest civil rights class action suit in U.S. history. The case alleged that Wal-Mart discriminated against women in pay, promotions and job assignments in violation of the 1964 Civil Rights Act. Despite the Supreme Court's decision, we expect employee practices litigation will continue to be significant in the near future.

A new type of litigation has begun to surface related to the natural gas drilling practice of hydraulic fracturing. The process, often called "fracking," extracts natural gas from shale by using water and chemicals in the drilling process. It is being alleged by some groups that this process leads to contaminated water. While energy companies have not experienced large judgments in this area yet, defense costs related to such suits are beginning to mount.

In our 2009 study, we discussed the longer-term potential for an increase in inflation, which has not yet materialized. Given current economic activity and unemployment levels, it is difficult to envision inflation becoming a significant issue in the next two to three years. The Congressional Budget Office (CBO) forecasts for inflation, as measured by the Consumer Price Index, are below 2% for 2012 through 2015.

Findings

2010 Tort Costs

Towers Watson estimates that 2010 U.S. total insured and self-insured tort costs were \$264.6 billion, an increase of \$12.8 billion, or 5.1%, from an estimated \$251.8 billion in 2009 tort costs. The tort costs in 2010 were the highest in U.S. history.

Costs Relative to GDP

The ratio of U.S. tort costs to GDP increased significantly since 1950. However, as shown in *Figure 2*, the ratio of tort costs to GDP has decreased substantially since 2003.

As shown in *Figure 3*, over the last 27 years (1984 – 2010), tort costs as a ratio of GDP ranged from a low of 1.70% to a high of 2.30%. The 27-year pattern appears cyclical, with rapid increases in the ratio in the mid-1980s and early 2000s offset by multiyear periods of declines in the ratio.

Figure 2. Tort costs relative to GDP
(in billions)

Year	U.S. tort costs	U.S. GDP	Tort costs as % of GDP
1950	\$ 1.8	\$ 294	0.62%
1960	5.4	526	1.03
1970	13.9	1,038	1.34
1980	42.7	2,788	1.53
1990	130.2	5,801	2.24
2000	179.1	9,952	1.80
2003	245.7	11,142	2.21
2004	260.3	11,853	2.20
2005	261.4	12,623	2.07
2006	246.9	13,377	1.85
2007	252.0	14,029	1.80
2008	254.9	14,292	1.78
2009	251.8	13,939	1.81
2010	264.6	14,527	1.82

*Throughout this report, unadjusted, or nominal, GDP is used.
Most news releases on GDP rely on inflation-adjusted, or real, GDP

Figure 3. Tort costs as % of GDP

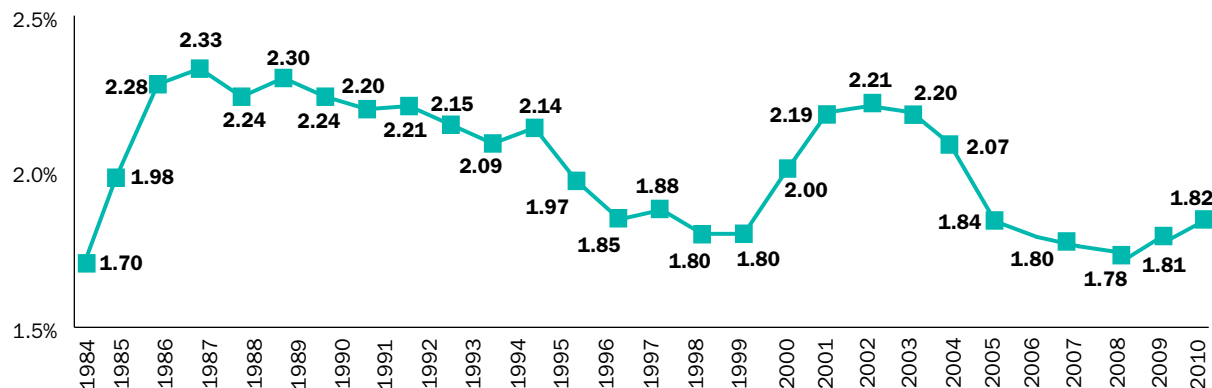


Figure 4. Tort costs relative to population

Year	U.S. population (millions)	U.S. tort costs (\$ billions)	Tort cost per capita	Inflation-adjusted* tort cost per capita
1950	152	\$ 1.8	\$ 12	\$ 107
1960	181	5.4	30	222
1970	205	13.9	68	380
1980	228	42.7	187	496
1990	249	130.2	522	871
2000	281	179.1	636	806
2003	290	245.7	847	1,003
2004	293	260.3	889	1,026
2005	296	261.4	884	988
2006	298	246.9	828	895
2007	301	252.0	836	880
2008	304	254.9	838	849
2009	307	251.8	820	834
2010	309	264.6	857	857

*Restated in year 2010 dollars, based on the Consumer Price Index.

