

# Taxing Tobacco by Risk

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by Pamela Villarreal

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*Excise taxes are fees levied on specific products like cigarettes, beer and gasoline. Unlike broad-based taxes, such as general sales or income taxes, excises are often paid by a narrow subset of the population, such as smokers, consumers of alcohol and so forth. These taxes are often hidden from consumers because they are embedded in a product's retail price. Some excise taxes are called "sin" taxes because they are levied on undesirable behaviors such as smoking and drinking.*



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## Executive Summary

Cigarette taxes are meant to raise revenue and reduce smoking rates, yet these taxes are arbitrary and vary widely from state to state. The average state tax per pack of cigarettes is \$1.45, but ranges from \$0.17 per pack in Missouri to \$4.35 per pack in New York.

Furthermore, products that have been shown to be less harmful than cigarettes, such as smokeless tobacco, are often taxed at near-equivalent or greater rates. The tax on smokeless tobacco is typically *ad valorem*, a percentage of the wholesale or manufacturer's price. For example:

- South Carolina has the lowest tax at only 5 percent on the wholesale price.
- Wisconsin taxes moist snuff at a full 100 percent of the wholesale price; other smokeless tobacco products, however, are taxed at several times the wholesale price. (Chewing tobacco is 715 percent of the wholesale price.)

Fifteen states tax smokeless tobacco at a flat rate per ounce:

- Alabama has the lowest per ounce tax on smokeless tobacco, at a mere \$0.02.
- New York has the highest per ounce tax at \$2.00.

Taxing cigarettes at a high rate may not encourage smokers to quit; instead, they may roll their own cigarettes, purchase across state lines if the tax rate is lower or purchase tax exempt cigarettes from Indian reservations. States lose an estimated \$5 billion annually from "black market" sales. Research has also shown that individuals may substitute another potentially harmful product for cigarettes, such as alcohol. Furthermore, the success rate for smoking cessation drugs, products and programs is abysmally low — typically less than 25 percent.

Harm reduction is an approach to public health intended as an alternative to the prohibition of certain potentially dangerous lifestyle choices. It recognizes that some individuals will continue to engage in

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behaviors that carry risks, and attempts to mitigate the risks associated with the behaviors themselves. The goal of tobacco harm reduction is to steer users toward tobacco products with fewer health risks, such as smokeless tobacco, over higher-risk combustible products, such as cigarettes. A number of published studies conclude that cigarettes and other combustible smoking products pose a far greater risk to human health than smokeless (noncombustible) tobacco. An expert panel of researchers in the fields of tobacco smoke and smokeless tobacco toxicology concluded that relative risk of smokeless tobacco products are no more than 10 percent that associated with cigarettes. This suggests that a tobacco harm reduction strategy would tax smokeless tobacco (using a 1.2 ounce can of snuff as the example) at about one-tenth as much as the tax on cigarettes. On the other hand, if the rate of taxation is equal to or higher than cigarettes, the state is penalizing users who switch to a less risky product. Only two states tax smokeless tobacco at or below this ratio:

- Pennsylvania is the only state that levies no excise tax on smokeless tobacco.
- Alabama levies a smokeless tobacco tax of 5 cents for every dollar of cigarette tax.

Six states tax smokeless tobacco at a rate that is greater than the tax on cigarettes, per unit. Oregon taxes smokeless tobacco at \$1.81 for every dollar of cigarette tax, followed by North Dakota (\$1.64), Utah

(\$1.29), Maine (\$1.21), Wyoming (\$1.20) and Iowa (\$1.05). Thus, in six states, tax levels actually encourage smokeless tobacco users to become smokers.

Despite the controversy surrounding tobacco harm reduction, this approach has shown some success. Smokeless tobacco is banned in most of Europe, although cigarettes are legal in every country. Sweden, however, has made snus, a form of smokeless tobacco, readily available. Consequently, as the use of snus increased:

- Smoking fell from 40 percent of Swedish male adults in 1976 to just 10 percent in 2010.
- Smoking fell from 34 percent to 20 percent among Swedish females over the same period.
- Furthermore, the incidence of lung cancer among Swedish males is 15 percent lower than that of any other developed country, and the rate of cardiovascular health has increased.

Sweden has made more progress in reducing the rate of adult smoking than any other developed country. The move from cigarettes to smokeless tobacco was an effective means to accomplish this goal.

States that wish to pursue a consistent and science-based tobacco harm reduction strategy should examine the way in which they tax tobacco products and the amount of tax levied on these products.

### About the Author

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## Introduction

Excise taxes are fees levied on specific products like cigarettes, beer and gasoline. Unlike broad-based taxes, such as general sales or income taxes, excises are often paid by a narrow subset of the population, such as smokers, consumers of alcohol and so forth. These taxes are often hidden from consumers because they are embedded in a product's retail price. Some excise taxes are called "sin" taxes because they are levied on undesirable behaviors such as smoking and drinking. States can more easily collect revenue on behaviors disapproved of by society without evoking voter backlash.

Cigarette taxes, while raising revenue, are also meant to reduce smoking rates, thus reducing individual harm as well as external costs borne by nonsmokers. Yet, tobacco taxes are arbitrary and vary widely from state to state. Furthermore, products such as smokeless tobacco, which the evidence shows are less harmful than cigarettes, are often taxed at near-equivalent or greater rates than cigarettes. This report will explore a more risk-appropriate tobacco taxation system through tobacco harm reduction, and show a state-by-state comparison of taxes on tobacco products and how closely they reflect the harm they pose.

## Comparisons of State Tobacco Tax Rates

Federal excise taxes on tobacco products are uniform across all states. However, at the state level, excise taxes are literally all over the map [see Figure I]:

**Figure I**  
**Cigarette Taxes**  
(per pack)



Source: "State Excise Tax Rates for Cigarettes." Available at [www.tobaccofreekids.org](http://www.tobaccofreekids.org).

- The average tax per pack of cigarettes is \$1.45.
- Missouri has the lowest at just \$0.17 per pack.
- New York tops the charts with a tax of \$4.35 per pack, more than the average cost of a pack of cigarettes.

