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2007 Update on  
U.S. Tort Cost Trends

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# INTRODUCTION

The *2007 Update on U.S. Tort Cost Trends* represents the 11th study of U.S. tort costs published by the Tillinghast Insurance Consulting practice of Towers Perrin. The first study was completed in 1985. The most recent study, incorporating results through 2005, was published in December 2006. This update provides results from 1950 through 2006, with projections through 2009. This study has not been funded or subject to pre-release approval by any outside organization and was conducted entirely by Tillinghast.

This study takes no position on whether tort costs are too high or too low. Its purpose is to attempt to quantify the costs, not to support any particular point of view regarding those costs. Any connotation that an increase in tort costs is undesirable is unintended.

Further, this study examines 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. This study makes no conclusion that the costs of the U.S. tort system outweigh the benefits, or vice versa.

Tort costs as 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 has 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 will 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 decreased by 5.5% in 2006, as shown in *Table 1*. This represents the first decrease in tort costs since 1997 and the largest percentage decrease in the 56-year period contained in this study. A decrease in reported claims in 2006, with no significant increases in the cost of claims, helped fuel the overall decline in tort costs.

The U.S. tort system cost \$247 billion in 2006, which translates to \$825 per person, or \$57 per person less than in 2005.

Overall economic growth in 2006 was 6.1%. As such, the ratio of tort costs to gross domestic product (GDP) shrank in 2006. Since 1950, growth in tort costs has exceeded growth in GDP by an average of slightly more than two percentage points.

TABLE 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	5.4
2001	14.7	3.2
2002	13.4	3.4
2003	5.5	4.7
2004	6.0	6.6
2005	0.4	6.4
2006	-5.5	6.1
56 years (1950-2006)	9.2%	7.0%

## FUTURE IMPLICATIONS

We are forecasting growth in U.S. tort costs of 2.5% in 2007, with a slightly higher growth (4.5%) in 2008 and 2009. There are several issues that will determine the future trends in U.S. tort costs, including:

- **Auto accidents.** The frequency of auto accidents has declined over the last several years. However, there is some evidence that the period of declining frequency may be nearing an end, putting upward pressure on tort costs.
- **Subprime mortgages.** The deterioration in the subprime mortgage market in 2007 has caused several financial institutions to post losses. Lawsuit activity, both from investors in these financial institutions and homeowners who accepted the mortgages, may follow as a consequence.
- **Backdating of options.** Several U.S. corporations are alleged to have backdated options grants. This issue raises the possibility of a resurgence of directors and officers liability claims.
- **Global warming.** The increased attention paid to this issue, both the causes and effects, may lead to increased litigation toward organizations that may be accused of contributing to this problem.
- **New theories of liability.** The burden of proof may be changing in some litigation. For instance, actions have recently been brought against lead paint manufacturers despite no tie between the manufacturers and the paint that is alleged to have caused the damages.
- **Medical malpractice.** Several states enacted medical malpractice reforms earlier in this decade. Possibly as a result, trends in medical malpractice have moderated, significantly in some jurisdictions.
- **Obesity.** While not contributing to significant current litigation, the increased awareness of the link between obesity and subsequent serious health problems, such as diabetes, could lead to a material amount of litigation activity in the future.
- **Employment liability.** Recent issues related to age discrimination as well as overtime rules have contributed to significant employment practice litigation.
- **Shareholder suits versus third parties.** The U.S. Supreme Court recently heard the Stoneridge case, testing the concept of whether shareholders can bring an action against third parties who are charged with aiding a corporation that has defrauded its investors.
- **Asbestos.** Less of an issue in 2006 than earlier this decade, asbestos litigation continues. The ultimate outcomes of that litigation will contribute to future trends in tort costs.

# FINDINGS

## 2006 TORT COSTS

Tillinghast estimates that total insured and self-insured tort costs in the U.S. were \$247 billion in 2006. This is a decrease of \$13.4 billion, or 5.5%, from the estimated \$261.4 billion of tort costs in 2005. The decrease in 2006 costs is the first decrease in costs since 1997.

## COSTS RELATIVE TO GDP

The ratio of U.S. tort costs to (GDP) has increased significantly since 1950. However, as shown in *Table 2*, the ratio of tort costs to GDP\* decreased substantially since 2004.

The year with the highest ratio of tort costs to GDP is 1987, at 2.33%. As shown in Appendix 1A, the ratio generally declined from 1987 to 1999, when it reached 1.81%.

