

## **Chronic Controversy: The Economics of Regulation and Prohibition of Marijuana**

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### **Abstract**

In light of the recent controversy surrounding legalization of marijuana, several noted economists have weighed in on the prospective costs and benefits of legalizing marijuana. While the economic aspects of other commodities have been well researched and documented, there are notable shortcomings concerning the understanding of the market behavior of marijuana due to the illicit nature of its production and sales. By applying standard economic theories of demand elasticity, pricing structure, approximate consumption level, and risk premium, this paper calculates tax revenues from legal sales, which are helpful in evaluating the economic merits of regulation versus prohibition. While there is much debate on the benefits and detriments of legalization, this paper discusses the taxation of marijuana and provides further evidence how ending drug prohibition affects the current United States budget deficit.

## **I. Introduction**

Current national debt is approximately \$14 trillion and in 2010, debt for states in the Midwest region alone totaled \$347 billion (“Daily Treasury Statement,” 2011). The widening deficits and the escalating total debt raises major concerns as to whether federal, local, and state governments will be capable of financially meeting debt obligations and servicing the debt load. If states become too strained, major cuts to public services or large spikes in tax rates may be necessary to correct the problem and increase economic growth and development. Many investors and immigrants may think twice about their actions, knowing that debt obligations are not spoken for and that uncertainty exists. An investor will be hesitant to invest as much money, if he feels that he will need to save more in order to pay high taxes. Likewise, if his investments gross high returns, he may be bumped up to a higher earnings bracket and will have to pay hefty taxes. Additionally, immigrants may not choose to stay in America if as taxpayers they will be significantly impacted. The nation recognizes that this debt continues to accrue, but most are opposed to raising taxes or decreasing spending. Some have proposed the idea of legalizing marijuana to help lower the deficit (“First, inhale deeply,” 2000). As a result of legalization, our nation could benefit from the taxation of legal sales and experience savings in law enforcement through decreased arrests, prosecutions, and incarcerations. According to Klein (2009), we currently spend \$68 billion per year on corrections, while one-third of those individuals who need ‘correction’ are serving time for nonviolent drug crimes. Additionally, we spend about \$150 billion on policing and court fees, but almost 50% of all drug arrests are marijuana-related (Klein, 2009). With legalization, this money could be used in other ways, shifting our spending to help schools or battle the growing problem of social security debt. Furthermore, it is estimated that marijuana is currently the largest cash crop in the nation with an average

production level of \$35.8 billion from 2003-2005 (Gettman, 2006). Gettman (2006) reported that during this same time period, 30 states had marijuana as one of their top three cash crops. Most of the states with marijuana in their top three crops would benefit from the tax revenues which are currently being evaded.

Alternatively, there has been much opposition to the idea of legalizing marijuana. It has been labeled a “gateway drug” that leads to the use of far more destructive and dangerous drugs (Conant & Maloney, 2010). There is also the issue of choosing which drugs will remain illegal. Conant and Maloney (2010) questioned where legalization ends. If you legalize marijuana, is it appropriate to legalize cocaine, meth, or heroin? One could easily question the addictiveness of marijuana and how large the extent of the social costs that could result might be. For example, is it safe for individuals to use marijuana and drive to work or operate heavy machinery? How do you test individuals on the spot like you can for alcohol use? This ongoing debate has been the hot topic for scholarly research and discussion.

This paper will analyze the budgetary impact of ending drug prohibition purely from an economic perspective. The study concentrates strictly on individuals aged 19 to 30 and reasons that the legalization of marijuana should be enacted in order to lower the current budget deficit in the United States. The findings in this paper conclude that marijuana legalization would generate annual tax revenues of \$3.16 billion, \$4.89 billion, \$6.72 billion, and \$8.67 billion for the conservative estimate of 3,500 metric tons of annual marijuana production at tax rates of 20%, 30%, 40%, and 50% respectively. Additionally, tax rate collections parallel to that of cigarettes (77%) were calculated in order to represent a policy that is very similar to the most comparable products in the market. At a tax rate of 77%, revenues from taxation would total \$14.35 billion at 3,500 metric tons. Results were further calculated for 4,500 and 5,500 metric

tons to provide a more accurate picture and allow for deviation, in the case that marijuana use in the U.S. is much greater than the conservative estimate. It is very complicated to get a precise estimate of consumption, as direct information concerning this topic is difficult to obtain. Individuals would have to truthfully discuss their consumption levels. This can only be completed accurately if users feel that the risk of prosecution is eliminated. Inevitably, many individuals may still lie, even if the data is collected anonymously, if they feel that there is a social stigma attached to using marijuana and that someone may find out somehow.

The remainder of the paper proceeds as follows. The paper will first discuss the literature that was utilized for the research of this illicit topic. While certain assumptions are necessary to develop any sort of estimation for marijuana, basing the parameters of our model on previously estimated values increased the reliability of our findings. Second, the methodology in developing our calculations will be detailed to give an accurate representation of our estimates and computation process. Third, our main findings will be presented, followed by a discussion of the topic. Lastly, the need for discussion regarding multiple topics will be considered for future research.

## **II. Literature Review**

The academic research available on the marijuana industry primarily originates from health and public agencies who study usage rates and from economists who apply economic theory to such observational data. Due to the illicit nature of the marijuana trade, many previous economic studies have focused on the various components of the market such as demand, elasticity, legalization effects and costs as a function of risk from participating in a currently-illegal activity. Recently, more research has been conducted that focuses on the economic

arguments concerning legalization with several notable economists and organizations such as the RAND Corporation weighing in to offer insight into the previously hyper-controversial marijuana legislation reform debate.

### *Demand*

For estimating total demand in the United States, Caulkins et al (2010) examined the marijuana trade and considered if legalization would reduce drug trafficking and drug violence in Mexico. The authors found the amount of Mexican marijuana smuggled into the US to be 15-26% of the total US consumption estimates as opposed to a previous study which suggested 60% of marijuana consumed in the US is of Mexican origin. Secondly, the authors provide an overview of past studies' findings concerning total US marijuana consumption. The previous estimates range from 1,047 MT to 9,830 MT depending on the methodology used. However, the authors focused on the United Nations Office on Drug Control mid-point estimate of 3,190 MT. Reassuringly, the estimate was very close to a previous estimate by Pacula and Kilmer which assumed average usage of .43 grams multiplied by prevalence data to yield 3,190 MT.

### *Elasticity*

For elasticity, authors Nisbet and Vakil (1972) published a ground breaking study which sought to understand the composition of the price elasticity of demand curve for marijuana. Starting with a sample of 926 UCLA students, the authors surveyed how much users were purchasing at given incomes and what projected purchase amounts would be if faced with a number of alternative prices. As a measure of quantity demanded in response to percentage change in price, price elasticity of demand is useful for measuring the interaction between prices

and quantity changes. Using their survey data, the authors calculated price elasticities of -0.40 to -1.51 depending on the type and functional form of the data used. However, since the sample only consisted of UCLA students and was limited to the 47.2% who claimed to have actually used marijuana, the sample may not accurately represent the wider population's price elasticity. In a more recent study, Clements and Zhao (2009) examined data from Australia to examine many of the economic aspects of marijuana. In using aggregate data from surveys and official estimates, the authors calculated a full demand elasticity of -.40. The authors included the assumption that marijuana prices would not change.

In a related study, Pacula (2010) sought to understand the effects of legalization on demand given current estimates for demand elasticity. By separating users into initiates, regular users and long-term users, the author used existing initiation data to estimate for every 10% reduction in the price of marijuana; new users will increase by 3-5% among the under-18 demographic. As new initiates rise, so do regular users which are projected to increase by 2.5% for every 10% reduction in marijuana prices. The increase in younger users will also result in longer usage periods through adulthood which has the implication of an expansion in both users and total consumption.

### ***Risk Premium***

The concept of risk premium as applied to marijuana was explored by Rueter and Kleiman (1986) in a study which examined the effects of risks associated with law enforcement penalties and their function as determinants of the price changes in various drugs. Such risks came in two forms, one in which resulted in direct losses of product and revenues through law enforcement seizures and the second being uncertainty related to arrest and incarceration. Labor

assets used in the drug trade would thus expect higher compensation to mitigate the risk of imprisonment and thus raises the final price of marijuana.

The authors Miron and Waldo (2010) studied the effects of legalization on the market for marijuana and found the price of marijuana would drop by 50% upon legalization. The primary reason for the drop would arise from changes in supply conditions, otherwise known as the risk premium. Prohibition imposes the possible costs associated with arrest, fines, and seizures of property at the hands of law enforcement. Conversely, under legalization, the regulatory tax burden could be used to offset any cost reductions from legalization.

### ***Legalization Effects***

By constructing a legalization model for the state of California, Kilmer et. al (2010) comprehensively addressed the issues surrounding legalization in response to the serious debates among policymakers and the several introductions of marijuana reform legislation. This started with the construction of a logic model, otherwise known as a diagram, to demonstrate the behavior of marijuana sales and the budgetary impact.

Starting with legalization, the estimated changes in production and distribution costs are met with the introduction of tax regulations to gather revenues for the state. Then estimates for the proposed tax level and cost of preventing tax evasion are considered to derive the projected tax revenues from legal sales of marijuana. At the same time, consumption changes are addressed in response to the drop in post legalization prices along with estimates of other costs of current marijuana policy. Finally, the both aspects are combined to provide a projected impact on state and local budgets. Several key findings emerge from the study including an estimated

80% drop in the pretax retail price of marijuana, consumption increase, roughly \$1.4 billion in tax revenues and a current enforcement cost of marijuana prohibition of less than \$300 million.

The decline in post legalization marijuana prices was calculated using several previous estimates for current production costs with introduction of several assumptions which dramatically reduced costs. While current prices range from \$3000-\$4000 per pound, with the legalization of marijuana workers involved in production and distribution will no longer have to pay workers high wages to participate in an illegal activity. Second, currently most growing operations are of limited size due to greater risks of discovery by law enforcement for large growing operations. Upon legalization, growers can expand to take advantage of economies of scale with the resulting price being roughly one tenth of current prices.

In terms of tax revenues, the study focused on a bill by Ammiano (2009) which proposed an excise tax of \$50 per pound. Drawing on research on cigarette taxes and evasion rates, the authors suggest evasion rates between 1-27%. Users might also change their preference to higher potency marijuana since the \$50 tax per pound would net higher THC content. Considering the price drop, the authors estimated an increase of 76% in consumption to 800 MT which is then multiplied by the proposed \$50 per pound tax to derive an estimated \$1.4 billion in tax revenues.

