The Fungibility of Sin Taxes: An Economic Analysis of the Effect on our K-12 Public School System

Michelle Hollinger

Submitted in Partial Fulfillment of the Requirements for Graduation from the Malone University Honors Program
Adviser: Julia Frankland, Ph.D.

April 20, 2015
Abstract

This Honors Thesis project explores the fungibility of sin tax revenues in relation to K-12 public schools. Comparing Ohio and Colorado’s revenues from nontraditional approaches (i.e. marijuana, casinos, and lottery revenues), I researched the reality and sustainability of these funding sources and the level to which they are receiving promised funds. This project evaluates if traditional funding reductions have occurred due to the addition of these nontraditional revenue streams. Also, an assessment is made of the moral implications brought forth through these nontraditional revenue streams educating the United States’ K-12 students.

My three primary conclusions were as follows: 1) even though every state does not actively move around funds, sin tax revenues are highly fungible; 2) while sin tax revenues may be a quick-fix funding initiative, they are not sustainable for long-term funding; 3) and funding K-12 public schools through sin tax revenues raises a number of moral issues, specifically the issue of teaching our children to not do the very activities that are helping fund their education.
Acknowledgements

First of all, a special thank you to my adviser, Dr. Julia Frankland, for her time, guidance, motivation, coffee, and much needed laughs through this project. As well as my committee members, Professor Elizabeth Postlewaite, Dr. Susan Wechter, and Dr. Scott Waalkes, for their assistance and encouragement.

Second, I would have never completed this thesis project if it were not for my parents—Randy and Connie Hollinger—pushing me to apply for the Honors Program. While I partially blame the stress of this project on you, I cannot explain how much I appreciate your love and support in all I have done.

Lastly, to the amazing friends God has placed in my life to share this college experience with; I have been truly blessed. To name a few: Vinny Taddeo, my other half, for believing in my abilities even when I do not; my roommates, Stephanie Eidt, Michelle Kozminiski, and Hannah Galehouse, for holding me accountable while making sure I still have fun along the way; and for Amy Christman, for sharing my Honors Program journey with me since day one in Section 13.
# Table of Contents

Abstract ................................................................................................................................. 2
Acknowledgements .................................................................................................................. 3
List of Tables ............................................................................................................................ 6
List of Figures .......................................................................................................................... 7
Introduction ............................................................................................................................. 8
Traditional/Historical Viewpoint ........................................................................................... 9
  Public School Funding .......................................................................................................... 10
  Prohibition ............................................................................................................................. 11
Definitions/Parameters .......................................................................................................... 12
  Sin Taxes ............................................................................................................................... 12
  Fungibility ............................................................................................................................ 15
  Parameters ........................................................................................................................... 16
Research and Findings ........................................................................................................... 17
  Marijuana Revenues ............................................................................................................ 17
    Colorado ............................................................................................................................ 17
    Ohio ................................................................................................................................. 27
  Casino Revenues ................................................................................................................ 27
    Ohio ................................................................................................................................. 27
    Colorado .......................................................................................................................... 33
  General Observations .......................................................................................................... 36
  Lottery Revenues ................................................................................................................ 36
    Ohio ................................................................................................................................. 36
List of Tables

Table 1. U.S. Public School Revenues and Expenditures (in constant 2012-2013 dollars) .......................................................... 10

Table 2. 2014 Marijuana Taxes and Distribution to the K-12 Capital Construction Fund .......................................................... 25

Table 3. Ohio Adjusted Gross Casino Revenue (Calendar Year) .......................................................... 29

Table 4. Gross Casino Revenue Tax Deposits to Student Fund .......................................................... 30

Table 5. Selected Ohio Counties Student Distribution .......................................................... 32

Table 6. Gaming (Casino) Revenue by Fiscal Year and Distributions to Post-Secondary Education .......................................................... 36

Table 7. Ohio Lottery Transferred to Education Fund .......................................................... 40

Table 8. Colorado Lottery Transferred to State Public School Fund/Colorado Lottery Transferred to Public School Capital Construction Fund .......................................................... 43
List of Figures

Figure 1. U.S. Marijuana Sales Estimates 2013 – 2018 in Billions of U.S. Dollars 19

Figure 2. How Colorado Is Spending Its Marijuana Money 23

Figure 3. Colorado Limited Gaming Distribution Formula (Original Recipients) 35

Figure 4. Colorado Extended Gaming Distribution Formula (Amendment 50 Recipients) 35

Figure 5. Colorado Lottery Revenue Disbursements 42
The Fungibility of Sin Taxes: An Economic Analysis of the Effect on our K-12 Public School System

Every year when voting day comes around, many American school districts are faced with the ever-present question of whether or not to approve an increased tax levy for funding their public K-12 education system. These levies usually come about because public schools claim they do not have enough funds to keep projects intact, they are struggling to fund salaries and pensions, or they simply do not have the resources to build the brand new school that they desperately need to educate the local children. Many adults have heard the same accounts over and over—some believing that these claims are becoming bouts of greed and simply a desire for more money out of taxpayers’ pockets. There are also people who hear of new legalized social behaviors (such as alcohol and tobacco products, drugs, or gambling and lottery revenues) that are contributing funding to these K-12 public schools. With increased funding coming in through other sources, people are more apt to turn down a levy when they think the schools have enough money to work with and believe their taxes are high enough as it is. In return, our schools wait out another year and try their efforts at another levy until the public finally cracks and gives in to a million dollar tax levy over the next number of years.

The initial hypothesis of this research (public school administrations have been pushing for unnecessary tax levies due to increased funding through legalizations of social behaviors) has been rejected. Upon further research, incoming and outgoing monetary figures have shown that schools are not necessarily receiving more monies as promised from various nontraditional revenue streams. Due to these findings, the research was focused on three consumer products and the extent to which their revenues
are being utilized in the K-12 public school system. This research helps bring to light the funding gap that has been typical of K-12 educational institutions across the country. While there is in fact an inflow of revenues through these legalizations of social behaviors, there is also a decrease of funding through the traditional governmental funds (taxpayers’ dollars) for K-12 public schools.

Navigation through these issues highlights traditional and historical views on K-12 public school funding, defines terminology, sets parameters of the research project, discusses the research findings of three selected legalized behaviors said to contribute to K-12 public school funding, addresses moral implications of these legalizations, and defends this analysis with conclusions of the findings. After this research, I have found that the traditional view of greedy schools is incorrect. While sin taxes have increased funds for K-12 public schools, funding cuts have also taken place—putting schools right back into the hole they needed to dig out of in the first place.

**Traditional/Historical Viewpoint**

In laying a solid foundation for this project, it is important to briefly summarize the traditional background of K-12 public school funding. To create awareness of the nontraditional funding inflows in which this project is focused, there must be a firm understanding of the consistent funding flow that is pertinent to our public school system and their funding needs to keep programs and projects afloat. Furthermore, it is essential to briefly discuss the historical issue of Prohibition and what that revolution meant for our society and our desire to legalize negative social behaviors.
Public School Funding

All three levels of government—federal, state, and local—contribute to K-12 public school education funding. “States and local governments typically provide about 44 percent each of all elementary and secondary education funding. The federal government contributes about 12 percent of all direct expenditures” ("School finance: Federal," 2014). While local governments (primarily through property taxes) historically funded the majority of our public school system, states and federal government began to play more major roles by the 1970’s.

For a general idea of how much funding it takes to educate the United States’ K-12 students, here are revenues and expenditures that the United States has received and disbursed for K-12 public schools from school years 2004-05 to 2010-11:

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenues</th>
<th>Expenses</th>
<th>Deficit/Surplus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004-05</td>
<td>588,666,994</td>
<td>602,926,707</td>
<td>-14,259,713</td>
</tr>
<tr>
<td>2005-06</td>
<td>605,285,096</td>
<td>614,175,630</td>
<td>-8,890,534</td>
</tr>
<tr>
<td>2006-07</td>
<td>629,793,552</td>
<td>637,141,997</td>
<td>-7,348,445</td>
</tr>
<tr>
<td>2007-08</td>
<td>638,953,529</td>
<td>652,755,879</td>
<td>-13,802,350</td>
</tr>
<tr>
<td>2008-09</td>
<td>638,494,825</td>
<td>657,791,195</td>
<td>-19,296,370</td>
</tr>
<tr>
<td>2009-10</td>
<td>636,612,328</td>
<td>647,956,702</td>
<td>-11,344,374</td>
</tr>
<tr>
<td>2010-11</td>
<td>632,350,353</td>
<td>632,268,421</td>
<td>81,932</td>
</tr>
</tbody>
</table>

Source: National Center for Education Statistics

This is reinforcing evidence that education is not cheap. This does not include all the students who are home-schooled, attending charter schools, or attending private schools, so these figures are not even the full extent of educational expenses. These figures also show a consistent deficit (expenses usually exceeding revenues received) and demonstrate that the public school system’s expenses are not fully supported by the
necessary funds, as evidenced by the continuous outcry for school levies when voting day comes.

