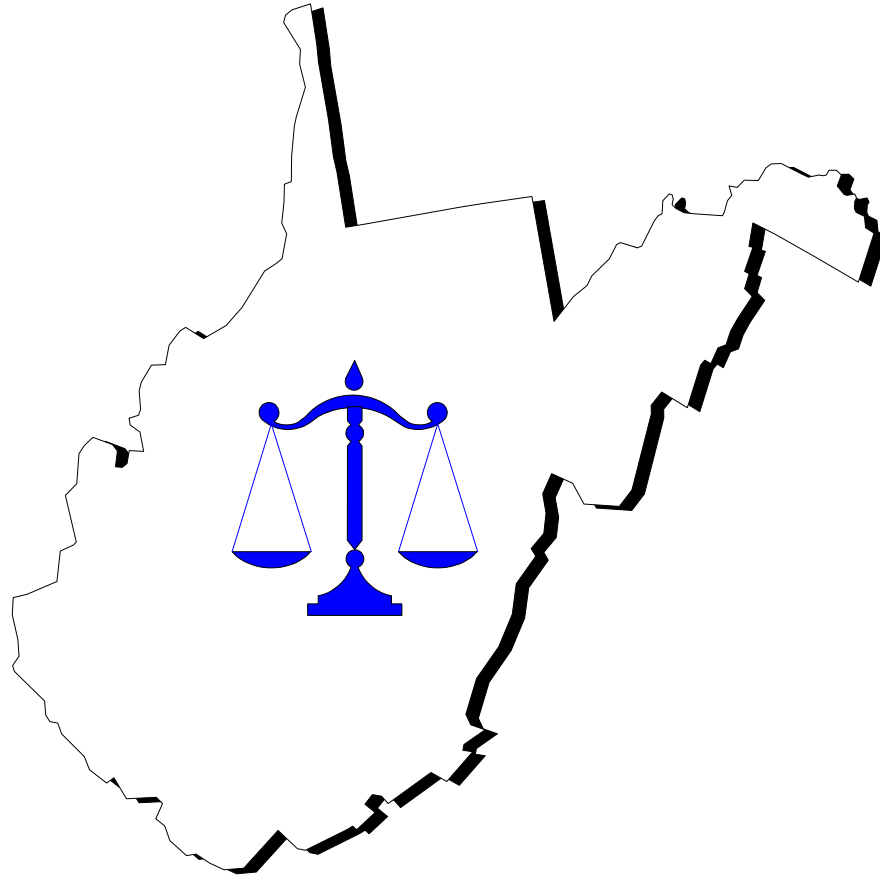


# The Negative Impact of the Current Civil Justice System on Economic Activity in West Virginia

*Prepared for*

**The West Virginia Chamber of Commerce**



*by*

## **The Perryman Group**

510 North Valley Mills Drive, Suite 300

Waco, Texas 76710-6076

Phone: 254.751.9595

Fax: 254.751.7855

E-Mail: [info@perrymangroup.com](mailto:info@perrymangroup.com)

Web Site: [www.perrymangroup.com](http://www.perrymangroup.com)

# **The Negative Impact of the Current Civil Justice System on Economic Activity in West Virginia**

## **Executive Summary**

The intent of the civil justice system is straightforward: to establish a fair and equitable framework for resolving conflicts among parties. If the mechanism functions well, it provides a means to compensate legitimately harmed parties and deter undesirable behaviors. On the other hand, a poorly conceived or implemented system can result in (among other consequences) increased costs and risks of doing business; disincentives for innovations that benefit consumers; inducements to file “frivolous” (of questionable merit) lawsuits; inflated insurance premiums; and—importantly—encumbrances to economic development and the accompanying job creation.

**West Virginia has a judicial system that is widely believed to be imbalanced and, in fact, is considered one of the worst in the country.** The unpredictability and risk associated with this situation adds to the cost of living and doing business in West Virginia and reduces the state’s competitiveness in attracting business activity. In particular, the system has led to crisis in healthcare delivery in West Virginia, as medical malpractice claims have forced many physicians to cease practicing within the state. The Perryman Group (TPG), an economic research and analysis group based in Waco, Texas, was recently commissioned by the West Virginia Chamber of Commerce to quantify and evaluate the impact of the current justice system on the West Virginia economy. Specifically, a comparison is offered which compares the costs to business activity within the state relative to that in the nation as a whole. A

complete explanation of the methodology employed appears in Appendix A to the report.

**The result of the existing legal framework in West Virginia is an inefficient and ineffective use of the state's scarce economic resources, increased costs on the goods and services purchased by consumers, reduced productivity, and a deterrent to economic development. These losses are also increasing over time, as West Virginia's relative competitive disadvantage is magnified.**

The results of the analysis reveal that the total cost of the tort system in West Virginia in 2001 was \$1.271 billion. If the state's pattern of judicial activity had reflected that of the US in recent years, the costs would have been \$970.8 million. The total direct losses from the current system were, thus, \$300.6 million. **Assuming that no significant reforms occur through 2006, the incremental costs relative to the nation rise to \$626.3 million (\$534.4 million in constant 2001 dollars). Of these projected losses, it is estimated that \$210.8 million (\$179.9 million in constant dollars) are directly detrimental to consumers.** West Virginia also experiences an overall increase in prices which is 5.68% higher than would occur with a more balanced judicial system. This added inflation brings net costs to the state's consumers in the form of increased prices of approximately \$93.2 million (in 2001 dollars) per annum by 2006. There is also an anticipated loss in productivity growth of about 1.12%.

### **Overall Economic Impacts on the State Economy**

The overall impact of the tort system on the West Virginia economy measured relative to the US (including all direct, indirect, and induced effects) is estimated by 2006 to include losses of:

- ✓ \$1,975.9 million annual Total Expenditures;
- ✓ \$984.9 million in annual Gross State Product;

- ✓ \$628.2 million in annual Personal Income;
- ✓ \$266.2 million in annual Retail Sales; and
- ✓ 16,306 Permanent Jobs.