### **III. Methodology**

In order to calculate taxes a straightforward approach was utilized. Specifically the following questions needed to be answered:

*What is the current price of marijuana?*

*What are the consumption levels for marijuana?*

*What is the risk premium of marijuana?*

*What is the price elasticity of demand for marijuana?*

*How much should the proposed tax rate be?*

The price estimates for marijuana were based off of data from The Price of Weed website. On this website users can anonymously report how much they paid of an ounce of marijuana. It is important to note that outliers are not taken into account in the estimates; they are instead rejected if they are too far from the mean. The prices were broken down by state. Within each state the prices are broken down by the qualities of high, medium and low. The website also provides information on a sample size that was used to calculate the percentage of users associated with each quality level.

Estimating the consumption levels for marijuana proved difficult as it is an illicit substance and the majority of users are not willing to acknowledge their participation. One particular study done by Caulkins et al (2010) was consulted for this research and suggested what the usage rates were among individuals from 19 to 30 years of age. For this information to be useful it had to be transformed to represent each state. In order to transform the data Census data was pulled for this age group. More specifically the population of 19 to 30 year olds was pulled for each state. Now with the usage rates and the population data, consumption levels per state could be calculated.

Due to the illicit nature of marijuana a certain level of risk exists for even holding it. Economically speaking this cost is referred to as the risk premium. That is to say it represents the dollar amount risk a consumer pays for when purchasing marijuana. An exact risk premium is difficult to estimate without much more data, however many articles have been published

regarding the subject. The nature of this research demanded that only a single estimate of risk premium be used. According to Miron and Waldock (2010), risk premium could be estimated at 50%. This seemed to be the most reasonable risk premium as it fell in the middle of all the other estimates.

As price declines, elasticity is an important factor in determining the change in consumption. Once again, the elasticity estimate was chosen based on scholarly research. Unfortunately, the sources provided a range of possible elasticity measurements. For this study an elasticity of -0.5 was used, as it was the appropriate middle of the range (Nisbet and Vakil, 1972).

The final question that needed addressing to finish the calculations was tax rate. Marijuana is closely related to other substances such as alcohol and cigarettes. With this in mind, research on the cigarette tax rates at the state and federal levels was done in order to estimate how much each state would charge. This seemed to be the most efficient method as tax rates vary greatly from state to state, so a single tax estimate would potentially compromise the integrity of the research. Therefore, our estimates are based on tax rates from 20% to 77%.

To complete the calculations, price was first multiplied by the estimated consumption in each state. Recall from earlier that price was broken down by quality level. Based on sample size it was possible to estimate how many users were consuming in each quality of marijuana. The process of multiplying price by consumption included breaking consumption down into groups of users who consumed high, medium and low quality product. From here the users consuming high quality marijuana were multiplied by the high quality price and so on. This calculation was done for every quality level in every state. This process yielded estimates of total marijuana sales revenues by state. At this point the tax estimates were applied to each

individual state's revenue calculation. Once this was done, the dollar amount of taxes for each state was summed up to estimate total potential tax revenue for legalized marijuana in the United States. The numerical results are discussed in the following section.

#### **IV. Main Findings**

As discussed in our methodology section, finding total potential tax revenue was only possible through a series of calculations. Among the items in our calculations certain ones take a larger role than others. Two factors that play the largest role in respect to changes in potential tax revenue are tax rate and total consumption. An error made in estimating total consumption or a feasible tax rate would modify tax revenue a substantially. This is one reason our report choose to use multiple tax rates and consumption levels. As mentioned our chosen tax rates vary from 20-50% in ten percent increments as well as an alternative tax rate of 77% and a variable tax rate of M for each state. With multiple rates for both taxes and consumption we can help eliminate error in our estimates.

While the results detailed below are representative of the 50% tax rate that was initially chosen, it is important to note that the research has led to a tax rate of 77% and/or the variable tax rate for each state to be a more reliable estimate than before. These tax rates were derived from analysis of state sales and excise taxes as well as the federal excise tax on cigarettes. It should not be a far stretch to apply a state's view towards tobacco products to that of cannabis. The estimated tax collections for the other two scenarios, while more realistic, follow the trend that the tax rates presented demonstrate.

As explained prior, per ounce price came from a self-reporting site. The average price by quality is rather insignificant when only looked at it by itself. However, when compared to the

average percentage use by quality you can make the conclusion that the majority of users prefer high quality over medium or low (see Table 1).

**Table 1: Average Price and User Preference by Substance Quality**

| <b>Quality</b> | <b>Average Price</b> | <b>User Preference</b> |
|----------------|----------------------|------------------------|
| <b>High</b>    | \$403.38             | 59.90%                 |
| <b>Medium</b>  | \$232.84             | 31.75%                 |
| <b>Low</b>     | \$141.75             | 8.76%                  |

Our data for total users per state comes from the national survey on drug abuse. They report 32% of male’s age 19-30 use marijuana and 25.8% of females 19-30 use; this is equivalent to 13.4 million total users in the 19-30 age brackets. With 13.4 million users and our estimates of different consumption levels, total consumption was calculated at 123, 158, and 193 million ounces for 3500, 4500 and 5500 metric tons respectively. The numbers for the other consumption levels by region are shown in Table 2.

**Table 2: Total Consumption by Region**

| <b>Region</b>    | <b>Total Consumption in Ounces</b> |
|------------------|------------------------------------|
| <b>Northwest</b> | 21,900,000                         |
| <b>Midwest</b>   | 27,700,000                         |
| <b>South</b>     | 44,500,000                         |
| <b>West</b>      | 29,300,000                         |

With so much information gathered from three levels of consumption and five different tax rate scenarios, and in order to help give a starting point for our data this study will use our beginning estimates of 3500 metric tons (123,424,000 ounces) of consumption and 50% tax rate as our baseline scenario. This baseline will help provide a point of comparison to the other consumption levels and tax rates. As 3500 metric tons is on the lower end of most estimates of total marijuana consumption, it will give a starting point to potential tax revenue without overshooting. In the 3500 metric ton assumption, total potential tax revenue would be \$8.6 billion. Since it would be too exhaustive to discuss the results of each state, our study will break the figures down by four regions as shown in Table 3: Northwest (NW), Midwest (MW), South (S), and West (W). A list of states in each region is provided in Appendix 2.

**Table 3: Tax Revenue for High Quality by Region**

| <b>Region</b>    | <b>Price Average<br/>(High)</b> | <b>Quality Average<br/>(High)</b> | <b>Tax Revenue<br/>(High)</b> | <b>Total Revenue</b> |
|------------------|---------------------------------|-----------------------------------|-------------------------------|----------------------|
| <b>Northwest</b> | \$422                           | 58.10%                            | \$111,000,000                 | \$192,000,000        |
| <b>Midwest</b>   | \$417                           | 56.90%                            | \$90,000,000                  | \$159,000,000        |
| <b>South</b>     | \$432                           | 56.00%                            | \$103,000,000                 | \$185,000,000        |
| <b>West</b>      | \$342                           | 67.70%                            | \$99,000,000                  | \$146,000,000        |

When looking at potential tax revenue it helps to understand the price and user base for that which will be taxed. In the four regions there are many trends that can be seen. When comparing the price levels there is little deviation with the exception of the west, this may be

caused by looser laws and or less enforcement of those laws than in other regions. It is important to note among the different quality levels, as high quality plays the largest role.

At this point our study will take a look the top five and bottom five earning states to understand the range of tax collections. The top five earning states from highest to lowest earnings are California, New York, Texas, Illinois, and Florida, as seen in Table 4.

**Table 4: Tax Collection and Benefit to Budget Shortfall for Top Earning States**

| <b>Top Earning States</b> | <b>Estimated Tax Collections</b> | <b>Benefit to Budget Shortfall</b> |
|---------------------------|----------------------------------|------------------------------------|
| <b>California</b>         | \$1,090,000,000                  | 2.40%                              |
| <b>New York</b>           | \$688,000,000                    | 3.30%                              |
| <b>Texas</b>              | \$672,000,000                    | 19.20%                             |
| <b>Illinois</b>           | \$471,000,000                    | 3.30%                              |
| <b>Florida</b>            | \$417,000,000                    | 7.00%                              |

The bottom five earning states from lowest to greatest earnings are Wyoming, Vermont, Alaska, Montana, and Delaware, as shown in Table 5. Since Montana does not have a shortfall, their \$21.9 million would be all profit. It is important to note that the top five earning states are also the top five total user states; this could be heavily influenced by the number of people in the 19-30 age brackets in these states. In return, the opposite would be true for the bottom five earning states.

**Table 5: Tax Collection and Benefit to Budget Shortfall for Lowest Earning States**

| <b>Lowest Earning States</b> | <b>Estimated Tax Collections</b> | <b>Benefit to Budget Shortfall</b> |
|------------------------------|----------------------------------|------------------------------------|
| <b>Wyoming</b>               | \$15,900,000                     | 49.70%                             |
| <b>Vermont</b>               | \$19,000,000                     | 6.20%                              |
| <b>Alaska</b>                | \$19,900,000                     | 1.50%                              |
| <b>Montana</b>               | \$21,900,000                     | --                                 |
| <b>Delaware</b>              | \$22,100,000                     | 4.00%                              |

In the baseline, the average total tax revenue by quality for states would be \$47, \$13, and \$2 million for high, medium and low quality respectively. However, the average total revenue of all qualities would be \$63 million. With an average state shortfall of \$3 billion on average, each state would see a reduction in their state shortfall by 4.4%.

At the consumption level of 3500 metric tons (123,424,000 ounces) and our base tax rate of 50%, our estimate for total tax revenue is \$8.6 billion. Under the other estimates of 4500 and 5500 metric tons, total tax revenues are \$11.1, and \$13.6 billion respectively. The conclusion of our results will be discussed in the next section.

## **V. Discussion and Conclusion**

When beginning to analyze the results for discussion it is important to remember why the measure is under consideration. The war on drugs began in the 1970s under the Nixon administration as a response to the skyrocketing crime rates in the United States. Since then the United States has spent billions of dollars each year to fight the drug war. The federal government alone will spend \$16.5 billion while the individual states will spend much more.