Four of the top 10 tobacco-producing states are in the bottom 10 for state cigarette taxes: South Carolina, \$0.57 cents per pack; North Carolina, \$0.45 cents per pack; Georgia, \$0.37 per pack; and Virginia \$0.30 per pack. This suggests that these states' cigarette taxes are set to appease constituents rather than address health or state revenue concerns. However, another top tobacco-producing state, Connecticut, is among the states with the highest tax rates, at \$3.00 per pack.

Smokeless tobacco taxes also vary widely. The tax on smokeless

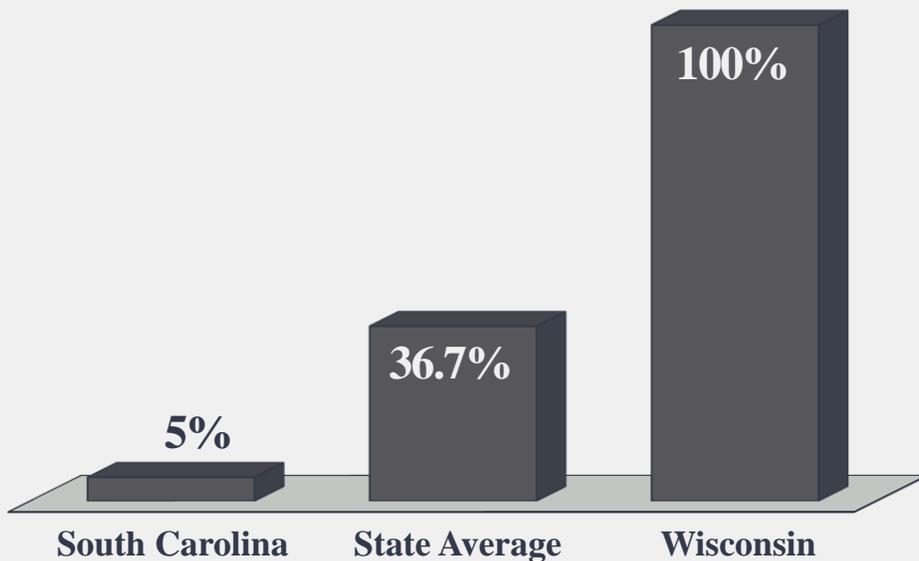
tobacco is typically *ad valorem*, a percentage of the wholesale or manufacturer's price. [See Figure II.] For example:

- The average rate as a percent of the wholesale/manufacturer's price is 36.7 percent.
- Aside from Pennsylvania, which levies no tax on smokeless tobacco, South Carolina has the lowest tax at only 5 percent of the wholesale price.
- Wisconsin taxes moist snuff at a full 100 percent of the wholesale price; other smokeless tobacco products, however, are taxed at several times the wholesale price. (Chewing tobacco is 715 percent of the wholesale price.)

Fifteen states plus the District of Columbia tax smokeless tobacco at a flat rate per ounce. [See Figure III.] For instance:

- The average tax per ounce of smokeless tobacco is \$1.04.

**Figure II**  
**Wholesale Tobacco Tax**



Source: "State Excise Tax Rates for Non-Cigarette Tobacco Products."  
Available at [www.tobaccofreekids.org](http://www.tobaccofreekids.org).

- Alabama has the lowest per ounce tax on smokeless tobacco, a mere \$0.02.
- New York has the highest per ounce tax at \$2.00.

### Cigarette Taxes as a Deterrent to Smoking

Economists generally measure responsiveness to price using elasticity of demand: the absolute value (the real number without regard to its sign), of the percentage change in the consumption of tobacco products divided by the percentage change in price.<sup>1</sup> Consider:

- An elasticity of one means that a percentage change in price results

in an equal percentage change in quantity sold.

- If elasticity is greater than one, the price increase will result in an even greater percentage decline in the quantity sold and, consequently, less spending by consumers and less tax revenue.
- If elasticity is less than one, the price increase will not be matched by an equal percentage decline in the quantity sold and spending on products will rise, resulting in more tax revenue.

Purchases of addictive goods like cigarettes are considered to be fairly insensitive to price increases. According to a review of the literature by Dahlia Remler, elasticity of demand for tobacco products is between -0.3 and -0.5. This means that

for a typical smoker, a 10 percent price increase leads to a 3 percent to 5 percent decrease in consumption.<sup>2</sup>

However, policies designed to reward certain behaviors and discourage other behaviors can create unintended consequences. For example, taxing cigarettes at a high rate may not encourage smokers to quit; instead, they may roll their own cigarettes, purchase across state lines if the tax rate is lower or buy tax exempt cigarettes from Indian reservations. States lose an estimated \$5 billion annually from "black market" sales.<sup>3</sup>

Individuals may even substitute another potentially harmful product for cigarettes. In a study regarding the effect of cigarette prices on alcohol consumption (and vice versa), Sandra Decker and Amy Schwartz examined excise tax data and cigarette/alcohol consumption among survey participants in 23 states.<sup>4</sup> They found:

- Among the whole sample population of both drinkers and nondrinkers, a 10 percent increase in the price of cigarettes leads to a 5 percent increase in the number of drinks consumed per month.
- For women, a 10 percent increase in the price of cigarettes leads to a 6.4 percent increase in the number of drinks consumed per month; for men, the increase is 4.3 percent.

Moreover, the price of cigarettes also affected the frequency with which individuals consumed alcohol:

- For the sample population as a whole, a 10 percent increase in the price of cigarettes increased

the likelihood of drinking by nearly 4 percent.

- For women, this likelihood increased by more than 5 percent; for men, 2.7 percent.