Figure 5. Personal versus commercial tort costs

(\$ billions)

Year	Personal tort costs	Commercial tort costs
1990	\$52.0	\$ 78.2
1991	53.4	78.2
1992	56.4	83.8
1993	57.3	85.9
1994	60.1	87.8
1995	61.5	96.9
1996	62.7	91.9
1997	63.4	90.4
1998	66.3	98.9
1999	68.2	99.9
2000	72.3	106.8
2001	76.8	128.6
2002	80.0	152.9
2003	84.2	161.5
2004	86.8	173.5
2005	88.5	172.9
2006	87.4	159.5
2007	90.8	161.2
2008	94.2	160.7
2009	95.4	156.4
2010	96.7	168.0
Average Annual Change		
Since 1990	3.1%	3.9%
Since 2000	2.9	4.6
Since 2004	1.8	-0.5

Costs Relative to Population

Growth in U.S. tort costs since 1950 has far exceeded U.S. population growth, as indicated in *Figure 4*. Even after adjusting for inflation, tort costs per capita have risen by a factor of eight between 1950 and 2010. However, inflation-adjusted tort costs per capita were 16% lower in 2010 than in the peak year of 2004.

Tort Costs Split to Personal Versus Commercial

Figure 5 shows our estimate of personal and commercial U.S. tort costs since 1990. Commercial tort costs reflect torts alleged against businesses and include all medical malpractice tort costs. Personal tort costs include torts alleged against individuals, excluding medical malpractice. Personal tort costs stem predominantly from automobile accidents.

As the table data indicate, the increase in commercial tort costs since 1990 exceeded the increase in personal tort costs. The difference is even greater when measured since 2000. However, commercial tort costs decreased from 2004 to 2010, while personal

The fairly modest growth in personal tort costs since 1990 is due in some part to a long-term reduction in auto accident frequency. *Figure 6* shows an index of accident frequency and claims per vehicle for property damage auto liability since 1991, based on industry trend data. The index increased slightly in 2009, just the second increase since 1999, but decreased again in 2010.

Total tort costs from commercial lines increased by 7.4% from 2009 to 2010 due to the Deepwater Horizon oil spill. However, even with this event, commercial lines tort costs in 2010 were 3% lower than average commercial tort costs in the peak years of 2004 and 2005.

Figure 6. Property damage frequency index
(1991 = 1.000)

Year	Frequency index
1991	1.000
1992	0.968
1993	0.984
1994	1.016
1995	1.013
1996	1.041
1997	1.021
1998	1.007
1999	1.016
2000	1.002
2001	1.001
2002	0.983
2003	0.960
2004	0.938
2005	0.923
2006	0.891
2007	0.898
2008	0.868
2009	0.873
2010	0.868



Methodology and Approach

Components of Tort Costs

The methodology used to develop estimates of tort costs in this study is similar to the methodology used in prior Towers Watson studies of U.S. tort costs. This study incorporates three cost components:

- Benefits paid or expected to be paid to third parties (hereafter referred to as “losses”)
- Defense costs
- Administrative expenses

It is important to note that we have measured losses on an incurred basis, reflecting both payments as well as the collective change in reserves on incurred claims. We believe it is more appropriate to measure costs on an incurred basis than on a paid basis because of the greater time difference between an event and the payment of the claim than between the event and the estimate of the cost of that event. However, we recognize that more estimates of costs must be used when measuring based on an incurred versus paid basis.

Defense costs reflect costs directly incurred in the defense and investigation of a claim, as well as general claim-handling costs. The former are known as allocated loss adjustment expenses (ALAE), while the latter are often referred to as unallocated loss adjustment expenses (ULAE).

Administrative expenses reflect expenses, other than defense costs, incurred by either the insurance company or self-insured entity in the administration of tort claims. We take no position on the efficiency of the insurance industry’s administrative expenses. However, we note the following:

- The relative share of total insured tort costs (as defined below) attributable to administrative expenses generally declined during the 1950s, 1960s and 1970s. However, this portion of insured tort costs has increased since 1980.
- The U.S. insurance industry is not a monopoly or cartel. Insurers have an incentive to be as efficient as possible to either strengthen their competitive positions or maximize their profits. The industry is subject to the same cost and competitive pressures that most industries face.
- We believe administrative expenses are a real cost of the tort system. Their inclusion undoubtedly increases the absolute levels of estimated tort costs, but has minimal impact on recent tort cost trends.

As detailed in Appendix 3, *Figure 7* shows the average administrative expense portion of insured tort costs by decade.

Figure 7. Tort costs

Administrative expense portion

Time period	Insured tort costs administrative expense portion
1950 – 1959	32.2%
1960 – 1969	29.0%
1970 – 1979	26.0%
1980 – 1989	22.0%
1990 – 1999	23.0%
2000 – 2010	24.3%

Categories of Tort Costs

Towers Watson computed tort costs in the following three categories:

- Insured costs (excluding medical malpractice)
- Self-insured costs (excluding medical malpractice)
- Medical malpractice costs

We derived insured costs from composite financial data for the U.S. insurance industry, as tabulated by A.M. Best and SNL Financial. These data are considered highly reliable because they are subject to audit and are reviewed by state regulatory agencies. Moreover, while certain product lines have changed over time, the data are available as far back as 1950 and, in some cases, even earlier.

