

# CAFFEINE CONSUMPTION AMONG ADOLESCENTS: IMPLEMENTING REGULATIONS ON HIGHLY CAFFEINATED BEVERAGES IN THE UNITED STATES

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## INTRODUCTION

Caffeine is one of the most popular drugs in the United States and is consumed by all age groups. Currently in the United States, there are few regulations in place that would deter individuals from consuming heavy amounts of caffeine. Yet, Americans underestimate a safe amount of caffeine. Thus, this Comment will advocate for heavier regulations on highly caffeinated beverages for the health and safety of citizens. First, the Comment will discuss the history and evolution of coffee and energy drinks. Next, it will discuss the physical and psychological effects associated with overconsuming caffeine. Lastly, it will discuss and analyze the recommended solutions for resolving over-consumption issues.

### I. RECENT EFFECTS OF CAFFEINE ON A UNITED STATES CITIZEN

*“Panera Bread’s Charged Lemonade is Linked to Death in Lawsuit”*, is the big headline in the news.<sup>1</sup> Jill Katz and Michael Katz, the mother and father of Sarah Katz, sued Panera Bread Company after 21-year-old Sarah Katz died from cardiac arrest

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1. See generally Amanda Holpuch, *Panera Bread’s Charged Lemonade is Linked to Death in Lawsuit*, N.Y. TIMES (Oct. 24, 2023), <https://www.nytimes.com/2023/10/24/us/panera-caffeine-charged-lemonade-death.html>.

after consuming Panera Bread's Charged Lemonade.<sup>2</sup> According to the Katz complaint, Panera advertises "as a healthier and 'clean' fast food chain" and displayed the charged lemonade directly beside all the non-caffeinated drinks.<sup>3</sup> Here, the lemonade included no warning of its allegedly "life threatening effects on blood pressure, heart rate, and/or brain function".<sup>4</sup> In addition, the drink contained no warnings of risk involved with "ingesting these concentrated amounts of caffeine in connection with [other] stimulants and sugar."<sup>5</sup> Rather the only indication of the drink's contents was in small print: "Plant-based and Clean with as much caffeine as our dark roast coffee."<sup>6</sup> The complaint states, Panera's regular sized charged lemonade contains 260 milligrams of caffeine and large sized contains 390 milligrams of caffeine.<sup>7</sup> On the contrary, Panera's small coffee contains 161 milligrams, 216 milligrams in the medium, and 268 in the large.<sup>8</sup> However, as of the composition of this Comment Panera's website states, the regular sized charged lemonade contains 157 milligrams of caffeine and large sized contains 236 milligrams of caffeine. We are uncertain if this discrepancy is a result of this lawsuit.<sup>9</sup>

Some of the issues the plaintiffs raise related Panera's Charged Lemonade include design, the need to warn, and how they are marketing the lemonade and to whom.<sup>10</sup> It is important to note Panera is not the only entity offering highly caffeinated beverages; rather, it took an unfortunate event to shed light on a bigger problem.

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2. Katz et al. v. Panera Bread Co. et al., No. 2:23-CV-04135, 2023 U.S. Dist. WL 231002242, at 2 (E.D. Pa. Oct. 26, 2023).

3. *Id.* at 5.

4. *Id.* at 6.

5. *Id.*

6. *Id.* at 7.

7. See Katz et al. v. Panera Bread Co. et al., No. 2:23-CV-04135, 2023 U.S. Dist. WL 231002242, at 8 (E.D. Pa. Oct. 26, 2023).

8. See *id.*

9. See PANERA BREAD, *Strawberry Lemon Mint Charged Lemonade*, <https://www.panerabread.com/en-us/menu/products/strawberry-lemon-mint-charged-lemonade.html> (last visited March 1, 2024).

10. See Katz, 2023 WL 02242, at \*7-16.

## II. THE HISTORY OF COFFEE AND ENERGY DRINKS

### A. Coffee

Coffee is “a drink made by infusion or decoction from the seeds of a shrub, roasted and ground or (in the East) pounded; extensively used as a beverage, and acting as a modern stimulant.”<sup>11</sup> The Ethiopian legend is that Kaldi, a goat herder, was the first to discover coffee berries upon noticing how energetic his goats became after eating them.<sup>12</sup> To feel more energized Kaldi began consuming the berries himself, and Kaldi’s daily habit was soon noticed by the monks.<sup>13</sup> The monks began “boiling the berries to make a drink to help [them] stay awake during long religious services.”<sup>14</sup> Throughout the centuries coffee made its way around the world.<sup>15</sup> Currently in the 21<sup>st</sup> century, coffee is still one of the most highly consumed beverages in the world and the highest consumed caffeinated beverage in the United States.<sup>16</sup>

