

# THE TRAUMA FACTOR

How the hidden costs of trauma  
are costing America billions



FAMILY SCHOLAR<sup>®</sup>  
HOUSE

## Abstract

This white paper will explore the economic costs of trauma, both at the societal level and at the individual level. We will look to identify the complex relationships and interdependencies between costs of trauma to businesses, government, taxpayers, schools, and families.

Focusing on a central definition of trauma, readers can expect to learn how the trauma reactions result in lower workforce participation (particularly among women), lower degrees of educational attainment, and rising healthcare costs. This white paper will also focus on how trauma impacts costs to the judicial system and substance use disorder programs.

## Introduction

Trauma is costing America billions. Despite a growing body of research that expands our collective understanding of what trauma is and how it affects people and societies, rates of trauma causality continue to grow. Researchers, economists, and health experts are reaching deeper into our understanding of treatment each day, but treatment and prevention efforts to date have been unable to curb the tide. Identifying the varying cost implications could lead to better policy solutions aimed at preventing and addressing trauma in the American psyche and potentially saving the country billions.

## Defining Trauma

Depending on the lens through which researchers look, trauma can be categorized any number of ways. Therefore, establishing a central definition for the purposes of calculating the economic cost of trauma is key.

The American Psychological Association holds the most centrally-held definition of trauma as “an emotional response to a terrible event,” referencing examples such as physical or sexual violence, natural disasters, etc.<sup>12</sup> However, America’s collective understanding of trauma is expanding, even if benefits for trauma survivors isn’t.<sup>15</sup>

The clinical definition of trauma has no doubt been heavily influenced by the landmark 1997 CDC-Kaiser ACE Study.<sup>16</sup> Working through a two-year period, the study analyzes and categorizes a series of traumatic exposures in children that correlates with lifetime outcomes. The ACE Study is cited throughout, as it provides the most thorough analysis of the impact of childhood trauma to date.

For the purposes of this paper, we will align our definition of trauma with that of the Financial Health Institute. As defined in their work on economic trauma, “Trauma is an intense emotional and physiological response to an event (or series of events) that challenges a person’s ability to maintain a sense of normalcy.”<sup>17</sup>



## Individual Costs

Trauma, typically thought to solely affect the mental state of the affected individual, is shown to play a role in all aspects of an individual's life. It is known that trauma affects everyone differently, but it is less known that trauma takes many forms. <sup>16</sup>

### Physical Costs of Trauma

Even with emerging definitions, trauma is not uncommon. Despite underreporting, a 2017 survey from the Substance Abuse and Mental Health Services Administration (SAMSHA) reported that one in four adults have reported that they experienced physical abuse as children, with one in eight reporting sexual abuse. <sup>18</sup>

Trauma manifests in the body in different ways that create societal and individual costs. Even when trauma is experienced years prior, the lasting effects can be costly. Traumatic events are more likely to have a longer-lasting or severe impact if the individual was unprepared for the event, felt helpless, if the event happened during one's childhood, or if the traumatic experience was reoccurring.<sup>22</sup> Research also shows that traumatic events experienced early in life can have adverse effects on a victim's maternal health, and can cause higher risks of infections and chronic diseases.<sup>16</sup> Other physical signs and symptoms of trauma include, but are not limited to: being easily startled, extreme fatigue and exhaustion, insomnia, sexual dysfunction, changes in eating and sleeping patterns, trouble digesting food, and experiencing aches and pains throughout the body. <sup>22</sup>

California Surgeon General, Nadine Harri, reviews the many ways in which childhood trauma can affect an individual. She states, among other things, that exposure to trauma in early childhood can lead to a 20-year difference in life expectancy than those without. <sup>30</sup> However, she also notes that most physicians are not adequately trained in routine screening or proper treatment for individuals who have been impacted. <sup>30</sup> The American Psychological Association agrees. <sup>31</sup>

Long lasting detriments to a person's mental health can compound with a tendency for risky behaviors resulting from early traumas. Research shows that individuals who have experienced trauma are more likely to smoke regularly, develop a dependency upon alcohol, experiment with or become dependent upon one or more illicit drugs, engage in sexual promiscuity, are more likely to obtain an STD, and show suicidal gestures. <sup>14</sup>

# LEARN MORE

## "How Childhood Trauma Affects Health Across a Lifetime"

TED Talk with Nadine Burke Harris



### Psychological Costs of Trauma

Depression costs Americans approximately \$210.5 billion per year, and with one in seven full-time workers experiencing major depression, employers should take note.<sup>23</sup> Individuals who have experienced trauma are far more likely to develop Major Depression Disorder (MDD). One study shows that 62.5% of people in the study with MDD had experienced three or more traumatic events during childhood.<sup>24</sup>

A CDC analysis of the Neurosequential Model of Therapeutics (NMT) brain map for two six-year-olds is telling. The maps compare the neurological development of a “healthy” child not exposed to trauma with one that has experienced multiple traumas by the age of six. Severe impairment of the development of neurological progress can result in both a smaller sized brain, loss of neurons, and inhibition of neurogenesis.<sup>14</sup> The physical changes to young brains as a result of trauma also impact the ability to regulate behavior, impair social awareness, and brain chemistry imbalances. For this reason at minimum, children with more than one exposure to trauma by the age of six are more likely to struggle in school, both academically and behaviorally.<sup>13</sup> One author writes that children in this situation are significantly more likely to fall behind in the classroom and lack proper social skills and speech functions due to poor or restrained brain development.<sup>13</sup>