Note that all monetary values are expressed in constant (2001) dollars in order to adjust for inflation.

### **The Costs to Consumers**

The present study reveals many negative outcomes that consumers will directly endure. By 2006, these losses are projected to include:

- ✓ \$93.2 million in annual cost increases from Higher Inflation (\$128.94 per household);
- ✓ \$628.2 million in reduced annual Personal Income (\$869.02 per household);
- ✓ \$376.9 million in decreased Consumer Spending per year (\$521.41 per household);
- ✓ Substantially diminished job prospects; and,
- ✓ A less efficient judicial system to compensate for legitimate losses.

The West Virginia tort system also creates a business framework conducive to restrained consumer choice, reduced innovation, lower output, and higher prices.

### **Economic Development Consequences**

Based on the performance in areas where significant programs have been in effect for several years, it is likely that the absence of meaningful tort reforms will be a notable (although not necessarily the sole or primary) factor in the loss of approximately 11,623 permanent jobs in West Virginia by 2006, above and beyond the jobs specifically attributable to the legal environment. This decrease

also brings \$714.8 million in lost personal income over the 2001-2006 period, a \$1.186 billion decline in gross state product, and a \$449.8 million cumulative reduction in retail sales.

### **Synopsis**

The results of this analysis indicate that the costs of the civil justice system in West Virginia continue to escalate, efficiency is deteriorating, and the competitiveness of the state is diminishing. **These losses will become even more pronounced in the future. In 2001 dollars, the cost to the typical West Virginia household in terms of higher prices and lower personal income may be viewed as equivalent to a \$997.96 annual “tort tax” by 2006 relative to the US.** In conclusion, (1) the present civil justice system imposes notable and broad-based costs on consumers, producers, and all major segments of the economy, and (2) substantial reforms would bring a substantial stimulus to overall business activity.

## **The Negative Impact of the Current Civil Justice System on Economic Activity in West Virginia<sup>1</sup>**

The civil justice system is an important institutional framework designed to provide a fair and equitable forum for the resolution of disputes among parties. When properly functioning, it both provides a mechanism to appropriately compensate those who have legitimately been harmed and an effective deterrent to undesirable actions. Such a structure can be highly beneficial to a society in terms of promoting equal and impartial justice as well as establishing part of the critical context in which economic activity can prosper.

**On the other hand, a justice system that is inadequately balanced can be counterproductive in many ways.** If the litigation process, for example, tends to produce exorbitant levels or numbers of damages or awards, it can generate significant dislocations. These include, among others:

- Increased costs and risks of doing business;
- Disincentives for innovations which promote consumer welfare;
- Enhanced incentives to file lawsuits of questionable merit;
- Higher insurance premiums than would exist under a more balanced approach;
- Deterrence of economic development and job creation initiatives; and,
- Diversions of activity to unproductive ends.

---

<sup>1</sup> Much of the basic narrative and methodological discussion in this report is adopted from “The Impact of Judicial Reforms on the Economy of Texas,” a July 2000 study performed by The Perryman Group and sponsored by Citizens for a Sound Economy; “The Current and Projected Impact of Judicial Reforms on Economic Activity in Alabama,” a January 2002 study performed by The Perryman Group for the US Chamber of Commerce; and “The Potential Impact of Proposed Judicial Reforms on Economic Activity in Mississippi,” a February 2002 study prepared for Mississippians for Economic Progress.

In short, an overly aggressive tort environment misallocates society's scarce economic and human resources, thus decreasing the overall welfare of citizens.

West Virginia currently has a judicial system that is widely believed to be imbalanced. It has been the subject of extensive media coverage and was recently ranked as one of the worst in the country (49<sup>th</sup> of 50) by a major national survey.<sup>2</sup> West Virginia is also one of only three states to have enacted no major reforms in recent years. In fact, it was recently reported that civil justice reforms, a medical malpractice crisis, workers' compensation reform, and similar issues "have gone virtually undiscussed by most politicians."<sup>3</sup>

As a result of this continuing situation, West Virginia has been characterized by one major publication as "Tort Hell" and "wildly litigious."<sup>4</sup> One consequence of this reputation has been the exodus of many physicians from the state, with liability insurance rates often being twice as high as those in nearby states with more equitable systems. In fact, approximately half the insured doctors in West Virginia have been sued in the past five years.<sup>5</sup>

Although the medical arena garners perhaps the lion's share of attention, the problem goes much deeper. A Harris survey of in-house counsel and senior litigators at public corporations conducted in late 2001 ranked West Virginia dead last among the 50 states in its treatment of class actions and discovery. The poll further placed West Virginia in the bottom five states in the country on every category of competence and fairness, with 64% of the responders giving the state overall judicial system a grade of "D" or "F." The survey also overwhelmingly noted that the tort environment is a critical factor regarding

---

<sup>2</sup> Harris Interactive, "US Chamber of Commerce State Liability Systems Ranking Study," January, 2002.

<sup>3</sup> "Business Community Must Be More Active In Political Process." *The State Journal*, November 28, 2001.

<sup>4</sup> Jay Nordlinger, "Welcome to 'Tort Hell': West Virginia, that is," *National Review*, August 20, 2001.

<sup>5</sup> *American Medical News*, February 5, 2001.

locations and other key business decisions.<sup>6</sup> Thus, the widespread view of West Virginia's judicial framework as unfair is likely a major deterrent to the ability to achieve meaningful economic growth and development. In particular, the state has consistently lost manufacturing capacity in recent years, and per capita income as a percent of the US average has been in a declining trend for a number of years.<sup>7</sup>

There is a substantial body of empirical evidence to suggest that the perceived concerns with the West Virginia judicial system are well placed. The cost of the legal activity in West Virginia has escalated historically at a much faster rate than the growth of the overall economy. Using data compiled by independent sources and models prepared by The Perryman Group, it is estimated that the expense associated with tort litigation in West Virginia over the past ten years increased by 99.2% on a current-dollar basis, while gross state product measured comparably only rose by 49.3%. Litigation activity increased approximately 53.6% more rapidly in West Virginia than in the nation as a whole over the same time horizon, while US tort costs grew by less than the total output.<sup>8</sup>

If the judicial system were an efficient mechanism to compensate legitimately injured parties, then its rapid growth might well be viewed as positive and beneficial to society. Unfortunately, such has not been the case. The efficiency of US tort activity has been measured at only 25%, that is, only \$0.25 of every \$1 dollar of cost actually goes to compensate injured parties.<sup>9</sup> A comparable estimate for West Virginia indicates that efficiencies during the relevant period were even less (about 20.7%). Thus, the system is significantly inefficient, and its rapid growth represents a drain on the economy, business expansion, and overall consumer well-being.