While these expenses cover the policing and judicial costs in the war on drugs, the social costs of the war on drugs is immeasurable. For many of these individuals, who are, on average, already members of the lower class, this could cripple their opportunities for employment and advancement in society as well as destroy families and communities.

The public savings of the funds directed at the war on drugs in regards to cannabis is unlikely to return to the taxpayers for a number of reasons. The bulk of the funds are most likely in law enforcement salaries, administrative costs, and incarceration costs. It is most probable that the salaries and administrative costs would be redirected within law enforcement as agents are reassigned to different initiatives rather than laid off. The only real savings would come from the lack of incarcerations related to cannabis possession, consumption and sale. However, it is still more probable that those funds would be redirected to another aspect of law enforcement or to another agency entirely.

With the above stated and the results known, it should appear to the layman that the legalization of cannabis would be an easy and natural progression for a civilized society. However, two essential questions remain: “Should the country enact these policies?” and “Can the country enact these policies?”

The first question is as difficult to answer as is the social costs of the war on drugs. There is no method that can adequately measure the effects of drug use. Some studies have shown that cannabis is not addictive or at least not more so than alcohol and tobacco productions, goods that are readily available and legal in most states. However, for each study that states the aforementioned results there is one that demonstrates the opposite. Because the experts are split it is impossible for our study to take into account the social costs.

The second question of the ability for the nation to enact such a policy is equally difficult to predict. While each state is facing record budget deficits, it is unlikely that any or all states would support such legislation due to the stigma that cannabis consumption has among the American people. In 2010 the ultraliberal state of California failed to pass Proposition 19, “the Regulate, Control, and Tax Cannabis Act of 2010” by 54% rejection (Supplement to the Statement of Vote, 2010). Even if the majority of the states and its citizens agreed that this policy would be beneficial, the Federal government is unlikely to admit defeat after almost a half century battle against the substance.

It is important to distinguish the prohibition of alcohol in the United States during the 1920s and the prohibition of cannabis beginning at the turn of the century. While the surface issues are similar, they are different in a fundamental way. Both prohibitions arose out of the fear that these substances carried with their usage amongst the American populace. The prohibition of alcohol was a product of religious groups imposing their minority will on the majority while the prohibition of marijuana was mainly aimed at the influx of Mexican laborers that came to work in the United States in the early 1900s. The key difference is that one was aimed at foreigners seen taking “American” jobs while the other was to shift moral character of the nation.

The second difference, and much more important for this study, is that the prohibition of alcohol was in effect for a little more than a decade. Widespread criminalization of cannabis began over a century ago. This fundamentally separates the two from comparison. Because the prohibition of alcohol was rather unpopular and in effect for such a short time, society as a whole did not develop negative connotation for it nor did it begin to indoctrinate their youth with the taboo of its consumption. However, cannabis prohibition suffers from both of the above issues.

The drug immediately developed a negative connotation was it was associated with the foreign labor market and therefore, from the beginning, it has been indoctrinated that cannabis consumption is taboo.

This is not to say that the health issues behind its usage be neglected rather that it should not be demonized. However, with the increase in demonization of tobacco products it is unlikely that public opinion could be swayed that far. Therefore, it is highly unlikely that this type of policy could be enacted in the United States, even in this time of economic crisis.

Before we move into the conclusion, it is important to examine the budgetary impact of the legislation proposed here. The national budgetary issues would not gain much from this type of proposal. The rate in which the country is adding to the deficit far outpaces any possible collection rate from legalizing cannabis. However, individual state budgetary shortfalls could be greatly reduced with such measures.

When one looks at the budget gaps, the legalization of cannabis can be seen to cut some in half or by a quarter. This would greatly aid states such as California which is facing one of the toughest budget crises in the nation. Even for the four states not facing an immediate crisis in 2011, the funds could be utilized to free up programs that were slated to be cut like higher education, public health programs, and state work force. As mentioned above, it is unlikely that the law enforcement and judicial budgetary allotment would be reallocated to other programs but those funds are already accounted for in the budget. The tax revenue from the legalization of cannabis would just become additional funds that the states could utilize elsewhere.

After conducting our research we found that every state and the nation as a whole could benefit from the legalization of cannabis. Through the various tax estimates, the calculations show tax collections to be as low at \$8.6 billion and as high as \$14.5 billion. Not only would

this proposal increase tax collections in the United States, but it would also lower the costs of law enforcement as fewer citizens would be arrested, tried, and incarcerated.

There is still more research to be conducted in this area. Law enforcement funds, seeking out more reliable empirical data for model parameters, and the social costs would greatly enhance such a proposal.

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## Appendix 1: Tables

| Price by Quality |          |          |          |
|------------------|----------|----------|----------|
|                  | High     | Medium   | Low      |
| Alabama          | \$458.98 | \$162.82 | \$81.88  |
| Alaska           | \$320.74 | \$375.71 | n/a      |
| Arizona          | \$372.45 | \$215.92 | \$55.57  |
| Arkansas         | \$428.90 | \$123.75 | \$99.58  |
| California       | \$336.60 | \$265.73 | \$208.69 |
| Colorado         | \$313.22 | \$298.11 | \$77.10  |
| Connecticut      | \$445.22 | \$319.24 | \$162.19 |
| Delaware         | \$445.32 | \$137.00 | \$257.50 |
| Florida          | \$378.40 | \$196.89 | \$143.19 |
| Georgia          | \$448.85 | \$113.15 | \$107.32 |
| Hawaii           | \$399.33 | \$333.33 | \$200.00 |
| Idaho            | \$324.86 | \$316.39 | \$205.00 |
| Illinois         | \$434.65 | \$331.24 | \$139.68 |
| Indiana          | \$418.81 | \$133.07 | \$126.43 |
| Iowa             | \$435.26 | \$233.44 | \$120.20 |
| Kansas           | \$408.12 | \$123.51 | \$77.19  |
| Kentucky         | \$401.51 | \$153.58 | \$132.50 |
| Louisiana        | \$450.02 | \$262.99 | \$105.42 |
| Maine            | \$370.13 | \$236.92 | \$151.67 |
| Maryland         | \$446.17 | \$163.06 | \$135.65 |
| Massachusetts    | \$428.90 | \$325.90 | \$157.27 |
| Michigan         | \$379.96 | \$153.82 | \$119.13 |
| Minnesota        | \$423.69 | \$398.46 | \$113.46 |
| Mississippi      | \$434.35 | \$144.42 | \$114.85 |
| Missouri         | \$437.05 | \$137.42 | \$102.12 |
| Montana          | \$275.73 | \$322.14 | n/a      |
| Nebraska         | \$396.04 | \$149.34 | \$97.27  |
| Nevada           | \$371.55 | \$235.36 | \$196.67 |
| New Hampshire    | \$402.77 | \$222.88 | \$158.77 |
| New Jersey       | \$441.17 | \$309.51 | \$133.12 |
| New Mexico       | \$398.05 | \$160.22 | \$64.00  |
| New York         | \$439.36 | \$311.98 | \$182.81 |
| North Carolina   | \$437.89 | \$144.60 | \$120.58 |
| North Dakota     | \$417.86 | \$340.87 | \$285.00 |
| Ohio             | \$396.13 | \$133.53 | \$123.12 |
| Oklahoma         | \$446.26 | \$90.84  | \$66.15  |
| Oregon           | \$256.55 | \$270.14 | \$186.67 |
| Pennsylvania     | \$426.87 | \$200.07 | \$138.40 |
| Rhode Island     | \$439.87 | \$233.42 | \$145.00 |
| South Carolina   | \$431.51 | \$132.02 | \$145.00 |
| South Dakota     | \$445.31 | \$405.00 | \$182.73 |
| Tennessee        | \$443.77 | \$140.81 | \$105.26 |
| Texas            | \$437.66 | \$167.77 | \$60.22  |
| Utah             | \$343.87 | \$296.47 | \$100.91 |
| Vermont          | \$409.13 | \$303.85 | \$225.00 |
| Virginia         | \$449.47 | \$204.87 | \$175.99 |
| Washington       | \$301.03 | \$284.10 | \$198.00 |
| West Virginia    | \$422.53 | \$213.87 | \$160.00 |
| Wisconsin        | \$421.05 | \$298.43 | \$130.94 |
| Wyoming          | \$375.83 | \$414.02 | \$228.50 |