### B. Energy Drinks

In contrast to coffee, which has been drunk for centuries, the energy drink market is fairly new and is rapidly growing. Dr. Enuf was the first energy drink introduced in the United States in 1949 and “was developed by a Chicago chemist Bill Swarts to aid co-workers who complained of fatigue.”<sup>17</sup> In 1962, Taisho, a Japanese company, introduced their version of the energy drink called

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11. J.A. SIMPSON & E.S.C. WEINER, *THE OXFORD ENGLISH DICTIONARY* 438 (2nd ed. 2008).

12. See NINA LUTTINGER & GREGORY DICUM, *THE COFFEE BOOK* 3 (2006).

13. See *id.*

14. *Id.*

15. See generally *id.* at 4-16.

16. See Joris C. Verster & Juergen Koenig, *Caffeine Intake and its Sources: A Review of National Representative Studies*, 58 *TAYLOR & FRANCIS* 1250, 1250 (2018).

17. L.A. Times Archives, *Vitamin-Enriched Dr. Enuf Trying to Give Boost to Soft Drink Market*, *L.A. TIMES* (Nov. 2, 1998), <https://www.latimes.com/archives/la-xpm-1998-nov-02-fi-38537-story.html>.

Lipovitan D, “in efforts to aid struggling Japanese executives.”<sup>18</sup> The primary ingredients in Lipovitan D are taurine and caffeine.<sup>19</sup> Thus, Lipovitan D closely resembles the energy drink as we know it today. Most energy drinks marketed today include caffeine, taurine, glucuronolactone, guarana, and B vitamins, a combination referred to as the “energy blend”.<sup>20</sup> Currently, the top five energy drinks are Gatorade, Carabao Energy, Monster, Red Bull, and Alani Nu.<sup>21</sup> All promise to, “increase energy and enhance mental alertness and physical performance.”<sup>22</sup>

### III. WHO ARE THE PRIMARY CONSUMERS OF CAFFEINE?

Caffeine consumption is an activity participated in by all age groups, although it has not been heavily studied in recent years. A survey was conducted in 2008 with a sample of 2,000 U.S. households, to determine how many milligrams of caffeine were being consumed.<sup>23</sup> The survey concluded caffeine intake was the highest for adults 22 and older at 161.9 milligrams a day, adolescents 14-21 years old at 74.9 milligrams a day, and children 2-13 years old at 28.7 milligrams a day.<sup>24</sup>

A 2010 survey showed that among those who consume caffeine, “[63%] consume carbonated soft drinks, 55% consume

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18. Daniel Engber, *Who Made That Energy Drink*, N.Y. TIMES (Dec. 6, 2013), <https://www.nytimes.com/2013/12/08/magazine/who-made-that-energy-drink.html>.

19. See Hang Won Hong, *Asian Food & Grocery Store*, TUK TUK MART, <https://tuktukmart.co.uk>.

20. John P. Higgins, *Energy Beverages: Content and Safety*, 85 MAYO CLINIC PROC. 1033, 1034 (Nov. 2010).

21. See STATISTA, *Energy drinks brand rankings in the U.S.*, <https://www.statista.com/insights/consumer/brand-profiles/2/5/energy-drinks/united-states/> (Aug. 4, 2023).

22. NAT'L CENTER FOR COMPLEMENTARY & INTEGRATIVE HEALTH, *Energy Drinks*, <https://www.nccih.nih.gov/health/energy-drinks#:~:text=A%20growing%20body%20of%20scientific,on%20muscle%20strength%20or%20power> (July 2018).

23. See Joris C. Verster & Juergen Koenig, *Caffeine Intake and its Sources: A Review of National Representative Studies*, 58 TAYLOR & FRANCIS 1250,1253 (2018).