The effects of trauma on brain development have been shown to have lifelong effects. The impact of long term trauma starts with adverse childhood experiences, typically resulting in disrupted neurodevelopment (see NMT brain mapping), followed by emotional, social and cognitive impairment.<sup>14</sup> Children who have experienced multiple ACEs are also more likely to adopt risky behavior patterns such as smoking, substance use, unprotected sex, and impulsive behaviors. These compounding disadvantages place trauma victims at risk of earlier mortality than their non-traumatized peers.<sup>14</sup>

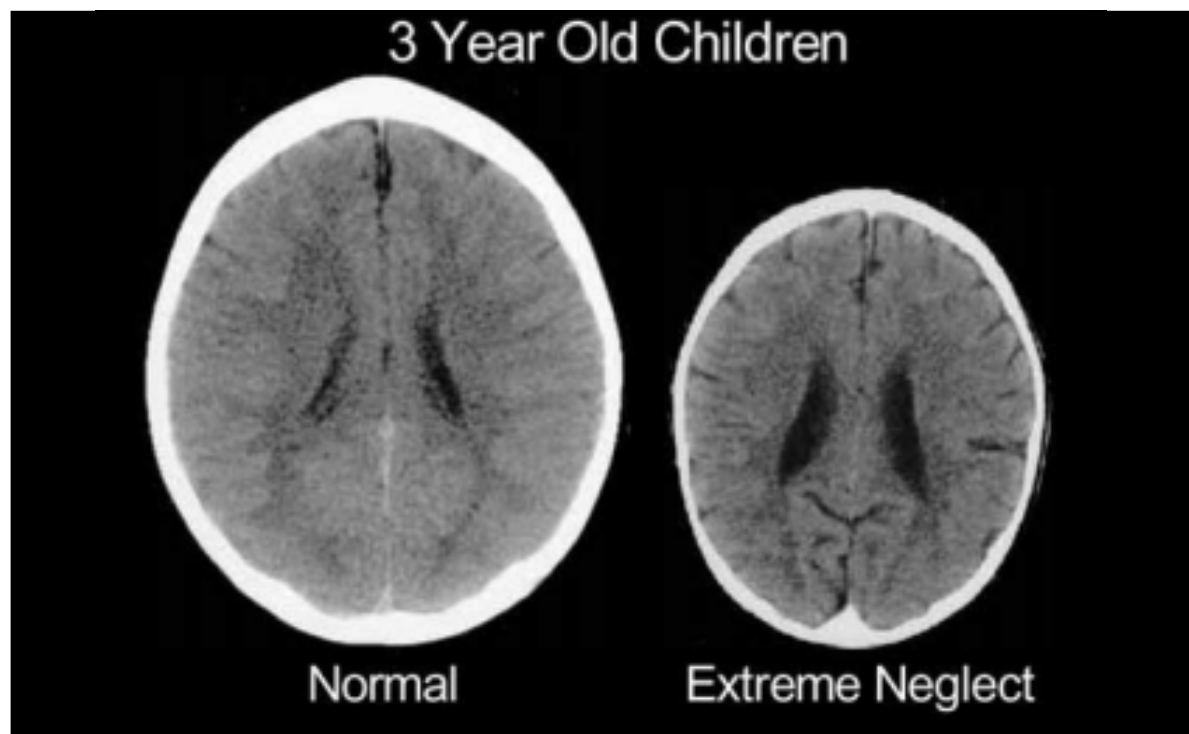
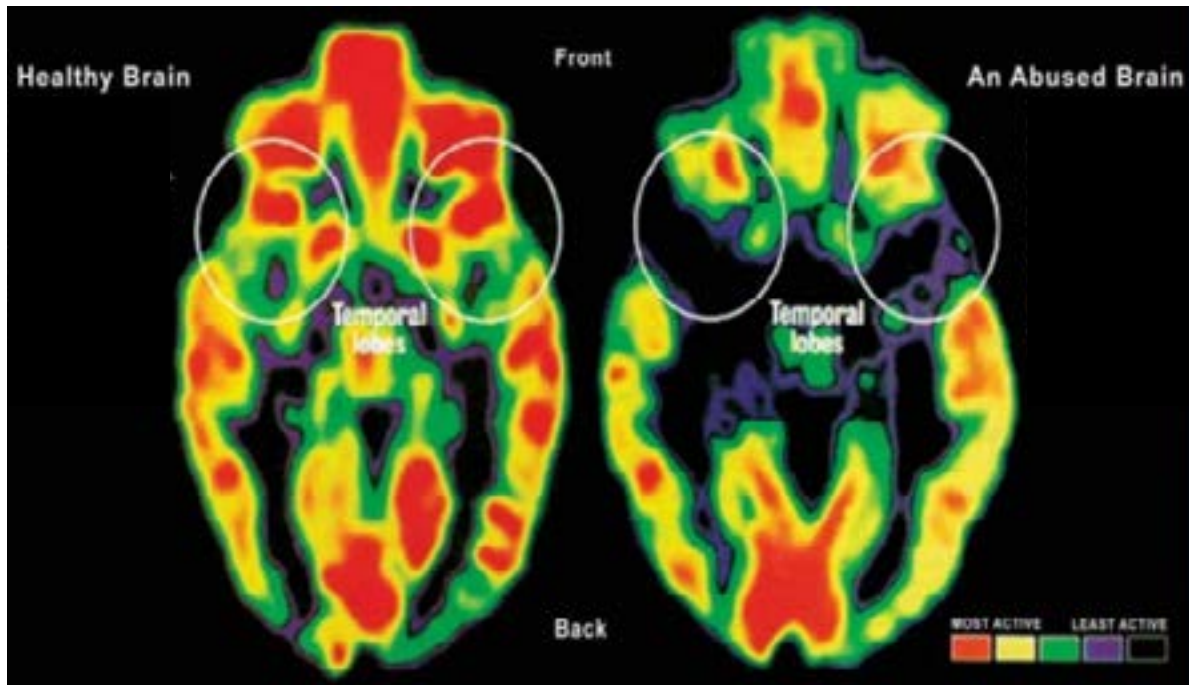