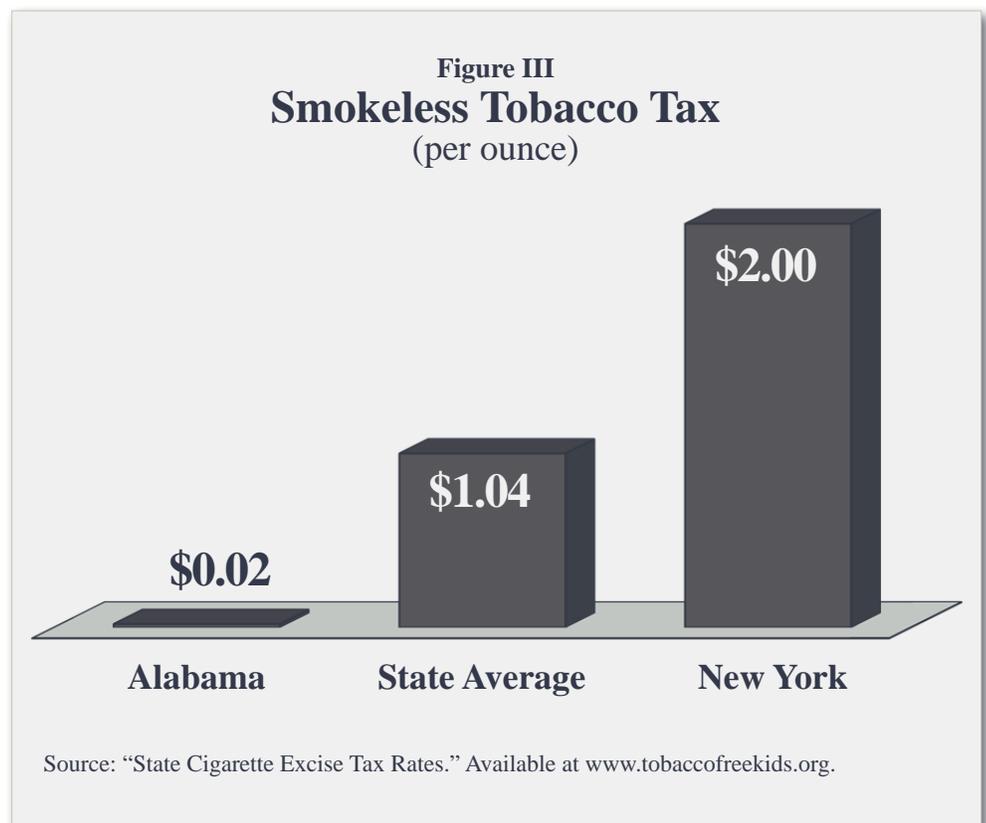
Decker and Schwartz also found that while increases in cigarette prices reduced the number of cigarettes per day and the frequency of smoking among both men and women, the increase in cigarette prices had a greater effect on alcohol consumption. In other words, alcohol may act as a substitute for cigarettes, trading one harmful habit for another.

## How Successful Is Smoking Cessation?

In the United States today, approximately 70 percent of smokers want to stop smoking. While 44 percent attempt to quit every year, only 4 percent to 7 percent of smokers successfully do so on their own.<sup>5</sup> Since the 1950s, several methods designed to get smokers to quit have emerged, including public service announcements, self-help programs, therapy groups, community clinics, nicotine replacement products and excise taxes.

### Nicotine Replacement Therapy.

One of the most common forms of smoking cessation is nicotine replacement therapy (NRT). Simply put, NRT supplies the smoker with a dose of nicotine without the side effects associated with smoke and tar from cigarettes. The process is regressive and allows smokers to reduce their smoking habit gradually. NRT's short



and long-term effects have been monitored by numerous studies.

A 1999 study conducted by the *New England Journal of Medicine* found [see Figure IV]:<sup>6</sup>

- Forty-eight percent of NRT patients abstained from smoking during the first nine weeks of treatment, compared to 33.8 percent of patients in a placebo group.
- Nearly 10 percent of NRT patients abstained from smoking one year after beginning treatment, compared to 5.6 percent in the placebo group.

In 2006, the BioMedical Public Health Organization conducted a meta-analysis of a number of studies. The analysis determined:<sup>7</sup>

- The long-term effects (abstinence at one year) of NRT were better

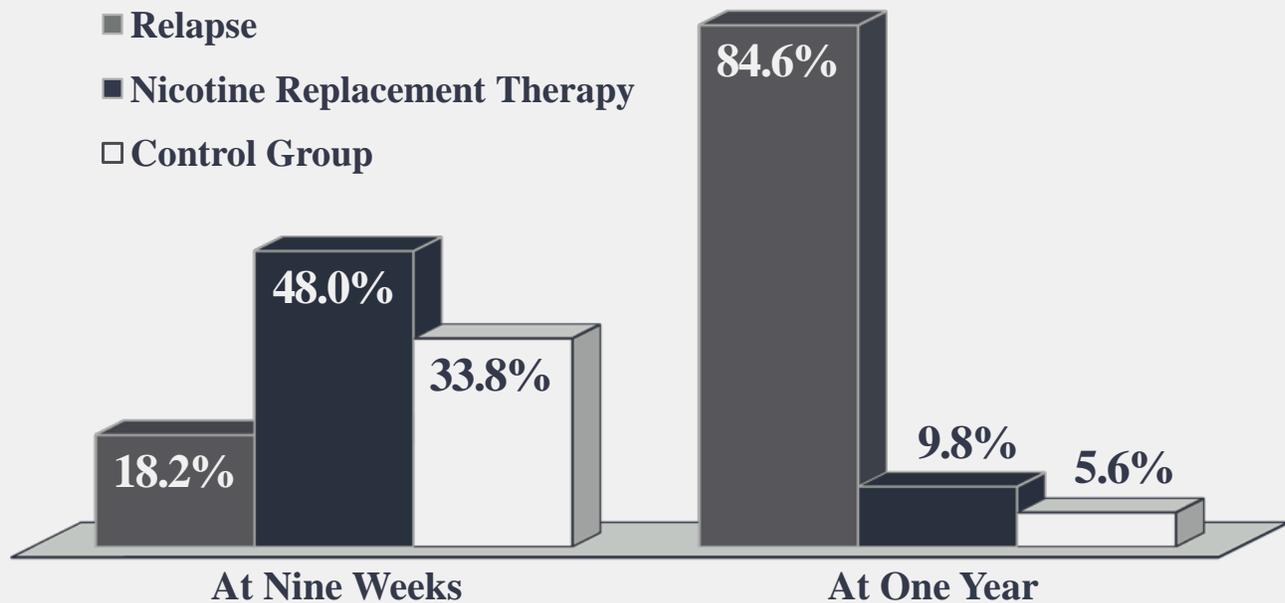
than control groups that were given a placebo in all trials conducted.