The statutory lines of business we include in the insured category are as follows:

- Private passenger auto liability
- Homeowners multiperil
- Farmowners multiperil
- Commercial auto liability
- Commercial multiperil
- Other liability
- Products liability

The following should be noted regarding the included lines of business:

- For both personal auto liability and commercial auto liability, costs associated with personal injury protection (PIP — also known as “no fault”) are excluded. PIP costs are excluded since PIP is, in theory, a first-party coverage, not a liability coverage. This exclusion has only a minor impact on commercial auto costs, but is material for personal auto liability.
- Homeowners and farmowners multiperil are largely first-party property coverages that have a liability (or tort) element. We excluded 91% of the costs for these lines for 2010. Our estimate that 9% of the costs for these lines are tort-related is based on our experience with these coverages.
- Commercial multiperil (CMP) also includes both property and liability. However, since 1992, insurance data have been split into liability and property components. Prior to 1992, up to 50% of total CMP costs are included in this study.
- Costs from workers compensation (in theory, a first-party coverage), aviation or ocean marine are not included in this study. The latter two coverages do have a liability component; however, given their size and a limited foundation for estimating the liability portion, they were excluded.

The insured tort costs are the sum of three components: losses, loss adjustment expenses and administrative expenses. The last component includes the following statutory expense categories:

- Commissions and brokerage
- Other acquisition expenses
- General expenses
- Taxes, licenses and fees

Total tort costs from the A.M. Best and SNL Financial data are reduced slightly to reflect an estimate of non-U.S. business in the data. The reduction varies by line of business and is approximately 1%.

Earned premiums are displayed in Appendix 3. The actual premiums are not considered in total tort costs shown in column (6). (The arithmetic in the appendix multiplies premiums by ratios in which earned premium is the denominator, effectively eliminating premiums from the resulting product.) As such, any increase in insurance premiums without a corresponding increase in costs has no impact on estimated tort costs in this study.

As shown in Appendix 3, total 2010 insured tort costs are an estimated \$172.9 billion.

The second category of tort costs, self-insured costs, excludes medical malpractice. Appendix 4 outlines the estimated costs for this category.

As shown in the appendix, we estimate that 2% of personal tort costs are in this category. This is not to say that 2% of the auto-driving population is uninsured or that 2% of auto accidents involve an uninsured driver. (Actual figures for these items are likely to be far higher.) Instead, the 2% provision reflects our estimate of the additional tort costs not included in the insured data. Many personal auto insurance policies include coverage for uninsured motorists, whereby the insured is compensated if injured in an auto accident caused by an uninsured or underinsured driver. As such, the “insured” tort costs previously described also include costs associated with many auto accidents involving uninsured drivers. The 2% provision adds \$1.9 billion to our estimate of 2010 personal tort costs.

Our estimate of self-insured tort costs is approximately \$60 billion for commercial risks in 2010. This estimate includes tort costs paid by various forms of self-insurance, such as large deductibles and captive insurance programs. In addition, the estimate includes insurance purchased directly from non-U.S. insurance companies, since these insured costs are not captured in the A.M. Best or SNL Financial data used to estimate the insured cost category. The 2010 estimate also reflects the Deepwater Horizon oil spill costs of \$19 billion.

To our knowledge, there is no data source that tabulates losses incurred by all self-insured entities. However, various organizations have estimated the size of this market. We relied on the various estimates available, as well as Towers Watson's experience in this field, to develop the costs for this category. We assumed the administrative expense component in this category is 10% lower than the insured category.

Our estimate of commercial self-insured costs does not capture certain extraordinary costs. For example, costs resulting from the 1998 settlement between tobacco manufacturers and various state attorneys general are not explicitly included in this study.

As indicated in Appendix 4, our estimates of commercial self-insured costs show a long-term increase in self-insured commercial tort costs.

The third category of tort costs is medical malpractice, both insured and self-insured. Appendix 5 shows the estimated medical malpractice tort costs since 1975. Although A.M. Best data started segregating medical malpractice costs in 1975, the insured portion of these costs has fluctuated significantly since then.

Our estimate of medical malpractice costs is based on Towers Watson's internal estimates of state-by-state medical malpractice costs, rather than A.M. Best or SNL Financial data. The state costs per physician and per occupied hospital bed are multiplied by the number of practicing physicians and occupied beds by year to develop estimated medical malpractice losses and loss adjusted expenses (LAE). Administrative expenses are included. As with the self-insured estimate, we assume a 10% lower cost than insurance data indicate.

As shown in Appendix 5, our estimate of 2010 medical malpractice costs is approximately \$29.8 billion. Our analysis suggests that medical malpractice costs have increased at an average annual rate of 9.7%, versus 7.5% for all other tort costs, since 1975. However, growth in medical malpractice costs since 2005 has averaged only 0.3% per year.