Image Sources:<sup>14</sup>

## Substance Abuse

In the absence of quality mental health treatment, trauma victims often reach for more readily-available coping mechanisms, including drugs and alcohol. Adults who had a lifetime exposure to one or more potentially traumatic events were more likely to develop an illicit drug addiction, exhibit alcohol dependence or abuse, receive substance use treatment, or use tobacco.<sup>8</sup> When considering the statistic that 70% of adults have experienced at least one traumatic life event, the case for substance use disorder prevention is strong.<sup>9</sup> "These are not conscious choices," Pearl says. "These responses are our brain's capacity to adapt and survive a non-nurturing environment"<sup>9</sup>

## Relationship difficulty

Traumatic experiences can also impact an individual's relationships with friends, family, and coworkers. Victims of trauma can form unhealthy attachments in their relationships, and can struggle with trust and communication. In some cases, trauma reenactment occurs. In these cases, the victim becomes the perpetrator through unconscious behavior modeling, or they seek the same set of dangerous circumstances in which they became victims.<sup>18</sup>

Dr. Nancy Irwin, a clinical psychologist in Los Angeles, describes how trauma can become cyclical without the victim realizing it. Irwin states that "If that trauma remains unresolved, [people] unconsciously seek the comfort of the known, even if it is painful."<sup>18</sup>

Caregivers for trauma victims are typically overlooked when reviewing the effects of trauma. Caring for an individual suffering from a mental disorder can result in depression, anxiety, lack of sleep, missed workdays, and lowered productivity.<sup>6</sup> Often, caregivers are not able to access the services they need to cope. Due to the strain on caregivers, individuals suffering from PTSD are shown to have higher divorce rates than those without.<sup>9</sup> This poses a financial burden for the family, with the average cost of a divorce in the U.S. averaging just under \$13,000 in 2020.<sup>7</sup>

Not only can trauma be impactful for those who care for the affected individual, but emerging research shows that it can also be passed down through generations.<sup>43</sup> The American Psychological Association found that trauma survivors are likely to pass down stories of traumatic events to their children, who continue to tell their story to future generations.<sup>43</sup> These stories can have psychological impacts on the listener, and subconsciously create vicarious trauma, which will be discussed further when reviewing the impact on social services. This particular study notes that the prevalence of this occurrence is higher when massive trauma such as war or mass starvation has been experienced by a group of people who inadvertently create generational trauma.<sup>43</sup>

## The Poverty Factor

Data is clear on the impact of poverty on humans. Poverty causes trauma, especially after prolonged exposure. Chronic stress resulting from poverty can create an overreliance on the body's fight-or-flight adrenal response, which can result in cardiovascular ailments, anxiety, and depression.<sup>21</sup>

Researcher Meghan Resler explains, “ongoing stress associated with poverty, or the stress of living with less than one needs, creates constant wear and tear on the body, dysregulating and damaging the body's physiological stress response system and reducing cognitive and psychological resources for battling adversity and stress.”<sup>19</sup>

Further, individuals who live in poverty are more likely to be exposed to trauma to begin with, including environmental, community, and domestic violence. Children experiencing poverty release elevated levels of cortisol, a stress hormone that can shorten attention spans and result in behavioral outbursts. Research from The Momentous Institute in Dallas reveals why— the stress hormones mimic the feeling of being in a car crash. Jessica Trudeau, director of development for the Momentous Institute, explains, “If you think about the impact on education, imagine if right after you were in a car crash I walked up to you and said, ‘I need you to take a test.’ Could you do it? Would you perform well?”<sup>44</sup>

## Costs to Taxpayers

A 2019 report from the University of Pennsylvania estimates childhood exposure to trauma alone costs society \$458 billion every year, in part due to bureaucratic hurdles to accessing services.<sup>1</sup> Accounting for child and adult trauma, a 2018 study estimated the total American economic burden of PTSD at \$232 billion.<sup>2</sup>