Due to inconsistency of school levies actually being passed by voters, schools must consider alternative sources of revenues beyond the traditional property tax dollars. Alternative revenues through nontraditional sources are somewhat of a luxury, given that during some times of American history the products examined in this research have been prohibited from consumer use. In particular, the Prohibition era gives an excellent example of the government’s desire to diminish negative social behaviors and failing to find the balance necessary to accomplish such a controversial task.

**Prohibition**

The American public did not always condone the negative social behaviors previously mentioned (alcohol and tobacco products, drugs, or gambling and lottery revenues). Because of this, we look at the Prohibition as an example of a historical attempt of eradicating these behaviors while causing a revolt of the masses in return for their actions. Prohibition through the 18th Amendment spurred a temperance movement through the beginning of the 20th century. The Prohibition resulted in defiant drinkers who “frequented clandestine bars called speakeasies, where they guzzled bootleg (illegally obtained) liquor smuggled in from abroad, manufactured in illegal stills, or pilfered from legal stocks of medicinal or industrial alcohol” (Slavicek, 2009, p. 3). When it was evident that America’s citizens were acting out because of the 18th Amendment and the Prohibition was fundamentally unenforceable, Congress proposed the 21st Amendment to ratify the situation and bring the Prohibition era to an end.
The point of this brief summary is to remember that enforcing complete abstinence from negative social behaviors is not only difficult, but could also be reckless if the citizens want to participate in the social behaviors badly enough. As with public school funding, not everyone is happy at the same time when it comes to decisions made by the government. The particular products and services researched for this project—marijuana, casinos, and lottery—have all at one time or another been illegal, if not still illegal, in some states. While legalizing these behaviors may not have been a desire for the total population of any state, the government listened to the majority and chose to seek out a positive return for their legalization through disincentivizing negative social behaviors and shifting the revenues to public goods (education) to create a positive externality. In other words, since these goods do not benefit everyone, the government chose to find a way in which they could benefit the majority through tax revenues collected from their consumption—namely, public school funding.

**Definitions and Parameters**

For clarity, it is helpful to define key terms that are used throughout the remainder of this project—sin taxes and fungibility. The parameters of the research describe the limitations used to outline the findings.

**Sin Taxes**

A sin tax is a tax on a product or service that society has deemed undesirable. Sin taxes are nothing new for our country; in fact they began as early as 1794 when the federal government first taxed tobacco products. After the Revolutionary War, sin taxes became an incentive tool to discourage people from social behaviors with significantly negative externalities (costs suffered by a third party consumer; i.e. pollution). In
addition, this tax is promoted as a strong, revenue-raising object: “two main motives for taxing activities roughly defined as ‘sins’: (1) the objective to offset the costs sinners impose on others and (2) the paternalistic impulse to reduce or eliminate sinful behavior” (Hoffer, Shughart II, Thomas, 2014, p. 48). Here the writers identify a tax justification, but an awfully strong contradiction. The government wants to increase revenues by taxing goods that potentially create a negative externality. They do so to reduce the undesirable behavior (smoking, drinking alcohol, gambling, etc.), yet they seem to depend on these extra revenues for funding public programs. Is it possible to sustain revenue whose core objective is to eventually be diminished?

Our government leaders probably did not consider the long-term issues when they first implemented the tobacco tax in 1794. The nation was in debt from a war and needed to get out of it—the government saw an opportunity and took action. While the tax was an off-and-on burden for consumers of tobacco for many years, in 1864 the tax was officially instated and has been showing itself in various products ever since—alcohol and tobacco, drugs, casinos, lottery tickets, etc. The primary purpose for starting sin taxes was “to pay back the debts [the United States government] incurred during the Revolutionary War. However, social purposes have also long influenced the taxation of these items” (Fontinelle, n.d.). While starting out as a debt reliever, the sin tax became a staple to purchases that reflected a behavior with significant negative externalities. The sin tax is paid in such a way that most consumers do not even realize that they are paying extra taxes for these goods, because the tax is not added on top of the total purchase (like sales tax) but rather built straight into the price of the product. For example, in Ohio (with the exception of Cuyahoga County), cigarettes are taxed at approximately 6.25 cents per
cigarette, averaging $1.25 tax per 20-pack of cigarettes. A pack of Marlboro Reds currently costs $6.03, meaning you are actually paying $4.78 for your cigarettes with a $1.25 tax, but consumers do not actually see this price difference when they purchase their pack of cigarettes (Ohio Department of Taxation, 2012).

As described later in this paper, marijuana, gambling, and lottery tickets have taxes built into them as a way of decreasing consumer interest for their social behavior, but the government is claiming that the funds received from these products are keeping certain public programs afloat. Not only are they helping to fund public programs, but also a small percentage of the funds go straight into education programs to decrease the amount of participation in said negative behavior. For example, 2 percent of casino revenues in Ohio go to the Problem Gambling & Addictions Fund to assist relieving gambling addictions and educate against excessive gambling habits (Ohio Department of Taxation, 2015). There is an apparent dilemma when sin taxes are examined: monies are being collected to go into education against the very behavior from which the taxes are collected. This dilemma is in addition to the sustainability issue, as well as the moral implications of negative social behaviors’ tax dollars educating the United States’ K-12 public school children. These issues will be further examined later in this paper.

On a positive side, sin taxes do not have the negative connotations like regular taxation. In fact, selective excise taxes are quite an exception to the unpopular spectrum of taxation. Take marijuana for example. Before passing Amendment 64 (which would legalize recreational marijuana in the state of Colorado for consumers over the age of 21), Colorado voters knew the tax consequences that would be levied on them if they legalized and purchased recreational marijuana. That did not stop them from passing the
amendment at a two-thirds vote, creating a sin tax to fulfill their desire to have easy access to the drug. The question does not seem to be whether or not these goods will be taxed, but rather a larger concern for their legalization or implementation. Excise taxes are an afterthought to most people regarding these negative social behaviors.

**Fungibility**

Fungibility is the ability of a quantity or amount to be substituted by another quantity or amount to fulfill a separate obligation. This issue refers to quantities or amounts being supplanted (replaced) rather than supplemented (enhanced). For example, I set aside $20 every paycheck to save up for a new watch—assuming that in a few months I will have the money needed and will be able to pay for the watch in cash. About two weeks away from buying the watch, my check engine light comes on in my car. I take the car to be serviced and find that there is $400 worth of repairs needed to fix what went wrong under the hood. I have some decisions to make: put it on the credit card and deal with the bill later, or pull together the watch savings fund and a small amount of money out of each of my weekly budgets to take care of the problem immediately. My solution depends in part on how badly I want the watch, but the majority of consumers would probably let the savings go and pay to repair the car. I might decide that I have lived this long without the watch, so what is another three months?

The money I collected for the watch, although clearly earmarked for the watch in my mind, was really an amount that could be substituted for another consumer good. That money was fungible—it was an amount substituted for another purpose to fulfill a separate obligation. Now this can be great; fixing the car with cash on hand feels good. And while this fungibility is good for our everyday lives to cover unexpected expenses, it
can create problems in our government circles. While fungibility creates flexibility and ease of monetary movement for the government, it may cause us to falsely conclude where our tax dollars are actually going.

Sin tax revenues may be used for the entity in which they are intended or their benefits may never be seen due to the fungibility concept. An example that will be discussed in greater detail later is a public school system receiving their promised amount of sin tax through casino revenues but not benefiting from them due to government cuts from various other funding sources. While there are perfectly legitimate reasons to have flexible funds, there are also instances where the government’s ability to have flexibility causes a greater problem than the problem previously in existence. In this case, the flexibility establishes movable funds for the government to disburse elsewhere instead of allowing the sin tax to supplement the current inflow of public school funding, as it was meant to do.