---

<sup>6</sup> Harris Interactive, "US Chamber of Commerce State Liability Systems Ranking Study," January, 2002.

<sup>7</sup> US Department of Commerce, Regional Economic Information System, 2001.

<sup>8</sup> "Tort Cost Trends: An Intellectual Perspective," Tillinghast-Towers Perrin, 1995 and US Department of Commerce, National Income and Product Accounts, 2001.

<sup>9</sup>"Tort Reform Trends: An Industrial Perspective," Tillinghast-Towers Perrin, 1995.

The purpose of the present study is to quantify and evaluate the economic costs and consequences of the current judicial system on the consumers and businesses of West Virginia. The methodology employed in the study is described in Appendix A. This project is performed by The Perryman Group (TPG), an economic research and analysis group based in Waco, Texas, and is sponsored by the West Virginia Chamber of Commerce. All results reflect independent conclusions reached by TPG based upon this investigation. The findings include (1) quantifications of current losses based on the pattern in recent years relative to overall judicial activity in the US and (2) projected future harms through 2006 in constant 2001 dollars) relative to the US. An evaluation of potential economic development losses is also presented.

### **The Direct Impacts of The Current Tort System on the Economy of West Virginia**

The results of the analysis reveal that the total costs of the tort system in West Virginia in 2001 was \$1.271 billion. If the state had performed comparably to the US over the period from 1995 forward (when significant litigational reforms took effect), the costs would have been \$970.8 million. The total direct losses from the current system are, thus, \$300.6 million. Assuming that no significant reforms occur through 2006, the yearly incremental costs relative to the nation as a whole rise to \$626.3 million, (\$534.4 million in constant 2001 dollars).

Of the total direct losses projected for 2006, it is estimated that \$210.8 million (\$179.9 million in 2001 dollars) are directly detrimental to consumers. West Virginia also experiences an overall increase in prices which is 5.68% higher than would occur with a more balanced judicial framework. This added inflation brings net costs to the state's consumers in the form of increased prices of approximately \$93.2 million (in 2001 dollars) per year by 2006. There is also an anticipated loss in productivity growth of about 1.12%. This estimate is consistent with (although below) those obtained in a cross-sectional study of the

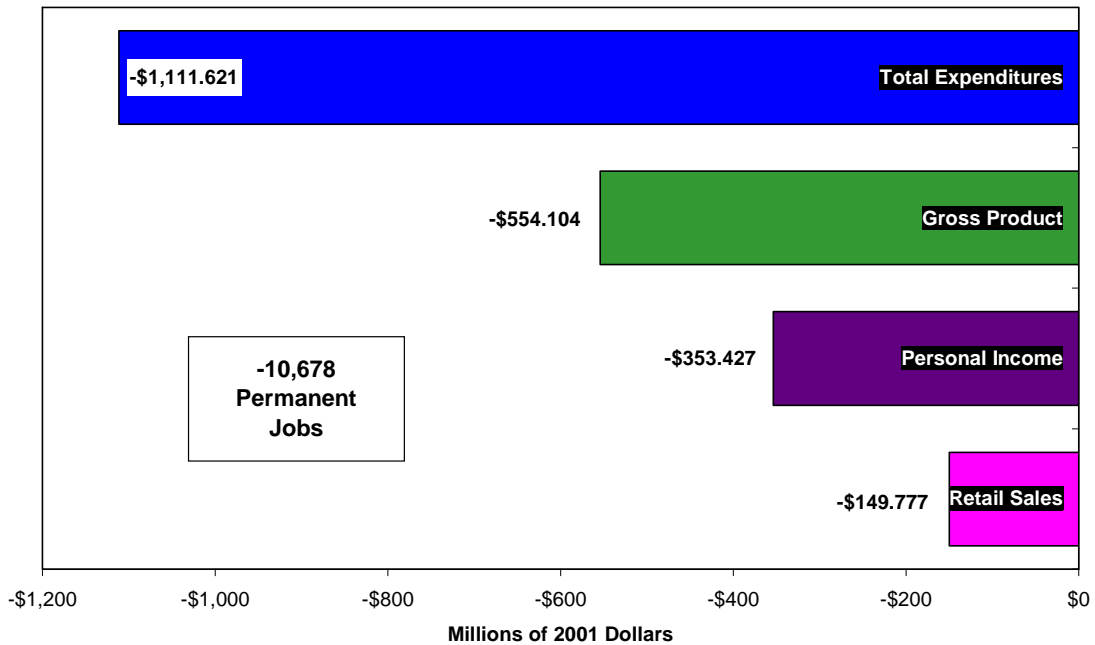
effects of reforms in various states conducted by the National Bureau of Economic Research.<sup>10</sup>

### **The Overall Economic Impacts of The Current Tort System on the Economy of West Virginia**

The overall negative impact of the tort system relative to the US on the West Virginia economy (including all direct, indirect, and induced effects) is estimated for 2001 to include losses of:

- ✓ \$1,111.6 million in annual Total Expenditures;
- ✓ \$554.1 million in annual Gross State Product;
- ✓ \$353.4 million in annual Personal Income;
- ✓ \$149.7 million in annual Retail Sales; and
- ✓ 10,678 Permanent Jobs.