- In 59 of the 70 trials examined, the short-term effects (less than three month usage) were better than the control groups.

In 2008, the Cochrane Tobacco Addiction Group found through a meta-analysis of 132 trials consisting of 40,000 individuals that NRT increased the likelihood of quitting by 50 percent to 70 percent compared to quitting without drug therapy.<sup>8</sup>

However, it is important to note that despite the short-term effectiveness of NRT, smoking rates tend to remain high after one year in all treatment groups. Alternative drug therapies have been considered and shown to be effective when combined with NRT, but even under

Figure IV  
Smoking Cessation Rates



Source: D.E. Jorenby et al., "A controlled trial of sustained-release bupropion, a nicotine patch, or both for smoking cessation," *New England Journal of Medicine*, 1999, Vol. 340, pages 685-691.

these circumstances quit rates fall below 1 in 4 smokers.<sup>9</sup>

### An Alternative: Harm Reduction as a Tax Strategy

Harm reduction is an approach to public health intended as an alternative to the prohibition of certain potentially dangerous lifestyle choices. It recognizes that some individuals will continue to engage in behaviors that carry risks, and attempts to mitigate the risks associated with the behaviors themselves. Harm reduction is an approach used in other areas of public health. For instance, the Office of the Surgeon General has accepted risk reduction, not abstinence, when advocating

responsible sexual behavior.<sup>10</sup> It advocates healthy eating, not outlawing fast food, when dealing with childhood obesity.<sup>11</sup> Harm reduction associated with tobacco use might include steering consumers toward tobacco products with fewer health risks, such as smokeless tobacco, and away from higher-risk products, such as cigarettes.

A number of public health organizations have examined the relative health risks associated with smokeless tobacco use and smoking. They concluded that, compared to smoking, the risk for chronic disease associated with smokeless tobacco use is reduced more than 90 percent.<sup>12</sup>

A number of published studies indicate the risks for lung cancer

and respiratory disease are not increased by smokeless tobacco compared to never using tobacco. There is some evidence the risks for heart attack and stroke mortality may be moderately increased (20 percent to 30 percent) for smokeless tobacco use compared to no tobacco use, but not the incidence of those diseases.

Given the risk differential, a tobacco harm reduction strategy would suggest that smokeless tobacco (using a 1.2 ounce can of snuff as the example) should be taxed at a rate of no more than about one-tenth the tax on cigarettes.

**The Health Effects of Cigarettes.** Indeed, all tobacco products are harmful to one's health. While they contain hundreds of potentially

harmful ingredients, at issue are the toxins and carcinogens released when a product is burned. Federal law prohibits advertising smokeless tobacco as a safe alternative to cigarettes. However, smoke from cigarettes causes health problems at a far higher rate than smokeless tobacco products. According to the Centers for Disease Control and Prevention (CDC):<sup>13</sup>

- Smoking accounts for 90 percent of all lung cancer deaths in men and 80 percent of lung cancer deaths in women.
- Smoking is responsible for 90 percent of deaths from chronic obstructive pulmonary disease.
- Cigarette smoking is annually responsible for some 443,000 deaths in the United States.

Smoking is a primary cause of emphysema, bronchitis and chronic airway obstruction. Smoking also contributes to various types of cancer, including bladder, esophageal, pancreatic, kidney, and cancer of the larynx and pharynx. Among women of child-bearing age, smoking increases the risk of infertility, preterm delivery, stillbirths, low birth weight and Sudden Infant Death Syndrome (SIDS).<sup>14</sup>

In recent decades, health experts have examined the effects of second-hand smoke, particularly its effect on people who have been raised in households with adult smokers or who live with smokers. According to the CDC:<sup>15</sup>

- Nonsmokers who live with smokers or work around smokers increase their risk of developing heart disease by 25 percent to 30 percent.

- Nonsmokers in a smoking environment also increase their risk of developing lung cancer 20 percent to 30 percent compared to those who do not live in a household with smokers.

Furthermore, several studies have found a link between secondhand smoke and health effects among children who live in smoking households:

*“Smokeless tobacco has fewer health risks than cigarettes.”*

- In a study of asthmatic children ages 5 to 12, those who were exposed to secondhand smoke were 22 times more likely to be intubated than asthmatic children who were not exposed.<sup>16</sup>
- Furthermore, children in smoking households are more likely to have lower levels of HDL cholesterol (“good” cholesterol), as well as higher levels of an acute-phase protein that can lead to atherosclerosis later in life.<sup>17</sup>

While smoking causes 87 percent of total lung cancer deaths, a quantitative link between oral cancer deaths as a result of smokeless tobacco use has yet to be established. Finally, whereas 60 percent of individuals diagnosed with oral cancer are treated and survive, only 16 percent of lung

cancer patients survive five years after diagnosis. Smoking is a greater threat to American health.

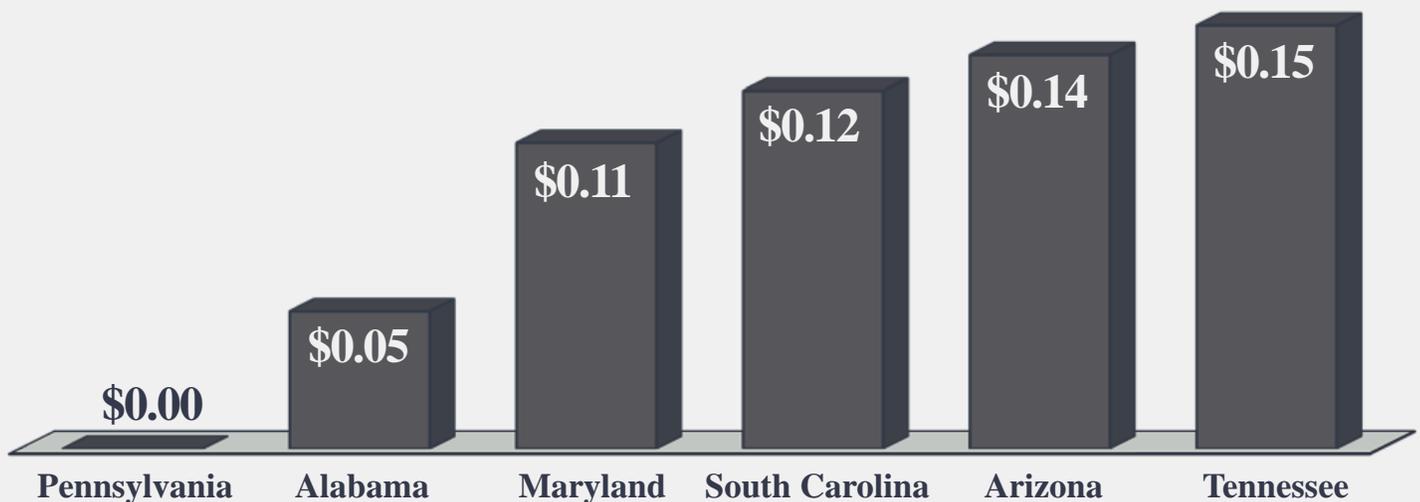
**The Health Effects of Smokeless Tobacco.** Smokeless tobacco is not without risk. According to the CDC:<sup>18</sup>