24. See *id.*

coffee, 53% consume tea, and 4% consume energy drinks.”<sup>25</sup> In considering caffeine preferences, carbonated sodas were primarily consumed by children and adolescents, coffee was primarily consumed by adults 18 and older, and energy drink’s primary consumers were 13-24 years old.<sup>26</sup>

However, among the many things impacted by COVID-19 was caffeine consumption. Coffee consumption reached a two-decade high as Americans got into new routines post-COVID.<sup>27</sup> *The Spring 2022 National Coffee Data Trends Report* stated, Americans daily consumption increased by 14%, at-home consumption increased by 4%, away-from-home consumption increased by 8%, and consumption of espresso beverages increased by 30% since the pandemic started.<sup>28</sup>

COVID-19 also had a positive impact on energy drink market growth, due to an increase in awareness of health and sports activities.<sup>29</sup> Energy drinks are consumed primarily by men 18-34 and one-third of teens 12-17 years old; thus, market participants shifted advertising to athletes and younger people.<sup>30</sup> Market participants also began releasing sugar-free and calorie-free drinks as a healthier alternative.<sup>31</sup> As a result, “the global energy drinks market size was valued at USD 86.35 billion in 2021 and is expected to expand at a compound annual growth rate (CAGR) of 8.3% from 2022 to 2030.”<sup>32</sup>

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25. *Id.* at 1251.

26. *See id.*

27. *See* NAT’L COFFEE ASS’N, *Coffee Consumption Hits Two-Decade High - Spring 2022 National Coffee Data Trends Report*, <https://www.ncausa.org/Newsroom/Coffee-consumption-hits-two-decade-high-2022-NCDT> (March 15, 2022).

28. *See id.*

29. *See* MKT. ANALYSIS REP., *Share & Trends Analysis Report By Product (Drinks, Shots, Mixers), By Type (Conventional, Organic), By Packaging (Cans, Bottles), By Distribution Channel, By Region, And Segment Forecasts*, <https://www.grandviewresearch.com/industry-analysis/energy-drinks-market> (last visited Dec. 15, 2023).

30. *See* NAT’L CENTER FOR COMPLEMENTARY & INTEGRATIVE HEALTH, *supra* note 27.; *See also* MKT. ANALYSIS REP., *supra* note 29.

31. *See* MKT. ANALYSIS REP., *supra* note 29.

32. *Id.*

#### IV. PHYSICAL AND PSYCHOLOGICAL HEALTH EFFECTS OF CAFFEINE

Due to its rising popularity, the health effects resulting from caffeine consumption have been more heavily studied. The Food & Drug Association (FDA) recommends a maximum of 400 milligrams of caffeine to be consumed by adults per day.<sup>33</sup> The (FDA) has not recommended a maximum amount of caffeine consumption for children or adolescents; however, pediatricians have recommended 12 to 18-year-olds consume no more than 100 milligrams of caffeine per day, and children under age 12 not consume caffeine at all.<sup>34</sup> These recommendations are based on findings that while caffeine consumed in moderation may produce positive outcomes, overconsumption can lead to serious health side effects.<sup>35</sup>

Caffeine is a nervous system stimulant; thus, excessive use has been shown to result in unhealthy physical conditions.<sup>36</sup> Considering age, size, and underlying health conditions, caffeine dosages of 200 milligrams a day or more may begin toxicosis resulting in signs of nervousness and increased heart rate, insomnia, or digestion problems and muscle cramps.<sup>37</sup> Dramatically higher dosages of caffeine, 2000 milligrams a day, may result in hospitalization causing more severe cardiovascular, gastrointestinal, and neurological, symptoms.<sup>38</sup> The Center for Disease Control and Prevention (CDC) reported in the year of 2011

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33. See U.S. FOOD & DRUG ADMIN., *Spilling the Beans: How Much Caffeine is Too Much?*, <https://www.fda.gov/consumers/consumer-updates/spilling-beans-how-much-caffeine-too-much> (Sep. 9, 2023).

34. See AM. ACAD. OF CHILD & ADOLESCENT PSYCHIATRY, *Caffeine and Children*, [https://www.aacap.org/AACAP/Families\\_and\\_Youth/Facts\\_for\\_Families/FF-F-Guide/Caffeine\\_and\\_Children-131.aspx](https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FF-F-Guide/Caffeine_and_Children-131.aspx) (July 2020).

35. See Steven E. Meredith et al., *Caffeine Use Disorder: A Comprehensive Review and Research Agenda*, 3 J. CAFFEINE RSCH. 114, 115 (2013).

36. See Rita Soós et al., *Effects of Caffeine and Caffeinated Beverages in Children, Adolescents and Young Adults: Short Review*, INT'L J. ENV'T RSCH. & PUB. HEALTH, Nov. 2025, at 1, 2.