**The Aggregate Negative Impact of the Tort System in West Virginia on Business Activity—2001**

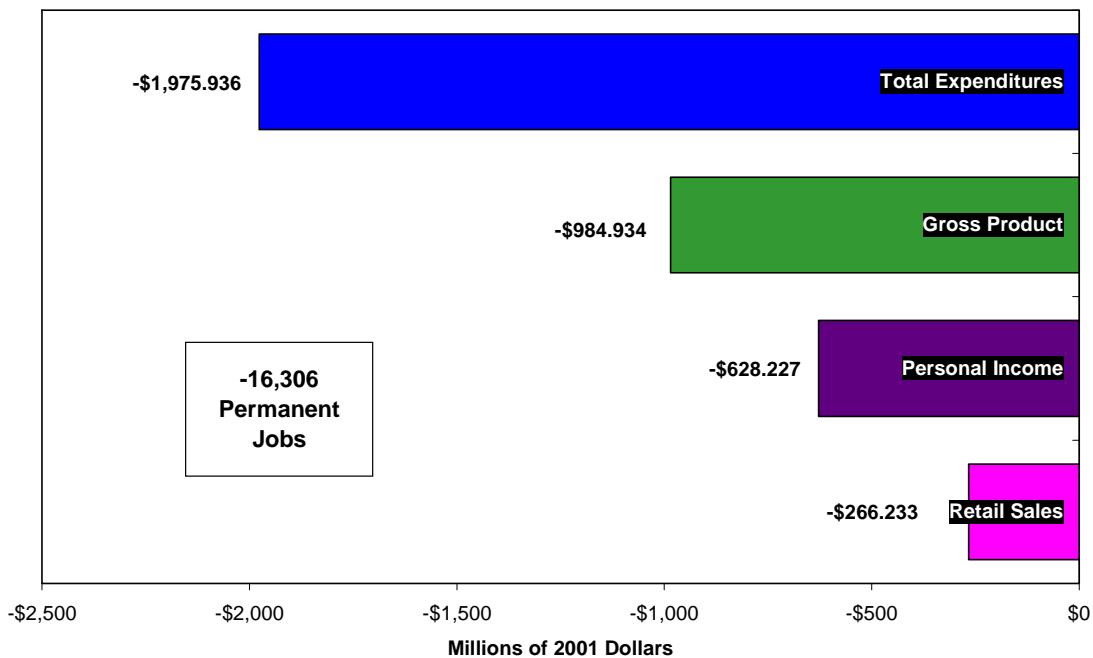


<sup>10</sup> Thomas J. Campbell, David P. Keslter, George B. Shepherd, "The Causes and Effects of Liability Reform: Some Empirical Evidence," National Bureau of Economic Research, 1995.

By 2006, these yearly detrimental effects rise to

- ✓ \$1,975.9 million in annual Total Expenditures;
- ✓ \$984.9 million in annual Gross State Product;
- ✓ \$628.2 million in annual Personal Income;
- ✓ \$266.2 million in annual Retail Sales; and
- ✓ 16,306 Permanent Jobs.

**The Aggregate Negative Impact of the Tort System in West Virginia  
on Business Activity—2006**



To eliminate the effects of inflation, all monetary values are expressed in constant (2001) dollars.

Approximately 31.8% of this decline is suffered directly by consumers, with much of the remainder being inflicted indirectly on consumers through higher prices and reduced innovation and choice.

Thus, it can be readily seen that the current tort system constitutes a substantial drain on the ongoing economic performance of West Virginia. (Detailed sectoral

results from this analysis for 2001 and 2006 are provided in Tables 1 and 2, respectively, of Appendix B; a firm profile of The Perryman Group follows in Appendix C.)

### **The Judicial System and Economic Development in West Virginia**

In addition to the measurable losses described above, the judicial system also has an adverse influence of the competitiveness of West Virginia in attracting new economic activity. The role of the tort environment in location and expansion decisions is clearly indicated by the results of the survey previously cited.<sup>11</sup> In fact, based on prior analysis of economic development patterns in other states where reforms have been in effect for several years, it seems likely that a more balanced system would be a notable (although not necessarily the sole or primary) factor in the creation of approximately 11,623 permanent jobs in West Virginia by 2006. This increase would also bring \$714.8 million in additional personal income, \$1.186 billion in gross state product, and a \$449.8 million cumulative gain in retail sales. These foregone benefits are over and above those presented in the preceding sections. Because any site selection or expansion decision is a result of multiple factors, it would not be appropriate to attribute any such losses exclusively to the problems in the judicial system. Positive development patterns of similar magnitude have been observed, however, in terms of growth in excess of that expected based on historical patterns, improved overall industry performance, and the relative strength of other economies with substantial reforms in place. Moreover, the job gains occurred in sectors that are sensitive to the costs and risks associated with tort litigation.

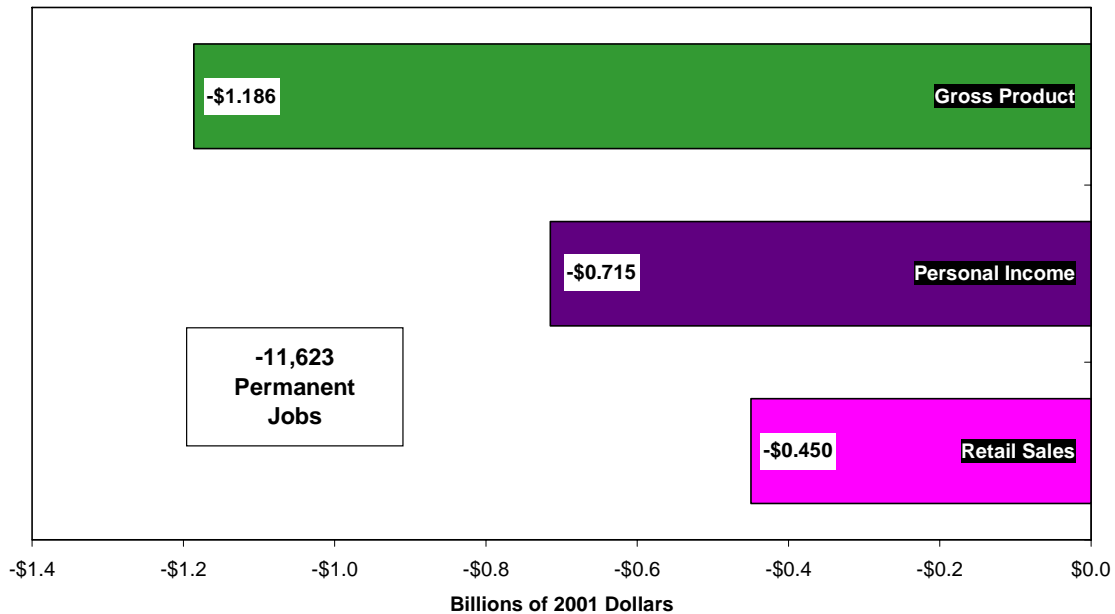
In order to achieve these results, it would likely be necessary to adopt a comprehensive reform package similar in scope to those enacted in several other