## Education

Data from the National Child Traumatic Stress Network reveals an important component of childhood trauma. The message? Unequivocally, trauma inhibits learning.<sup>25</sup> Children who have experienced trauma struggle to focus, problem-solve, and pay attention compared to their non-traumatized peers.<sup>26</sup> The American Psychological Association goes so far as to say that trauma in children can cause lower academic performance, lead to more school absences, and increase the likelihood of dropping out of school.<sup>27</sup> The group also asserts that trauma can also inhibit the development of reading skills and result in more behavioral infractions in school environments.<sup>27</sup>

Why is this important? Aside from the collective good resulting from an educated society, when students miss school, it costs school districts money. Funding models vary from state to state, but many states, including Kentucky, are funded based on the attendance of students, not the enrollment. If students don't show up





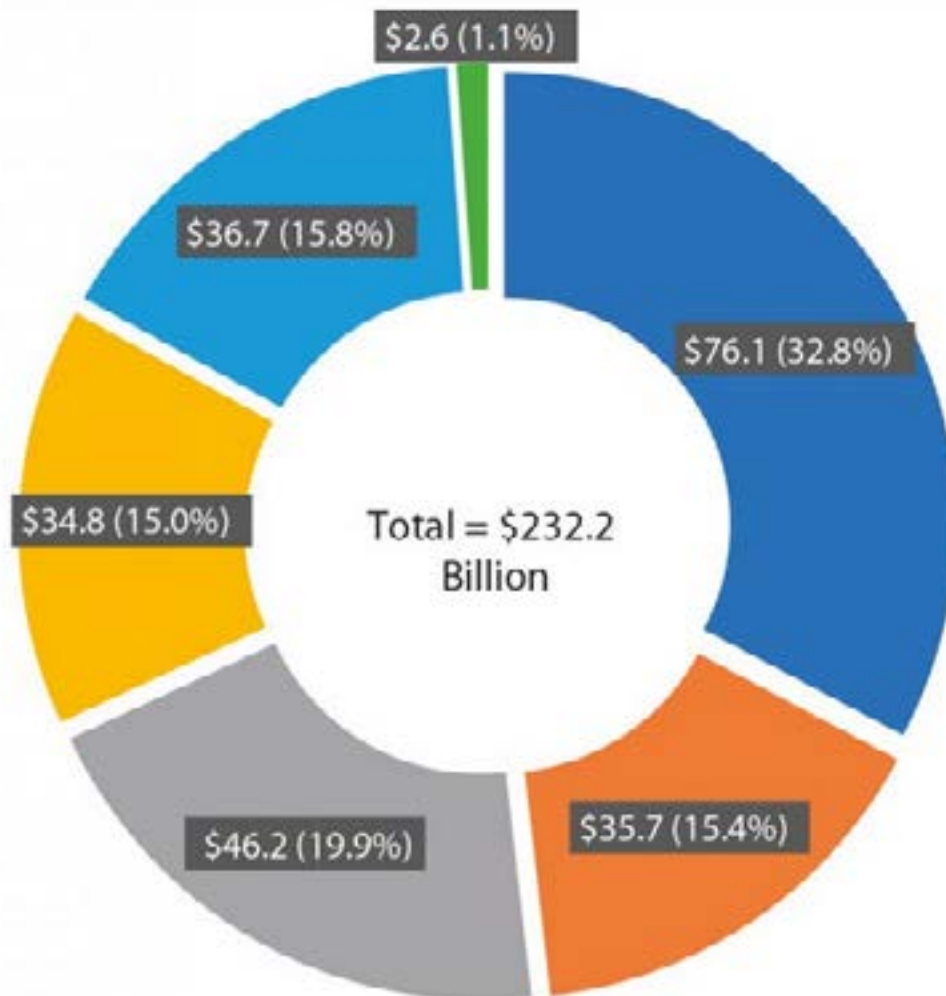
to learn, the district doesn't get paid. High absenteeism rates in schools can cut into the bottom line, which can impact class size, teacher compensation, and access to educational resources. All of these dynamics can affect the quality of the district's educational outcomes.

Absenteeism also impacts students' ability to learn at the same rate as their peers. Longitudinal data published in 2006 from the National Center for Educational Statistics shows that students with higher absenteeism rates tend to have poorer academic performance.<sup>28</sup> And, the impact is compounds over time — missing more days in Kindergarten was associated with poorer academic performance in first grade and in reading, mathematics, and general knowledge in the years following.<sup>29</sup> Absenteeism due to trauma can be a result of physical injury, emotional distress, or the demands of economic poverty (i.e. missing the bus, needing to work, etc.). Physical manifestations of trauma can cause higher rates of physical illness as well, which can contribute to higher rates of absenteeism.