37. See *id.* at 4.

38. See *id.* at 5.

“1,499 adolescents aged 12 to 17 years went to the emergency room for an energy drink-related emergency.”<sup>39</sup>

In addition to negative physical effects, excessive caffeine use has also demonstrated negative psychological effects. Research has shown that caffeine consumption seems to be associated with conduct disorder symptoms such as: “sensation-seeking, impulsivity, and risk-taking” among adolescents.<sup>40</sup> Further, a middle school study indicated caffeine consumption can be associated with mental illness.<sup>41</sup> In general, “energy drink and coffee consumption were both related to [Attention-deficit/hyperactivity disorder] in-attention, [Conduct disorder], depressive, and panic symptoms.”<sup>42</sup> Further energy drink consumption was associated with depression, while coffee consumption was associated with anxiety.<sup>43</sup>

## V. SOLUTIONS TO REGULATE CAFFEINE CONSUMPTION

### A. *Enacting a Minimum Legal Sales Age*

The United States currently has no restrictions on the purchase or sale of highly caffeinated products. Laws and restrictions have only been imposed on the labeling of highly caffeinated products. Rather than altering the FDA’s regulatory authority over dietary supplements or amending the Dietary Supplement Health and Education Act (DSHEA), which has been heavily enforced over the years, it could be more beneficial to place an age restriction on the sale and purchase of highly caffeinated beverages.<sup>44</sup>

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39. CENTER FOR DISEASE CONTROL AND PREVENTION, *The Buzz on Energy Drinks*, <https://www.cdc.gov/healthyschools/nutrition/energy.htm> (March 15, 2022).

40. Naomi R. Marmorstein, *Energy Drink and Coffee Consumption and Psychopathology Symptoms Among Early Adolescents: Cross-Sectional and Longitudinal Associations*, 6 J. CAFFEINE RSCH. 64,65 (2016).

41. *See id.* at 66.

42. *Id.* at 68.

43. *See id.*

44. *See* Larry D. Treat, *Energy Drink Regulations: Why the Time for More FDA Authority Is Not Ripe and How States Can Protect Children Without Unjustly Infringing on Adult Autonomy*, 12 J. FOOD L. & POL’Y 163, 172 (2016).

### 1. *History of the Minimum Legal Sales Age of Tobacco*

Approximately 90% of Americans consume caffeine, making it the most popular drug in the United States.<sup>45</sup> Other commonly used drugs in the United States include tobacco/nicotine, alcohol, and cannabis.<sup>46</sup> Thus, caffeine can be regulated the same way other commonly used drugs in the United States have been regulated. “Regulations pertaining to the minimum age are commonly referred to as “minimum legal sales age” laws (“MLSA” laws).”<sup>47</sup> Congress passed the Synar Amendment in 1992, “which required states to make their MLSA eighteen years old if they wanted to be eligible for abuse prevention grants.”<sup>48</sup> Effective December 20, 2019, Congress raised the age to twenty-one.<sup>49</sup> The findings of the 2019 Bill demonstrated that the purpose of raising the MLSA was to reduce death, disease, and health care costs.<sup>50</sup>

In the state of Louisiana, “It is unlawful for any person under the age of twenty-one to be sold any tobacco product, alternative nicotine product, or vapor product.”<sup>51</sup> Further, “it is unlawful for any person under the age of twenty-one to possess any tobacco product, alternative nicotine product, or vapor product.”<sup>52</sup>

### 2. *A Federal Law Regulating Highly Caffeinated Products*

As it did with tobacco, Congress can use one of its express or implied powers, under the Constitution to impose a MLSA for caffeinated beverages. Manufacturers have taken some measures to regulate themselves, such as labeling foods as conventional foods, not dietary supplements, and following the American Beverage Association’s (ABA) guidance for labeling and marketing

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45. See Steven E. Meredith et al., *supra* note 35, at 114.

46. See NAT’L INST. DRUG ABUSE, *Commonly Used Drug Charts*, <https://nida.nih.gov/research-topics/commonly-used-drugs-charts> (last visited Dec. 16, 2023).

47. Casey Kellum, *21 In the 21st—An Evaluation of the Tobacco Regulation Trend*, 51 SAINT MARY’S L. J. 1031, 1032 (2020).

48. *Id.* at 1035.