---

<sup>11</sup> Harris Interactive, "US Chamber of Commerce State Liability Systems Ranking Study," January, 2002.

states. Such a judicial environment would be required to establish a competitive advantage sufficient to attract new business activity.

**Potential Economic Development Losses for West Virginia in Which  
The Current Judicial Framework is Likely a Substantial  
Contributing Factor—2001-2006**



### **The Costs to Consumers of the Current Legal Framework in West Virginia**

It should be noted that, while the state economy as a whole suffers from the inefficiencies and misallocations of resources associated with its current tort system, a major portion of these losses fall directly on West Virginia consumers. The present study reveals many such adverse outcomes. In particular, it was found that, relative to the US, consumers will endure (by 2006):

- \$93.2 million in annual cost increases from Higher Inflation (\$128.94 per household);
- \$628.2 million in reduced annual Personal Income (\$869.02 per household);
- \$376.9 million in decreased Consumer Spending per year (\$521.41 per household);

- substantially diminished job prospects; and
- a less efficient judicial system to compensate for legitimate losses.

Moreover, by limiting the competitiveness of the West Virginia economy, the tort system further denies consumers other advantages that markets typically provide. The result is restrained consumer choice, reduced innovation, lower output, and higher prices. The well-documented crisis in healthcare delivery similarly falls most directly on individuals. Thus, the current system is responsible for broad-based harms affecting all major segments of the economy.

### **Synopsis**

This study has explored the current and projected impacts of the present judicial system on the economy of West Virginia. These results also illustrate the benefits of enacting legal reforms. The evidence indicates that the costs of the tort environment are indeed severe. Efficiency within the state is impaired, and overall competitiveness is diminished. This pattern will persist and intensify over time. There have also been tangible losses in terms of decreased spending, output, income, retail sales, and employment. These losses will also become more pronounced in the future.

From a public policy perspective, the costs in 2006 to the typical West Virginia household in terms of higher prices and lower total personal income (measured in 2001 dollars) may be viewed as equivalent to a \$997.96 annual “tort tax” relative to the US. In summary, the judicial system in West Virginia is and will continue to be a significant detriment to the economy, negatively affecting both

consumers and producers and setting the stage for an ongoing pattern of reduced growth and progress. In contrast, passage of significant reform measures will bring a notable and much-needed stimulus to aggregate business activity.

Respectfully submitted,

A handwritten signature in black ink that reads "M. Ray Perryman". The signature is written in a cursive, flowing style.

The Perryman Group

M. Ray Perryman, PhD, President

## **Appendix A**

## **Methodology**

The initial task in this analysis involves the **quantification of the actual cost** of the tort system within the state, as such data are not regularly maintained. To provide reliable estimates of this measure, TPG developed a regression model relating US litigation costs to other variables which are both (1) highly correlated with the costs of US litigation and (2) available at both the national and state levels. These series included various relevant categories of income, employment, and gross product. The result of this effort was a model exhibiting excellent correlation (approximately 96%), strong statistical properties, and stability in estimation and predictive environments over multiple time periods. This system was then implemented and linked to data for West Virginia, thus producing estimates of litigation costs within the state that should be highly reliable.

The next phase of the analysis is to determine what the current cost of the tort system in West Virginia would be **but for** the widely publicized problems. In other words, it is necessary to establish a reasonable benchmark for the likely direct costs of the West Virginia tort system if not for the current excesses. In reviewing patterns of litigation-related activity, definitive trends were identified in the relationships between state and national performance in several major indicators of the tort system. In particular, there was a very clear and statistically significant increase in the indicators for West Virginia relative to the US in the period following the enactment of significant reforms at the national level in the 1990s. The modeling process fully accounts for the fact that the growth in tort costs in other areas has moderated in recent years.

In order to calculate the **but for** costs, TPG (1) projected the relative patterns of US and West Virginia litigation expenses prior to national reforms; (2) used the results to calculate “but for” values of the explanatory factors in the prior regression model; and (3) simulated the model to generate the alternative

estimates. The resulting differential reveals the increase in the costs of the tort system in West Virginia relative to the US. Because the entire derivation performed for litigation costs was relative to the economy as a whole, the effects of other factors have been effectively eliminated. Results were generated for both 2001 and 2006.

Once the aggregate direct costs emanating from the judicial system have been isolated, it is necessary to **allocate** them across industrial sectors. This process was accomplished using the state-level legal services coefficients for West Virginia derived from the US Multi-Regional Impact Assessment System (USMRIAS) that was developed and is maintained by TPG. This model permits evaluation across more than 500 detailed production sectors, as well as all categories of consumer spending. The sectors experiencing the greatest costs from the tort system were found to be highly correlated with those identified independently in a prior study by the National Bureau of Economic Research. One of the advantages of the USMRIAS structure is that, unlike other impact models, it permits the calculation of direct effects relative to expenditures, output, income, employment, and prices. Thus, it allows reliable estimation of direct gains relative to inflation, productivity, jobs, and income. It further permits determination of costs and benefits flowing both directly and indirectly to consumers.