Trauma experienced in childhood not only affects a student's ability to maintain an education, but also puts them at risk for entering the judicial system. Research from the National Institute of Justice in 2022 shows that individuals who have been exposed to violence at a young age are significantly more likely to be arrested and become a repeat offender.<sup>22</sup> Data from the same report shows the context of the crime also plays a role in likelihood of involvement in the justice system. When youth experienced trauma related to violence within



**Figure 1. Excess Economic Burden of PTSD in the Overall US Population in 2018, Billion USD**



- Excess direct health care costs (32.8%)
- Excess direct non-health care costs (15.4%)
- Excess costs of unemployment (19.9%)
- Excess costs of productivity loss (15.0%)
- Excess costs due to caregiving (15.8%)
- Excess costs of premature mortality (1.1%)

Image Source:<sup>2</sup>

their community or at school, they were statistically more likely to be involved with the juvenile justice system.<sup>22</sup> However, the issue remains that laws and policies may not be best serving youth within the justice system. Michal Gilad, Penn Law doctoral researcher, argues that laws and policies are typically created with only adults in mind, and when these policies are applied to children, they are likely not as effective.<sup>22</sup>

## Courts

The American Bar Association recognizes that childhood trauma can be a significant predictor for status offenses and note that identifying this issue is essential to giving the offender the proper treatment needed to help prevent recidivism.<sup>37</sup> However, courts have been shown to lack the knowledge and resources to understand the full effects of trauma on those who enter the judicial system and subsequently lack the ability to properly modify systems of justice accordingly.<sup>36</sup> It is also possible that the child may not receive adequate support from their attorney, considering that children who have been traumatized by an authority figure are less likely to be able to open up about the abuse they experienced, an aspect for which it is critical for the attorney to be made aware.<sup>38</sup>

To make matters worse, some juveniles have reported worsening symptoms of their trauma due to the stress and feeling of hopelessness from being in the juvenile justice system and/or secure detention, seemingly creating a cycle of recurring trauma.<sup>37</sup> Research has shown that children with PTSD struggle to respond appropriately to authority figures and the rules they have set in place, therefore making secure detention an ineffective option and likely to result in worsening symptoms of trauma and recurring offenses.<sup>39</sup>

However, steps are being made to combat these issues and professionals are shining a light on practices that may help those within the system. The National Council of Juvenile and Family Courts notes that court trauma assessments have shown to be a productive way of assessing the court's responses to cases of individuals who have been exposed to violence and subsequently experiencing trauma.<sup>36</sup> Additionally, professionals in fields such as mental health, social and legal services have called upon the court system to use a trauma-focused approach when assessing children in the court system, including trauma-focused care and by ordering therapy treatment as opposed to incarceration or secure detention.<sup>37</sup>

## Social Services

Every year, millions of taxpayer dollars are spent on social services that assist youth affected by trauma.<sup>34</sup> Not only are trauma-exposed youth more prone to entering or frequenting the judicial system, but they are also more likely to experience homelessness, financial hardship, and rely on the use of social services as an adult.<sup>34</sup> Due to the adverse experiences, many youth have suffered and the high price tag placed on taxpayers for its consequences, the need for social service workers is absolutely crucial in the hopes of rehabilitating youth into healthy, happy, contributing members of society.



Professionals working in the social service field are also likely to be affected by the trauma experienced by their clients, a phenomenon known as vicarious trauma, or secondary traumatic stress.<sup>33</sup> According to the National Child Traumatic Stress Network, approximately 50% of social workers are more likely to endure PTSD symptoms such as intrusive thoughts, stress and aggression due to vicarious trauma.<sup>33</sup>

Trauma also plays a large role in the likelihood of homelessness. Trauma and homelessness undoubtedly have correlations, as trauma can result in homelessness, and homelessness can produce additional trauma.<sup>35</sup> A study conducted by Service and Housing Interventions for Families in Transition (SHIFT), reviewed significant predictors for housing instability over various periods of time. This study discovered that trauma was one out of two of the largest predictors for individuals and families who had been homeless for over 30 months, the other being low confidence.<sup>35</sup> Similarly, a recent 2022 study estimated that around 35,000 homeless adults in the U.S. thought to be homeless due to PTSD, a factor that economists estimate costs the country \$869.1 million annually.<sup>2</sup>

## Military

Costs of military-related trauma cost American taxpayers more than money. The military population with PTSD has an estimated 80% higher mortality rate than those in the military without PTSD.<sup>2</sup> The cost of loss of life impacts military staffing, family stability, and workforce participation, but it also costs lives.

Multiple studies on military veterans with reported trauma have shown clear associations between severe trauma and future occupational issues, including unemployment, even when controlling for socioeconomic factors, race, and age of the individual.<sup>4</sup> Research published in 2005 on the economic effects of PTSD show that individuals reporting combat trauma as their most adverse experience were 3.55 times more likely to use unemployment services than those who reported any non combat-related incident as their most traumatic experience; for those not on unemployment, they were significantly more likely to report being fired, with an odds ratio of 2.77.<sup>4</sup> Research conducted by Plach & Shells in 2013 highlights the drastic impact on affected individuals. Their findings conclude that 93% of military veterans with PTSD experienced productivity challenges as a result of difficulties concentrating or attempting to relearn a skill.<sup>32</sup>

From a pure dollar standpoint, military trauma costs at least \$32.2 billion through the payment of PTSD disability benefits as of 2022. An estimated 1 million American veterans receive these benefits, making disability the top contributor for excess economic burden in the U.S. military population.<sup>40</sup>

# Costs to Business

## Workforce Participation

Research from the Center for Workplace Mental Health in 2011 shows that individuals who suffer from trauma-related mental health issues are significantly more likely to miss work, have a lower hourly-pay, and struggle to meet the demands of the workplace.<sup>41</sup> Compounded with the impacts of poverty, poor health outcomes, and environmental stressors like community violence, trauma patients are far more expensive to hire.