- Smokeless tobacco reduces oral health and is linked to precancerous lesions of the mouth, gum recession, gum disease and tooth decay.
- For pregnant women, smokeless tobacco increases the risk of high blood pressure, premature birth and low birth weight babies.
- For men, smokeless tobacco has been shown to reduce sperm count.

Several studies have examined the link between smokeless tobacco and cardiovascular disease, although conclusions vary widely regarding the risk to smokeless tobacco users compared to nontobacco users. These studies found that, overall, the risk of heart attack and stroke for current users of smokeless tobacco is no greater than the risk for nonusers. But the risk of dying from heart attack was 1.13 times greater among current smokeless tobacco users compared to nonusers. Likewise, the risk of dying from a stroke was 1.4 times greater.<sup>19</sup> Finally, a recent study in the *American Journal of Epidemiology* found that the incidence of cardiovascular disease (including myocardial infarction and stroke) was 1.27 times greater in smokeless tobacco users than nontobacco users.<sup>20</sup>

**Comparing the Relative Risk of Cigarettes to Smokeless Tobacco.** Both European and U.S. studies

Figure V  
States with Snuff Taxes of 15 Cents or Less  
per \$1.00 of Cigarette Tax



Source: Author's calculations.

show that smokeless tobacco users have a slightly higher risk of developing oral cancer than nonusers. But more importantly, the data suggests that the risk for oral cancer for smokeless tobacco users is likely 75 percent to 80 percent less compared to smokers.<sup>21</sup>

Furthermore, one Swedish study of oral cancer patients and those with no cancer found an increased risk of oral cancer for active smokers and beer and wine drinkers, but not for users of snuff.<sup>22</sup>

While smokeless tobacco users are at greater risk of various health problems than tobacco product abstainers, they are at less risk than smokers. Indeed:

- A meta-analysis of lung cancer studies found that smokers were 7 times to 12 times more likely

to develop lung cancer than nonsmokers.<sup>23</sup>

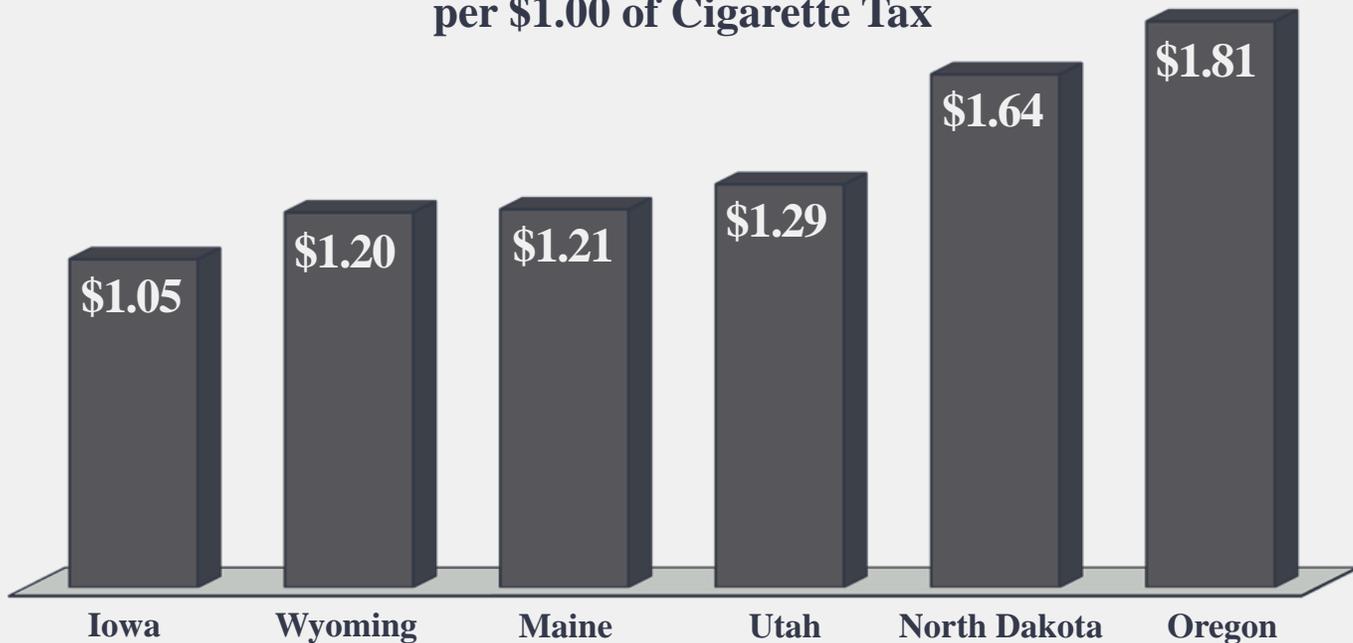
- However, a meta-analysis of studies on smokeless tobacco users found no increased risk of lung cancer.<sup>24</sup>
- Furthermore, smokers were 2 times to nearly 5 times more likely to develop cancer of the oral cavity and 2 times to 3 times more likely to develop esophageal cancer than nonsmokers.<sup>25</sup>
- The increase in esophageal cancer among smokeless tobacco users, however, was less than one-fifth that of nonsmokers.<sup>26</sup>