## COSTS RELATIVE TO POPULATION

Growth in U.S. tort costs since 1950 has far exceeded U.S. population growth, as indicated in *Table 3*. Even after adjusting for inflation, tort costs per capita have risen by a factor of more than eight between 1950 and 2006. However, inflation-adjusted tort costs per capita were lower in 2006 than in the prior three years.

## SPLIT TO PERSONAL VERSUS COMMERCIAL

*Table 4* (page 6) shows our estimate of the costs of personal and commercial U.S. torts since 1990. “Commercial” reflects torts alleged against businesses, including all medical malpractice. “Personal” tort costs include torts

TABLE 2: COSTS RELATIVE TO GDP

(\$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	1,039	1.34
1980	42.7	2,790	1.53
1990	130.2	5,803	2.24
2000	179.1	9,817	1.82
2001	205.4	10,128	2.03
2002	232.9	10,470	2.22
2003	245.7	10,961	2.24
2004	260.3	11,686	2.23
2005	261.4	12,434	2.10
2006	247.0	13,195	1.87

TABLE 3: 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	\$ 99
1960	181	5.4	30	205
1970	205	13.9	68	351
1980	228	42.7	187	459
1990	249	130.2	522	805
2000	281	179.1	636	745
2003	291	245.7	845	926
2004	294	260.3	887	946
2005	297	261.4	882	910
2006	299	247.0	825	825

\*Restated in year 2006 dollars, based on consumer price index

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

alleged against individuals, excluding medical malpractice. Personal tort costs arise predominantly from automobile accidents.

As the table indicates, the increase in commercial tort costs since 1990 has exceeded the increase in personal tort costs. The difference is even greater when measured since 2000. However, commercial tort costs experienced a greater decline in 2006 than personal tort costs.

The fairly modest growth in personal tort costs in recent years is due in some part to a reduction in auto accident frequency. *Table 5* shows an index of accident frequency and claims per vehicle for property damage auto liability since 1991, based on industry trend data.

The decrease in commercial tort costs is partly attributable to asbestos. Insured asbestos losses increased approximately \$1.9 billion in 2006. This was lower than the comparable increases in 2003, 2004 and 2005 (\$10.2 billion, \$7.3 billion and \$7.0 billion, respectively).

Beyond asbestos, other commercial liability (excluding auto and medical malpractice) showed a significant drop in new claims being reported in 2006 versus 2005 and 2004.

The recent decrease in commercial tort costs also coincides with significant reduction in insurance industry combined ratios. Five insurance industry lines of business that involve tort costs (commercial multi-peril, medical malpractice, products liability, other liability and commercial auto liability) all experienced lower direct combined ratios in 2006 than in each of the previous nine years.

**TABLE 4: 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	159.6
<b>Average Annual Change</b>		
Since 1990	3.3%	4.6%
Since 2000	3.2%	6.9%

**TABLE 5: PROPERTY DAMAGE FREQUENCY INDEX**

(1991 = 1.000)

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

# 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 Tillinghast 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 on an incurred basis than when measuring on a paid basis.

Our use of incurred losses instead of paid losses has resulted in higher increases in tort costs in recent years. Had paid losses been used, the costs

of asbestos-related claims included in the study would have been lower. However, use of incurred losses does not overstate tort costs. To argue this, one would have to hypothesize that insurers knowingly set reserves too high. We do not believe this is the case.

Defense costs reflect costs directly incurred in the defense and investigation of a claim, as well as general claim handling costs. The former is known as allocated loss adjustment expenses (ALAE), while the latter is 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, the portion has not changed materially, either up or down, since 1980.

- The U.S. insurance industry is not a monopoly or a cartel. Insurers have an incentive to be as efficient as possible in order to either strengthen their competitive positions or maximize their profits. The industry is subject to the same cost and competitive pressures that face most industries.
- 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 a negligible impact on recent tort cost trends and actually lessens the long-term trends in tort cost growth.

As detailed in Appendix 3, *Table 6* shows the average administrative expense portion of insured tort costs by decade.

**TABLE 6: 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
2000-2006	23.0



## CATEGORIES OF TORT COSTS

Tillinghast 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. 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 that we include in the insured category are as follows:

- private passenger auto liability
- homeowners multi-peril
- farmowners multi-peril
- commercial auto liability
- commercial multi-peril
- other liability
- products liability.