Women are more likely to be impacted by trauma than men. A 2018 study found that 66% of the total American PTSD population is female, and that the female PTSD population is more likely to exhibit more severe symptoms and require more services.<sup>2</sup> Ten percent of all women will develop PTSD at some point during their lifetime.<sup>9</sup>

The American economy relies heavily on women participating in the workforce. Women contribute millions of dollars to their state's GDP every single day.<sup>11</sup> Women also provide approximately 44% of all U.S. labor hours. If America's female workforce were to go off the payrolls, America's GDP would lose nearly \$21 billion a day.<sup>11</sup>



## Workplace Absenteeism

American businesses spend more than \$15,000 per worker for employees with mental health issues.<sup>5</sup> Employees experiencing trauma also lose nearly \$5,000 per year in wages due to absenteeism. Employees who are unable to stay in the workplace due to trauma cost an average of \$5,733 per employee to replace.<sup>5</sup> This doesn't include the cost of absenteeism and attrition for caregivers of trauma victims, who are more likely to experience depression, anxiety, insomnia, missed workdays, and lower productivity.<sup>6</sup> Without question, these numbers can and are adding up for the business community.

## Healthcare Costs

Trauma costs our healthcare system as well. Individuals with PTSD were shown to have increased rates of additional mental health disorders, resulting in higher healthcare costs than individuals exclusively diagnosed with major depressive disorder.<sup>3</sup> Individuals with trauma are also at increased risk of cardiovascular events, asthma, and kidney and liver disease. Trauma patients also have higher rates of inflammatory diseases like arthritis, thyroid disorders, and autoimmune diseases.<sup>3</sup> Since individuals with trauma may be covered by Medicaid, these costs can add up for both the government and private sector. On average, trauma victims covered by Medicaid cost taxpayers an approximately 20% more than Medicaid recipients who have not experienced severe trauma.<sup>3</sup>

### **WATCH: PTSD more costly than other common mental health conditions in U.S.**

Video Source: <sup>45</sup>

## Conclusion

Trauma is a common occurrence and has been shown to produce a wide variety of impacts that stretch far beyond the affected individual. Estimates vary on the total cost, but one variable remains clear — trauma costs taxpayers, businesses, economic systems, and individuals billions each year. For the affected individual, trauma increased the risk of negative outcomes, such as unplanned pregnancies, injury, risky behaviors as well as poor mental and physical health.<sup>17</sup> Children who have experienced adverse events at a young age are shown to have strained brain development, are more likely to experience issues related to educational attainment, and are at a substantially higher risk for entering the judicial system.<sup>14,22</sup>

The cost to taxpayers is no small price tag, with researchers estimating the societal cost to be around \$458 billion annually.<sup>1</sup> As a result of trauma, individuals are significantly more likely to rely on government assistance programs, experience homelessness and incarceration, all of which affect taxpayers.<sup>2,22,34</sup> Businesses are also impacted, as trauma-affected individuals have been shown to struggle with workforce participation, absenteeism and high turnover rates.<sup>41</sup>

Research from the National Safety Council and NORC at the University of Chicago shows that employers who invest in mental health will see a return of \$4 for every dollar spent on this investment.<sup>5</sup> In addition to mental health investments made by businesses, the court system should utilize a trauma-focused approach when assessing children in the court system to provide them with adequate care and help prevent recidivism.<sup>37</sup>

Ensuring trauma victims receive appropriate services can also reduce the overall economic cost, but services need to be provided quickly. Research has shown that treatment for those suffering from traumatic events prior to utilizing welfare services is likely to reduce long-term societal costs compared to those who do not receive proper treatment.<sup>2</sup> Common treatments that have been shown to have a positive impact on trauma patients and individuals with PTSD include cognitive behavioral and processing therapy, prolonged exposure, Eye Movement Desensitization and Reprocessing Therapy (EMDR), and medication.<sup>45</sup> Although the cost to society, businesses, and individuals may be staggering, these methods can help create relief from the economic cost of trauma.

## About Family Scholar House

Family Scholar House is a nonprofit devoted to ending poverty cycles and empowering families and youth to succeed in education and achieve life-long self-sufficiency. Specifically, the organization works diligently to support single parents in their goal to achieve academic success despite various socioeconomic circumstances they may face. Many of their participating families have likely been exposed to trauma throughout their lifetimes and face barriers as a result of those traumas. In recognizing the importance of mental health, this program reviews the needs of their participants and assesses for any potential trauma that may be impacting them. Every program participant is provided with proper accommodation and support to help them succeed in their endeavors. This can range from academic support to career counseling, financial sustainability, mental and physical wellbeing, and more. Through attaining post-secondary education, Family Scholar House participants are more likely to achieve their career goals and become members of their communities' economy.