Excluded Costs

Our definition of tort cost is largely governed by traditional liability insurance coverages. We previously noted the exclusion of tobacco settlements. For gray areas where awards and settlements are typically (but not always) excluded, such as punitive damages (which are included in the insurance contract in certain states) and certain types of contract and shareholder litigation, the costs reflected in this study are consistent with those reported by insurance companies. Therefore, although some of these costs may be included in tort cost totals, we are unable to separately account for them.

We have *not* included costs incurred by federal and state court systems in administering actual suits. We do not believe the omission of these costs significantly understates our cost index or in any material way distorts long-term trends.

Certain indirect costs are also omitted, such as those associated with litigation avoidance. These costs range from potentially unnecessary and duplicative medical tests ordered by doctors as a defense against possible malpractice allegations to the disappearance of certain products or whole industries from the marketplace because of high product-liability cost.

As previously noted, this study does not attempt to quantify the benefits of the tort system. These benefits include a systematic resolution of disputes, thereby reducing conflict, including violence. Another indirect benefit is that the tort system may act as a deterrent to unsafe practices and products. From this perspective, compensation for pain and suffering may be viewed as beneficial to society as a whole.

Changes From the 2010 Study

There have been modest changes in some of the historical GDP numbers for 2004 and subsequent years since our 2010 study. These changes result in slightly different ratios of tort costs to GDP over the prior study. In addition, there was a change in insured tort costs for commercial lines in 2009 of approximately \$3.6 billion from our prior study. This change caused the overall decrease in tort costs from 2008 to 2009 to be less than noted in our 2010 study.

Looking Ahead

Tort costs increased by 5.1% in 2010. This increase was due to the Deepwater Horizon oil spill. As shown in *Figure 8*, the increase in commercial lines costs was much greater than the increase in personal lines costs.

In 2011, we expect a 4% decrease in tort costs, mainly due to the effect of the Deepwater Horizon oil spill in the Gulf of Mexico on 2010 costs. Absent that event's costs in 2010, we expect a 3% increase in 2011. To date, there have been plenty of insurance industry events in 2011, both inside and outside the U.S. However, most of the noteworthy events have been on property coverages. We still see liability costs as being fairly stable, albeit with some upward pressure on personal auto costs starting to emerge. In addition, there have been additional reserve increases for asbestos losses disclosed by several insurers in 2011.

The CBO anticipates a 4.9% increase in GDP in 2011. Combining this level of GDP change with our tort cost forecast yields a 1.66% ratio of tort costs to GDP in 2011, which is a decrease from the 2010 ratio. If this holds, it will be the lowest ratio of tort costs to GDP since 1981.

Looking ahead, we anticipate growth in U.S. tort costs to range from 2% to 6% in 2012, with a midpoint of 4%. We expect a similar increase in 2013, with a midpoint of 4%. CBO forecasts call for 3.8% GDP growth in 2012 and 3.1% in 2013. These assumptions yield the projected tort costs, GDP and tort-to-GDP ratios shown in *Figure 9*.

Figure 8. One-year growth in tort costs

	Personal	Commercial	Total
2003	5.3%	5.6%	5.5%
2004	3.1	7.5	6.0
2005	1.9	-0.4	0.4
2006	-1.3	-7.8	-5.6
2007	3.9	1.0	2.1
2008	3.7	-0.3	1.1
2009	1.3	-2.7	-1.2
2010	1.4	7.4	5.1

Figure 9. Tort costs relative to GDP

	\$ billions		Tort costs as % of GDP
	Tort costs	GDP	
2009	\$251.8	\$13,939	1.81%
2010	264.6	14,527	1.82
2011 (est.)	253.0	15,238	1.66
2012 (est.)	263.1	15,817	1.66
2013 (est.)	273.6	16,301	1.68

Appendix 1A

Cost of the U.S. tort system — 1950 – 2010

Year	U.S. population (millions)	CPI (all items)	CPI (medical care)	Gross domestic product (billions)	Tort system costs (billions)	Tort costs as % of GDP
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1950	152	0.241	0.151	\$ 294	\$ 1.8	0.62%
1960	181	0.296	0.223	526	5.4	1.03
1970	205	0.388	0.340	1,038	13.9	1.34
1980	228	0.824	0.749	2,788	42.7	1.53
1981	230	0.909	0.829	3,127	49.2	1.57
1982	232	0.965	0.925	3,253	56.7	1.74
1983	234	0.996	1.006	3,535	64.4	1.82
1984	236	1.039	1.068	3,931	66.9	1.70
1985	239	1.076	1.135	4,218	83.7	1.98
1986	241	1.096	1.220	4,460	101.7	2.28
1987	243	1.136	1.301	4,736	110.5	2.33
1988	245	1.183	1.386	5,100	114.0	2.24
1989	247	1.240	1.493	5,482	126.2	2.30
1990	249	1.307	1.628	5,801	130.2	2.24
1991	252	1.362	1.770	5,992	131.6	2.20
1992	255	1.403	1.901	6,342	140.2	2.21
1993	258	1.445	2.014	6,667	143.2	2.15
1994	260	1.482	2.110	7,085	147.8	2.09
1995	263	1.524	2.205	7,415	158.4	2.14
1996	265	1.569	2.282	7,839	154.5	1.97
1997	268	1.605	2.346	8,332	153.8	1.85
1998	270	1.630	2.421	8,794	165.2	1.88
1999	273	1.666	2.506	9,354	168.1	1.80
2000	281	1.722	2.608	9,952	179.1	1.80
2001	285	1.770	2.728	10,286	205.4	2.00
2002	288	1.799	2.856	10,642	232.9	2.19
2003	290	1.840	2.971	11,142	245.7	2.21
2004	293	1.889	3.101	11,853	260.3	2.20
2005	296	1.953	3.232	12,623	261.4	2.07
2006	298	2.016	3.362	13,377	246.9	1.85
2007	301	2.073	3.511	14,029	252.0	1.80
2008	304	2.153	3.641	14,292	254.9	1.78
2009	307	2.145	3.756	13,939	251.8	1.81
2010	309	2.181	3.884	14,527	264.6	1.82