Parameters

In my study, I have set very tight parameters to limit the research process to a specific point in time and place in the country. The goal was to compare two states (Ohio and Colorado) with examples as to how sin taxes are utilized. The specific amounts of time were created after researching how long the selected negative social behaviors (marijuana, casinos, and lotteries) have been legalized. While alcohol and tobacco have been previously addressed in this paper, the three selected social behaviors were chosen to keep the research topics as current as possible and confront topics in today’s news for their legitimacy and factuality. Marijuana data has been focused solely on 2014, casino data on the last three years, and lottery data has been narrowed down to the past ten years...
to put emphasis and focus on the most recent data. The state with the most significant information/data in regards to legalization and fungibility issues has been addressed first in each section.

**Research and Findings**

Research and findings of nontraditional sources of revenue are described in this section in the order of: marijuana, casino gambling, and lottery tickets. Various moral implications are presented in each section to associate their overall effect in society.

**Marijuana Revenues**

**Colorado.** On January 21, 2014, Colorado passed Amendment 64—allowing its state population (ages 21 and older) to legally purchase recreational marijuana. This law came with a heavy tax burden: a 15 percent excise tax plus a 10 percent sales tax with every marijuana sale. These figures do not include the additional 3.5 percent sales tax on marijuana shops specifically for the Denver area. All in all, the legalization of marijuana in Colorado brought a 25-28.5 percent tax. Amendment 64 stated: “The first forty million dollars in revenue raised annually from any such excise tax shall be credited to the Public School Capital Construction Assistance Fund… or any successor fund dedicated to a similar purpose” (The State of Colorado, 2014, pg. 8). The vote passed with 55 percent majority soon after an income tax increase to raise $1 billion for Colorado’s school system was harshly defeated with approximately 66 percent majority vote. “The move showed a willingness on the part of Colorado voters to tax marijuana for the public benefit” (Coffman, 2013). Now Colorado is faced with analyzing if this statement is true—was this amendment passing truly for the public’s benefit?
At the onset of marijuana legalization, there was an anticipated cooperation from Colorado’s population that proved to be unsuccessful. Like any other narcotic, a black market flourished for marijuana; but legalization did not mean a smooth transition from illegal markets to sudden legality all around. In fact, the black market is still flourishing, if not doing even better. “One illegal Colorado drug dealer told The Washington Post that his business was growing” (Ferner, 2014). So why do black markets continue when the market for the drug is legalized? Because the legalization brings a minimum of 25 percent taxes, while the black market essentially has none. This makes the product cheaper for the buyer and offers a much larger profit for the seller.

Marijuana can be obtained legally through multiple ways. First, any Colorado adult over the age of 21 can grow up to six plants for personal use. Second, Colorado has more than 500 shops to make your marijuana needs easily accessible for approximately $220 an ounce. Also, some people do not buy recreationally, but rather medically with a medical marijuana card. This card currently costs $15 from a doctor and then patients are able to purchase marijuana for approximately $200 an ounce. There is a 2.9 percent tax difference between recreational and medical marijuana consumption. So if you are able to buy a medical marijuana card, it is worth your money in the long run to put out $15 for a card and buy marijuana $20 an ounce cheaper, whether or not you really need the marijuana for medical purposes. “About 23% of the estimated marijuana users in Colorado (or 2% of the state population) have medical cards, according to the Marijuana Policy Group” (Lobosco, 2014). While this 2 percent of the population could very well be medically benefiting from marijuana, there is also the possibility that this 2 percent does not necessarily need marijuana for health reasons. If this assumption were true, this
creates the ability for consumers to easily work the system and access marijuana cheaper, as well as a great doorway into the black market. Figure 1 shows the estimated sales of a pro-marijuana publication for medical and recreational marijuana from 2013 – 2018. The year 2013 only shows medical marijuana revenue estimates because recreational use was not legalized until 2014. The high degree of medical marijuana revenue estimates is a good indication of assumptions toward losing more recreational sales through medical marijuana sales, decreasing tax revenues overall.

![U.S. Marijuana Sales Estimates 2013 - 2018 in Billions of U.S. Dollars](image)

*Figure 1. (Marijuana Business Daily, 2014)*

On the other side of these legalized purchases is the black market. One way to obtain marijuana on the black market is the previously mentioned medical marijuana card, where the holder of the card does not actually need or even want the marijuana, but rather bought the card to gain access to cheaper marijuana to sell it for a small profit. The second black market option is the people who grow their own six plants of marijuana (as
they are legally allowed to do) and sell them at a profit (as they are not allowed to do) because they do not wish to smoke it. The problem arising is a tax deficit. The estimated amounts of $67-70 million in tax revenues are cut short because of under-the-table selling through medical marijuana cards and personal gardens. According to a study done for CNN, “Colorado is missing $21.5 million in pot taxes” (Lobosco, 2014). For FY 2013-2014, the Public School Capital Construction Assistance Fund (also known as BEST grants) accumulated $73.1 million, provided from “the State Land Trust, Colorado Lottery spillover funds, recreational marijuana excise taxes, the applicants’ matching monies, and interest accrued within the Assistance Fund itself” (Newell, 2015). The $21.5 million in missing marijuana taxes represents about 29 percent from what they had already collected. That is a large sum that was anticipated to help pay for school buildings and renovations that is not available due to the thriving black market.

Marijuana is also where we see our first taste of fungibility. While proponents for a tax increase specifically for public school funding were seeking voter approval to help underfunded public school building projects, opponents feared that the money would not specifically go to funding the building program itself. “Opponents argued that Colorado requires local school districts to allocate tax revenues, so there is no guarantee on how the money will be spent at the local level” (Coffman, 2013). With no specific direction as to where the money should go, Colorado schools have the flexibility to direct funds to wherever they wish—even if that means retired employee’s retirement funds. While retirement funds are a far cry from building construction projects and improvements, they are still discretionary revenues that may be disbursed as they see fit—regardless of the actual intentions of the money when it is collected. Due to these circumstances, Colorado
voters who are aware of this fact are sure to be questionable about where their tax dollars are going. Even if monies are “earmarked” for a specific purpose in the school system, they could be diverted elsewhere on someone else’s discretion.

On the bright side, Colorado’s public school system is experiencing some positive effects from marijuana legalization. “Capital projects—known as Building Excellent Schools Today, or BEST, grants—had received more than $1.1 million from marijuana taxes in May” (Robles, 2014). These capital projects would be renovations or restorations to existing buildings, or completely new additions to existing buildings to increase their value and usability. On the negative side, there is still a misconstrued idea as to how the money is being used. Ryan Elarton, director of business services for the Pueblo County district in Colorado, stated in an interview: “[T]he word on the streets is marijuana funding is going to schools, but certainly it’s not going to schools for operating costs…and not every district gets it” (as cited in Robles, 2014). Elarton is referring to the everyday operating costs of a school, such as textbooks, salaries, utilities, everyday maintenance, program and extracurricular funding, and so on. So far, reports have shown that marijuana funding has been disbursed for fire and safety improvements related to an ongoing expansion project in Pueblo County and a new roof and other mechanical work at one of Aurora County’s oldest schools. According to Amendment 64 (which legalized recreational marijuana), these are capital funding projects to which Colorado anticipated using the marijuana revenues; however, many citizens seem to be under the impression the revenues are supposed to be allocated to every day operating costs. So while there is a misconstrued idea as to where the money was to be allocated, it is being allocated exactly where the state intended the money to go—meaning that from the time this research took
place, there was no significant sign of fungibility taking place, even with the schools’ feasibility to do so.