Given this information regarding the direct impacts, it becomes possible to measure the **total economic losses** derived from the excessive tort system costs. The basic technique employed in this process is known as input-output analysis. This methodology essentially uses extensive survey data, industry information, and a variety of corroborative source materials to create a matrix describing the various goods and services (known as resources or inputs) required to produce one unit of output for a given sector. Once the base information is compiled, it can be mathematically manipulated to generate

evaluations of the magnitude of successive rounds of activity involved in the overall production process.

There are two essential steps in conducting an input-output analysis once the system is operational. The first major endeavor is to accurately define the levels of economic activity to be evaluated. This process was described in the preceding paragraphs. The second step is the simulation of the input-output system to measure overall economic effects.

The West Virginia submodel used in the allocation phase was also employed in quantifying total economic effects of the tort framework and is a part of the US Multi-Regional Impact Assessment System (previously mentioned). Similar subsystems developed by TPG have been used in hundreds of diverse applications and have an excellent reputation for accuracy and credibility. The model used in the current simulations reflects the unique industrial structure of the state economy.

The USMRIAS is somewhat similar in format to the Input-Output Model of the United States and the Regional Input-Output Modeling System, both of which are maintained by the US Department of Commerce. The models developed by The Perryman Group, however, incorporate several important enhancements and refinements. Specifically, the expanded system includes (1) comprehensive 500-sector coverage for any county, multi-county, or urban region; (2) calculation of both total expenditures and value-added (real gross area product) by industry and region; (3) direct estimation expenditures for multiple input choices; (4) extensive parameter localization; (5) price adjustments for real and nominal assessments by sector and area; (6) measurement of the induced impacts associated with payrolls and consumer spending; (7) embedded modules to estimate multi-sectoral direct spending effects (such as tourism); (8) estimation of retail spending activity by consumers; and (9) comprehensive linkage and integration capabilities with a wide variety of econometric, real estate,

occupational, and fiscal impact models. The geographic structure used for the present investigation was thoroughly tested for reasonableness and historical reliability.

As noted earlier, the impact assessment (input-output) process essentially estimates the amounts of all types of goods and services required to produce a dollar's worth of a specific type of output. For purposes of illustrating the nature of the system, it is useful to think of inputs and outputs in dollar (rather than physical) terms. As an example, the construction of a new building will require specific dollar amounts of lumber, glass, concrete, hand tools, architectural services, interior design services, paint, plumbing, and numerous other elements. Each of these suppliers must, in turn, purchase additional dollar amounts of inputs. This process continues through multiple rounds of production, thus generating subsequent increments to business activity. The initial process of building the facility is known as the direct effect. The ensuing transactions in the output chain constitute the indirect effect.

Another pattern that arises in response to any direct economic activity comes from the payroll dollars that are received by employees at each stage of the production cycle. As workers are compensated, they use some of their income for taxes, savings, and purchases from external markets. A substantial portion, however, is spent locally on food, clothing, healthcare services, utilities, housing, recreation, and other items. Typical purchasing patterns in the relevant areas are obtained from the Inter-City Cost of Living Index of the American Chamber of Commerce Researchers Association (ACCRA) and the Consumer Expenditure Survey of the US Department of Labor. These initial outlays by area residents generate further secondary activity as local providers acquire inputs to meet this consumer demand. These consumer spending impacts are known as induced effects. The USMRIAS is designed to provide realistic, yet conservative, estimates of these phenomena.

The information used in the localization process is obtained from the Bureau of the Census, the Bureau of Labor Statistics, the Regional Economic Information System of the US Department of Commerce, and other public and private sources. The pricing data are compiled from the US Department of Labor and the US Department of Commerce. The verification and testing procedures make use of extensive public and private sources.

A final task incorporated within the present analysis is an evaluation of the potential economic development consequences of the judicial framework in West Virginia. In order to provide this assessment, TPG initially determined those sectors of the economy that exhibited above-average vulnerability to tort exposure. This process used the USMRIAS, the Regional Economic Information System of the US Department of Commerce, and a prior analysis by the National Bureau of Economic Research. Growth patterns in these industries were then examined and adjusted for (1) their performance prior to the most prominent and well-publicized problems in the state; (2) their expansion in West Virginia relative to comparable sectors nationally; and (3) the overall expansion of the West Virginia economy relative to the nation as a whole. A residual element of increase in these sectors indicative of economic development stimulus has been observed in relevant states for which judicial reforms have been in place for several years. It is thus reasonable to conclude that a state without such measures would endure a quantifiable competitive disadvantage and resulting loss of expansion opportunities. While it would be inappropriate to attribute all of these incremental losses solely to the difficulties in the tort system, they are clearly a substantial contributing factor which, in the absence of notable reforms, will persist into the future. The allocation of a residual to West Virginia was based on performance characteristics in other states with more equitable judicial environments.

Results are presented based on 2001 and 2006 levels, thus allowing both a current perspective and the potential losses after a sufficient period for the

effects of reforms in nearby states to work their way through the economy. Whenever assumptions are required, they are structured to modestly understate the negative impacts.

## **Appendix B**

**TABLE 1**  
**The Aggregate Negative Impact of the Tort System**  
**in West Virginia on Business Activity—2001**  
**Detailed Sectoral Results**