**Mortality Rates among Smokeless Tobacco Users and Cigarette Smokers.** In 2004, a nine member panel of medical experts and researchers compared

the relative risk of low-nitrosamine smokeless tobacco (such as Swedish snus) users to cigarette smokers in terms of lung cancer risk, heart disease, oral cancer and overall mortality.<sup>27</sup> The study assumed an open-ended scale, with the absence of risk equal to zero and the risk of premature mortality associated with lifelong conventional cigarette smoking equal to 100. A risk for smokeless products greater than cigarettes was expressed as >100.<sup>28</sup> Relative risks of mortality were broken into two age groups. For smokeless tobacco users ages 35 to 49:

- Overall relative mortality risk was 11 (compared to 100 for a smoker).
- The highest relative mortality risk for smokeless tobacco users

**Figure VI**  
**States with Snuff Taxes Greater Than \$1.00**  
**per \$1.00 of Cigarette Tax**



Source: Author's calculations.

was 15.7, resulting from oral cancer.

- The lowest relative mortality risk for smokeless tobacco users was 2.9, resulting from lung cancer.

Among smokeless tobacco users ages 50 and older:

- Overall relative mortality risk was 8.2 (compared to 100 for a smoker).
- The highest relative mortality risk for smokeless tobacco users was 21.3, resulting from oral cancer.
- The lowest relative mortality risk for smokeless tobacco users was 2.7, resulting from lung cancer.

Of course, there are limitations to this study. It is assumed that the tobacco user or smoker began at age

17, did not switch between products or discontinue use during the course of his or her life, and represented “typical use” of the product.

Critics of tobacco harm reduction policies have argued that the manufacturing process of Swedish snus and lozenges cannot be compared to American-made smokeless tobacco products, in which the manufacturing process allegedly results in a more harmful product. While the manufacturing process differs in the two countries, Brad Rodu, a noted author on tobacco harm reduction, concludes that the differences in Swedish and American tobacco products have grown smaller and that “it is now questionable to make a sharp distinction between the use of American and Swedish moist snuff when assessing risks.”<sup>29</sup>

## How Well Do State Excise Taxes Reflect Relative Risk?

If tobacco taxes are levied according to the amount of risk the product poses to individual health, then the government is taxing according to risk. According to this principle, it is appropriate to tax certain types of tobacco less when they are found to be less harmful than other types. Excessive taxes have failed to lower smoking rates in the last five years and quit rates for smoking when using NRT are low.

If smokeless tobacco were taxed according to relative risk, the tax rate would be one-tenth that of cigarette taxation (comparing a 1.2 ounce can of snuff to a pack

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of cigarettes). Thus, 48 out of 50 states *do not* tax tobacco products according to relative risk. Strictly speaking, only two states tax smokeless tobacco at one-tenth or less the tax on cigarettes [see Figure V]:

- Pennsylvania is the only state that imposes no excise tax on smokeless tobacco.
- Alabama imposes a smokeless tobacco tax of 5 cents for every dollar of cigarette tax.

A handful of states levy taxes of less than or close to the rate of 15 cents per dollar. This does not exactly reflect relative risk, but these states are “in the ballpark” and could make small modifications to their tax ratio to reflect tobacco harm reduction:

- Maryland taxes smokeless tobacco at 11 cents for every dollar of cigarette tax.
- South Carolina taxes at 12 cents per dollar, followed by Arizona (14 cents) and Tennessee (15 cents).

The states in Figure VI represent the highest end of the spectrum, and tax smokeless tobacco at a higher rate than cigarettes ( $> 1$ ) [see Figure VI]:

- Six states tax smokeless tobacco at a rate that is equal to or greater than the tax on cigarettes, per unit.
- Oregon (ranking first of all the states) taxes smokeless tobacco at nearly twice the rate of cigarettes, at \$1.81 per dollar of cigarette tax.
- At the lower end of the high spectrum, Iowa’s tobacco tax rate per unit is nearly equal to

its cigarette tax rate at \$1.05 per dollar of cigarette tax.

[For a complete list of states, see the Appendix Table.]

States that tax smokeless tobacco at or above the same rate as cigarettes are unknowingly giving smokeless tobacco users an incentive to switch to cigarettes. Considering the active role states have played in litigating against tobacco companies and bringing

*“Some states tax smokeless tobacco more heavily than cigarettes.”*

to public awareness the health care costs associated with smoking, taxation without regard to risk is inconsistent and will do little to curb smoking rates for the population of smokers who cannot or will not quit. Though 70 percent of smokers want to quit, relapse rates at one year among those who try to do so are nearly 85 percent. This group of individuals would be aided by the reduction in harmful effects that accompany smokeless tobacco. Tax policy could do a better job of providing incentives that steer nicotine users to less harmful products.

The tobacco harm reduction approach has shown some success. Unlike most of Europe, where smokeless tobacco is banned, Sweden has made snus readily available. Consequently, as the use of snus increased:<sup>30</sup>

- Smoking fell from 40 percent to just 15 percent of Swedish male adults from 1976 to 2002.
- Smoking fell from 34 percent to 20 percent among Swedish females over the same time period.
- Furthermore, the incidence of lung cancer among Swedish males fell to a rate lower than that of any other developed country, and the rate of cardiovascular disease decreased as well.<sup>31</sup>

## Policy Recommendations

States can implement a tobacco harm reduction strategy by the way they tax tobacco products. The erratic level of taxes levied upon smokeless tobacco in relation to cigarettes indicates that most states do not currently follow a policy of tobacco harm reduction. Taxes have been raised on every form of tobacco without attention to the incentives it places before consumers. Thus, in six states, tax levels actually discourage smokers from switching to less harmful smokeless products. The health of tobacco and nontobacco using Americans would benefit from a more consistent and realistic tax policy.

A review of the many studies on smokeless tobacco and cigarettes indicate that based on the risks posed by smokeless tobacco, such products could be taxed at one-tenth the tax of cigarettes. States that wish to promote a consistent and science-based stance via tobacco harm reduction should examine the way in which they tax tobacco products and the amount of tax levied on these products.