Notes: (2) From U.S. Census Bureau; (3) – (4) From U.S. Department of Labor, Bureau of Labor Statistics
 (5) From U.S. Department of Commerce, Bureau of Economic Analysis; (6) From Appendix 2, column (5) (7) = (6) / (5)

Appendix 1B

Cost of the U.S. tort system — 1950 – 2010

Average annual changes by groups of years

Year	U.S. population (millions)	CPI (all items)	CPI (medical care)	Gross domestic product (billions)	Tort system costs (billions)	Tort costs as % of GDP
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1951-2010	1.2%	3.7%	5.6%	6.7%	8.7%	1.8%
1951-1960	1.7	2.1	4.0	6.0	11.6	5.3
1961-1970	1.3	2.7	4.3	7.0	9.8	2.6
1971-1980	1.1	7.8	8.2	10.4	11.9	1.4
1981-1990	0.9	4.7	8.1	7.6	11.8	3.9
1991-2000	1.2	2.8	4.8	5.5	3.2	-2.2
2001	1.3	2.8	4.6	3.4	14.7	10.9
2002	0.9	1.6	4.7	3.5	13.4	9.6
2003	0.9	2.3	4.0	4.7	5.5	0.8
2004	0.9	2.7	4.4	6.4	6.0	-0.4
2005	0.9	3.4	4.2	6.5	0.4	-5.7
2006	0.9	3.2	4.0	6.0	-5.6	-10.9
2007	1.0	2.9	4.4	4.9	2.1	-2.7
2008	0.9	3.8	3.7	1.9	1.1	-0.7
2009	1.0	-0.3	3.2	-2.5	-1.2	1.3
2010	0.6	1.6	3.4	4.2	5.1	0.9
1951-2000	1.2	4.0	5.9	7.3	9.6	2.2
2001-2010	0.9	2.4	4.1	3.9	4.0	0.1

Note: Based on figures in Appendix 1A

Appendix 2

Summary of all tort system costs

Year	Liability insured cost	Medical malpractice	Self- (un) insured	Total cost
(1)	(2)	(3)	(4)	(5)
1950	\$ 1,723,059	\$ 0	\$ 86,153	\$ 1,809,212
1951	2,177,633	0	108,882	2,286,515
1952	2,557,353	0	127,868	2,685,221
1953	2,828,158	0	141,408	2,969,566
1954	2,950,051	0	147,503	3,097,553
1955	3,250,829	0	162,541	3,413,370
1956	3,719,824	0	185,991	3,905,815
1957	4,293,067	0	214,653	4,507,720
1958	4,624,008	0	231,200	4,855,208
1959	4,971,526	0	248,576	5,220,102
1960	5,186,101	0	259,305	5,445,407
1961	5,394,567	0	269,728	5,664,295
1962	5,704,594	0	285,230	5,989,824
1963	6,299,547	0	314,977	6,614,525
1964	6,924,227	0	346,211	7,270,438
1965	7,570,265	0	378,513	7,948,778
1966	8,322,529	0	416,126	8,738,655
1967	9,150,869	0	457,543	9,608,413
1968	10,102,273	0	505,114	10,607,387
1969	11,413,351	0	570,668	11,984,019
1970	13,208,732	0	660,437	13,869,169
1971	14,304,768	0	715,238	15,020,007
1972	14,933,112	0	746,656	15,679,768
1973	14,621,296	0	563,240	15,184,535
1974	15,837,813	0	623,535	16,461,347
1975	17,914,909	1,158,476	960,444	20,033,829
1976	20,687,521	1,420,786	1,245,574	23,353,881
1977	24,073,405	1,811,894	2,081,899	27,967,198
1978	27,616,588	2,241,760	2,814,504	32,672,853
1979	30,934,883	2,745,213	3,358,083	37,038,178
1980	34,057,943	3,376,381	5,235,693	42,670,017
1981	38,929,780	4,065,717	6,245,906	49,241,403
1982	44,438,093	4,845,214	7,432,699	56,716,006
1983	49,946,629	5,802,016	8,676,935	64,425,580
1984	51,208,738	6,768,896	8,966,786	66,944,420
1985	64,455,656	6,740,227	12,484,152	83,680,035
1986	78,167,587	6,892,127	16,627,514	101,687,229
1987	85,112,183	7,314,182	18,087,846	110,514,210
1988	88,462,814	7,622,786	17,925,304	114,010,903
1989	97,030,370	8,498,791	20,639,237	126,168,398
1990	100,602,676	9,202,873	20,357,363	130,162,912
1991	101,016,143	10,077,004	20,522,153	131,615,300
1992	106,652,899	10,599,730	22,915,896	140,168,525
1993	108,560,517	11,511,556	23,127,472	143,199,545
1994	112,042,831	12,484,159	23,307,639	147,834,629
1995	118,478,058	13,285,645	26,602,720	158,366,422
1996	115,362,594	14,106,400	25,068,233	154,537,227
1997	113,561,713	15,474,060	24,767,144	153,802,916
1998	121,428,366	16,429,936	27,374,427	165,232,729
1999	122,863,786	17,898,229	27,339,281	168,101,297
2000	129,528,854	19,596,842	29,955,242	179,080,939
2001	146,177,700	21,723,960	37,453,893	205,355,553
2002	165,841,657	24,152,742	42,924,460	232,918,858
2003	173,873,885	26,484,564	45,333,244	245,691,693
2004	181,954,952	28,189,883	50,197,025	260,341,861
2005	181,971,396	29,391,286	50,057,650	261,420,332
2006	171,228,466	30,143,829	45,529,106	246,901,402
2007	174,732,090	30,409,030	46,848,019	251,989,138
2008	178,529,147	29,768,202	46,583,994	254,881,344
2009	174,844,599	29,953,137	46,975,167	251,772,904
2010	172,854,034	29,844,869	61,926,686	264,625,589