Sector	Total Expenditures	Gross Product	Personal Income	Employment (Permanent Jobs)
Agricultural Products & Services	-\$7,074,846	-\$3,199,607	-\$5,274,403	-70
Forestry & Fishery Products	-\$2,047,952	-\$606,562	-\$534,835	-20
Coal Mining	-\$5,961,197	-\$3,468,517	-\$1,605,028	-27
Crude Petroleum & Natural Gas	-\$54,265,318	-\$10,976,493	-\$2,942,863	-113
Miscellaneous Mining	-\$12,387,092	-\$5,134,278	-\$3,352,244	-88
New Construction	-\$40,604,313	-\$17,853,805	-\$13,059,287	-348
Maintenance & Repair Construction	-\$31,884,374	-\$18,330,105	-\$14,740,440	-350
Food Products & Tobacco	-\$30,338,629	-\$4,750,699	-\$6,160,062	-81
Textile Mill Products	-\$2,471,772	-\$1,073,559	-\$1,477,638	-22
Apparel	-\$2,495,216	-\$815,287	-\$2,341,193	-28
Paper & Allied Products	-\$5,394,209	-\$1,723,145	-\$3,142,365	-22
Printing & Publishing	-\$11,083,870	-\$3,835,069	-\$3,773,233	-83
Chemicals & Petroleum Refining	-\$115,870,369	-\$35,854,713	-\$10,582,803	-320
Rubber & Leather Products	-\$9,385,339	-\$4,018,174	-\$3,195,546	-72
Lumber Products & Furniture	-\$9,414,142	-\$3,609,261	-\$2,318,201	-85
Stone, Clay, & Glass Products	-\$8,668,086	-\$3,580,554	-\$2,343,221	-51
Primary Metal	-\$15,582,731	-\$5,530,460	-\$3,537,441	-91
Fabricated Metal Products	-\$17,636,969	-\$8,491,966	-\$4,590,006	-114
Machinery, Except Electrical	-\$6,460,958	-\$2,186,761	-\$3,403,252	-40
Electric & Electronic Equipment	-\$2,503,977	-\$1,095,223	-\$2,538,635	-13
Motor Vehicles & Equipment	-\$2,579,637	-\$790,865	-\$1,948,820	-12
Transp. Equip., Exc. Motor Vehicles	-\$2,842,836	-\$1,057,057	-\$1,211,734	-19
Instruments & Related Products	-\$1,286,109	-\$604,997	-\$364,356	-6
Miscellaneous Manufacturing	-\$1,906,117	-\$835,808	-\$877,375	-19
Transportation	-\$45,660,048	-\$28,049,657	-\$17,703,109	-495
Communication	-\$28,143,760	-\$20,444,956	-\$8,669,981	-162
Electric, Gas, Water, Sanitary Services	-\$92,487,321	-\$36,382,098	-\$8,597,346	-143
Wholesale Trade	-\$38,126,216	-\$31,507,261	-\$18,548,250	-290
Retail Trade	-\$96,916,777	-\$84,913,631	-\$47,184,162	-1,972
Finance	-\$22,005,396	-\$23,755,123	-\$10,392,494	-148
Insurance	-\$19,182,721	-\$13,294,617	-\$9,118,633	-134
Real Estate	-\$75,526,618	-\$17,718,563	-\$1,619,125	-31
Hotels, Lodging Places, Amusements	-\$28,760,779	-\$14,715,029	-\$7,627,995	-387
Personal Services	-\$23,799,079	-\$14,374,245	-\$11,004,713	-562
Business Services	-\$84,714,154	-\$44,557,001	-\$51,783,877	-1,224
Eating & Drinking Places	-\$52,860,436	-\$29,770,107	-\$16,542,427	-1,111
Health Services	-\$56,936,265	-\$39,214,657	-\$33,648,006	-1,095
Miscellaneous Services	-\$45,192,614	-\$14,854,620	-\$14,509,452	-723
Households	-\$1,162,922	-\$1,129,259	-\$1,162,922	-109
<b>Total</b>	<b>-\$1,111,621,166</b>	<b>-\$554,103,793</b>	<b>-\$353,427,475</b>	<b>-10,678</b>

All monetary values are given in constant (2001) dollars.

SOURCE: US Multi-Regional Impact Assessment System, The Perryman Group

**TABLE 2**  
**The Aggregate Negative Impact of the Tort System**  
**in West Virginia on Business Activity—2006**  
**Detailed Sectoral Results**

Sector	Total Expenditures	Gross Product	Personal Income	Employment (Permanent Jobs)
Agricultural Products & Services	-\$12,575,725	-\$5,687,386	-\$9,375,391	-106
Forestry & Fishery Products	-\$3,640,289	-\$1,078,181	-\$950,684	-30
Coal Mining	-\$10,596,185	-\$6,165,380	-\$2,852,979	-42
Crude Petroleum & Natural Gas	-\$96,458,033	-\$19,511,005	-\$5,231,017	-173
Miscellaneous Mining	-\$22,018,382	-\$9,126,315	-\$5,958,701	-134
New Construction	-\$72,175,237	-\$31,735,609	-\$23,213,227	-531
Maintenance & Repair Construction	-\$56,675,315	-\$32,582,245	-\$26,201,520	-535
Food Products & Tobacco	-\$53,927,713	-\$8,444,493	-\$10,949,673	-123
Textile Mill Products	-\$4,393,640	-\$1,908,279	-\$2,626,541	-33
Apparel	-\$4,435,312	-\$1,449,195	-\$4,161,532	-42
Paper & Allied Products	-\$9,588,348	-\$3,062,935	-\$5,585,637	-33
Printing & Publishing	-\$19,701,871	-\$6,816,937	-\$6,707,020	-127
Chemicals & Petroleum Refining	-\$205,962,634	-\$63,732,698	-\$18,811,211	-488
Rubber & Leather Products	-\$16,682,688	-\$7,142,411	-\$5,680,167	-111
Lumber Products & Furniture	-\$16,733,885	-\$6,415,556	-\$4,120,664	-130
Stone, Clay, & Glass Products	-\$15,407,752	-\$6,364,529	-\$4,165,138	-77
Primary Metal	-\$27,698,714	-\$9,830,539	-\$6,287,894	-140
Fabricated Metal Products	-\$31,350,177	-\$15,094,693	-\$8,158,856	-174
Machinery, Except Electrical	-\$11,484,524	-\$3,887,025	-\$6,049,370	-61
Electric & Electronic Equipment	-\$4,450,885	-\$1,946,789	-\$4,512,490	-20
Motor Vehicles & Equipment	-\$4,585,374	-\$1,405,784	-\$3,464,079	-18
Transp. Equip., Exc. Motor Vehicles	-\$5,053,215	-\$1,878,947	-\$2,153,889	-29
Instruments & Related Products	-\$2,286,093	-\$1,075,399	-\$647,653	-8
Miscellaneous Manufacturing	-\$3,388,174	-\$1,485,670	-\$1,559,558	-29
Transportation	-\$81,161,938	-\$49,859,004	-\$31,467,743	-756
Communication	-\$50,026,274	-\$36,341,448	-\$15,411,120	-247
Electric, Gas, Water, Sanitary Services	-\$164,398,650	-\$64,670,137	-\$15,282,010	-218
Wholesale Trade	-\$67,770,353	-\$56,004,987	-\$32,970,004	-442
Retail Trade	-\$172,272,125	-\$150,936,217	-\$83,871,091	-3,011
Finance	-\$39,115,172	-\$42,225,357	-\$18,472,932	-226
Insurance	-\$34,097,792	-\$23,631,533	-\$16,208,611	-205
Real Estate	-\$134,250,553	-\$31,495,213	-\$2,878,037	-47
Hotels, Lodging Places, Amusements	-\$51,123,042	-\$26,156,352	-\$13,558,962	-592
Personal Services	-\$42,303,489	-\$25,550,598	-\$19,561,167	-858
Business Services	-\$150,581,641	-\$79,201,243	-\$92,047,205	-1,869
Eating & Drinking Places	-\$93,960,818	-\$52,917,149	-\$29,404,599	-1,696
Health Services	-\$101,205,711	-\$69,705,085	-\$59,810,218	-1,672
Miscellaneous Services	-\$80,331,063	-\$26,404,479	-\$25,790,934	-1,104
Households	-\$2,067,125	-\$2,007,288	-\$2,067,125	-166
<b>Total</b>	<b>-\$1,975,935,907</b>	<b>-\$984,934,090</b>	<b>-\$628,226,648</b>	<b>-16,306</b>