## Footnotes & References

1. Berger, M. Childhood Exposure to Trauma Costs Society \$458 Billion Annually. Penn Today. Published November 6, 2019. Accessed May 15, 2022. <https://penntoday.upenn.edu/news/childhood-exposure-trauma-costs-society-458-billion-annually>
2. Davis LL, Schein J, Cloutier M, et al. The economic burden of posttraumatic stress disorder in the United States from a societal perspective. *J Clin Psychiatry*. 2022;83(3):21m14116. Accessed May 15, 2022.
3. Ivanova JI, Birnbaum HG, et al. Cost of post-traumatic stress disorder vs major depressive disorder among patients covered by Medicaid or private insurance. *Am J Manag Care*. Published Aug 2011. 1;17(8):e314-23. PMID: 21851139. Accessed May 15, 2022.
4. Marshall, V. Economic Effects of PTSD: A Review. University of North Carolina. Published 2005. Accessed May 16, 2022.
5. National Safety Council. New Mental Health Cost Calculator Shows Why Investing in Mental Health is Good for Business. Published May 13, 2021. Accessed May 16, 2022. <https://www.nsc.org/newsroom/new-mental-health-cost-calculator-demonstrates-why>.
6. Hill, C. What PTSD Costs Families. Published April 4, 2014. Accessed May 16, 2022. <https://www.marketwatch.com/story/what-ptsd-costs-families-2014-04-04>.
7. Bieber, C. The Average Cost of Divorce in 2020. Published November 16th, 2020. Accessed May 17, 2022. <https://www.fool.com/the-ascent/research/average-cost-of-divorce/>.
8. Forman-Hoffman, V., Bose, J., Batts, K., et al. Correlates of Lifetime Exposure to One or More Potentially Traumatic Events and Subsequent Posttraumatic Stress among Adults in the United States. U.S. Department of Health & Human Services. Published April 2016. Accessed May 17, 2022.
9. Lebow, H.I. PTSD Alliance. How Childhood Trauma May Affect Adult Relationships? Accessed May 18, 2022. <https://psychcentral.com/blog/how-childhood-trauma-affects-adult-relationships#childhood-trauma-vs-adult-relationships>.
10. Frederiksen, L. The Developing Brain & Adverse Childhood Experiences (ACEs). PACEs Connection. Published April 26, 2018. Accessed May 17, 2022. <https://www.pacesconnection.com/blog/the-developing-brain-and-adverse-childhood-experiences-aces>.
11. Bahn, K., McGrew, A. A Day in the U.S. Economy Without Women. Center for American Progress. Published March 7, 2017. Accessed May 18, 2022. <https://www.americanprogress.org/article/a-day-in-the-u-s-economy-without-women/>.
12. The American Psychological Association. Trauma. Accessed May 20, 2022. <https://www.apa.org/topics/trauma>.
13. Perry, B. Examining Child Maltreatment Through a Neurodevelopmental Lens: Clinical Applications of the Neurosequential Model of Therapeutic. *Journal of Loss and Trauma*. 2009; Vol 14 (4). PP: 240-255. DOI:10.1080/15325020903004350.
14. Herting, N. Adverse Childhood Experiences and Trauma-Informed Care. Center for Rural Health, University of North Dakota. Published September 9, 2019. Accessed May 21, 2022.
15. Jones, L., Cureton, J. Trauma Redefined in the DSM-5: Rationale and Implications for Counseling Practice. *The Professional Counselor*. Published 2015. Accessed May 21, 2022. <https://tpcjournal.nbcc.org/trauma-redefined-in-the-dsm-5-rationale-and-implications-for-counseling-practice/>.
16. Center for Disease Control and Prevention. About the CDC-Kaiser ACE Study. Accessed May 22, 2022. <https://www.cdc.gov/violenceprevention/aces/about.html>.