Notes: All dollar amounts are in \$000s; (2) from Appendix 3 [1975 – 2010 excludes Medical malpractice]; (3) from Appendix 5; (4) from Appendix 4 [Prior to 1973, .05 x (2)]

Appendix 3

Insured tort costs

Year	Earned premium	Loss and LAE ratio	Expense ratio	Combined ratio	Insured tort costs
(1)	(2)	(3)	(4)	(5)	(6)
1950	\$ 1,752,857	64.3	34.0	98.3	\$ 1,723,059
1951	2,083,720	71.1	33.4	104.5	2,177,633
1952	2,515,153	69.3	32.4	101.7	2,557,353
1953	2,981,588	63.2	31.6	94.9	2,828,158
1954	3,155,435	61.4	32.1	93.5	2,950,051
1955	3,337,773	64.9	32.5	97.4	3,250,829
1956	3,619,255	70.1	32.7	102.8	3,719,824
1957	4,035,199	74.0	32.4	106.4	4,293,067
1958	4,442,849	72.6	31.4	104.1	4,624,008
1959	4,951,128	69.9	30.6	100.4	4,971,526
1960	5,276,984	67.7	30.6	98.3	5,186,101
1961	5,504,507	67.1	30.9	98.0	5,394,567
1962	5,819,378	67.3	30.8	98.0	5,704,594
1963	6,224,657	70.5	30.7	101.2	6,299,547
1964	6,688,473	73.4	30.1	103.5	6,924,227
1965	7,379,531	73.5	29.1	102.6	7,570,265
1966	8,187,339	73.4	28.3	101.7	8,322,529
1967	8,947,529	74.1	28.1	102.3	9,150,869
1968	9,768,188	75.6	27.8	103.4	10,102,273
1969	10,957,402	76.9	27.2	104.2	11,413,351
1970	12,715,930	77.5	26.4	103.9	13,208,732
1971	14,273,904	74.1	26.1	100.2	14,304,768
1972	15,144,973	71.8	26.8	98.6	14,933,112
1973	14,360,195	74.8	27.0	101.8	14,621,296
1974	14,908,953	78.5	27.7	106.2	15,837,813
1975	16,500,824	81.5	27.0	108.6	17,914,909
1976	20,090,047	77.3	25.7	103.0	20,687,521
1977	24,973,118	71.4	25.0	96.4	24,073,405
1978	28,692,720	70.5	25.8	96.2	27,616,588
1979	31,088,697	73.1	26.4	99.5	30,934,883
1980	32,194,946	78.7	27.1	105.8	34,057,943
1981	32,838,195	90.7	27.8	118.6	38,929,780
1982	34,170,095	101.5	28.6	130.0	44,438,093
1983	36,235,619	109.2	28.6	137.8	49,946,629
1984	39,843,449	101.1	27.4	128.5	51,208,738
1985	50,372,373	102.9	25.1	128.0	64,455,656
1986	68,516,069	90.7	23.3	114.1	78,167,587
1987	78,337,490	84.8	23.9	108.6	85,112,183
1988	81,771,490	83.7	24.5	108.2	88,462,814
1989	83,745,030	89.7	26.1	115.9	97,030,370
1990	87,971,533	89.1	25.2	114.4	100,602,676
1991	89,311,786	87.0	26.1	113.1	101,016,143
1992	92,659,338	89.9	25.2	115.1	106,652,899
1993	96,562,526	87.6	24.8	112.4	108,560,517
1994	101,730,356	85.7	24.4	110.1	112,042,831
1995	105,299,103	87.6	24.9	112.5	118,478,058
1996	108,378,052	81.7	24.8	106.4	115,362,594
1997	110,525,049	77.4	25.4	102.7	113,561,713
1998	113,325,370	81.2	25.9	107.2	121,428,366
1999	111,429,324	83.7	26.5	110.3	122,863,786
2000	113,589,472	87.4	26.6	114.0	129,528,854
2001	124,411,884	92.5	25.0	117.5	146,177,700
2002	140,996,964	93.2	24.5	117.6	165,841,657
2003	161,077,976	83.9	24.1	107.9	173,873,885
2004	173,673,135	80.2	24.6	104.8	181,954,952
2005	179,195,243	77.3	24.3	101.5	181,971,396
2006	181,766,485	69.3	24.9	94.2	171,228,466
2007	181,246,054	70.8	25.6	96.4	174,732,090
2008	178,421,527	73.9	26.1	100.1	178,529,147
2009	173,335,493	73.9	26.9	100.9	174,844,599
2010	172,130,419	73.6	26.8	100.4	172,854,034