| <b>Percentage Use by Quality</b> |             |               |            |
|----------------------------------|-------------|---------------|------------|
|                                  | <b>High</b> | <b>Medium</b> | <b>Low</b> |
| <b>Alabama</b>                   | 79.65%      | 16.37%        | 3.98%      |
| <b>Alaska</b>                    | 63.64%      | 36.36%        | 0.00%      |
| <b>Arizona</b>                   | 60.94%      | 27.47%        | 11.59%     |
| <b>Arkansas</b>                  | 53.76%      | 32.26%        | 13.98%     |
| <b>California</b>                | 68.84%      | 29.10%        | 2.06%      |
| <b>Colorado</b>                  | 76.29%      | 20.27%        | 3.44%      |
| <b>Connecticut</b>               | 58.72%      | 30.81%        | 10.47%     |
| <b>Delaware</b>                  | 50.00%      | 40.91%        | 9.09%      |
| <b>Florida</b>                   | 62.52%      | 30.25%        | 7.23%      |
| <b>Georgia</b>                   | 55.73%      | 37.46%        | 6.81%      |
| <b>Hawaii</b>                    | 72.92%      | 25.00%        | 2.08%      |
| <b>Idaho</b>                     | 65.00%      | 31.67%        | 3.33%      |
| <b>Illinois</b>                  | 61.12%      | 33.28%        | 5.60%      |
| <b>Indiana</b>                   | 50.22%      | 43.17%        | 6.61%      |
| <b>Iowa</b>                      | 47.71%      | 37.25%        | 15.03%     |
| <b>Kansas</b>                    | 67.46%      | 24.40%        | 8.13%      |
| <b>Kentucky</b>                  | 42.96%      | 47.89%        | 9.15%      |
| <b>Louisiana</b>                 | 51.13%      | 26.32%        | 22.56%     |
| <b>Maine</b>                     | 47.73%      | 44.32%        | 7.95%      |
| <b>Maryland</b>                  | 56.85%      | 33.47%        | 9.68%      |
| <b>Massachusetts</b>             | 58.65%      | 34.06%        | 7.29%      |
| <b>Michigan</b>                  | 58.37%      | 31.33%        | 10.30%     |
| <b>Minnesota</b>                 | 68.94%      | 24.24%        | 6.82%      |
| <b>Mississippi</b>               | 48.08%      | 32.69%        | 19.23%     |
| <b>Missouri</b>                  | 49.83%      | 34.68%        | 15.49%     |
| <b>Montana</b>                   | 83.33%      | 16.67%        | 0.00%      |
| <b>Nebraska</b>                  | 61.22%      | 25.51%        | 13.27%     |
| <b>Nevada</b>                    | 70.00%      | 26.25%        | 3.75%      |
| <b>New Hampshire</b>             | 52.75%      | 34.07%        | 13.19%     |
| <b>New Jersey</b>                | 53.11%      | 40.00%        | 6.89%      |
| <b>New Mexico</b>                | 64.62%      | 26.15%        | 9.23%      |
| <b>New York</b>                  | 61.93%      | 31.57%        | 6.50%      |
| <b>North Carolina</b>            | 60.97%      | 30.48%        | 8.55%      |
| <b>North Dakota</b>              | 46.88%      | 40.63%        | 12.50%     |
| <b>Ohio</b>                      | 45.56%      | 44.58%        | 9.86%      |
| <b>Oklahoma</b>                  | 53.77%      | 27.36%        | 18.87%     |
| <b>Oregon</b>                    | 76.33%      | 22.95%        | 0.72%      |
| <b>Pennsylvania</b>              | 55.90%      | 36.75%        | 7.35%      |
| <b>Rhode Island</b>              | 71.43%      | 25.00%        | 3.57%      |
| <b>South Carolina</b>            | 50.27%      | 38.38%        | 11.35%     |
| <b>South Dakota</b>              | 58.06%      | 29.03%        | 12.90%     |
| <b>Tennessee</b>                 | 58.70%      | 30.43%        | 10.87%     |
| <b>Texas</b>                     | 56.89%      | 28.57%        | 14.54%     |
| <b>Utah</b>                      | 71.25%      | 23.75%        | 5.00%      |
| <b>Vermont</b>                   | 63.41%      | 30.49%        | 6.10%      |
| <b>Virginia</b>                  | 55.90%      | 34.78%        | 9.32%      |
| <b>Washington</b>                | 66.31%      | 30.90%        | 2.79%      |
| <b>West Virginia</b>             | 42.86%      | 55.56%        | 1.59%      |
| <b>Wisconsin</b>                 | 68.05%      | 24.48%        | 7.47%      |
| <b>Wyoming</b>                   | 48.00%      | 28.00%        | 24.00%     |

| <b>Total Consumption (oz) 3500 Metric Tons</b> |                    |                    |
|--|--------------------|--------------------|
|  | <b>Estimate 1</b>  | <b>Estimate 2</b>  |
| Alabama  | 1,951,527.29       | 1,972,250.91       |
| Alaska   | 267,754.41         | 266,916.86         |
| Arizona  | 2,374,911.74       | 2,381,446.76       |
| Arkansas                                       | 1,110,239.90       | 1,162,837.02       |
| California                                     | 15,908,164.80      | 15,871,361.32      |
| Colorado                                       | 2,057,096.72       | 2,053,973.14       |
| Connecticut                                    | 1,269,048.56       | 1,253,231.37       |
| Delaware                                       | 334,756.12         | 333,452.76         |
| Florida  | 6,220,521.10       | 6,197,644.60       |
| Georgia  | 3,970,847.09       | 3,972,289.90       |
| Hawaii   | 538,016.53         | 541,934.39         |
| Idaho  | 579,895.68         | 584,522.21         |
| Illinois                                       | 5,612,145.45       | 5,624,035.53       |
| Indiana  | 2,699,110.03       | 2,711,953.47       |
| Iowa   | 1,236,981.16       | 1,246,761.03       |
| Kansas   | 1,176,997.12       | 1,184,643.13       |
| Kentucky                                       | 1,811,179.40       | 1,828,224.03       |
| Louisiana                                      | 2,001,557.25       | 2,028,204.43       |
| Maine  | 462,643.28         | 457,525.77         |
| Maryland                                       | 2,127,542.04       | 2,113,836.89       |
| Massachusetts                                  | 2,712,273.85       | 2,700,573.05       |
| Michigan                                       | 4,203,044.06       | 4,200,333.22       |
| Minnesota                                      | 2,085,675.70       | 1,851,806.05       |
| Mississippi                                    | 1,309,235.41       | 1,323,337.82       |
| Missouri                                       | 2,363,964.42       | 2,373,791.23       |
| Montana  | 353,932.87         | 358,184.45         |
| Nebraska                                       | 749,228.53         | 756,733.65         |
| Nevada   | 894,619.49         | 893,586.52         |
| New Hampshire                                  | 461,482.42         | 452,568.16         |
| New Jersey                                     | 3,305,192.46       | 3,288,001.14       |
| New Mexico                                     | 765,121.08         | 769,485.20         |
| New York                                       | 8,228,213.44       | 8,226,418.63       |
| North Carolina                                 | 3,788,804.70       | 3,806,979.97       |
| North Dakota                                   | 289,372.90         | 294,978.37         |
| Ohio   | 4,735,471.33       | 4,740,164.41       |
| Oklahoma                                       | 1,534,792.91       | 1,551,265.91       |
| Oregon   | 1,495,727.95       | 1,501,996.32       |
| Pennsylvania                                   | 4,812,510.18       | 4,796,260.33       |
| Rhode Island                                   | 449,404.10         | 445,740.81         |
| South Carolina                                 | 1,807,079.55       | 1,811,551.79       |
| South Dakota                                   | 316,677.97         | 320,840.48         |
| Tennessee                                      | 2,541,149.76       | 2,550,716.00       |
| Texas  | 10,061,942.15      | 10,115,202.90      |
| Utah   | 1,276,501.41       | 1,330,266.92       |
| Vermont  | 237,873.38         | 235,117.30         |
| Virginia                                       | 3,152,672.49       | 3,158,683.10       |
| Washington                                     | 2,575,665.51       | 2,564,555.46       |
| West Virginia                                  | 751,429.56         | 760,103.15         |
| Wisconsin                                      | 2,246,797.36       | 2,250,256.56       |
| Wyoming  | 207,207.36         | 207,455.61         |
| <b>Total</b>                                   | <b>123,424,000</b> | <b>123,424,000</b> |

| <b>Total Consumption (oz) 4500 Metric Tons</b> |                   |                   |
|--|-------------------|-------------------|
|  | <b>Estimate 1</b> | <b>Estimate 2</b> |
| <b>Alabama</b>                                 | 2,509,106.52      | 2,535,751.17      |
| <b>Alaska</b>                                  | 344,255.67        | 343,178.82        |
| <b>Arizona</b>                                 | 3,053,457.96      | 3,061,860.12      |
| <b>Arkansas</b>                                | 1,427,451.30      | 1,495,076.16      |
| <b>California</b>                              | 20,453,354.74     | 20,406,035.99     |
| <b>Colorado</b>                                | 2,644,838.64      | 2,640,822.60      |
| <b>Connecticut</b>                             | 1,631,633.86      | 1,611,297.47      |
| <b>Delaware</b>                                | 430,400.73        | 428,724.97        |
| <b>Florida</b>                                 | 7,997,812.84      | 7,968,400.20      |
| <b>Georgia</b>                                 | 5,105,374.83      | 5,107,229.87      |
| <b>Hawaii</b>                                  | 691,735.53        | 696,772.79        |
| <b>Idaho</b>                                   | 745,580.16        | 751,528.56        |
| <b>Illinois</b>                                | 7,215,615.58      | 7,230,902.83      |
| <b>Indiana</b>                                 | 3,470,284.32      | 3,486,797.31      |
| <b>Iowa</b>                                    | 1,590,404.35      | 1,602,978.47      |
| <b>Kansas</b>                                  | 1,513,282.01      | 1,523,112.60      |
| <b>Kentucky</b>                                | 2,328,659.23      | 2,350,573.75      |
| <b>Louisiana</b>                               | 2,573,430.75      | 2,607,691.41      |
| <b>Maine</b>                                   | 594,827.08        | 588,247.42        |
| <b>Maryland</b>                                | 2,735,411.19      | 2,717,790.29      |
| <b>Massachusetts</b>                           | 3,487,209.24      | 3,472,165.35      |
| <b>Michigan</b>                                | 5,403,913.80      | 5,400,428.42      |
| <b>Minnesota</b>                               | 2,681,583.05      | 2,380,893.50      |
| <b>Mississippi</b>                             | 1,683,302.67      | 1,701,434.34      |
| <b>Missouri</b>                                | 3,039,382.83      | 3,052,017.29      |
| <b>Montana</b>                                 | 455,056.55        | 460,522.86        |
| <b>Nebraska</b>                                | 963,293.82        | 972,943.26        |
| <b>Nevada</b>                                  | 1,150,225.06      | 1,148,896.95      |
| <b>New Hampshire</b>                           | 593,334.54        | 581,873.35        |
| <b>New Jersey</b>                              | 4,249,533.17      | 4,227,430.04      |
| <b>New Mexico</b>                              | 983,727.10        | 989,338.12        |
| <b>New York</b>                                | 10,579,131.57     | 10,576,823.95     |
| <b>North Carolina</b>                          | 4,871,320.32      | 4,894,688.54      |
| <b>North Dakota</b>                            | 372,050.87        | 379,257.91        |
| <b>Ohio</b>                                    | 6,088,463.14      | 6,094,497.10      |
| <b>Oklahoma</b>                                | 1,973,305.17      | 1,994,484.74      |
| <b>Oregon</b>                                  | 1,923,078.79      | 1,931,138.12      |
| <b>Pennsylvania</b>                            | 6,187,513.08      | 6,166,620.43      |
| <b>Rhode Island</b>                            | 577,805.28        | 573,095.32        |
| <b>South Carolina</b>                          | 2,323,387.99      | 2,329,138.01      |
| <b>South Dakota</b>                            | 407,157.40        | 412,509.19        |
| <b>Tennessee</b>                               | 3,267,192.55      | 3,279,492.00      |
| <b>Texas</b>                                   | 12,936,782.76     | 13,005,260.87     |
| <b>Utah</b>                                    | 1,641,216.10      | 1,710,343.18      |
| <b>Vermont</b>                                 | 305,837.20        | 302,293.67        |
| <b>Virginia</b>                                | 4,053,436.06      | 4,061,163.99      |
| <b>Washington</b>                              | 3,311,569.94      | 3,297,285.59      |
| <b>West Virginia</b>                           | 966,123.72        | 977,275.48        |
| <b>Wisconsin</b>                               | 2,888,739.46      | 2,893,187.00      |
| <b>Wyoming</b>                                 | 266,409.47        | 266,728.64        |
| <b>Total</b>                                   | 158,688,000       | 158,688,000       |