## Appendix: Methodology for Determining Whether Smokeless Tobacco Products and Cigarettes Are Taxed According to Relative Health/Mortality Risk

With the aim of later determining whether the tax ratio conformed to the risk ratio, the ratio of the smokeless tobacco tax to cigarette tax was determined according to the following method:

1. The following data were collected:
  - a. State tax on cigarettes: In all 50 states and the District of Colombia, the tax is levied by the pack.<sup>32</sup>
  - b. State tax on smokeless tobacco: Tax is levied either per ounce of tobacco or as a percent of the wholesale price.<sup>33</sup>
  - c. Wholesale prices for the four main price points at which smokeless tobacco is sold. The highest is the premium product; the lowest is the value product.<sup>34</sup>
2. The four price points were not considered individually because their market share varies by state. The median price point (\$1.38) was determined in order to avoid the extensive costs of proprietary information and the detailed calculation required by considering market shares.
3. For states that tax according to percent, the percent levied was multiplied by the median price point to determine the state's tax per unit sold ( $X\% * \$1.38$ ).
4. For states that tax according to ounce, the tax was multiplied by 1.2 because there are 1.2 ounces of tobacco in each can of smokeless tobacco. The result is the state's tax per unit sold.
5. The tax per unit of cigarettes was then divided by the tax per unit of smokeless tobacco.
6. The resulting ratio should reflect the ratio of smokeless tobacco (snuff) tax to cigarette tax.

**Limitations of Available Studies.** The challenge in this study was determining the relative risk at which to compare the cigarette tax against the snuff tax.

Studies vary according to methodology, sample size, time period and a variety of other variables that may affect health risks. Thus not all studies arrive at the same consensus as to what degree smokeless tobacco causes harm.

Furthermore, most studies compare groups of “current” smokeless tobacco users to “ever” users (those who have now quit) and “never” users, without regard to actual daily dosage.

Finally, the concept of harm reduction has not been well-received in the United States. Some studies clearly stated that in spite of the lower risks associated with smokeless tobacco, the findings should not infer that these products could be a less harmful alternative to cigarettes. It is unclear why researchers would make normative judgment on this issue.

**APPENDIX TABLE**

**Results by State: Smokeless Tobacco Tax Relative to Cigarette Tax**

<b><u>State</u></b>	<b><u>Snuff Tax on Median Price Point</u></b>	<b><u>Cigarette Tax per Pack</u></b>	<b><u>Ratio of Snuff Tax to Cigarette Tax</u></b>
<b>Alabama</b>	0.02	0.43	<b>0.05</b>
<b>Alaska</b>	1.04	2.00	<b>0.52</b>
<b>Arizona</b>	0.27	2.00	<b>0.14</b>
<b>Arkansas</b>	0.94	1.15	<b>0.82</b>
<b>California</b>	0.46	0.87	<b>0.53</b>
<b>Colorado</b>	0.55	0.84	<b>0.65</b>
<b>Connecticut</b>	0.66	3.00	<b>0.22</b>
<b>Delaware</b>	0.65	1.60	<b>0.41</b>
<b>Florida</b>	1.17	1.34	<b>0.87</b>
<b>Georgia</b>	0.14	0.37	<b>0.38</b>
<b>Hawaii</b>	0.97	3.00	<b>0.32</b>
<b>Idaho</b>	0.55	0.57	<b>0.96</b>
<b>Illinois</b>	0.25	0.98	<b>0.26</b>
<b>Indiana</b>	0.33	1.00	<b>0.33</b>
<b>Iowa</b>	1.43	1.36	<b>1.05</b>
<b>Kansas</b>	0.14	0.79	<b>0.18</b>
<b>Kentucky</b>	0.23	0.60	<b>0.38</b>
<b>Louisiana</b>	0.28	0.36	<b>0.78</b>
<b>Maine</b>	2.42	2.00	<b>1.21</b>
<b>Maryland</b>	0.21	2.00	<b>0.11</b>
<b>Massachusetts</b>	1.24	2.51	<b>0.49</b>
<b>Michigan</b>	0.44	2.00	<b>0.22</b>
<b>Minnesota</b>	0.97	1.58	<b>0.62</b>
<b>Mississippi</b>	0.21	0.68	<b>0.31</b>
<b>Missouri</b>	0.14	0.17	<b>0.82</b>
<b>Montana</b>	1.02	1.70	<b>0.60</b>

APPENDIX TABLE

**Results by State: Smokeless Tobacco Tax Relative to Cigarette Tax**  
(continued)

<u>State</u>	<u>Snuff Tax on Median Price Point</u>	<u>Cigarette Tax per Pack</u>	<u>Ratio of Snuff Tax to Cigarette Tax</u>
Nebraska	0.53	0.64	0.83
Nevada	0.41	0.80	0.51
New Hampshire	0.90	1.78	0.51
New Jersey	0.90	2.70	0.33
New Mexico	0.35	1.66	0.21
New York	2.40	4.35	0.55
North Carolina	0.18	0.45	0.40
North Dakota	0.72	0.44	1.64
Ohio	0.23	1.25	0.18
Oklahoma	0.83	1.03	0.81
Oregon	2.14	1.18	1.81
Pennsylvania	0	1.60	0.00
Rhode Island	1.20	3.46	0.35
South Carolina	0.07	0.57	0.12
South Dakota	0.48	1.53	0.31
Tennessee	0.09	0.62	0.15
Texas	1.32	1.41	0.94
Utah	2.20	1.70	1.29
Vermont	1.99	2.24	0.89
Virginia	0.14	0.30	0.47
Washington	1.04	3.03	0.34
West Virginia	0.1	0.55	0.18
Wisconsin	1.38	2.52	0.55
Wyoming	0.72	0.60	1.20
Median	0.55	1.34	0.47
Average	0.73	1.45	0.55

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*The NCPA is a nonprofit, nonpartisan organization established in 1983. Its aim is to examine public policies in areas that have a significant impact on the lives of all Americans — retirement, health care, education, taxes, the economy, the environment — and to propose innovative, market-driven solutions. The NCPA seeks to unleash the power of ideas for positive change by identifying, encouraging and aggressively marketing the best scholarly research.*

### Health Care Policy.

The NCPA is probably best known for developing the concept of Health Savings Accounts (HSAs), previously known as Medical Savings Accounts (MSAs). NCPA President John C. Goodman is widely acknowledged (*Wall Street Journal*, WebMD and the *National Journal*) as the “Father of HSAs.” NCPA research, public education and briefings for members of Congress and the White House staff helped lead Congress to approve a pilot MSA program for small businesses and the self-employed in 1996 and to vote in 1997 to allow Medicare beneficiaries to have MSAs. In 2003, as part of Medicare reform, Congress and the President made HSAs available to all nonseniors, potentially revolutionizing the entire health care industry. HSAs now are potentially available to 250 million nonelderly Americans.