Notes: (2),(6) Amounts are in \$000s. All data reflect direct revenues and costs from Best's Aggregates and Averages and SNL Financial.
Prior to 1975, Medical Malpractice is included; for 1975 – 2010 it is excluded; (6) = (2) x (5).

Appendix 4

Comparisons of personal lines to commercial lines costs, and impact of self-insurance

Year	Personal lines			Commercial lines			Self- (un) insured
	Insured	Self- (un) insured	Total	Insured	Self- (un) insured	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1973	\$ 8,521,899	2.0%	\$ 8,695,815	\$ 6,099,397	6.0%	\$ 6,488,720	\$ 563,240
1974	8,921,581	2.0	9,103,654	6,916,232	6.0	7,357,694	623,535
1975	10,336,734	2.0	10,547,688	7,578,176	9.0	8,327,665	960,444
1976	11,609,756	2.0	11,846,690	9,077,764	10.0	10,086,405	1,245,574
1977	12,902,054	2.0	13,165,362	11,171,351	14.0	12,989,943	2,081,899
1978	14,381,293	2.0	14,674,789	13,235,295	16.0	15,756,304	2,814,504
1979	15,985,767	2.0	16,312,007	14,949,116	16.9	17,980,958	3,358,083
1980	17,084,039	2.0	17,432,692	16,973,905	22.4	21,860,944	5,235,693
1981	18,892,570	2.0	19,278,133	20,037,210	22.6	25,897,553	6,245,906
1982	20,828,903	2.0	21,253,983	23,609,190	22.9	30,616,810	7,432,699
1983	22,945,067	2.0	23,413,333	27,001,563	23.3	35,210,231	8,676,935
1984	25,615,607	2.0	26,138,375	25,593,130	24.8	34,037,149	8,966,786
1985	29,695,287	2.0	30,301,313	34,760,369	25.5	46,638,495	12,484,152
1986	34,460,827	2.0	35,164,110	43,706,759	26.7	59,630,991	16,627,514
1987	38,092,590	2.0	38,869,990	47,019,592	26.9	64,330,038	18,087,846
1988	41,783,652	2.0	42,636,380	46,679,161	26.8	63,751,737	17,925,304
1989	46,424,500	2.0	47,371,939	50,605,870	28.0	70,297,668	20,639,237
1990	50,967,722	2.0	52,007,879	49,634,954	28.0	68,952,159	20,357,363
1991	52,338,179	2.0	53,406,306	48,677,963	28.6	68,131,990	20,522,153
1992	55,274,662	2.0	56,402,716	51,378,237	29.8	73,166,079	22,915,896
1993	56,164,851	2.0	57,311,072	52,395,666	29.6	74,376,917	23,127,472
1994	58,857,222	2.0	60,058,389	53,185,609	29.4	75,292,080	23,307,639
1995	60,222,560	2.0	61,451,592	58,255,497	30.3	83,629,186	26,602,720
1996	61,414,886	2.0	62,668,251	53,947,707	30.6	77,762,576	25,068,233
1997	62,097,411	2.0	63,364,705	51,464,302	31.3	74,964,151	24,767,144
1998	64,995,727	2.0	66,322,170	56,432,639	31.6	82,480,623	27,374,427
1999	66,807,453	2.0	68,170,870	56,056,333	31.7	82,032,197	27,339,281
2000	70,866,341	2.0	72,312,592	58,662,514	32.7	87,171,504	29,955,242
2001	75,245,057	2.0	76,780,671	70,932,643	33.6	106,850,923	37,453,893
2002	78,405,888	2.0	80,006,008	87,435,769	32.1	128,760,109	42,924,460
2003	82,522,939	2.0	84,207,081	91,350,946	32.3	135,000,048	45,333,244
2004	85,077,876	2.0	86,814,159	96,877,076	33.3	145,337,818	50,197,025
2005	86,731,770	2.0	88,501,806	95,239,627	33.6	143,527,240	50,057,650
2006	85,645,991	2.0	87,393,869	85,582,475	33.8	129,363,704	45,529,106
2007	89,012,409	2.0	90,828,989	85,719,680	34.4	130,751,119	46,848,019
2008	92,299,249	2.0	94,182,907	86,229,898	34.1	130,930,234	46,583,994
2009	93,461,604	2.0	95,368,984	81,382,995	35.6	126,450,783	46,975,167
2010	94,724,780	2.0	96,657,939	78,129,254	43.4	138,122,781	61,926,686

Notes: All dollar amounts are in \$000s.