There are always glitches in every system. Unfortunately, the legalization of marijuana has led to the inevitable crisis of drugs landing into the wrong hands. When asked about the impact of marijuana on health and safety, Erie, Colorado, Police Chief Marco Vasquez confirmed, “I have seen an increase in marijuana in our schools… [and] in our community” (Hernandez, 2015). So how is Colorado combatting the unavoidable? Funding grants, ironically, with Colorado’s marijuana tax revenue. Eleven school districts have applied for grants to receive almost $1 million in funding from marijuana tax revenues. “[T]hese grants will go towards hiring school nurses, social workers, and psychologists to help prevent and treat substance abuse among students” (Curry, 2014). Colorado is in a situation that could have potentially been prevented: increasing funding for programs that were less necessary beforehand. While substance abuse was still a problem before marijuana legalization, its newfound place on the recreational market has opened up the availability to students and has intensified an ongoing problem. Now there is a new trend with where marijuana revenues are going, as shown in Figure 2 below.

Elarton is not the only one who thinks marijuana funding for schools is turning into a joke. Kevin Sabet, president of Smart Approaches to Marijuana, expressed cynicism about Colorado legislators’ willingness to legalize marijuana only to use the revenues to warn students about the numerous dangers of using the drug. “It’s essentially allowing an activity which actually erodes the very thing that activity is paying to prevent.” He went on to say, “For every dollar we receive it costs us ten on medical and law enforcement costs. And last time I checked, the lottery is supposed to pay for
education but it doesn’t at all” (Curry, 2014). Not only is there a direct financial issue with using sin taxes as a primary source of funding, but also schools are running into increased funding in areas not previously needed, moral dilemmas within the legalization, and not much to show for it in the building fund created for Colorado’s schools.

Traditional K-12 public schools are not the only schools seeing effects of legalized marijuana. Universities have had to adjust their curriculums to educate future lawyers on how to work directly with the marijuana industry. The University of Denver Sturm College of Law has begun to offer the nation’s first class on representing marijuana clients, after being forced into the action by the legitimacy of marijuana sales
in Colorado. A topic that was kept hush for so long was finally brought to the table and currently has a waiting list of students, as well as other curious individuals. DU law professor Sam Kamin said,

I have one [individual] who is interested in the tax-law implications and another who is to be a criminal defense attorney. There are many perspectives here… the pitfalls of running that type of business and what it is for lawyers to have such a client are critical questions. (Migoya, 2015)

With increased marijuana on the streets, increased education is needed to keep people out of trouble and to help them understand the rules and regulations. It is possible that keeping marijuana only for medical purposes could have prevented, or at least alleviated, most of this pitfall, but the Colorado majority ruled otherwise.

After all is said and done, Colorado still did well with their first year of legalized marijuana, at least when it comes to revenues collected. “Colorado’s total haul from marijuana for 2014 was about $76 million. That includes fees on the industry, plus pre-existing sales taxes on medical marijuana products” (Wyatt, 2015). This $76 million figure turned out to be higher than the originally estimated $67-70 million—approximately $44 million of this figure alone was in sin tax revenue. Table 2 below shows a breakdown of the retail marijuana sales tax (10 percent), marijuana excise tax (15 percent), and the tax dollars distributed to the Public School Capital Construction Assistance Fund (specifically pulled from the 15 percent excise tax). From this data we see only a small discrepancy with the previously stated objectives of Amendment 64—there is approximately $37,636 that was not transferred to the Public School Capital
Table 2

<table>
<thead>
<tr>
<th></th>
<th>Retail Marijuana Sales (Tax 10% rate)</th>
<th>Retail Marijuana Excise Tax (15% rate)</th>
<th>Public School Capital Construction Assistance Fund Transfer (From Excise Tax)</th>
<th>Change from previous month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td>$1,401,568</td>
<td>$195,318</td>
<td>$195,286</td>
<td>$144,245</td>
</tr>
<tr>
<td>Feb</td>
<td>$1,434,916</td>
<td>$339,615</td>
<td>$339,531</td>
<td>$122,219</td>
</tr>
<tr>
<td>Mar</td>
<td>$1,898,685</td>
<td>$609,907</td>
<td>$609,887</td>
<td>$270,356</td>
</tr>
<tr>
<td>Apr</td>
<td>$2,217,607</td>
<td>$734,351</td>
<td>$732,406</td>
<td>$403,356</td>
</tr>
<tr>
<td>May</td>
<td>$2,070,577</td>
<td>$1,135,648</td>
<td>$1,135,718</td>
<td>$172,167</td>
</tr>
<tr>
<td>June</td>
<td>$2,473,627</td>
<td>$969,637</td>
<td>$963,551</td>
<td>$172,167</td>
</tr>
<tr>
<td>July</td>
<td>$2,970,183</td>
<td>$1,397,930</td>
<td>$1,399,496</td>
<td>$435,945</td>
</tr>
<tr>
<td>Aug</td>
<td>$3,307,078</td>
<td>$1,464,796</td>
<td>$1,458,036</td>
<td>$58,540</td>
</tr>
<tr>
<td>Sept</td>
<td>$2,940,346</td>
<td>$1,446,105</td>
<td>$1,454,528</td>
<td>-$3,508</td>
</tr>
<tr>
<td>Oct</td>
<td>$3,244,159</td>
<td>$1,718,273</td>
<td>$1,711,909</td>
<td>$257,381</td>
</tr>
<tr>
<td>Nov</td>
<td>$2,933,821</td>
<td>$1,363,689</td>
<td>$1,350,161</td>
<td>-$361,748</td>
</tr>
<tr>
<td>Dec</td>
<td>$3,472,230</td>
<td>$1,965,731</td>
<td>$1,952,855</td>
<td>$602,694</td>
</tr>
<tr>
<td></td>
<td>$30,364,797</td>
<td>$13,341,000</td>
<td>$13,303,364</td>
<td></td>
</tr>
</tbody>
</table>

Source: Colorado Department of Revenue

Despite the positivity of the sin tax revenues being properly placed, Colorado’s Governor, John Hickenlooper, already dreads the 2012 decision to legalize marijuana. He recently stated on CBNC’s Squawk Box: “If I could’ve waved a wand the day after the election, I would’ve reversed the election and said, ‘This was a bad idea’” (as cited in Evans, 2015). Now that the decision is past debate, Hickenlooper does not want to be the guinea pig state anymore. Even though money is trickling in for school improvements,
the discouraging results do not seem to be worth the pain and bother. As of now, Colorado is under the nation’s microscope in regards to marijuana legalization and how the state will fare with revenues, health concerns, and social behavior. Ignoring Hickenlooper’s pleas, numerous states are turning toward the legalization idea to decrease possession cases in the courts and create thousands of jobs in an emerging market—Ohio being one of them. Campaign representative Chris Stock has stated: “Marijuana in Ohio will be safe, controlled, tested and clearly labeled for medical and personal use” (as cited in Smyth, 2015). This seems like an awfully close assumption to what Colorado was thinking—and its governor regrets the decision now.

To further complicate matters, a recent article published by the Huffington Post has reported that Colorado’s pot revenue is high enough that it may coincide with the state constitution requiring Colorado to give back tax dollars to the public instead of disbursing them to their original entities, like school constructions. This above-and-beyond figure is calculated through “a formula based on inflation and population growth” (Wyatt, 2015). If Hickenlooper was feeling the pressure of a bad decision before, he might be feeling it even more now. If this issue is found to be constitutional and Colorado is forced to give back taxes, then it could start going backwards in its attempts to help schools build and improve upon existing structures. Also, any additional funding lawmakers were now looking to put back into education programs to encourage people why not to use the drug will also be stifled. And if this does pass, there is the possibility that this vicious cycle will be repeated next year. Either a loophole in the amendment has to be found or another amendment needs to be passed to ensure that marijuana revenues will still be available for their earmarked programs.
Ohio. As for Ohio, marijuana may be a not-so-distant reality as well. A group known as “Responsible Ohio” filed a new version of their proposed constitutional amendment to promote legalization of marijuana in Ohio, following Attorney General Mike DeWine’s rejection of the first version submitted. “The amendment calls for adults to be able to buy marijuana for recreation and medicinal use. People would also be able to grow up to four plants at home. The measure also proposes 10 commercial grow sites around the state” (“New petition submitted,” 2015). The passing of this amendment would be potentially stricter than Colorado’s, allowing legal consumers to only grow up to four plants for personal use rather than six. While DeWine and other state officials oppose the amendment, on March 13, 2015, DeWine “certified Responsible Ohio’s petition for the proposed amendment and cleared summary petition language as fair and truthful” (“DeWine certifies petition,” 2015). The amendment will be placed in front of Ohio voters either this year (2015) or next.