All monetary values are given in constant (2001) dollars.

SOURCE: US Multi-Regional Impact Assessment System, The Perryman Group

## **Appendix C**

## **FIRM INFORMATION**

The Perryman Group, Inc. (TPG), specializes in all aspects of economic analysis, research, and forecasting. Led by M. Ray Perryman, the organization enjoys a worldwide reputation for its forecasting and modeling efforts. Clients and subscribers frequently incorporate Perryman results into their own individual projects.

### **Forecasting and Modeling**

The firm is equipped with a full range of international, national, regional, state, metropolitan area, and small area (zip code, census tract, etc.) forecasting and modeling capabilities. A command of this data allows forecasting of energy demand and supply, real estate market absorption, retail sales, industrial performance, transportation demand, and bond feasibility. In addition, other economic analysis including labor markets, demographics, global markets and trade, and cost factors such as wage rates and capital costs are generated on a regular basis for clients and subscribers.

### **Impact Assessment**

Over the past decade, The Perryman Group has developed a reputation for quality impact assessment techniques. The firm maintains a set of impact evaluation models which can be applied in numerous contexts. These systems have been employed in projects measuring economic effects of various activities around the globe. Specific industrial detail can be provided for more than 500 industries at the national, state, regional, or MSA level.

Previous studies include the economic impact of site locations, utility rate changes, infrastructure development, new transportation facilities, tourist attractions, regulatory changes, educational investments, legislative changes, and insurance reform. In addition to traditional economic aggregates such as employment, income, sales, expenditures, and gross product, TPG can also

provide projections of consumer spending, secondary development, and fiscal revenues.

### **Regulatory Analysis**

The Perryman Group has considerable experience and expertise in providing support for regulatory proceedings and initiatives. Previous projects have included analyzing the effects of utility and transportation rate changes on consumers and industrial concerns and evaluating the need for new electric facilities, water projects, transportation projects, and telecommunications investments. In addition, testimony has been provided before state and federal regulatory bodies.

### **Economic Development and Strategic Planning**

Utilizing systems specifically geared to economic development, the firm's consultants can identify "target industries" that are likely to expand in the near future and be a complement to the local resource base. Once these targets are identified and finalized, the project team prepares a list of industrial prospects, formulates specific marketing programs, inventories existing facilities and sites, and develops overall strategic plans. The Perryman Group also works extensively with corporations seeking locations for new and expanded facilities, thus bringing an essential synergy to the economic development process.

The Perryman team of professionals brings a wealth of resources to programs designed for creating, implementing, evaluating, and maintaining successful strategic processes. The firm's vast base of information aids in marketing initiatives, contingency assessment, internal evaluation, monitoring, and other aspects of a comprehensive planning effort.

### **Litigation Support and Expert Testimony**

For litigation support and expert testimony purposes, The Perryman Group investigates and testifies on a variety of issues. Providing research, deposition,

and trial testimony for some of the largest law firms in the country, the Perryman team has addressed topics including security markets, intellectual property, employment, forensics, officers' and directors' liability, real estate markets, cash flow estimation, environmental and natural resource factors, lender liability valuation, taxation, damage measurement, business losses, and antitrust issues.

### **Publications**

The Perryman Group prepares several publications on a regular basis. The Forecast Series provides an in-depth analysis of the national, state, regional, and local economies in the State of Texas.

*The Perryman Report* is a monthly newsletter that provides analysis of local, statewide, national, and international issues, with particular attention given to how these impact the economy in Texas. *The Perryman Texas Letter* is a four-page synopsis of economic issues across the State of Texas; *The Letter* is also published on a monthly basis.

The professionals at The Perryman Group prepare corporate analyses, economic reports, and other materials to meet any information dissemination needs. Complete research facilities and resources are available to produce all types of business reports and presentations.

### **Presentations**

Nationally recognized as an informative and entertaining speaker, Dr. M. Ray Perryman addresses audiences from all walks of life. Dr. Perryman has established a reputation for communicating often dry subjects in an effective and humorous fashion. Other presentations include specialized seminars on the economic outlook, industrial trends and patterns, economic development, and forecasting techniques.

In addition, the firm often provides briefings to corporate boards of directors and senior management personnel on a variety of topics, including assessment of national and regional economic conditions, trends in specific industries, patterns in international trade, and strategic planning in an uncertain business environment.