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

- 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 multi-peril are largely first-party property coverages that have a liability (or tort) element. We excluded 91% of the costs for these lines. Our estimate that 9% of the costs for these lines are tort-related is based on our experience with these coverages.
- Commercial multi-peril (CMP) is also a coverage that includes both property and liability. However, since 1992, insurance data have been split to the liability and property components. For years prior to 1992, we include up to 50% of total CMP costs in this study.
- We do not include any costs in this study from workers compensation (in theory, a first-party coverage), aviation or ocean marine. The latter two coverages do have a liability component to them; however, we excluded them given their size and a lack of foundation for estimating the liability portion.

The insured tort costs are the sum of the three components of 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 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 2%.

Earned premiums are displayed in Appendix 3. The actual premiums are not considered in the 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 the estimated tort costs in this study.

As shown in Appendix 3, total insured tort costs in 2006 are estimated to be \$171.2 billion.

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

As shown in this appendix, we estimate 2% of personal tort costs to be 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 would likely be far higher than 2%.) Rather, the 2% provision reflects our estimate of the additional tort costs that are 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 described previously already include the costs associated with many auto accidents involving uninsured drivers. The 2% provision adds \$1.7 billion to our estimate of 2006 personal tort costs.

Our estimate of self-insured tort costs is approximately \$43.8 billion for commercial risks in 2006. This estimate includes tort costs paid by various forms of self-insurance, such as large deductibles and captive insurance programs. The estimate also considers insurance purchased directly from non-U.S. insurance companies, since such insured costs are not captured in the A.M. Best data used to estimate the insured cost category.

To our knowledge, no source of data exists that tabulates the losses incurred by all self-insured entities. However, various organizations have estimated the size of this market. We have relied on the various estimates available, as well as Tillinghast’s experience in this field, in developing the costs for this category. We have assumed that 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 can be seen in Appendix 4, our estimates of commercial self-insured costs show a long-term increase in the portion of commercial tort costs that are self-insured.

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. A.M. Best data have segregated medical malpractice costs since 1975. However, the portion of medical malpractice costs that are insured has fluctuated significantly since then.

Our estimate of medical malpractice costs is not based on A.M. Best data, but rather on Tillinghast’s internal estimates of state-by-state medical malpractice costs. 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 the estimated medical malpractice losses and LAE. Administrative expenses are included; as with the self-insured estimate, we assume a 10% lower cost than insurance data would indicate.

As shown in Appendix 5, our estimate of medical malpractice costs in 2006 is approximately \$30.3 billion. Our analysis suggests that, since 1975, medical malpractice costs have increased at an annual rate of 11.1%, versus 8.2% for all other tort costs.

#### 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 the insurance companies themselves. Therefore, while certain of these costs may be included in the 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 noted previously, this study does not attempt to quantify the benefits of the tort system. Such benefits include a systematic resolution of disputes, thereby reducing conflict, possibly 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 is seen as beneficial to society as a whole.

## LOOKING AHEAD

Tort cost growth was negative in 2006, a 5.5% decrease. This was the first decrease in costs since 1997. The lower growth rate is largely due to commercial lines, as shown in *Table 7*.

For 2007, we do not expect either a continuation of the decrease in costs nor a significant increase in costs. Specifically, we expect total tort costs to increase approximately 2.5% in 2007, to \$253.2 billion. We do not expect the drop in claim frequency to be as significant in 2007 as it was in 2006. Some personal auto data that we have observed suggests that the frequency declines that have persisted for a decade may be coming to an end. In addition, the drop in commercial liability claims in 2006 will be difficult to repeat in 2007 to the same degree.

The Congressional Budget Office (CBO) anticipates an increase in GDP of 4.3% in 2007. Combining this level of GDP increase with our forecast on tort costs yields a ratio of tort costs to GDP of 1.84% in 2007.

Looking ahead, we anticipate growth in U.S. tort costs to range from 3% to 6% in 2008, with a midpoint of 4.5%. We expect a similar increase in 2009. CBO forecasts call for GDP growth to be 4.8% in 2008, and 5.0% for 2009. These assumptions yield projected tort costs, GDP and tort-to-GDP ratios as shown in *Table 8*.