| <b>Total Consumption (oz) 5500 Metric Tons</b> |                    |                    |
|--|--------------------|--------------------|
|  | Estimate 1         | Estimate 2         |
| Alabama  | 3,066,685.74       | 3,099,251.43       |
| Alaska   | 420,756.93         | 419,440.78         |
| Arizona  | 3,732,004.17       | 3,742,273.48       |
| Arkansas                                       | 1,744,662.70       | 1,827,315.31       |
| California                                     | 24,998,544.68      | 24,940,710.65      |
| Colorado                                       | 3,232,580.56       | 3,227,672.07       |
| Connecticut                                    | 1,994,219.16       | 1,969,363.58       |
| Delaware                                       | 526,045.33         | 523,997.19         |
| Florida  | 9,775,104.58       | 9,739,155.80       |
| Georgia  | 6,239,902.57       | 6,242,169.84       |
| Hawaii   | 845,454.54         | 851,611.19         |
| Idaho  | 911,264.64         | 918,534.90         |
| Illinois                                       | 8,819,085.71       | 8,837,770.12       |
| Indiana  | 4,241,458.61       | 4,261,641.16       |
| Iowa   | 1,943,827.54       | 1,959,195.90       |
| Kansas   | 1,849,566.90       | 1,861,582.07       |
| Kentucky                                       | 2,846,139.06       | 2,872,923.47       |
| Louisiana                                      | 3,145,304.25       | 3,187,178.39       |
| Maine  | 727,010.87         | 718,969.07         |
| Maryland                                       | 3,343,280.35       | 3,321,743.69       |
| Massachusetts                                  | 4,262,144.63       | 4,243,757.65       |
| Michigan                                       | 6,604,783.53       | 6,600,523.63       |
| Minnesota                                      | 3,277,490.39       | 2,909,980.94       |
| Mississippi                                    | 2,057,369.93       | 2,079,530.86       |
| Missouri                                       | 3,714,801.23       | 3,730,243.35       |
| Montana  | 556,180.23         | 562,861.27         |
| Nebraska                                       | 1,177,359.12       | 1,189,152.87       |
| Nevada   | 1,405,830.63       | 1,404,207.39       |
| New Hampshire                                  | 725,186.67         | 711,178.54         |
| New Jersey                                     | 5,193,873.87       | 5,166,858.93       |
| New Mexico                                     | 1,202,333.13       | 1,209,191.04       |
| New York                                       | 12,930,049.69      | 12,927,229.27      |
| North Carolina                                 | 5,953,835.95       | 5,982,397.10       |
| North Dakota                                   | 454,728.84         | 463,537.44         |
| Ohio   | 7,441,454.95       | 7,448,829.79       |
| Oklahoma                                       | 2,411,817.44       | 2,437,703.57       |
| Oregon   | 2,350,429.63       | 2,360,279.93       |
| Pennsylvania                                   | 7,562,515.99       | 7,536,980.52       |
| Rhode Island                                   | 706,206.45         | 700,449.84         |
| South Carolina                                 | 2,839,696.44       | 2,846,724.24       |
| South Dakota                                   | 497,636.82         | 504,177.90         |
| Tennessee                                      | 3,993,235.33       | 4,008,268.00       |
| Texas  | 15,811,623.38      | 15,895,318.84      |
| Utah   | 2,005,930.79       | 2,090,419.44       |
| Vermont  | 373,801.02         | 369,470.04         |
| Virginia                                       | 4,954,199.63       | 4,963,644.87       |
| Washington                                     | 4,047,474.37       | 4,030,015.73       |
| West Virginia                                  | 1,180,817.88       | 1,194,447.81       |
| Wisconsin                                      | 3,530,681.57       | 3,536,117.45       |
| Wyoming  | 325,611.57         | 326,001.67         |
| <b>Total</b>                                   | <b>193,952,000</b> | <b>193,952,000</b> |

| <b>Tax Collections from 3500 Metric Tons (123,424,000 OZ) at Multiple Tax Rates</b> |                           |                           |                           |                           |
|---|---------------------------|---------------------------|---------------------------|---------------------------|
| <b>States</b>   | <b>20%</b>                | <b>30%</b>                | <b>40%</b>                | <b>50%</b>                |
| Alabama   | \$62,398,290.71           | \$96,522,355.94           | \$132,596,367.76          | \$170,620,326.16          |
| Alaska  | \$7,275,707.21            | \$11,254,609.59           | \$15,460,877.82           | \$19,894,511.89           |
| Arizona   | \$55,770,555.82           | \$86,270,078.53           | \$118,512,431.11          | \$152,497,613.57          |
| Arkansas  | \$26,459,708.62           | \$40,929,861.77           | \$56,226,880.81           | \$72,350,765.75           |
| California  | \$397,850,970.10          | \$615,425,719.38          | \$845,433,311.47          | \$1,087,873,746.37        |
| Colorado  | \$49,630,953.32           | \$76,772,880.91           | \$105,465,775.80          | \$135,709,637.98          |
| Connecticut   | \$37,775,517.71           | \$58,434,003.97           | \$80,272,975.14           | \$103,292,431.25          |
| Delaware  | \$8,059,274.21            | \$12,466,689.79           | \$17,125,957.69           | \$22,037,077.91           |
| Florida   | \$151,957,417.95          | \$235,059,130.89          | \$322,909,513.14          | \$415,508,564.70          |
| Georgia   | \$95,281,032.86           | \$147,387,847.71          | \$202,472,194.84          | \$260,534,074.24          |
| Hawaii  | \$16,417,459.84           | \$25,395,758.19           | \$34,887,102.16           | \$44,891,491.75           |
| Idaho   | \$14,878,779.05           | \$23,015,611.34           | \$31,617,405.47           | \$40,684,161.45           |
| Illinois  | \$172,640,879.37          | \$267,053,860.28          | \$366,861,868.67          | \$472,064,904.54          |
| Indiana   | \$59,908,270.64           | \$92,670,606.14           | \$127,305,075.11          | \$163,811,677.53          |
| Iowa  | \$31,189,990.86           | \$48,247,017.11           | \$66,278,730.57           | \$85,285,131.25           |
| Kansas  | \$29,545,185.68           | \$45,702,709.10           | \$62,783,519.58           | \$80,787,617.10           |
| Kentucky  | \$37,757,255.12           | \$58,405,754.02           | \$80,234,167.13           | \$103,242,494.47          |
| Louisiana   | \$52,420,526.39           | \$81,088,001.75           | \$111,393,618.57          | \$143,337,376.84          |
| Maine   | \$10,750,620.25           | \$16,629,865.70           | \$22,845,068.03           | \$29,396,227.24           |
| Maryland  | \$54,345,757.83           | \$84,066,094.14           | \$115,484,735.39          | \$148,601,681.57          |
| Massachusetts   | \$80,806,615.65           | \$124,997,733.58          | \$171,714,058.25          | \$220,955,589.66          |
| Michigan  | \$94,841,057.90           | \$146,707,261.44          | \$201,537,248.03          | \$259,331,017.69          |
| Minnesota   | \$58,727,672.09           | \$90,844,367.76           | \$124,796,303.19          | \$160,583,478.37          |
| Mississippi   | \$29,444,042.56           | \$45,546,253.33           | \$62,568,590.44           | \$80,511,053.87           |
| Missouri  | \$53,412,815.43           | \$82,622,948.88           | \$113,502,232.80          | \$146,050,667.20          |
| Montana   | \$8,122,620.33            | \$12,564,678.32           | \$17,260,568.20           | \$22,210,289.96           |
| Nebraska  | \$17,766,506.06           | \$27,482,564.07           | \$37,753,825.38           | \$48,580,290.02           |
| Nevada  | \$23,536,505.94           | \$36,408,032.63           | \$50,015,075.13           | \$64,357,633.44           |
| New Hampshire   | \$11,198,816.00           | \$17,323,168.51           | \$23,797,484.01           | \$30,621,762.51           |
| New Jersey  | \$96,613,573.30           | \$149,449,121.20          | \$205,303,843.27          | \$264,177,739.50          |
| New Mexico  | \$18,776,234.51           | \$29,044,487.76           | \$39,899,498.34           | \$51,341,266.24           |
| New York  | \$251,707,373.50          | \$389,359,843.38          | \$534,878,168.68          | \$688,262,349.41          |
| North Carolina  | \$97,873,494.12           | \$151,398,061.22          | \$207,981,175.01          | \$267,622,835.49          |
| North Dakota  | \$8,730,777.20            | \$13,505,420.99           | \$18,552,901.56           | \$23,873,218.91           |
| Ohio  | \$95,618,417.03           | \$147,909,738.85          | \$203,189,136.19          | \$261,456,609.07          |
| Oklahoma  | \$34,413,727.79           | \$53,233,735.18           | \$73,129,171.56           | \$94,100,036.93           |
| Oregon  | \$31,140,841.74           | \$48,170,989.57           | \$66,174,288.70           | \$85,150,739.13           |
| Pennsylvania  | \$123,671,525.09          | \$191,304,390.37          | \$262,801,990.81          | \$338,164,326.41          |
| Rhode Island  | \$13,469,446.69           | \$20,835,550.34           | \$28,622,574.21           | \$36,830,518.28           |
| South Carolina  | \$41,173,614.90           | \$63,690,435.54           | \$87,493,931.65           | \$112,584,103.23          |
| South Dakota  | \$10,259,857.67           | \$15,870,717.34           | \$21,802,197.56           | \$28,054,298.33           |
| Tennessee   | \$64,231,154.36           | \$99,357,566.90           | \$136,491,203.02          | \$175,632,062.71          |
| Texas   | \$247,349,657.55          | \$382,619,001.53          | \$525,618,022.30          | \$676,346,719.88          |
| Utah  | \$34,104,265.74           | \$52,755,036.07           | \$72,471,564.70           | \$93,253,851.64           |
| Vermont   | \$6,880,566.58            | \$10,643,376.43           | \$14,621,203.98           | \$18,814,049.24           |
| Virginia  | \$85,641,308.20           | \$132,476,398.62          | \$181,987,779.92          | \$234,175,452.11          |
| Washington  | \$60,097,625.38           | \$92,963,514.26           | \$127,707,453.94          | \$164,329,444.41          |
| West Virginia   | \$18,390,886.37           | \$28,448,402.36           | \$39,080,633.54           | \$50,287,579.92           |
| Wisconsin   | \$66,492,926.21           | \$102,856,245.23          | \$141,297,468.20          | \$181,816,595.11          |
| Wyoming   | \$5,828,075.33            | \$9,015,304.03            | \$12,384,660.08           | \$15,936,143.49           |
| <b>Total</b>  | <b>\$3,162,636,154.78</b> | <b>\$4,892,202,801.93</b> | <b>\$6,720,601,828.91</b> | <b>\$8,647,833,235.73</b> |