49. 42 U.S.C.A. § 300x-26

50. H. R. 2411, 116th Cong. (2019).

51. LA. REV. STAT. § 14:91.8 (2023).

52. *Id.*



techniques that promote consumer safety.<sup>53</sup> However, this self-regulation is not enough. Manufacturers of highly caffeinated products, unsafe for children and young adolescents, are targeting the youth with ads.<sup>54</sup> It is contradictory for a state to pass a MLSA when children and young adolescents are still being influenced by advertisements of prohibited products on their social accounts. Thus, to be effective, a common ground must be established between restrictions placed on advertising and selling of highly caffeinated products. Therefore, it may be the right time for Congress to implement a MLSA for highly caffeinated beverages for the same purpose of reducing death, disease, and healthcare cost.

### 3. *A State Law Regulating Highly Caffeinated Products*

#### a. *State Interest vs. Burden on Interstate Commerce*

The state of Louisiana may use its police powers to implement legislation regulating highly caffeinated beverages, subject to the *Pike* balancing test, which requires a legitimate state interest that is greater than the burden imposed on interstate commerce.<sup>55</sup>

Here, the health and safety of citizens is the primary state interest. The physical and psychological effects of overconsuming caffeine have been discussed and should be considered with the utmost importance.<sup>56</sup> “The Supreme Court generally supports states’ rights to ‘impose even burdensome regulations in the interest of local health and safety.’”<sup>57</sup>

A MSLA would primarily impose a burden on manufacturers and sellers of highly caffeinated beverages. Here, manufacturers may have to make modifications to ingredients, but reducing caffeine content would not be costly. Further, large brick-and-mortar retailers like Walmart, may place the beverages falling within the MLSA behind the counter with the tobacco products or in the liquor department. However, a proposed MLSA on highly

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53. See Larry D. Treat, *supra* note 44, at 184.

54. See *id.* at 185.

55. See *Pike v. Bruce Church*, 397 U.S. 137, 142 (1970).

56. See *supra* note 40.

57. Larry D. Treat, *supra* note 44, at 195, 196.

caffeinated beverages would likely receive the most pushback from those primarily in the industry, such as Starbucks. Being responsible for checking the identification of each of their consumers takes up time and slows down business. In addition, an expense would be imposed from losing the market share of customers under eighteen years old.

While Starbucks and other major coffee providers may raise concerns about their business and profits being burdened through the implementation of a MLSA, they pale in comparison to what can be done to lessen those burdens. The author proposes a law modeled after Louisiana's tobacco statute and based on pediatrician's recommendations that 12-18-year-olds should consume no more than one hundred milligrams of caffeine per day. *It shall be deemed unlawful for any person eighteen or younger to be sold or possess any product that contains caffeine in the amount of one-hundred milligrams or greater per every twelve ounces.* Twelve ounces is the size of the average energy drink and a small cup of coffee.<sup>58</sup> Therefore, the law would limit the sale or purchase to/by children and young adolescents eighteen years or younger from purchasing most energy drinks, coffees, charged teas/lemonades, etc. currently on the market. Thus, the law is tailored to accomplish the legislature's objective of decreasing mental illness, emergency room visits, and deaths caused by overconsumption of caffeinated products.

By tailoring the law to milligrams per ounce, corporations such as Starbucks can slightly alter their menu in a way that still allows customers under eighteen to be targeted. Identification checks would also be reduced because it would be known to employers what drinks could be sold to certain age groups. Therefore, the burden imposed would likely be outweighed by a legitimate state interest and the state would have the authority to impose a MLSA on highly caffeinated products.

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58. See WALMART, *Red Bull Energy Drink, 12 fl oz Can*, <https://www.walmart.com/ip/Red-Bull-Energy-Drink-12-fl-oz-Can/12018772> (last visited Dec. 17, 2023).; STARBUCKS, *Iced Coffee*, <https://www.starbucks.com/menu/product/422/iced> (last visited Dec. 17, 2023).