**TABLE 7: ONE-YEAR GROWTH IN TORT COST**

Year	Personal	Commercial	Total
2001	6.2%	20.4%	14.7%
2002	4.2	18.9	13.4
2003	5.3	5.6	5.5
2004	3.1	7.5	6.0
2005	1.9	-0.4	0.4
2006	-1.3	-7.7	-5.5

**TABLE 8: TORT COSTS RELATIVE TO GDP**

(\$billions)

Year	U.S. Tort Costs	U.S. GDP	Tort Costs as % of GDP
2005	261.4	12,434	2.10
2006	247.0	13,195	1.87
2007 (est.)	253.2	13,763	1.84
2008 (est.)	264.6	14,428	1.83
2009 (est.)	276.5	15,150	1.83

The near future of U.S. tort cost growth will depend on several factors, including:

- Will personal auto liability continue to show a negative accident frequency?
- What litigation activity will result from the meltdown in the subprime mortgage market?
- Are companies facing material litigation related to global warming?
- Will issues surrounding the timing of options grants generate significant tort costs?
- Will medical malpractice loss trends continue to remain modest after significant growth earlier this decade?

- Are further reserve increases for asbestos likely?
- Will new attempts at expanding liability of third parties be successful?

## APPENDICES

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## COST OF THE U.S. TORT SYSTEM — 1950-2006

## APPENDIX 1A

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%
1951	155	0.260	0.159	339	2.3	0.67
1952	158	0.265	0.167	358	2.7	0.75
1953	160	0.267	0.173	379	3.0	0.78
1954	163	0.269	0.178	380	3.1	0.81
1955	166	0.268	0.182	415	3.4	0.82
1956	169	0.272	0.189	437	3.9	0.89
1957	172	0.281	0.197	461	4.5	0.98
1958	175	0.289	0.206	467	4.9	1.04
1959	178	0.291	0.215	507	5.2	1.03
1960	181	0.296	0.223	526	5.4	1.03
1961	184	0.299	0.229	545	5.7	1.04
1962	187	0.302	0.235	586	6.0	1.02
1963	189	0.306	0.241	618	6.6	1.07
1964	192	0.310	0.246	664	7.3	1.10
1965	194	0.315	0.252	719	7.9	1.11
1966	197	0.324	0.263	788	8.7	1.11
1967	199	0.334	0.282	833	9.6	1.15
1968	201	0.348	0.299	910	10.6	1.17
1969	203	0.367	0.319	985	12.0	1.22
1970	205	0.388	0.340	1,039	13.9	1.34
1971	208	0.405	0.361	1,127	15.0	1.33
1972	210	0.418	0.373	1,238	15.7	1.27
1973	212	0.444	0.388	1,383	15.2	1.10
1974	214	0.493	0.424	1,500	16.5	1.10
1975	216	0.538	0.475	1,638	20.0	1.22
1976	218	0.569	0.520	1,825	23.4	1.28
1977	220	0.606	0.570	2,031	28.0	1.38
1978	223	0.652	0.618	2,295	32.7	1.42
1979	225	0.726	0.675	2,563	37.0	1.44
1980	228	0.824	0.749	2,790	42.7	1.53
1981	230	0.909	0.829	3,128	49.2	1.57
1982	232	0.965	0.925	3,255	56.7	1.74
1983	234	0.996	1.006	3,537	64.4	1.82
1984	236	1.039	1.068	3,933	66.9	1.70
1985	239	1.076	1.135	4,220	83.7	1.98
1986	241	1.096	1.220	4,463	101.7	2.28
1987	243	1.136	1.301	4,739	110.5	2.33
1988	245	1.183	1.386	5,104	114.0	2.23
1989	247	1.240	1.493	5,484	126.2	2.30
1990	249	1.307	1.628	5,803	130.2	2.24
1991	252	1.362	1.770	5,996	131.6	2.20
1992	255	1.403	1.901	6,338	140.2	2.21
1993	258	1.445	2.014	6,657	143.2	2.15
1994	260	1.482	2.110	7,072	147.8	2.09
1995	263	1.524	2.205	7,398	158.4	2.14
1996	265	1.569	2.282	7,817	154.5	1.98
1997	268	1.605	2.346	8,304	153.8	1.85
1998	270	1.630	2.421	8,747	165.2	1.89
1999	273	1.666	2.506	9,268	168.1	1.81
2000	281	1.722	2.608	9,817	179.1	1.82
2001	285	1.771	2.728	10,128	205.4	2.03
2002	288	1.799	2.856	10,470	232.9	2.22
2003	291	1.840	2.971	10,961	245.7	2.24
2004	294	1.889	3.101	11,686	260.3	2.23
2005	297	1.953	3.232	12,434	261.4	2.10
2006	299	2.016	3.362	13,195	247.0	1.87