| <b>Tax Collections from 3500 Metric Tons (123,424,000 OZ) at Multiple Tax Rates</b> |                 |                            |                            |
|---|-----------------|----------------------------|----------------------------|
| <b>States</b>   | <b>Tax Rate</b> | <b>Revenue</b>             | <b>77%</b>                 |
| Alabama   | 47.78%          | \$139,746,373.70           | \$283,024,997.04           |
| Alaska  | 91.83%          | \$31,317,384.59            | \$33,001,016.33            |
| Arizona   | 97.43%          | \$254,697,252.03           | \$252,963,041.38           |
| Arkansas  | 71.90%          | \$89,171,997.42            | \$120,015,450.23           |
| California  | 65.60%          | \$1,223,458,037.70         | \$1,804,564,970.48         |
| Colorado  | 59.34%          | \$138,047,734.45           | \$225,115,147.48           |
| Connecticut   | 128.33%         | \$227,244,375.66           | \$171,341,484.96           |
| Delaware  | 79.62%          | \$30,080,165.14            | \$36,555,104.84            |
| Florida   | 77.66%          | \$553,182,723.60           | \$689,245,607.12           |
| Georgia   | 46.10%          | \$205,896,134.55           | \$432,173,922.35           |
| Hawaii  | 120.23%         | \$92,527,114.11            | \$74,466,006.52            |
| Idaho   | 54.20%          | \$37,802,369.04            | \$67,486,887.02            |
| Illinois  | 66.96%          | \$541,871,287.69           | \$783,061,263.65           |
| Indiana   | 68.17%          | \$191,426,460.31           | \$271,730,810.68           |
| Iowa  | 78.30%          | \$114,480,066.61           | \$141,470,975.72           |
| Kansas  | 60.21%          | \$83,390,795.20            | \$134,010,499.25           |
| Kentucky  | 55.12%          | \$97,549,305.52            | \$171,258,649.83           |
| Louisiana   | 45.79%          | \$112,527,731.99           | \$237,768,040.70           |
| Maine   | 96.83%          | \$48,794,395.96            | \$48,762,461.75            |
| Maryland  | 97.83%          | \$249,209,358.25           | \$246,500,469.38           |
| Massachusetts   | 113.64%         | \$430,429,241.90           | \$366,521,132.13           |
| Michigan  | 97.83%          | \$434,905,687.56           | \$430,178,292.14           |
| Minnesota   | 83.57%          | \$230,056,827.93           | \$266,375,873.92           |
| Mississippi   | 58.56%          | \$80,820,012.13            | \$133,551,736.16           |
| Missouri  | 40.22%          | \$100,708,632.03           | \$242,268,846.76           |
| Montana   | 82.67%          | \$31,478,151.49            | \$36,842,428.99            |
| Nebraska  | 55.84%          | \$46,501,245.41            | \$80,584,985.08            |
| Nevada  | 62.07%          | \$68,478,048.87            | \$106,756,442.35           |
| New Hampshire   | 85.12%          | \$44,680,712.40            | \$50,795,379.66            |
| New Jersey  | 120.18%         | \$544,274,453.01           | \$438,218,034.28           |
| New Mexico  | 64.07%          | \$56,393,696.09            | \$85,164,892.44            |
| New York  | 118.71%         | \$1,400,599,455.43         | \$1,141,689,585.19         |
| North Carolina  | 50.29%          | \$230,723,887.56           | \$443,932,759.51           |
| North Dakota  | 49.24%          | \$20,149,865.03            | \$39,600,895.53            |
| Ohio  | 74.45%          | \$333,676,730.00           | \$433,704,223.13           |
| Oklahoma  | 66.73%          | \$107,652,661.39           | \$156,093,141.27           |
| Oregon  | 66.81%          | \$97,525,511.94            | \$141,248,046.08           |
| Pennsylvania  | 85.62%          | \$496,370,074.80           | \$560,946,984.65           |
| Rhode Island  | 143.37%         | \$90,519,246.61            | \$61,094,463.72            |
| South Carolina  | 38.95%          | \$75,169,743.17            | \$186,754,510.44           |
| South Dakota  | 81.49%          | \$39,190,242.43            | \$46,536,470.06            |
| Tennessee   | 56.73%          | \$170,794,913.15           | \$291,338,465.62           |
| Texas   | 80.08%          | \$928,459,198.35           | \$1,121,923,938.93         |
| Utah  | 57.96%          | \$92,664,690.13            | \$154,689,489.10           |
| Vermont   | 105.15%         | \$33,913,162.37            | \$31,208,744.89            |
| Virginia  | 44.96%          | \$180,506,903.13           | \$388,450,239.95           |
| Washington  | 99.09%          | \$279,142,342.18           | \$272,589,682.38           |
| West Virginia   | 53.59%          | \$46,199,557.20            | \$83,417,037.58            |
| Wisconsin   | 112.69%         | \$351,239,903.04           | \$301,597,367.96           |
| Wyoming   | 53.12%          | \$14,510,981.07            | \$26,434,874.82            |
| <b>Total</b>  |                 | <b>\$11,520,156,841.35</b> | <b>\$14,345,025,771.44</b> |

| <b>Tax Collections from 4500 Metric Tons (158,688,000 OZ) at Multiple Tax Rates</b> |                           |                           |                           |                            |
|---|---------------------------|---------------------------|---------------------------|----------------------------|
| <b>States</b>   | <b>20%</b>                | <b>30%</b>                | <b>40%</b>                | <b>50%</b>                 |
| Alabama   | \$80,226,373.77           | \$124,100,171.93          | \$170,481,044.27          | \$219,368,990.78           |
| Alaska  | \$9,354,480.70            | \$14,470,212.33           | \$19,878,271.48           | \$25,578,658.15            |
| Arizona   | \$71,705,000.34           | \$110,918,672.40          | \$152,373,125.72          | \$196,068,360.30           |
| Arkansas  | \$34,019,625.37           | \$52,624,107.99           | \$72,291,703.90           | \$93,022,413.11            |
| California  | \$511,522,675.84          | \$791,261,639.20          | \$1,086,985,686.17        | \$1,398,694,816.76         |
| Colorado  | \$63,811,225.69           | \$98,707,989.75           | \$135,598,854.60          | \$174,483,820.26           |
| Connecticut   | \$48,568,522.78           | \$75,129,433.67           | \$103,208,110.90          | \$132,804,554.47           |
| Delaware  | \$10,361,923.98           | \$16,028,601.16           | \$22,019,088.46           | \$28,333,385.88            |
| Florida   | \$195,373,823.07          | \$302,218,882.57          | \$415,169,374.03          | \$534,225,297.47           |
| Georgia   | \$122,504,185.11          | \$189,498,661.34          | \$260,321,393.36          | \$334,972,381.16           |
| Hawaii  | \$21,108,162.65           | \$32,651,689.10           | \$44,854,845.64           | \$57,717,632.26            |
| Idaho   | \$19,129,858.77           | \$29,591,500.29           | \$40,650,949.89           | \$52,308,207.58            |
| Illinois  | \$221,966,844.91          | \$343,354,963.22          | \$471,679,545.43          | \$606,940,591.55           |
| Indiana   | \$77,024,919.39           | \$119,147,922.19          | \$163,677,953.71          | \$210,615,013.96           |
| Iowa  | \$40,101,416.82           | \$62,031,879.14           | \$85,215,510.74           | \$109,652,311.61           |
| Kansas  | \$37,986,667.31           | \$58,760,625.99           | \$80,721,668.03           | \$103,869,793.42           |
| Kentucky  | \$48,545,042.30           | \$75,093,112.31           | \$103,158,214.89          | \$132,740,350.04           |
| Louisiana   | \$67,397,819.64           | \$104,256,002.25          | \$143,220,366.73          | \$184,290,913.07           |
| Maine   | \$13,822,226.03           | \$21,381,255.90           | \$29,372,230.32           | \$37,795,149.31            |
| Maryland  | \$69,873,117.21           | \$108,084,978.18          | \$148,480,374.07          | \$191,059,304.87           |
| Massachusetts   | \$103,894,220.12          | \$160,711,371.74          | \$220,775,217.75          | \$284,085,758.13           |
| Michigan  | \$121,938,503.01          | \$188,623,621.85          | \$259,119,318.90          | \$333,425,594.17           |
| Minnesota   | \$75,507,006.97           | \$116,799,901.41          | \$160,452,389.82          | \$206,464,472.19           |
| Mississippi   | \$37,856,626.15           | \$58,559,468.57           | \$80,445,330.56           | \$103,514,212.12           |
| Missouri  | \$68,673,619.84           | \$106,229,505.70          | \$145,931,442.17          | \$187,779,429.26           |
| Montana   | \$10,443,368.99           | \$16,154,586.41           | \$22,192,159.11           | \$28,556,087.09            |
| Nebraska  | \$22,842,650.65           | \$35,334,725.23           | \$48,540,632.64           | \$62,460,372.88            |
| Nevada  | \$30,261,221.93           | \$46,810,327.67           | \$64,305,096.60           | \$82,745,528.71            |
| New Hampshire   | \$14,398,477.72           | \$22,272,645.22           | \$30,596,765.16           | \$39,370,837.52            |
| New Jersey  | \$124,217,451.39          | \$192,148,870.12          | \$263,962,084.20          | \$339,657,093.64           |
| New Mexico  | \$24,140,872.94           | \$37,342,912.83           | \$51,299,355.00           | \$66,010,199.45            |
| New York  | \$323,623,765.92          | \$500,605,512.91          | \$687,700,502.59          | \$884,908,734.95           |
| North Carolina  | \$125,837,349.58          | \$194,654,650.14          | \$267,404,367.87          | \$344,086,502.77           |
| North Dakota  | \$11,225,284.97           | \$17,364,112.70           | \$23,853,730.57           | \$30,694,138.60            |
| Ohio  | \$122,937,964.75          | \$190,169,664.23          | \$261,243,175.10          | \$336,158,497.38           |
| Oklahoma  | \$44,246,221.45           | \$68,443,373.80           | \$94,023,220.58           | \$120,985,761.77           |
| Oregon  | \$40,038,225.10           | \$61,934,129.44           | \$85,081,228.33           | \$109,479,521.74           |
| Pennsylvania  | \$159,006,246.54          | \$245,962,787.62          | \$337,888,273.90          | \$434,782,705.38           |
| Rhode Island  | \$17,317,860.02           | \$26,788,564.73           | \$36,800,452.55           | \$47,353,523.50            |
| South Carolina  | \$52,937,504.87           | \$81,887,702.84           | \$112,492,197.84          | \$144,750,989.87           |
| South Dakota  | \$13,191,245.58           | \$20,405,208.01           | \$28,031,396.86           | \$36,069,812.13            |
| Tennessee   | \$82,582,912.75           | \$127,745,443.16          | \$175,488,689.59          | \$225,812,652.05           |
| Texas   | \$318,020,988.28          | \$491,938,716.25          | \$675,794,600.10          | \$869,588,639.84           |
| Utah  | \$43,848,341.67           | \$67,827,903.52           | \$93,177,726.05           | \$119,897,809.25           |
| Vermont   | \$8,846,442.75            | \$13,684,341.12           | \$18,798,690.84           | \$24,189,491.89            |
| Virginia  | \$110,110,253.40          | \$170,326,798.23          | \$233,984,288.47          | \$301,082,724.14           |
| Washington  | \$77,268,375.49           | \$119,524,518.34          | \$164,195,297.92          | \$211,280,714.24           |
| West Virginia   | \$23,645,425.34           | \$36,576,517.32           | \$50,246,528.84           | \$64,655,459.90            |
| Wisconsin   | \$85,490,905.13           | \$132,243,743.87          | \$181,668,173.40          | \$233,764,193.71           |
| Wyoming   | \$7,493,239.72            | \$11,591,105.18           | \$15,923,134.39           | \$20,489,327.35            |
| <b>Total</b>  | <b>\$4,066,246,484.72</b> | <b>\$6,289,975,031.05</b> | <b>\$8,640,773,780.03</b> | <b>\$11,118,642,731.66</b> |