Casino Revenues

Ohio. On November 3, 2009, one of the most stubborn anti-gambling states wrote four casinos into its state constitution. Ohio only passed Issue 3 with a 53 percent vote; clearly many citizens were still hesitant about the idea. The Ohio Constitution was very clear with its wording on how casino revenues were to be disbursed: “Casino gambling shall be authorized… to create new funding for cities, counties, public school districts, law enforcement, the horse racing industry and job training for Ohio’s workforce” (Husted, 2012). While a little different than Colorado and its marijuana efforts, Ohio still anticipated supporting K-12 public schools with the revenues received through casino gambling. While passed in 2009, casinos did not start operating until 2012 (leaving time
for building, remodeling, bringing in machines, hiring workers, etc.). So it has been over two and a half years since this project started; has it been helpful or harmful thus far?

Our casino story starts out similar to Colorado’s marijuana start-up: revenues were not as high as anticipated. In 2013, *The Plain Dealer* released an article about the one-year mark for casino gambling in Ohio and how the state was faring:

>The casinos have collectively raked in $615.7 million after paying winners while capturing a lot of money that used to flow into Pennsylvania, West Virginia, Michigan and Indiana. The venues have produced more than 6,000 jobs, brought activity to surroundings that sorely needed it and paid $200 million in gambling taxes shared by counties, school districts and larger cities across the state. (Ott, 2013).

For their first year, annual gross revenue of the combined four approved casinos totaled just under $939 million, while state forecasters had predicted at least $1.4 billion (Ott, 2013). While $939 million sounds good, keep in mind variables that were coming into play during this time of vamping Ohio for gambling. America was just trying to come out of an economic recession, so discretional funds were low; Ohio was anti-gambling until this point and the passing vote was still a very low majority, many people were simply not in favor and would not be participating; and there was still competition from Internet cafes in regards to unregulated online gambling. These variables help explain the difference between the predicted $1.4 billion and the actual $939 million in revenues.

Table 3 below shows the adjusted gross revenues for casinos statewide for 2012 – 2014. These numbers differ from the numbers stated in the paragraph above because
Table 3

<table>
<thead>
<tr>
<th>Year</th>
<th>AGR</th>
<th>Change from previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>$350,549,272</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>$821,277,202</td>
<td>$470,727,930</td>
</tr>
<tr>
<td>2014</td>
<td>$809,251,917</td>
<td>-$12,025,285</td>
</tr>
</tbody>
</table>

Source: Ohio Casino Control Commission

these figures are from the calendar year, while the previously stated numbers are from the fiscal year (July – June).

In regards to public school funding, the Ohio Constitution is very clear as to how the money is to be disbursed, who determines its use, and what type of funding it is to be considered:

Thirty-four percent of the tax on gross casino revenue shall be distributed among all eighty-eight counties in proportion to such counties’ respective public school district student populations at the time of such distribution. Each such distribution received by a county shall be distributed among all public school districts located (in whole or in part) within such county in proportion to each school district’s respective student population who are residents of such county at the time of such distribution to the school districts. Each public school district shall determine how its distributions are appropriated, but all distributions shall only be used to support primary and secondary education. (Husted, 2012)

It is apparent that a different approach was taken on Ohio’s casino revenues than Colorado with its marijuana revenues—Colorado was specific with the destination of its revenues (building fund) whereas Ohio is leaving the discretion up to each individual school to do with the money as they see fit. There is also a change from certain schools
receiving money to every school receiving money. The Amendment was not intended to be biased; each county was meant to distribute the money to each school district dependent on the percentage of student population. The Amendment goes on to say:

Tax collection, and distributions to public school districts and local governments, under sections 6(C)(2) and (3), are intended to supplement, not supplant, any funding obligations of the state. Accordingly, all such distributions shall be disregarded for purposes of determining whether funding obligations imposed by other sections of this Constitution are met. (Husted, 2012)

Casino gambling was never meant to be a panacea for any public school deficit problem, but rather a supplement to what was already going to the schools. As stated above, these funds were not even to be considered when discussing whether or not revenues are doing enough to help support local schools. Table 4 depicts the revenues that have been disbursed to the Student Fund through Ohio’s casino revenues.

<table>
<thead>
<tr>
<th>Month/Year</th>
<th>Amount</th>
<th>Change from previous quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>July-12</td>
<td>6,718,445</td>
<td></td>
</tr>
<tr>
<td>October-12</td>
<td>$13,409,474</td>
<td>$6,691,029</td>
</tr>
<tr>
<td>January-13</td>
<td>$17,821,991</td>
<td>$4,412,517</td>
</tr>
<tr>
<td>April-13</td>
<td>$21,398,029</td>
<td>$3,576,037</td>
</tr>
<tr>
<td>July-13</td>
<td>$24,019,513</td>
<td>$2,621,484</td>
</tr>
<tr>
<td>October-13</td>
<td>$23,883,032</td>
<td>-$136,481</td>
</tr>
<tr>
<td>January-14</td>
<td>$23,355,075</td>
<td>-$527,958</td>
</tr>
<tr>
<td>April-14</td>
<td>$22,531,113</td>
<td>-$823,961</td>
</tr>
<tr>
<td>July-14</td>
<td>$23,184,512</td>
<td>$653,399</td>
</tr>
<tr>
<td>October-14</td>
<td>$23,519,484</td>
<td>$334,972</td>
</tr>
<tr>
<td>January-15</td>
<td>$21,705,001</td>
<td>-$1,814,483</td>
</tr>
</tbody>
</table>

Source: The Ohio Department of Taxation
While published before Ohio enacted its gambling amendment, Chimezie Ozurumba published an article in the *Journal of Public Budgeting, Accounting & Financial Management* that helps summarize what gambling revenues have done for our public school system. He suggests the effects of earmarked revenues for education spending and analyzed three states specifically (Illinois, Michigan, and Missouri). He concluded:

This research addresses the question of whether the revenue earmarked for spending displaces the money usually spent on different state programs. Three distinct findings were found: First, the research reveals that a very small amount of earmarked tax revenue for education was displaced in these three states. Second, there is an increase in educational funding following the introduction of corporate casinos in a state. Third, earmarked casino revenue helps to stabilize the state’s annual appropriation for educational spending. (Ozurumba, 2009)

Ozurumba has found that fungibility is not an issue with casino revenues for a number of states. The population is under the assumption that these revenues will be used as supplements for what is already there, and Ozurumba’s research confirms that there was no real sign of substitution with the money elsewhere. He concluded that, all in all, schools do see an increase in their funding due to these revenues, even if it is not enough to completely mitigate the funding gap.

As for Ohio, casino gambling revenues are disbursed to every county and every public school district on a quarterly basis according to student population (as was clearly defined in the Ohio Constitution). The data in Table 5 below shows an overall look at how the money is disbursed to a few selected counties in Ohio. Through this research, I
Table 5

<table>
<thead>
<tr>
<th>County</th>
<th>Year</th>
<th>Student Pop. Count (as of Aug. of that year)</th>
<th>Amount</th>
<th>Change from previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cuyahoga</td>
<td>2013</td>
<td>175,514</td>
<td>$8,059,180</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2014</td>
<td>174,053</td>
<td>$8,955,260</td>
<td>$896,079</td>
</tr>
<tr>
<td>Defiance</td>
<td>2013</td>
<td>7,207</td>
<td>$331,117</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2014</td>
<td>7,071</td>
<td>$364,020</td>
<td>$32,903</td>
</tr>
<tr>
<td>Licking</td>
<td>2013</td>
<td>26,222</td>
<td>$1,203,335</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2014</td>
<td>27,924</td>
<td>$1,439,359</td>
<td>$236,025</td>
</tr>
<tr>
<td>Sandusky</td>
<td>2013</td>
<td>10,571</td>
<td>$491,327</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2014</td>
<td>10,540</td>
<td>$542,333</td>
<td>$51,006</td>
</tr>
<tr>
<td>Stark</td>
<td>2013</td>
<td>60,062</td>
<td>$2,772,963</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2014</td>
<td>59,599</td>
<td>$3,069,540</td>
<td>$296,577</td>
</tr>
</tbody>
</table>

Source: Ohio Department of Taxation

found that schools are in fact receiving the casino revenues. Although they are correctly receiving the funds, they are seeing decreased funds from other sources. Ozurumba’s difference in research could possibly be explained in multiple ways: 1) the states studied do not fall into the fungibility hole and are able to keep their standard monies flowing with the addition of casino revenues or 2) times have changed and the need for moving monies around have increased in the past five years. As seen through Ozurumba’s research, as well as the current information about Ohio, fungibility may not always be an issue, but can be an issue if given the opportunity.