17. Financial Health Institute. Economic Trauma. Accessed May 22, 2022. <http://financialhealthinstitute.org/learn/economic-trauma/>.
18. Lebow, H. How Childhood Trauma May Affect Adult Relationships. PsychCentral. Published June 10, 2021. Accessed May 22, 2022. <https://psychcentral.com/blog/how-childhood-trauma-affects-adult-relationships> Accessed May 23, 2022.
19. Family & Childrens Trust Fund of Virginia. Systems of Trauma. Accessed May 23, 2022. <https://www.fact.virginia.gov/systems-of-trauma/>.
20. Resler, M. Systems of Trauma. Published 2019. Accessed May 23, 2022. [www.fact.virginia.gov/](http://www.fact.virginia.gov/).
21. Learning the science behind ACEs, trauma, adversity, and resilience and building community strength. Community Resilience Cookbook. Accessed May 24, 2022. <https://communityresiliencecookbook.org/>.
22. Cascade Behavioral Health. Symptoms, Signs & Effects of Psychological Trauma. Accessed May 23, 2022. <https://www.cascadebh.com/behavioral/trauma/signs-symptoms-effects/>.
23. Center for Workplace Mental Health. Quantifying the Cost of Depression. Accessed May 23, 2022. <https://www.workplacementalhealth.org/mental-health-topics/depression/quantifying-the-cost-of-depression>.
24. Wagner, K. Effects of Trauma on Depression and Suicidality in Adulthood. Published November 29, 2016. Accessed May 23, 2022. <https://www.psychiatrictimes.com/view/effects-childhood-trauma-depression-and-suicidality-adulthood>.
25. Texas Association of School Boards. How Childhood Trauma Affects Students and What You Can Do. Accessed May 23, 2022. <https://www.tasb.org/members/enhance-district/how-childhood-trauma-affects-students/>.
26. The National Child Traumatic Stress Network. What is Childhood Trauma? Accessed May 24, 2022. <https://www.nctsn.org/what-is-child-trauma/trauma-types/complex-trauma/effects>.
27. The American Psychological Association. Students Exposed to Trauma. Accessed May 24, 2022. <https://www.apa.org/ed/schools/primer/trauma>.
28. Adelman, C. The Toolbox Revisited: Paths to Degree Completion from High School Through College. Published 2006. Accessed May 24, 2022.
29. Romero, M., Young-Sun, L. A National Portrait of Chronic Absenteeism in the Early Grades. Published June 11, 2010. Accessed May 24, 2022. <https://academiccommons.columbia.edu/doi/10.7916/D89C7650>.
30. Harris, N. How Childhood Trauma Affects Health Across A Lifetime. Published February 17, 2015. Accessed May 24, 2022. <https://www.youtube.com/watch?v=95ovIJ3dsNk>.
31. Wilson, C. More Psychologists With Training in Trauma Needed. American Psychological Association. 2013; Vol. 44(8): P 36. <https://www.apa.org/monitor/2013/09/trauma>.
32. Kerr, N., et. al. Occupational Therapy for Military Personnel and Military Veterans Experiencing Post-Traumatic Stress Disorder: A Scoping Review. Published July 5, 2020. Accessed May 25, 2022. <https://onlinelibrary.wiley.com/doi/full/10.1111/1440-1630.12684>.
33. Berrios, R., Zarate, M. Vicarious Trauma Among Social Workers: The Impact of Client Trauma. California State University. Published June 2020. Accessed May 25, 2022.
34. Robson, K. et. al. The Value of Harms Avoided: Calculating the Cost of a Fragmented System of Social Services. Published February 24, 2021. Accessed May 25, 2022. <https://bellwethereducation.org/publication/value-harms-avoided-calculating-cost-fragmented-system-social-services>.
35. Substance Abuse and Mental Health Services Organization. SHIFT Study Highlights Trauma's Impact on Homelessness. Accessed May 25, 2022. <https://www.samhsa.gov/homelessness-programs-resources/hpr-resources/traumas-impact-homelessness>.

36. National Council of Juvenile and Family Court Judges. Trauma-informed Courts. Accessed May 25, 2022. <https://www.ncjfcj.org/child-welfare-and-juvenile-law/trauma-informed-courts/>.
37. Wallbake, R. Considering Childhood Trauma in the Juvenile Justice System: Guidance for Attorneys and Judges. Published November 1, 2014. Accessed May 25, 2022. [https://www.americanbar.org/groups/public\\_interest/child\\_law/resources/child\\_law\\_practiceonline/child\\_law\\_practice/vol\\_32/november-2013/considering-childhood-trauma-in-the-juvenile-justice-system--gui/](https://www.americanbar.org/groups/public_interest/child_law/resources/child_law_practiceonline/child_law_practice/vol_32/november-2013/considering-childhood-trauma-in-the-juvenile-justice-system--gui/).
38. Larson, et al. Developing Statutes for Competence to Stand Trial in Juvenile Delinquency Proceedings: Guide for Lawmakers. Published 2011. Accessed May 26, 2022.
39. National Child Trauma Stress Network. Trauma among Girls in the Juvenile Justice System. Published 2004. Accessed May 26, 2022. <https://www.nctsn.org/resources/trauma-among-girls-juvenile-justice-system>.
40. Davis, L. et al. The economic burden of posttraumatic stress disorder in the United States from a societal perspective. *J Clin Psychiatry*. 2022;83(3):21m14116. <https://www.psychiatrist.com/jcp/trauma/ptsd/economic-burden-posttraumatic-stress-disorder-united-states-societal-perspective/>.
41. Center for Workplace Mental Health. Posttraumatic Stress Disorder. Accessed May 26, 2022. <https://www.workplacementalhealth.org/mental-health-topics/posttraumatic-stress-disorder>.
42. The Family Scholar House. About us. Published February 2019. Accessed May 26, 2022. <https://familyscholarhouse.org/about-us/>.
43. DeAngelis, T. The Legacy of Trauma. Accessed May 27, 2022. <https://www.apa.org/monitor/2019/02/legacy-trauma>.
44. Collins, C. For Kids, Living In Poverty Is Living With Chronic Trauma, Experts Say. Published October 6, 2015. Accessed May 27, 2022. <https://www.keranews.org/2015-10-06/for-kids-living-in-poverty-is-living-with-chronic-trauma-experts-say>.
45. The American Psychological Association. Treatments for PTSD. Accessed May 27, 2022. <https://www.apa.org/ptsd-guideline/treatments>.