### *B. Implementing Educational Health Intervention*

On January 8, 2002, President George W. Bush signed into law the Safe and Drug-Free Schools and Communities Act (SDFSCA).<sup>59</sup> The purpose of the act was to “prevent violence, illegal use of alcohol and drugs, and support academic achievement.”<sup>60</sup> Likely considering the purposes of the SDFSCA, the CDC recommends that schools should begin aiding students in making “healthier choices about energy drink use.”<sup>61</sup> The CDC also provides recommendation for teachers and coaches to educate students and athletes on the harms of consuming caffeine.<sup>62</sup>

#### *1. Will Educating Students Would Reduce Caffeine Consumption?*

##### *a. Cost*

Studies have shown that the cost of school-based drug prevention is relatively low. “School-based drug prevention programs draw heavily on existing school resources.”<sup>63</sup> The primary cost of taking such an approach is the time and task imposed on educational professionals to prepare lessons and using scarce class time that could be spent on traditional academic subjects.<sup>64</sup> However, this cost can be reduced by the drug prevention program including “instruction in writing, exercises in critical thinking, or other such activities, as well as instruction in the school subjects it displaces.”<sup>65</sup> In the instance of caffeine, it could be an educational science lesson for students that caffeine and a lot of other ingredients used in beverages and food are

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59. See 20 U.S.C. § 7101.

60. 20 U.S.C. § 7102.

61. CENTER FOR DISEASE CONTROL AND PREVENTION, *The Buzz on Energy Drinks* infographic, [https://www.cdc.gov/healthyschools/nutrition/pdf/The\\_Buzz\\_on\\_Energy\\_Drinks\\_infographic\\_508tagged.pdf](https://www.cdc.gov/healthyschools/nutrition/pdf/The_Buzz_on_Energy_Drinks_infographic_508tagged.pdf) (March 15, 2022).

62. See *id.*

63. Kevin N. Griffith & Lawrence M. Scheier, *Did We Get Our Money's Worth? Bridging Economic and Behavioral Measures of Program Success in Adolescent Drug Prevention*, 10 Int'l J. Env't Rsch. & Pub. Health 5908, 5912 (Nov. 8, 2013).

64. See Jonathan P. Caulkins et al., *What Are The True Benefits Of School-Based Drug Prevention Programs?*, DRUG POL'Y RSCH. CENTER, 2002, at 2.

65. *Id.*

derived from plants. Thus, although drug prevention programs create an opportunity cost because resources can be used in other ways, such cost can drastically be reduced by incorporating drug prevention into lessons rather than replacing lessons for drug prevention education.<sup>66</sup>

*b. Benefits*

A study by Jonathan Caulkins and other analysts compared school-based drug prevention programs and the reduction of the use of four substances: “cocaine, marijuana, tobacco, and alcohol.”<sup>67</sup> The research ultimately showed that the benefits of a school-based drug prevention program did exceed its cost. The study concluded a benefit to society at 840 dollars maximum and 300 dollars minimum per student, considering a variety of assumptions.<sup>68</sup> The study concluded a 150 dollar cost per student.<sup>69</sup> Here, 40% of the social value was realized through reductions in tobacco use, 30% of the social value was a decrease in alcohol abuse, 20% of the social value was associated with reductions in cocaine use, and a reduction in marijuana use accounted for a small fraction of the total.<sup>70</sup>

The cost-effectiveness of the D.A.R.E. program was also analyzed. The D.A.R.E. program was implemented in “75% of U.S. schools in the 1990s and cost taxpayers an estimated \$600 million to \$750 million per year.”<sup>71</sup> Research indicated that the D.A.R.E. curriculum resulted in minimum positive effects.<sup>72</sup> In efforts to reboot the program, in 2012, D.A.R.E. developed a new program called “keepin’ it REAL.”<sup>73</sup> Specialist believe the new program to be more successful based on “shown a reduction in student drug

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66. See Kevin N. Griffith & Lawrence M. Scheier, *supra* note 63, at 5911.

67. Jonathan P. Caulkins et al., *supra* note 64, at 1.

68. See *id.*

69. See *id.*

70. See *id.* at 2.

71. Matt Berry, *Does the New Dare Program Work*, AM. ADDICTION CENTERS (Nov. 10, 2022), <https://americanaddictioncenters.org/blog/new-dare-program-work>.

72. See *id.*

73. *Id.*

use compared to peers who did not participate.”<sup>74</sup> For Instance, results from an evaluation conducted by UNC Greensboro (UNCG) indicate a “statistically significant reductions in the prevalence of drinking alcohol, getting drunk, smoking.”<sup>75</sup>

Therefore, research has demonstrated that drug prevention programs have resulted in a reduction in drug use. Implementing a discussion on caffeine use in such programs has the potential to reduce consumption. The benefit of reduced consumption outweighs the mild cost involved. It should not be presumed that caffeine use is not as important as bringing awareness to the more commonly identified drugs. Discussions on caffeine use have more significance than other common drugs because it is one of the most highly consumed drugs in the world, and Americans are naïve about its effects. Thus, caffeine use prevention would be a proper use of educational authority granted by the SDFSCA; as well as, a sufficient use federal funding.