The NCPA outlined the concept of using federal tax credits to encourage private health insurance and helped formulate bipartisan proposals in both the Senate and the House. The NCPA and BlueCross BlueShield of Texas developed a plan to use money that federal, state and local governments now spend on indigent health care to help the poor purchase health insurance. The SPN Medicaid Exchange, an initiative of the NCPA for the State Policy Network, is identifying and sharing the best ideas for health care reform with researchers and policymakers in every state.

**NCPA President  
John C. Goodman is called  
the “Father of HSAs” by  
*The Wall Street Journal*, WebMD  
and the *National Journal*.**

### Taxes & Economic Growth.

The NCPA helped shape the pro-growth approach to tax policy during the 1990s. A package of tax cuts designed by the NCPA and the U.S. Chamber of Commerce in 1991 became the core of the Contract with America in 1994. Three of the five proposals (capital gains tax cut, Roth IRA and eliminating the Social Security earnings penalty) became law. A fourth proposal — rolling back the tax on Social Security benefits — passed the House of Representatives in summer 2002. The NCPA’s proposal for an across-the-board tax cut became the centerpiece of President Bush’s tax cut proposals.

NCPA research demonstrates the benefits of shifting the tax burden on work and productive investment to consumption. An NCPA study by Boston University economist Laurence Kotlikoff analyzed three versions of a consumption tax: a flat tax, a value-added tax and a national sales tax. Based on this work, Dr. Goodman wrote a full-page editorial for *Forbes* (“A Kinder, Gentler Flat Tax”) advocating a version of the flat tax that is both progressive and fair.

A major NCPA study, “Wealth, Inheritance and the Estate Tax,” completely undermines the claim by proponents of the estate tax that it prevents the concentration of wealth in the hands of financial dynasties. Actually, the contribution of inheritances to the distribution of wealth in the United States is surprisingly small. Senate Majority Leader Bill Frist (R-TN) and Senator Jon Kyl (R-AZ) distributed a letter to their colleagues about the study. In his letter, Sen. Frist said, “I hope this report will offer you a fresh perspective on the merits of this issue. Now is the time for us to do something about the death tax.”

### Retirement Reform.

With a grant from the NCPA, economists at Texas A&M University developed a model to evaluate the future of Social Security and Medicare, working under the direction of Thomas R. Saving, who for years was one of two private-sector trustees of Social Security and Medicare.

The NCPA study, “Ten Steps to Baby Boomer Retirement,” shows that as 77 million baby boomers begin to retire, the nation’s institutions are totally unprepared. Promises made under Social Security, Medicare and Medicaid are completely unfunded. Private sector institutions are not doing better — millions of workers are discovering that their defined benefit pensions are unfunded and that employers are retrenching on post-retirement health care promises.

### Pension Reform.

Pension reforms signed into law include ideas to improve 401(k)s developed and proposed by the NCPA and the Brookings Institution. Among the NCPA/Brookings 401(k) reforms are automatic enrollment of employees into companies’ 401(k) plans, automatic contribution rate increases so that workers’ contributions grow with their wages, and better default investment options for workers who do not make an investment choice.

The NCPA's online Social Security calculator allows visitors to discover their expected taxes and benefits and how much they would have accumulated had their taxes been invested privately.

### Environment & Energy.

The NCPA's E-Team is one of the largest collections of energy and environmental policy experts and scientists who believe that sound science, economic prosperity and protecting the environment are compatible. The team seeks to correct misinformation and promote sensible solutions to energy and environment problems. A pathbreaking 2001 NCPA study showed that the costs of the Kyoto agreement to reduce carbon emissions in developed countries would far exceed any benefits.

### Educating the next generation.

The NCPA's Debate Central is the most comprehensive online site for free information for 400,000 U.S. high school debaters. In 2006, the site drew more than one million hits per month. Debate Central received the prestigious Templeton Freedom Prize for Student Outreach.

### Promoting Ideas.

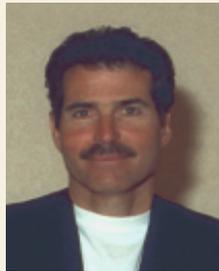
NCPA studies, ideas and experts are quoted frequently in news stories nationwide. Columns written by NCPA scholars appear regularly in national publications such as the *Wall Street Journal*, the *Washington Times*, *USA Today* and many other major-market daily newspapers, as well as on radio talk shows, on television public affairs programs, and in public policy newsletters. According to media figures from *BurrellesLuce*, more than 900,000 people daily read or hear about NCPA ideas and activities somewhere in the United States.

## What Others Say About the NCPA



*"The NCPA generates more analysis per dollar than any think tank in the country. It does an amazingly good job of going out and finding the right things and talking about them in intelligent ways."*

**Newt Gingrich**, former Speaker of the U.S. House of Representatives



*"We know what works. It's what the NCPA talks about: limited government, economic freedom; things like Health Savings Accounts. These things work, allowing people choices. We've seen how this created America."*

**John Stossel**,  
former co-anchor ABC-TV's 20/20



*"I don't know of any organization in America that produces better ideas with less money than the NCPA."*

**Phil Gramm**,  
former U.S. Senator



*"Thank you . . . for advocating such radical causes as balanced budgets, limited government and tax reform, and to be able to try and bring power back to the people."*

**Tommy Thompson**,  
former Secretary of Health and Human Services