| <b>Tax Collections from 4500 Metric Tons (158,688,000 OZ) at Multiple Tax Rates</b> |                 |                            |                            |
|---|-----------------|----------------------------|----------------------------|
| <b>States</b>   | <b>Tax Rate</b> | <b>Revenue</b>             | <b>77%</b>                 |
| Alabama   | 47.78%          | \$179,673,909.04           | \$363,889,281.91           |
| Alaska  | 91.83%          | \$40,265,208.76            | \$42,429,878.14            |
| Arizona   | 97.43%          | \$327,467,895.47           | \$325,238,196.06           |
| Arkansas  | 71.90%          | \$114,649,710.97           | \$154,305,578.87           |
| California  | 65.60%          | \$1,573,017,477.04         | \$2,320,154,962.05         |
| Colorado  | 59.34%          | \$177,489,944.29           | \$289,433,761.04           |
| Connecticut   | 128.33%         | \$292,171,340.14           | \$220,296,194.95           |
| Delaware  | 79.62%          | \$38,674,498.04            | \$46,999,420.51            |
| Florida   | 77.66%          | \$711,234,930.35           | \$886,172,923.44           |
| Georgia   | 46.10%          | \$264,723,601.56           | \$555,652,185.88           |
| Hawaii  | 120.23%         | \$118,963,432.43           | \$95,742,008.39            |
| Idaho   | 54.20%          | \$48,603,045.90            | \$86,768,854.74            |
| Illinois  | 66.96%          | \$696,691,655.60           | \$1,006,793,053.27         |
| Indiana   | 68.17%          | \$246,119,734.69           | \$349,368,185.16           |
| Iowa  | 78.30%          | \$147,188,657.08           | \$181,891,254.50           |
| Kansas  | 60.21%          | \$107,216,736.69           | \$172,299,213.32           |
| Kentucky  | 55.12%          | \$125,420,535.67           | \$220,189,692.64           |
| Louisiana   | 45.79%          | \$144,678,512.56           | \$305,701,766.61           |
| Maine   | 96.83%          | \$62,735,651.94            | \$62,694,593.68            |
| Maryland  | 97.83%          | \$320,412,032.04           | \$316,929,174.92           |
| Massachusetts   | 113.64%         | \$553,409,025.30           | \$471,241,455.59           |
| Michigan  | 97.83%          | \$559,164,455.43           | \$553,086,375.61           |
| Minnesota   | 83.57%          | \$295,787,350.19           | \$342,483,266.47           |
| Mississippi   | 58.56%          | \$103,911,444.17           | \$171,709,375.06           |
| Missouri  | 40.22%          | \$129,482,526.90           | \$311,488,517.26           |
| Montana   | 82.67%          | \$40,471,909.05            | \$47,368,837.27            |
| Nebraska  | 55.84%          | \$59,787,315.53            | \$103,609,266.53           |
| Nevada  | 62.07%          | \$88,043,205.69            | \$137,258,283.03           |
| New Hampshire   | 85.12%          | \$57,446,630.23            | \$65,308,345.27            |
| New Jersey  | 120.18%         | \$699,781,439.59           | \$563,423,186.93           |
| New Mexico  | 64.07%          | \$72,506,180.68            | \$109,497,718.86           |
| New York  | 118.71%         | \$1,800,770,728.40         | \$1,467,886,609.54         |
| North Carolina  | 50.29%          | \$296,644,998.29           | \$570,770,690.79           |
| North Dakota  | 49.24%          | \$25,906,969.33            | \$50,915,437.12            |
| Ohio  | 74.45%          | \$429,012,938.57           | \$557,619,715.45           |
| Oklahoma  | 66.73%          | \$138,410,564.65           | \$200,691,181.63           |
| Oregon  | 66.81%          | \$125,389,943.92           | \$181,604,630.67           |
| Pennsylvania  | 85.62%          | \$638,190,096.17           | \$721,217,551.69           |
| Rhode Island  | 143.37%         | \$116,381,888.50           | \$78,550,024.79            |
| South Carolina  | 38.95%          | \$96,646,812.65            | \$240,112,941.99           |
| South Dakota  | 81.49%          | \$50,387,454.55            | \$59,832,604.37            |
| Tennessee   | 56.73%          | \$219,593,459.77           | \$374,578,027.22           |
| Texas   | 80.08%          | \$1,193,733,255.02         | \$1,442,473,635.77         |
| Utah  | 57.96%          | \$119,140,315.89           | \$198,886,485.99           |
| Vermont   | 105.15%         | \$43,602,637.33            | \$40,125,529.14            |
| Virginia  | 44.96%          | \$232,080,304.03           | \$499,436,022.80           |
| Washington  | 99.09%          | \$358,897,297.09           | \$350,472,448.78           |
| West Virginia   | 53.59%          | \$59,399,430.68            | \$107,250,476.89           |
| Wisconsin   | 112.69%         | \$451,594,161.05           | \$387,768,044.52           |
| Wyoming   | 53.12%          | \$18,656,975.67            | \$33,987,696.20            |
| <b>Total</b>  |                 | <b>\$14,811,630,224.60</b> | <b>\$18,443,604,563.27</b> |