Here is how the fungibility concept is coming into play in Ohio—one amount (a variety of government revenues) is being substituted by another amount (casino revenues), but there is a revenue difference between the two. Various federal, state, and local funds are pulled from public education funding because there is an awareness of needing to make cuts in public programming because of deficits, but that logic is backed with a mentality that schools have money coming in from other places. Unfortunately, the
difference between these figures does not substitute very well; leaving the funding gap even bigger than it was beforehand.

For example, Fairless Local Schools in Stark County, Ohio, have claimed $76,000 in casino revenues for 2013 and $83,000 for 2014. These figures are so close to the projected amounts given by the Ohio Department of Taxation ($76,716 and $83,850 for 2013 and 2014 respectively) that there is little room for dispute that Fairless did indeed get the money they were promised. However, Fairless has suffered from losing money in other revenue capacities: “Keep in mind that Fairless has lost $1,200,000 of state funding over the past two years. $76,000 is appreciated, however it does not come close to replacing the $1,200,000 Fairless no longer receives” (Phillips, 2015). Since this statement, Fairless has lost an additional $120,000 from state funding. This deficit is found through decreases in the state foundation and local real estate taxes as well as a complete cutback from federal stimulus and tangible personal property tax (TPP) reimbursements. Here is the fungibility issue as presented earlier: Yes, schools are receiving the money they are promised, but they are also suffering losses from other areas of income because their funds are being “substituted” with a lesser amount, causing larger funding gaps than before.

**Colorado.** The United States’ marijuana-testing state has also legalized casino gambling back in 1990, but this first enactment had nothing to do with revenues being poured into the education system. It was not until 2008 that the population enacted paragraph 7 of their gaming amendment, stating that monies were to be directed toward public postsecondary education:
Seventy-eight percent to the state’s public community colleges, junior colleges, and local district colleges to supplement existing state funding for student financial aid programs and classroom instruction programs; provided that such revenue shall be distributed to institutions that were in operation on and after January 1, 2008, in proportion to their respective full-time equivalent student enrollments in the previous fiscal year. ("Gaming amendment to," 2008)

There is a huge disclaimer to be added: the seventy-eight percent of revenue they refer to is seventy-eight percent of the Extended Gaming Fund, which is referred to as Amendment 50. After the original recipients (before Amendment 50 was passed) receive their share (which is fifty percent to the state general fund, twenty-eight percent to the state historical fund, and twenty-two percent distributed in proportion to the counties’ governing bodies that hold casinos), then adjustments are made to the leftover amounts after adjustments are made to the final distribution to the counties holding casinos. Figures 3 and 4 on the following page depict the gaming revenue distributions to help clarify percentages.

Amendment 50 explains how adjustments are made to previous funding measures to provide for postsecondary education: “Annual adjustment, in connections with distributions to limited gaming fund recipients… to reflect the lesser of six percent of, or the actual percentage of, annual growth in gaming tax revenues…” (“Gaming amendment to,” 2008). The 22 percent that was originally distributed to the counties with casinos is to be annually adjusted and the remaining is to be disbursed among postsecondary education and the remaining delivered back to the counties with casinos.
The following, Table 6, shows the total amount of casino revenues Colorado has received from 2012 – 2014 and how much of that revenue has been disbursed to the state’s public community colleges, junior colleges, and local district colleges.
Table 6

<table>
<thead>
<tr>
<th>Year Ending</th>
<th>Total Revenue</th>
<th>Post-Secondary Distribution</th>
<th>Change from previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jun-12</td>
<td>$103,716,821</td>
<td>$6,707,757</td>
<td></td>
</tr>
<tr>
<td>Jun-13</td>
<td>$105,558,096</td>
<td>$6,460,388</td>
<td>-$247,369</td>
</tr>
<tr>
<td>Jun-14</td>
<td>$106,115,474</td>
<td>$6,535,622</td>
<td>$75,234</td>
</tr>
</tbody>
</table>

Source: Colorado Department of Revenue

The amount of money going toward postsecondary education is quite a substantial amount—topping over $6 million in disbursements, consistently over the past three years. While this figure may seem low compared to the overall total revenue that Colorado collects, Colorado has placed great emphasis on using its gaming revenue for its state general fund, historical society fund, and county governmental funds.

**General Observations.** The success of casinos and gambling has proved effective, while in different ways, for both Ohio and Colorado. The main difference between the two is the entity that receives the most revenue from the casinos. Ohio primarily gives to K-12 education efforts and Colorado focuses on its state’s general fund and historical society (accounting for 78 percent of gaming revenue in the state). While the issue of fungibility was not evident in researching Colorado’s gaming revenues, Ohio has in fact experienced the fungibility issue as presented in this paper.

**Lottery Revenues**

**Ohio.** In 1971, Ohio State Senator Ron Mottl began a campaign to create a lottery system in Ohio. The campaign became Issue 1 on the 1973 voting ballot and was passed with a 2-to-1 margin. The Ohio Lottery kicked off in August of 1974 with its first game, Buckeye 300. It was not until ten years later, after the first vote to approve the lottery,
that the Ohio Legislature earmarked lottery revenues for education, and three years after that voters approved a constitutional amendment to permanently earmark lottery revenues for education. Article XV Section 6 of the Ohio Constitution states:

The General Assembly may authorize an agency of the state to conduct lotteries, to sell rights to participate therein, and to award prizes by chance to participants, provided that the entire net proceeds of any such lottery are paid into a fund of the state treasury that shall consist solely of such proceeds and shall be used solely for the support of elementary, secondary, vocational, and special education programs as determined in appropriations by the General Assembly. (Husted, 2014)

Unlike casinos or the marijuana project in Colorado, there is no specific percentage set aside for education funding through the lottery, but rather the entire net proceeds are to be handed over to Ohio’s education.

Why would Ohio make such a drastic move with revenues and not keep some for other public programs that the government also has to fund? Cordtz released an article in 1990, right after Ronald Reagan’s term of federal cutbacks and increased state lotteries, which claimed: “Legislators across the country were quick to recognize that their constituents would resist tax hikes yet would rush to hand over their money to a lottery, particularly if the proceeds were earmarked for some worthy purpose” (as cited in Allen, 1991). So if increasing taxes for public schools did not do the trick, states could decide to try lotteries to increase their K-12 funding. As in the case of marijuana legalization, people want something in return for an increase in taxes—in this case it is the chance to win millions of dollars.
There is something to consider here: lottery “revenues” are simply tax dollars for the government. No government labels its lottery as an actual tax, but lottery profits are an implicit tax. This goes back to the discussion of sin taxes earlier in this paper. Taxes are built into the price of a lottery ticket. The only money that would not be considered an implicit tax are the monies that go toward expenses for running the Ohio Lottery and paying its employees. Based on the amount of tickets the lottery sells every year and the millions and millions of dollars that come in, the amount withheld from each ticket would be a fairly small amount compared to the number that would actually be deemed a tax. For example, Ohio’s lottery for fiscal year 2010 generated $2.49 billion in sales, while 4 percent was used for operating the lottery, or $109.4 million. This figure only represents operating expenses for the lottery; payouts were calculated to represent 61 percent of sales, equaling $1.51 billion disbursed in prizes to consumers (Kotynski, 2011). But like with any good sin tax, no one is forced to contribute the money to the government, unlike property or income taxes. Any purchase that bears a sin tax is a completely voluntary purchase; although the population who chooses to participate in goods with sin taxes turn out to be lesser educated and poorer, creating a regressive impact. We do not have to buy lottery tickets, cigarettes, alcohol, or drugs, but we do so as consumers because of discretionary funds. The U.S. average for implicit tax revenue per capita is $58, Ohio being $64 and Colorado being $22 (Duncan, Raut, & Henchman, 2012).