(2), (5) From Best's Aggregates and Averages, and SNL Financial (excludes Medical Malpractice); (3) Estimated by Towers Watson; (4) (2) / [1.0 - (3)]

(6) Based on various studies estimating the size of the self-insured market and estimates by Towers Watson; (7) (5) / [1.0 - (6)]; (8) [(4) - (2)] + [(7) - (5)]

Appendix 5

Medical malpractice tort costs

Loss and LAE costs

Year	Hospital	Physicians	Other	Total	U/W expense ratio	Total cost
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1975	\$ 378,619	\$ 554,171	\$ 83,951	\$ 1,016,742	12.2	\$ 1,158,476
1976	465,814	680,949	107,337	1,254,100	11.7	1,420,786
1977	567,845	875,367	140,488	1,583,700	12.6	1,811,894
1978	690,917	1,084,047	179,693	1,954,658	12.8	2,241,760
1979	848,193	1,363,543	232,868	2,444,605	11.0	2,745,213
1980	1,051,838	1,690,090	300,238	3,042,166	9.9	3,376,381
1981	1,290,927	1,998,159	374,557	3,663,643	9.9	4,065,717
1982	1,576,183	2,350,909	465,101	4,392,193	9.3	4,845,214
1983	1,890,801	2,772,834	574,426	5,238,060	9.7	5,802,016
1984	2,181,499	3,272,719	698,675	6,152,893	9.1	6,768,896
1985	2,129,009	3,418,252	710,593	6,257,854	7.2	6,740,227
1986	2,175,976	3,433,666	718,584	6,328,226	8.2	6,892,127
1987	2,268,904	3,581,822	749,467	6,600,193	9.8	7,314,182
1988	2,363,708	3,757,656	784,135	6,905,499	9.4	7,622,786
1989	2,456,483	4,013,665	828,813	7,298,961	14.1	8,498,791
1990	2,572,981	4,468,082	901,947	7,943,010	13.7	9,202,873
1991	2,692,628	4,966,450	981,113	8,640,192	14.3	10,077,004
1992	2,841,396	5,481,304	1,066,122	9,388,822	11.4	10,599,730
1993	2,967,300	5,863,791	1,131,246	9,962,337	13.5	11,511,556
1994	3,049,164	6,322,753	1,200,524	10,572,441	15.3	12,484,159
1995	3,162,980	6,796,529	1,288,552	11,248,061	15.3	13,285,645
1996	3,284,839	7,364,371	1,391,562	12,040,772	14.6	14,106,400
1997	3,481,942	7,917,420	1,504,483	12,903,845	16.6	15,474,060
1998	3,658,590	8,656,884	1,641,645	13,957,119	15.1	16,429,936
1999	3,997,582	9,528,191	1,821,007	15,346,779	14.3	17,898,229
2000	4,393,333	10,579,339	2,035,964	17,008,636	13.2	19,596,842
2001	4,904,910	12,093,338	2,334,513	19,332,761	11.0	21,723,960
2002	5,559,553	13,437,948	2,635,178	21,632,680	10.4	24,152,742
2003	5,963,951	14,787,711	2,878,501	23,630,163	10.8	26,484,564
2004	6,164,095	15,637,546	3,024,146	24,825,787	11.9	28,189,883
2005	6,245,734	16,519,377	3,157,791	25,922,902	11.8	29,391,286
2006	6,440,111	16,793,983	3,222,844	26,456,938	12.2	30,143,829
2007	6,504,512	16,961,922	3,222,522	26,688,956	12.2	30,409,030
2008	8,140,229	14,667,898	3,132,120	25,940,246	12.9	29,768,202
2009	8,112,566	14,663,527	3,096,444	25,872,536	13.6	29,953,137
2010	8,129,422	14,567,661	3,066,958	25,854,042	13.4	29,844,869

Notes: All dollar amounts are in \$000s.

(2), (3), (4) From internal Towers Watson study; (5) = (2) + (3) + (4); (6) From "Best's Aggregates and Averages"; the ratio of underwriting expenses to all losses and expenses combined, multiplied by 0.90 to reflect lower costs in alternative market. Adjusted downward for 2005 – 2010 due to jump in industry ratio; (7) = (5) / [1.0 - (6)]

About Towers Watson

Towers Watson is a leading global professional services company that helps organizations improve performance through effective people, risk and financial management. With 14,000 associates around the world, we offer solutions in the areas of employee benefits, talent management, rewards, and risk and capital management.