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)

## COST OF THE U.S. TORT SYSTEM — 1950-2006

## APPENDIX 1B

## 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)
1951-2006	1.2%	3.9%	5.7%	7.0%	9.2%	2.0%
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	5.4	3.2	-2.0
2001	1.2	2.8	4.6	3.2	14.7	11.2
2002	1.2	1.6	4.7	3.4	13.4	9.7
2003	0.9	2.3	4.0	4.7	5.5	0.8
2004	1.0	2.7	4.4	6.6	6.0	-0.6
2005	1.0	3.4	4.2	6.4	0.4	-5.6
2006	1.0	3.2	4.0	6.1	-5.5	-11.0
1951-2000	1.2	4.0	5.9	7.3	9.6	2.2
2001-2006	1.0	2.7	4.3	5.1	5.5	0.4

**Note:** Based on figures in Appendix 1A

## SUMMARY OF ALL TORT SYSTEM COSTS

## APPENDIX 2

Year (1)	Liability Insured Cost (2)	Medical Malpractice (3)	Self- (Un) Insured (4)	Total Cost (5)
1950	\$ 1,723,059	\$ N/A	\$ 86,153	\$ 1,809,212
1951	2,177,633	N/A	108,882	2,286,515
1952	2,557,353	N/A	127,868	2,685,221
1953	2,828,158	N/A	141,408	2,969,566
1954	2,950,051	N/A	147,503	3,097,553
1955	3,250,829	N/A	162,541	3,413,370
1956	3,719,824	N/A	185,991	3,905,815
1957	4,293,067	N/A	214,653	4,507,720
1958	4,624,008	N/A	231,200	4,855,208
1959	4,971,526	N/A	248,576	5,220,102
1960	5,186,101	N/A	259,305	5,445,407
1961	5,394,567	N/A	269,728	5,664,295
1962	5,704,594	N/A	285,230	5,989,824
1963	6,299,547	N/A	314,977	6,614,525
1964	6,924,227	N/A	346,211	7,270,438
1965	7,570,265	N/A	378,513	7,948,778
1966	8,322,529	N/A	416,126	8,738,655
1967	9,150,869	N/A	457,543	9,608,413
1968	10,102,273	N/A	505,114	10,607,387
1969	11,413,351	N/A	570,668	11,984,019
1970	13,208,732	N/A	660,437	13,869,169
1971	14,304,768	N/A	715,238	15,020,007
1972	14,933,112	N/A	746,656	15,679,768
1973	14,621,296	N/A	563,240	15,184,535
1974	15,837,813	N/A	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	30,251,502	45,529,106	247,009,075

Notes: Last three Os omitted

(2) From Appendix 3 [1975-2006 excludes medical malpractice]

(3) From Appendix 5

(4) From Appendix 4 [Prior to 1973, .05 x (2)]



## INSURED TORT COSTS

## APPENDIX 3

Year	Earned Premium	Loss & 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

**Notes:** (2), (6) Last three Os omitted  
All data reflect direct revenues and costs from  
*Best's Aggregates and Averages*

Prior to 1975, medical malpractice is included;  
for 1975-2006, it is excluded.  
(6) = (2) x (5)

## COST OF THE U.S. TORT SYSTEM

## 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

**Notes:** Last three Os omitted

(2), (5) From *Best's Aggregates and Averages* (excludes medical malpractice)

(3) Based on internal Tillinghast interviews

(4) = (2) / [1.0 - (3)]

(6) Based on various studies estimating the size of the self-insured market and estimates by Tillinghast

(7) = (5) / [1.0 - (6)]

(8) = [(4) - (2)] + [(7) - (5)]

## MEDICAL MALPRACTICE TORT COSTS

## APPENDIX 5

Year (1)	Loss and LAE Costs				U/W Expense Ratio (6)	Total Cost (7)
	Hospital (2)	Physicians (3)	Other (4)	Total (5)		
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	6,470,009	16,858,642	3,235,960	26,564,611	12.2	30,251,502

**Notes:** Last three Os omitted

(2), (3), (4) From internal Tillinghast 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 and 2006 due to jump in industry ratio

(7) = (5) / [1.0 - (6)]

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