### *C. Advertising Regulations*

#### *1. Current Advertising Regulations in Place and the Concerns With Such Regulations*

The American Beverage Association provides guidance for responsible labeling and marketing of energy drinks.<sup>76</sup> It is not a requirement to be a member of the ABA, but those who commit to be members are also asked to refrain from marketing to children.<sup>77</sup> However, most leading manufacturers have not committed to “refrain from marketing to youth between ages twelve and eighteen.”<sup>78</sup> The Federal Trade Commission (FTC), “oversees federal consumer protection requirements that prohibit, among other things, deceptive acts or practices in advertising, including food advertising.”<sup>79</sup> According to the FTC, “under the law, claims in advertisements must be truthful, cannot be deceptive or unfair,

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74. *Id.*

75. D.A.R.E., <https://dare.org/d-a-r-e-keepin-it-real-evidence-based-successful-and-effective/> (last visited March 2, 2024).

76. See Larry D. Treat, *supra* note 44, at 180.

77. See *id.*

78. *Id.* at 185.

79. EDWARD J. MARKEY ET AL., WHAT’S ALL THE BUZZ ABOUT? 17 (April 10, 2013).

and must be evidence-based.”<sup>80</sup> Further, “If you endorse a product through social media, your endorsement message should make it obvious when you have a relationship (‘material connection’) with the brand.”<sup>81</sup> Considering adolescents between the ages of 13 and 17 are the focus of energy drink marketing, the FTC has emphasized safety concerns of such advertising being directed to youth.<sup>82</sup>

Energy drink companies often target students, athletes, and gamers. Examples include Rockstar Energy sponsoring young athletes, such as skateboarder Mitchie Brusco, and Monster Energy awarding high school athletes “Monster Energy Drink Player of the Game.”<sup>83</sup> A study was also conducted analyzing energy drink consumption and excessive gaming, with students from middle schools in Taiwan.<sup>84</sup> Results concluded, “boys reported higher levels of the effects of energy-drink advertising, which resulted in higher levels of energy-drink consumption.”<sup>85</sup> Lastly, social media influencers are beginning to promote their own energy drinks such as Logan Paul’s Prime Energy, Alani Nu Energy by Addison Rae, and Alani Nu Energy by Kim Kardashian, with colorful youthful cans and advertising portraying an increase in energy and performance.<sup>86</sup> Therefore, young adolescents are being directly advertised too and advertisements have been shown to increase consumption.

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80. FED. TRADE COMM’N, *Advertising and Marketing*, <https://www.ftc.gov/business-guidance/advertising-marketing> (last visited Dec. 17, 2023).

81. *Id.*

82. *See* EDWARD J. MARKEY ET AL., *supra* note 136, at 15, 17.

83. *Id.* at 15.

84. *See* Chung-Ying Yang et al., *Excessive Gaming and Online Energy-Drink Marketing Exposure Associated With Energy-Drink Consumption Among Adolescents*, INT’L J. ENV’T RSCH. PUB. HEALTH, Aug. 2022, at 1, 1.

85. *Id.*, at 1, 5-6.

86. *See generally* PRIME, <https://drinkprime.com> (last visited Dec. 17, 2023).; ALANI, *Energy Drink Kimade /12 pack*, <https://www.alaninu.com/products/energy-drink-kimade> (last visited Dec. 17, 2023).; THE VITAMIN SHOPPE, *Limited Edition Energy Drink by Addison Rae - Berry Pop (12 Drinks, 12 Fl. Oz. Each)*, <https://www.vitaminshoppe.com/p/alani-nu-energy-berry-pop-12-drink-s/ala0048> (last visited Dec. 17, 2023).