Fungibility of lottery revenues has been an ongoing discussion, debating whether or not schools actually benefit from lottery revenues and if earmarking revenues actually does any good, like the lottery commission claims it does. A study conducted in 2002, specifically researching the fungibility of lottery revenues and their support for public
education, revealed that “regardless of a state’s wealth, population, debt pressures, or tax burden, increases in lottery revenues negatively affect support for public education. Clearly, lottery revenues are fungible, and general fund revenues that otherwise would be devoted to education are diverted to other uses” (Erekson, DeShano, & Ziegert, 2002). This is in direct correlation with a study done back in 1994, showing that the same fungibility issues that are experienced today have been happening for over 20 years now. “State lottery revenues do not help schools. … It is well settled in public finance economics that earmarking funds for particular uses has no effect” (Jones, 1994). From these analyses of fungibility, there is a historical agreement that sin tax revenues create cuts in government funding due to the increased tax flows in other areas of funding. While the monies promised through sin taxes are correctly given to schools, the government in turn takes away monies that were always being given to support education expenses, supplanting instead of supplementing what is already being given.

According to the Ohio Lottery, the following amounts in Table 7 have been distributed to Ohio’s education programs from FY 2005 – FY 2014. While these numbers look like a huge advantage to Ohio’s public school system, these millions only reflect approximately 9 percent of annual education spending, Ohio currently averaging $8.6 billion. But this small percentage, although incredibly helpful, still leaves the schools falling short. A story released in the *Columbus Dispatch* stated: “School leaders have complained for years that the state engages in a shell game; for every extra dollar generated by the lottery that goes to schools, a dollar is taken out of the state’s general-fund allocation to districts across the state” (Candisky, 2012). While these claims have been quickly denied by Governor Kasich’s administration, they cannot deny that their
Table 7

**Ohio Lottery Transferred to Education Fund**

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount (in millions)</th>
<th>Change from previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>645.1</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>646.3</td>
<td>1.2</td>
</tr>
<tr>
<td>2007</td>
<td>669.3</td>
<td>23</td>
</tr>
<tr>
<td>2008</td>
<td>672.2</td>
<td>2.9</td>
</tr>
<tr>
<td>2009</td>
<td>702.3</td>
<td>30.1</td>
</tr>
<tr>
<td>2010</td>
<td>728.6</td>
<td>26.3</td>
</tr>
<tr>
<td>2011</td>
<td>738.8</td>
<td>10.2</td>
</tr>
<tr>
<td>2012</td>
<td>771.0</td>
<td>32.2</td>
</tr>
<tr>
<td>2013</td>
<td>803.1</td>
<td>32.1</td>
</tr>
<tr>
<td>2014</td>
<td>904.3</td>
<td>101.2</td>
</tr>
</tbody>
</table>

Source: The Ohio Lottery Commission

initiatives toward lottery revenues are to cap what is available annually to public schools and dump any excess into the state’s general fund.

Record-breaking revenues for Ohio’s lottery in 2012 did not equate to more money for schools, leading to controversy about where the money was going. An Ohio School Boards Association official announced, “the extra lottery earnings had been used to free up other state funds instead of going toward education” (Fertal, 2012). While a retraction statement was later made, explaining that the extra funds were being held in a reserve account for schools to use at a later date, the damage of his words was done and the beliefs of the administration had already been revealed. The administration claimed that these funds were set aside for the following year for when lottery revenues would probably not be high, supplementing that revenue with the reserve fund and handing schools what they would fully expect otherwise. The problem with this thinking is that every year since 2005 the lottery has increased in revenues without any sign of declining in the near future. Also, by capping the amount schools are able to access, the
government officials show that they do not fully believe in the lottery revenues supplementing the monies already distributed to schools. If they believed this money was an above-and-beyond funding initiative, then the schools would be handed all of the revenues collected each year without caps.

To confuse the public further, various statements are made contradicting the effect of lottery revenues and their proposed good to the state’s education funding. Howard Fleeter, of the Education Tax Policy Institute, stated: “We are better off with lottery (profits), but it has allowed (general-revenue dollars) to go to other uses” (as cited in Candisky, 2012). According to this statement, funding is being diverted, even if it is not necessarily the lottery revenues themselves. Education-policy fellow, Steve Dyer, also discussed the bipartisan problem of lottery revenues: “It means legislators and governors routinely remove general-revenue fund money from schools and replace it with the same amount of lottery money, which means schools receive zero additional benefit from the lottery money” (as cited in Candisky, 2012). If Kasich’s administration’s claims are correct, that they are not diverting funds and are simply looking out for the betterment of schools in the near future by storing up extra funds, then there needs to be clearer communication with representatives of the state and the state’s education programs.

To give a more concrete example, the Cuyahoga County Treasurer has released information on how much their school districts have been affected by fungibility.

For a typical district in Ohio, the legislature asserts that the lottery pays between 6% and 8% of their expenses. However, the lottery had actually had a negative impact on school funding in the state. In 1975, Ohio put almost 44.5% of every state budget dollar into education. In 1995, that amount had fallen to less than
32%. While lottery dollars were intended to supplement educational funding, they actually supplanted state funds, which were then diverted to other uses.

(Cuyahoga County Treasurer)

Obviously there is a fungibility issue as schools are not seeing the full amount of government funding as well as state lottery revenues, but there seems to be no current way to fight the issue. On top of this problem is the fact that the Supreme Court has ruled Ohio’s school-funding unconstitutional four times (the last being in December of 2002). Since there is still no fix for the school funding issue, the lottery revenue fungibility issue has only become another pothole in our system that does not see any near-future transformations.

**Colorado.** With further investigation into Colorado’s lottery revenues, I found that Colorado voters decided to distribute profits from the sale of lottery products to an area of funding that Colorado refers to as Giving Back. “Since 1983, we’ve invested more than 2.7 billion dollars on protecting Colorado’s wilderness and creating trails, parks, pools, and recreation” (Colorado Department of Revenue, 2015). The lottery funds are distributed as follows:

![Colorado Lottery Revenue Disbursements](image)

*Figure 5.* (Colorado Department of Revenue, 2015)
GOCO funds are capped at $60.3 million annually and any excess is distributed to the Public School Capital Construction Assistance Fund (BEST Program). Before this program’s creation, Colorado had a State Public School Fund that collected funds for any expenses which Colorado’s public K-12 schools would need funding. When the BEST Program was created in 2009, any funds being allocated to the State Public School Fund were transferred to the BEST Program. The following data in Table 8 has been collected for Colorado’s lottery distribution to these programs.

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount (in millions)</th>
<th>Change from previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>1.7</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>12.6</td>
<td>10.9</td>
</tr>
<tr>
<td>2007</td>
<td>8.2</td>
<td>-4.4</td>
</tr>
<tr>
<td>2008</td>
<td>0</td>
<td>-8.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount (in millions)</th>
<th>Change from previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>5.5</td>
<td>5.5</td>
</tr>
<tr>
<td>2010</td>
<td>0.1</td>
<td>-5.4</td>
</tr>
<tr>
<td>2011</td>
<td>0.7</td>
<td>0.6</td>
</tr>
<tr>
<td>2012</td>
<td>4.6</td>
<td>3.9</td>
</tr>
<tr>
<td>2013</td>
<td>8.6</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: Colorado Department of Revenue

Colorado’s lottery revenues are not primarily designated for K-12 public education and have a small effect on educational expenses and building structure contributions. Therefore, their contributions have been highlighted and discussed but further analysis was outside the scope of this project.

**General Observations.** Even though Governor Kasich’s administration has not fully admitted any issue, Ohio does experience fungibility when it comes to lottery...
revenues. Various claims made by state officials and representatives of state programs defend previous studies done on the fungibility of lottery revenues and their lack of financial assistance to K-12 public schools. While distributing lottery revenues to public schools could most certainly assist their financial burdens (reducing 6 to 8 percent of funding costs), the government pulls away previous funding and allows lottery revenues to supplant, rather than supplement, any lottery revenues that would be beneficial to the overall funding of K-12 public schools. Additionally, these funds are not only being supplanted, but they are not being supplanted with the original amounts that have been taken away, creating a deficit issue along with fungibility.