| <b>Tax Collections from 5500 Metric Tons (193,952,000 OZ) at Multiple Tax Rates</b> |                           |                           |                            |                            |
|---|---------------------------|---------------------------|----------------------------|----------------------------|
| <b>States</b>   | <b>20%</b>                | <b>30%</b>                | <b>40%</b>                 | <b>50%</b>                 |
| Alabama   | \$98,054,456.83           | \$151,677,987.91          | \$208,365,720.77           | \$268,117,655.40           |
| Alaska  | \$11,433,254.18           | \$17,685,815.06           | \$24,295,665.14            | \$31,262,804.41            |
| Arizona   | \$87,639,444.86           | \$135,567,266.26          | \$186,233,820.32           | \$239,639,107.03           |
| Arkansas  | \$41,579,542.11           | \$64,318,354.21           | \$88,356,526.99            | \$113,694,060.47           |
| California  | \$625,194,381.59          | \$967,097,559.02          | \$1,328,538,060.87         | \$1,709,515,887.15         |
| Colorado  | \$77,991,498.07           | \$120,643,098.58          | \$165,731,933.40           | \$213,258,002.54           |
| Connecticut   | \$59,361,527.84           | \$91,824,863.37           | \$126,143,246.66           | \$162,316,677.68           |
| Delaware  | \$12,664,573.75           | \$19,590,512.53           | \$26,912,219.23            | \$34,629,693.86            |
| Florida   | \$238,790,228.20          | \$369,378,634.25          | \$507,429,234.93           | \$652,942,030.24           |
| Georgia   | \$149,727,337.36          | \$231,609,474.98          | \$318,170,591.89           | \$409,410,688.09           |
| Hawaii  | \$25,798,865.47           | \$39,907,620.02           | \$54,822,589.11            | \$70,543,772.76            |
| Idaho   | \$23,380,938.50           | \$36,167,389.24           | \$49,684,494.32            | \$63,932,253.71            |
| Illinois  | \$271,292,810.45          | \$419,656,066.16          | \$576,497,222.20           | \$741,816,278.56           |
| Indiana   | \$94,141,568.15           | \$145,625,238.23          | \$200,050,832.31           | \$257,418,350.40           |
| Iowa  | \$49,012,842.78           | \$75,816,741.17           | \$104,152,290.90           | \$134,019,491.97           |
| Kansas  | \$46,428,148.93           | \$71,818,542.88           | \$98,659,816.48            | \$126,951,969.73           |
| Kentucky  | \$59,332,829.48           | \$91,780,470.60           | \$126,082,262.64           | \$162,238,205.60           |
| Louisiana   | \$82,375,112.89           | \$127,424,002.75          | \$175,047,114.90           | \$225,244,449.31           |
| Maine   | \$16,893,831.82           | \$26,132,646.10           | \$35,899,392.62            | \$46,194,071.38            |
| Maryland  | \$85,400,476.59           | \$132,103,862.22          | \$181,476,012.75           | \$233,516,928.17           |
| Massachusetts   | \$126,981,824.59          | \$196,425,009.91          | \$269,836,377.25           | \$347,215,926.61           |
| Michigan  | \$149,035,948.13          | \$230,539,982.26          | \$316,701,389.77           | \$407,520,170.66           |
| Minnesota   | \$92,286,341.86           | \$142,755,435.06          | \$196,108,476.44           | \$252,345,466.01           |
| Mississippi   | \$46,269,209.73           | \$71,572,683.81           | \$98,322,070.69            | \$126,517,370.37           |
| Missouri  | \$83,934,424.25           | \$129,836,062.52          | \$178,360,651.54           | \$229,508,191.32           |
| Montana   | \$12,764,117.66           | \$19,744,494.50           | \$27,123,750.03            | \$34,901,884.22            |
| Nebraska  | \$27,918,795.24           | \$43,186,886.39           | \$59,327,439.89            | \$76,340,455.74            |
| Nevada  | \$36,985,937.91           | \$57,212,622.71           | \$78,595,118.07            | \$101,133,423.98           |
| New Hampshire   | \$17,598,139.44           | \$27,222,121.94           | \$37,396,046.30            | \$48,119,912.52            |
| New Jersey  | \$151,821,329.48          | \$234,848,619.03          | \$322,620,325.14           | \$415,136,447.79           |
| New Mexico  | \$29,505,511.38           | \$45,641,337.91           | \$62,699,211.67            | \$80,679,132.67            |
| New York  | \$395,540,158.35          | \$611,851,182.45          | \$840,522,836.50           | \$1,081,555,120.49         |
| North Carolina  | \$153,801,205.05          | \$237,911,239.06          | \$326,827,560.73           | \$420,550,170.05           |
| North Dakota  | \$13,719,792.75           | \$21,222,804.41           | \$29,154,559.59            | \$37,515,058.29            |
| Ohio  | \$150,257,512.48          | \$232,429,589.61          | \$319,297,214.02           | \$410,860,385.68           |
| Oklahoma  | \$54,078,715.10           | \$83,653,012.43           | \$114,917,269.59           | \$147,871,486.61           |
| Oregon  | \$48,935,608.45           | \$75,697,269.32           | \$103,988,167.96           | \$133,808,304.35           |
| Pennsylvania  | \$194,340,967.99          | \$300,621,184.87          | \$412,974,556.99           | \$531,401,084.36           |
| Rhode Island  | \$21,166,273.36           | \$32,741,579.11           | \$44,978,330.90            | \$57,876,528.73            |
| South Carolina  | \$64,701,394.84           | \$100,084,970.14          | \$137,490,464.03           | \$176,917,876.50           |
| South Dakota  | \$16,122,633.49           | \$24,939,698.67           | \$34,260,596.16            | \$44,085,325.94            |
| Tennessee   | \$100,934,671.14          | \$156,133,319.42          | \$214,486,176.17           | \$275,993,241.40           |
| Texas   | \$388,692,319.01          | \$601,258,430.98          | \$825,971,177.91           | \$1,062,830,559.81         |
| Utah  | \$53,592,417.60           | \$82,900,770.97           | \$113,883,887.39           | \$146,541,766.86           |
| Vermont   | \$10,812,318.91           | \$16,725,305.82           | \$22,976,177.69            | \$29,564,934.53            |
| Virginia  | \$134,579,198.60          | \$208,177,197.83          | \$285,980,797.02           | \$367,989,996.17           |
| Washington  | \$94,439,125.60           | \$146,085,522.42          | \$200,683,141.90           | \$258,231,984.07           |
| West Virginia   | \$28,899,964.30           | \$44,704,632.28           | \$61,412,424.14            | \$79,023,339.88            |
| Wisconsin   | \$104,488,884.05          | \$161,631,242.51          | \$222,038,878.60           | \$285,711,792.31           |
| Wyoming   | \$9,158,404.10            | \$14,166,906.34           | \$19,461,608.70            | \$25,042,511.20            |
| <b>Total</b>  | <b>\$4,969,856,814.66</b> | <b>\$7,687,747,260.17</b> | <b>\$10,560,945,731.15</b> | <b>\$13,589,452,227.58</b> |

| <b>Tax Collections from 5500 Metric Tons (193,952,000 OZ) at Multiple Tax Rates</b> |                 |                            |                            |
|---|-----------------|----------------------------|----------------------------|
| <b>States</b>   | <b>Tax Rate</b> | <b>Revenue</b>             | <b>77%</b>                 |
| Alabama   | 47.78%          | \$219,601,444.38           | \$444,753,566.78           |
| Alaska  | 91.83%          | \$49,213,032.93            | \$51,858,739.95            |
| Arizona   | 97.43%          | \$400,238,538.90           | \$397,513,350.74           |
| Arkansas  | 71.90%          | \$140,127,424.52           | \$188,595,707.50           |
| California  | 65.60%          | \$1,922,576,916.39         | \$2,835,744,953.61         |
| Colorado  | 59.34%          | \$216,932,154.13           | \$353,752,374.61           |
| Connecticut   | 128.33%         | \$357,098,304.62           | \$269,250,904.94           |
| Delaware  | 79.62%          | \$47,268,830.93            | \$57,443,736.17            |
| Florida   | 77.66%          | \$869,287,137.09           | \$1,083,100,239.76         |
| Georgia   | 46.10%          | \$323,551,068.57           | \$679,130,449.40           |
| Hawaii  | 120.23%         | \$145,399,750.75           | \$117,018,010.25           |
| Idaho   | 54.20%          | \$59,403,722.77            | \$106,050,822.46           |
| Illinois  | 66.96%          | \$851,512,023.52           | \$1,230,524,842.88         |
| Indiana   | 68.17%          | \$300,813,009.07           | \$427,005,559.64           |
| Iowa  | 78.30%          | \$179,897,247.54           | \$222,311,533.28           |
| Kansas  | 60.21%          | \$131,042,678.18           | \$210,587,927.39           |
| Kentucky  | 55.12%          | \$153,291,765.82           | \$269,120,735.45           |
| Louisiana   | 45.79%          | \$176,829,293.13           | \$373,635,492.52           |
| Maine   | 96.83%          | \$76,676,907.93            | \$76,626,725.61            |
| Maryland  | 97.83%          | \$391,614,705.82           | \$387,357,880.46           |
| Massachusetts   | 113.64%         | \$676,388,808.70           | \$575,961,779.05           |
| Michigan  | 97.83%          | \$683,423,223.30           | \$675,994,459.08           |
| Minnesota   | 83.57%          | \$361,517,872.46           | \$418,590,659.02           |
| Mississippi   | 58.56%          | \$127,002,876.21           | \$209,867,013.96           |
| Missouri  | 40.22%          | \$158,256,421.76           | \$380,708,187.76           |
| Montana   | 82.67%          | \$49,465,666.62            | \$57,895,245.55            |
| Nebraska  | 55.84%          | \$73,073,385.65            | \$126,633,547.98           |
| Nevada  | 62.07%          | \$107,608,362.51           | \$167,760,123.70           |
| New Hampshire   | 85.12%          | \$70,212,548.06            | \$79,821,310.89            |
| New Jersey  | 120.18%         | \$855,288,426.16           | \$688,628,339.59           |
| New Mexico  | 64.07%          | \$88,618,665.28            | \$133,830,545.27           |
| New York  | 118.71%         | \$2,200,942,001.38         | \$1,794,083,633.88         |
| North Carolina  | 50.29%          | \$362,566,109.02           | \$697,608,622.08           |
| North Dakota  | 49.24%          | \$31,664,073.63            | \$62,229,978.70            |
| Ohio  | 74.45%          | \$524,349,147.14           | \$681,535,207.77           |
| Oklahoma  | 66.73%          | \$169,168,467.90           | \$245,289,221.99           |
| Oregon  | 66.81%          | \$153,254,375.91           | \$221,961,215.26           |
| Pennsylvania  | 85.62%          | \$780,010,117.54           | \$881,488,118.73           |
| Rhode Island  | 143.37%         | \$142,244,530.39           | \$96,005,585.85            |
| South Carolina  | 38.95%          | \$118,123,882.13           | \$293,471,373.55           |
| South Dakota  | 81.49%          | \$61,584,666.67            | \$73,128,738.67            |
| Tennessee   | 56.73%          | \$268,392,006.38           | \$457,817,588.83           |
| Texas   | 80.08%          | \$1,459,007,311.70         | \$1,763,023,332.61         |
| Utah  | 57.96%          | \$145,615,941.64           | \$243,083,482.87           |
| Vermont   | 105.15%         | \$53,292,112.30            | \$49,042,313.39            |
| Virginia  | 44.96%          | \$283,653,704.93           | \$610,421,805.64           |
| Washington  | 99.09%          | \$438,652,251.99           | \$428,355,215.17           |
| West Virginia   | 53.59%          | \$72,599,304.17            | \$131,083,916.19           |
| Wisconsin   | 112.69%         | \$551,948,419.06           | \$473,938,721.09           |
| Wyoming   | 53.12%          | \$22,802,970.26            | \$41,540,517.58            |
| <b>Total</b>  |                 | <b>\$18,103,103,607.84</b> | <b>\$22,542,183,355.11</b> |

## Appendix 2: States in Each Region

| Northeast     | Midwest      | South          | West       |
|---------------|--------------|----------------|------------|
| Connecticut   | Illinois     | Alabama        | Alaska     |
| Maine         | Indiana      | Arkansas       | Arizona    |
| Massachusetts | Iowa         | Delaware       | California |
| New Hampshire | Kansas       | Florida        | Colorado   |
| New Jersey    | Michigan     | Georgia        | Hawaii     |
| New York      | Minnesota    | Kentucky       | Idaho      |
| Pennsylvania  | Missouri     | Louisiana      | Montana    |
| Rhode Island  | Nebraska     | Maryland       | Nevada     |
| Vermont       | North Dakota | Mississippi    | New Mexico |
|               | Ohio         | North Carolina | Oregon     |
|               | South Dakota | Oklahoma       | Utah       |
|               | Wisconsin    | South Carolina | Washington |
|               |              | Tennessee      | Wyoming    |
|               |              | Texas          |            |
|               |              | Virginia       |            |
|               |              | West Virginia  |            |