## 2. Congress Implementing Restrictions on Advertising Highly Caffeinated Products

After a MLSA for tobacco products was implemented the Master Settlement Agreement (MSA) prohibited: targeting the youth, the use of cartoons, distributing merchandise, payments for promotion in the media, and sponsorships.<sup>87</sup> As a result of the MSA, cigarette consumption dropped by more than 50% as of 2019.<sup>88</sup> Further, high schoolers who smoke dropped from 36% in 1997 and 6% in 2019.<sup>89</sup>

Similar restrictions on advertising of highly caffeinated beverages can be imposed to reduce caffeine consumption. “[M]any countries have implemented regulations on advertising that directly or effectively regulate the advertising of energy drinks/sugar-sweetened beverages.”<sup>90</sup> In Australia, where there are similar laws to the United States that prohibit misleading advertising, they did a study banning advertising of high fat, high sugar, and high salt (HFSS) food and drink products until 9:30 pm every day.<sup>91</sup> The authors of the study concluded that doing so would reduce kilojoules (kJ) intake by 115 per day, saving 126.3 million dollars.<sup>92</sup> Therefore, they concluded that banning advertising until the adult hours of the day would significantly improve the public health.<sup>93</sup> Further, the UK enacted a Code of Broadcast Advertising (BCAP) which prohibited HFSS advertising during and adjacent to TV and radio programs that appeal to children.<sup>94</sup> The BCAP Codes “appear to have had positive but modest results.”<sup>95</sup>

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87. See NAT’L ASS’N ATT’Y GEN. , *The Master Settlement Agreement*, <https://www.naag.org/our-work/naag-center-for-tobacco-and-public-health/the-master-settlement-agreement/> (last visited Dec. 24, 2023).

88. See *id.*

89. See *id.*

90. Marilyn Bromberg et al., *Have a (Non-Energy) Drink on Me - Modifying the Laws regarding Energy Drinks in Australia*, 74 FOOD & DRUG L.J. 440, 460 (2019).

91. See *id.* at 463.

92. See *id.* at 463-464.

93. See *id.* at 464.

94. See *id.* at 461.

95. *Id.*

Therefore, if Congress passed legislation prohibiting highly caffeinated beverages from being advertised on youth channels/during youth hours, or legislation prohibiting youth icons from promoting such products, it is reasonable to conclude that consumption of highly caffeinated beverages would decrease. As a result, decreasing the consumption of highly caffeinated products would promote public health.

### 3. *First Amendment Freedom of Speech*

Imposing restrictions on the advertising of highly caffeinated beverages raises a First Amendment freedom of commercial speech issue.<sup>96</sup> However, a First Amendment argument would likely not prevail.

Here, Congress may pass legislation prohibiting highly caffeinated beverages from being advertised to the youth. It is likely that manufacturers of highly caffeinated beverages, who focus advertising on “enhanced alertness” and “physical performance”, are more likely to deceive the public rather than inform it. Considering public health and the development of youth are substantial government interests, prohibiting highly caffeinated beverages from being advertised to the youth is appropriate and not more extensive than necessary. We have already established that prohibiting the advertising of highly caffeinated beverages to youth would likely be an appropriate way to reduce the consumption of caffeinated beverages by youth. Doing so would also not be extensive because the law would not prohibit the advertising of lawful products to adults. Therefore, the government’s actions align with the ultimate objective of promoting public health and protecting children.

## VI. CONCLUSION

Ultimately, we want to prevent incidents like the one caused by Panera Bread’s Charged Lemonade from occurring in the future. Rather than misleading consumers that highly caffeinated

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96. See CONGRESSIONAL RESEARCH SERVICE LIBRARY OF CONGRESS, THE CONSTITUTION OF THE UNITED STATES OF AMERICA ANALYSIS AND INTERPRETATION 1113 (Jeanne M. Dennis et al. eds., 2023).



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products serve the ultimate purpose of enhancing alertness and performance; consumers need to be educated on the threatening effects and risks involved caused by overconsumption.

Passing a law is subject to strict procedures and takes an extensive amount of time, especially federal legislation. It is believed by the author that the state of Louisiana may pass legislation placing a MLSA on highly caffeinated beverages without violating the Dormant Commerce Clause. The author also believes Congress can pass legislation prohibiting highly caffeinated beverages from being advertised to youth without violating the First Amendment.

However, the best solution for reducing caffeine consumption is to implement educational health interventions. Implementing educational intervention in highly caffeinated products is supported by the purpose stated in the SDFSCA and primarily requires the use of resources already available. Based on studies of other successful prevention programs, it is likely that implementing educational intervention in highly caffeinated products would promote public health, decrease criminal activity, and improve academic achievement.

Opinions and health effects of highly caffeinated beverages are still evolving. While passing legislation may be the ultimate solution someday, the author believes the first step that needs to be made is educating individuals on highly caffeinated products. Educating and creating a connection to consumers that high amounts of caffeine consumption are unhealthy, will help resolve overconsumption issues.