**Moral Implications**

This section briefly discusses moral issues that are brought to the table when negative social behaviors are legalized and their revenues are used for education funding. This includes an examination of Christian reactions to marijuana legalization, double standards of moral limits in the marketplace, and school programs promoting abstinence from drugs.

In each of the three revenue-producing activities presented, legalization has occurred in hopes of producing a profit off of consumers and diverting those monies back into public programs to find a positive spin on an otherwise negative social behavior. For some of the referenced activities, namely alcohol, tobacco, casinos, and lottery games, legalization has happened quite some time in the past or has been the result of a long-time legalization process. Marijuana, on the other hand, has been given a new spotlight in terms of being a legitimate revenue-producing activity. As mentioned previously in this paper, one of the downfalls of marijuana legalization is the ease of accessibility it has
created for underage consumers. For casinos and lottery games, squandering one’s wealth through gambling has become legal, often leading to issues of addiction and loss of everything owned if done in excess. Just like with drugs and alcohol, casinos and lottery support an addiction that used to be considered illegal. Now these commodities are promoted and taxed to boost revenues for our K-12 public school system. The very activities our schools are coaching students to not try or become addicted to are funding their education.

For starters, marijuana legalization has developed mixed feelings in the churches of Colorado, some shrugging their shoulders at a new thing to be careful of and some debating about substance abuse and the internal consequences of smoking marijuana. As for Alan Briggs, director of Frontline Church Planting and a pastor at Vanguard Church in Colorado Springs, he is “optimistic that the legalization will create chances to discuss personal suffering and point people to the gospel” (Emmert, 2014). A positive spin to the issue: the possibility of leading souls to Christ’s Kingdom through discussions of why people are smoking marijuana and bringing to the surface their motives (whether that be to cope with relational and personal pain, or something along those lines). For others, the issue has already been hitting home and leaving families weary of the confrontations ahead of them. Jason Malec, founding pastor of New Denver Church and father to three children ages 8-12, stated: “Walking down the street, [my children] can pick out who is smoking it and whether it’s a strong strain. As parents and believers, we will have to confront questions and ethical dilemmas in ways my parents didn’t have to” (Emmert, 2014). Optimism is not everything; there is more to combat here then just people’s motives and inner personal abuse.
As previously quoted, Colorado police officers are seeing more marijuana on the streets—not only in their neighborhoods, but also in schools. While people are purchasing marijuana, supposedly supporting their local schools, students are also getting ahold of the marijuana more easily than before and are now forcing schools to dump more funding into personnel to teach students the consequences and long-term impacts of smoking marijuana. This issue may have been present in Colorado before legalization, but it has grown by the numbers, showing an evident need to promote why the drug, even though legal, is not good for you. The same goes for casinos and lottery gaming—we teach our kids to not get involved, but then promote what great things these activities are doing for our schools. There seems to be a double standard. Is it acceptable to participate in these behaviors if you do it for the right reasons, or is it just a bad system from the beginning?

Part of this issue may be that these activities are perfectly acceptable, depending on where and how they are conducted. “A debate about the moral limits of markets would enable us to decide, as a society, where markets serve the public good and where they don’t belong” (Sandel, 2012, p. 14). In the cases previously presented, marijuana, casinos, and lottery games all contribute, in some fashion, to a public good. Also, the voting majority of Colorado and/or Ohio have decided all of these activities should be legal. When a majority rules, it makes defining moral limits a little harder. “[T]he moral and political challenge we face today is more pervasive and more mundane—to rethink the role and reach of markets in our social practices, human relationships, and everyday lives” (Sandel, 2012, p. 15). These legalizations have not only affected those who planned on participating in the behavior, but they have now affected the general public
and the way they look at previously frowned upon social behaviors. Suddenly, dumping money into the lottery every week or buying marijuana on vacation in Colorado does not seem so bad—the children are benefiting from it!

Take the Drug Abuse Resistance Education program as an example. According to the program’s slogan, D.A.R.E. is about teaching students good decision-making skills to help them lead safe and healthy lives. Through this program, kids are provided with information and skills they need to live drug and violence-free lives. D.A.R.E. is funded with money from local, state, and federal taxpayers, as well as private contributors. Federal funding sources include the Department of Education, Department of Justice, and Department of Defense. Referring to local and state taxpayers’ money, this paper has already discussed fungibility creating an issue with money that schools are supposed to be receiving but are being taken away. Because of this, the likelihood of monies being put into our school system to support programs like D.A.R.E. could very well be from the negative behaviors that programs like D.A.R.E. are trying to educate students against. Is it easier for us to defend the promotion and continuance of negative social behaviors when they affect parts of society in a positive way, or are we just ignoring the fact that the activities we do not want our kids getting into are consequently supporting them? While it may be too late to turn back from these legalizations, it should be carefully considered how to proceed with these revenues and question whether or not school funding is the appropriate avenue to disburse them.

**Conclusion**

After researching three negative social behaviors (marijuana, casinos, and lottery), it is apparent that fungibility does in fact exist when it comes to revenues being a source
of funding for our K-12 public school system. This action by our government has led citizens astray for some time—allowing them to believe that schools are properly funded, causing confusion when voting day comes and there is yet another school levy on the ballot. There is also a political issue at play: school districts are forced to raise more local funding, but then the government makes decisions that are not congruent with the levies voters see on the ballot. Therefore, the public can see what the schools are doing, but not what the government is doing. While there really is no concrete way to fight any government decisions when it comes to where they disburse funding (especially when they are denying that any funding is being diverted), citizens should be more knowledgeable about the actual funding issues that have come upon our schools and educate others about the issue so they do not revert to the old tune of, “They have enough money as it is!” The truth is, while some schools may have the funds they need to educate their students, others do not have this luxury.

Granted, some people may argue that there are in fact schools that are doing just fine financially and continue to push for more revenues out of taxpayers that are unnecessary, and this is completely possible. Some schools are very adamant about building new schools and making bigger and better facilities, displaying greed of resources. This project has not fully researched motives behind school levies and the push for more revenues, but has focused on the numbers rather than the incentives behind them. To the extent of this parameter, the truth of the matter is schools are not receiving as much money as they used to before all of the sin tax revenues kicked in.

This raises the issue of sustainability: are revenues received from sin taxes even sufficient for long-term funding? The answer, while yes in the short-term, is very likely
to be a strong “no” for the future. As these negative social behaviors continue to be taxed with higher and higher rates (Philadelphia just passed a bill to create a $2 tax on every pack of cigarettes to help fund schools), people with smaller discretionary funds will likely limit their usage of these activities and begin to create decreases in the revenue stream that is currently being produced. This is not too shocking—this is the direct correlation sin taxes are supposed to have. As stated earlier, sin taxes are meant to discourage a negative social behavior in hopes of decreasing, or eliminating, the behavior. So the sustainability of a tax made to eliminate itself in the long run is really not sustainable at all. After Philadelphia passed the cigarette tax previously mentioned, Mayor Nutter stated: “The real challenge for the future is, how do we create a fair and full funding formula across the state…. We need a student-weighted funding formula to put the Philadelphia School District and all districts on a path to financial sustainability” (Worden & Graham, 2014). This sounds awfully familiar with the funding flaws of Ohio as well—states are struggling to find fair and equitable formulas to make sure schools are receiving the proper funds needed to educate their student populations. Turning to sin taxes for this funding gap, as we have discovered, will not be sustainable forever.

Finally, there are indeed moral implications at play when our society chooses to legalize negative social behaviors. While the extra funding is great, there should be some consideration as to whether the K-12 public schools are really the proper avenue for sin taxes—these funds are not meant to last forever and we need education to be around and funded forever. Also, there is the issue of educating and supporting children with funds from negative behaviors that we are encouraging them not to do. While our society is
constantly changing and only seems to be changing for the moral worse, we should still keep a boundary line. Where that line actually stands is another thesis project in itself.
References


Evans, S. J. (2015, January 26). ‘If I could have waved a wand the day after the election, I would have reversed it’: Colorado governor explains why legalizing marijuana in
the state was a bad idea [Web log message]. Retrieved from http://kevinsabet.com/if-i-could-have-waved-a-wand-the-day-after-the-election-i-would-have-reversed-it-colorado-governor-explains-why-legalizing-marijuana-in-the-state-was-a-bad-idea


